Stability Programme Update 2019

Incorporating the Department of Finance's Spring Forecasts

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Prepared by the Economics Division,

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Ireland's Stability Programme

April 2019 Update

Incorporating the Department of Finance's Spring Forecasts

Foreword

This update of Ireland's *Stability Programme* takes account of *Budget 2019* and other Government initiatives. It is Ireland's national medium-term fiscal plan and includes an update of the economic and fiscal outlook (the Department of Finance's spring forecasts).[1] This document was submitted to the European Commission on 29th April 2019 in accordance with the requirements of the European Semester.

It was presented in draft form to Dáil Éireann on 16th April prior to submission to the European Commission.

The document incorporates horizontal guidance provided by the European Council to Member States in March 2019 as part of the discussions on the European Semester (the annual cycle of economic monitoring and policy guidance in the European Union). It has been prepared in line with the May 2017 guidelines on the format and content of Stability and Convergence Programmes.

This document should be read in conjunction with Ireland's *National Reform Programme (NRP) 2019*, which sets out policies being advanced in response to challenges identified by the European Commission in its *Country Report* on Ireland, and which reports on progress towards *Europe 2020* strategy targets.

The macroeconomic analysis and forecasts contained in this document are based on data available to end-March 2019. The fiscal projections are based on data to mid-April. The macroeconomic forecasts were endorsed by the *Irish Fiscal Advisory Council* on 5th April 2019.[2]

The Department of Finance macroeconomic and fiscal forecasts are presented on an *ex-post* basis, i.e. incorporating, in so far as is possible, the fiscal measures set out in *Budget 2019* over the medium-term.

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[1] The Department publishes two sets of macroeconomic and budgetary forecasts each year:

- Department of Finance Spring Forecasts (contained in the Stability Programme Update), April;
- Department of Finance Autumn Forecasts (contained in the Budget), October.

Both sets of forecasts cover a five-year horizon; in the Spring forecasts, this implies a forecast for the current year and the following four years while, in the Autumn forecasts, this implies a forecast for the following five years given that the in-year figure for the current year is based on (mainly) outturn data.

[2] The powerpoint presentation provided to the IFAC is available on the Department's website: https://www.gov.ie/en/publication/a8a789-presentation-to-ifac-stability-programme-2019-update/

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[3] In line with the Governments *Open Data Initiative* the data underpinning charts in this document are available on the Department of Finance website.

Chapter 1
Overview and General Policy Strategy

1.1 Policy Strategy

The Irish economy is in an unusual position at present, juxta-positioned between possible domestic overheating and capacity constraints on the one hand, and a slowdown in key export markets on the other. Moreover, the UK's forthcoming exit[4] from the European Union casts a shadow over future prospects. Charting a course through the next couple of years will be challenging for the Government but, importantly, it is a challenge being met from a position of strength.

Provisional figures show that GDP increased by 6.7 per cent last year, with modified (final) domestic demand (MDD) – a better measure of underlying economic activity in Ireland – increasing by 4.5 per cent. This healthy pace of growth continues to pay dividends in the labour market, where the number employed last year reached the highest level ever.

After a decade-long journey, the headline budget deficit was eliminated last year. At least part of this reflects the impact of the economic cycle so that, notwithstanding measurement issues, it is probable that the headline balance is flattering the underlying budgetary position. This highlights the importance of implementing prudent budgetary policy in 'good times' so that policy can provide counter-cyclical support in the event of a downturn. This is why the Government will continue to re-build fiscal buffers and prioritise stability-oriented budgetary policies.

The establishment of the Rainy Day Fund is an additional policy measure that the Government has adopted. The Government is also acutely aware that the ratio of debt-to-national income (where income is approximated by modified Gross National Income) is too high, at over 100 per cent. Maintaining this ratio on a downward trajectory is a key priority for Government.

The UK's exit from the European Union will impose significant costs on the Irish economy, involving lost output and employment (relative to a hypothetical no-exit scenario). The question of how costly depends crucially on the exact form that exit takes, i.e. orderly or disorderly. While the ratification of the withdrawal agreement remains the Government's preferred outcome, it is not possible to assign an exact probability to the different forms of UK exit at present. In recognition of this, the Government's broad strategy has been to assume an orderly exit but, simultaneously, to plan for a disorderly exit.

The outcome of the European Council in April means that an 'orderly exit' remains the central scenario underpinning this document. At the same time, it is readily understood that a disorderly exit, where *inter alia* trade between the two regions reverts to World Trade Organisation (WTO) terms, remains a distinct possibility. From an economic perspective, this would entail a severe disruption to Irish-UK bilateral trade, with the impact magnified by deep, often 'just-in-time' supply-chain linkages and, in all likelihood, non-tariff barriers and adverse exchange rate developments. The most affected sectors include those in the broad agri-food sector, where WTO tariffs are particularly high. Research

[4] The European Council on 10th April extended the exit date until 31 October 2019 at the latest, with an earlier exit should the Withdrawal Agreement by ratified by both parties in the meantime.

undertaken jointly by the Department of Finance and the ESRI shows that the impact of a disorderly exit would be to reduce the level of GDP by 5 percentage points (relative to baseline) over the longer term, with adverse implications for the labour market and the public finances.

1.2 Short-term Economic and Budgetary Outlook

Since the publication of the Department's Autumn forecasts in October, the external environment has become somewhat less benign. From an Irish perspective, the pace of growth has slowed in key export markets, with a loss of momentum particularly evident in both the euro area and the UK.

Reflecting the less favourable external backdrop, the short-term forecasts for the Irish economy this year set out in this document incorporate a modest downward revision of c.¼ percentage points; GDP is now projected to expand by 3.9 per cent this year, with a broadly similar pace of growth projected for MDD. For next year, GDP growth is forecast at 3.3 per cent (with MDD growth of 3.3 per cent also). The economic forecasts set out in this document have been endorsed by the *Irish Fiscal Advisory Council*.

Data from the CSO show a headline general government balance of 0.0 per cent of GDP last year. For this year, a headline surplus of 0.2 per cent of GDP is projected, taking into account the over-performance (relative to Budget expectations) of corporation tax receipts in the final quarter of last year, most of which is assumed to carry forward to this year.

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

	2018	2019	2020	2021	2022	2023
Economic Activity						
Real GDP	6.7	3.9	3.3	2.4	2.5	2.6
Real GNP	5.9	3.7	3.1	2.2	2.3	2.4
Prices						
HICP	0.7	0.9	1.1	1.6	2.0	2.3
Core HICP	0.2	1.1	1.5	1.8	2.0	2.3
GDP deflator	1.5	1.5	1.7	1.7	1.6	1.6
Balance of Payments						
Trade balance (per cent of GDP)	31.2	30.7	30.4	30.1	29.6	29.1
Current account (per cent of GDP)	9.1	8.4	8.0	7.5	7.0	6.3
Labour Market						
Total Employment ('000)^	2,259	2,309	2,357	2,393	2,432	2,474
Employment	2.9	2.2	2.1	1.5	1.6	1.7
Unemployment (per cent)	5.7	5.4	5.2	5.3	5.2	5.1
Public Finances (per cent of GDP)						
General government balance	0.0	0.2	0.4	0.7	1.0	1.3
Structural balance (SGP^^)	-1.6	-1.1	-0.4	0.2	0.7	1.3
Structural balance (DoF^^)	0.4	0.1	-0.1	0.1	0.2	0.2
Debt ratio (year-end)	64.8	61.1	55.8	55.4	53.2	51.6
Debt ratio (per cent of GNI*)^	107.3	101.7	93.0	92.7	89.2	86.7
Net debt position (year-end) ~	55.8	52.8	50.3	48.8	47.1	45.5

^ forecasts for GNI* are compiled on the purely technical assumption that this variable grows in line with nominal GNP.
^^ Structural balance generated by output gap measures based on, respectively, the Stability and Growth Pact (SGP) methodology and the Department of Finance's GDP-based alternative methodology.
~ net debt figures from 2019 estimated by mechanical extrapolation of assets.
Source: CSO for 2018 and Department of Finance 2019-2023.

Part of the improvement in the headline deficit in recent years undoubtedly reflects the impact on government revenue and expenditure of the economic cycle, which appears to be at a relatively advanced stage. When adjusted for this, the underlying balance – the so-called structural balance – is projected at -1.1 per cent for this year, according to the methodology set out in the preventive arm of the *Stability and Growth Pact (SGP).* The Government is re-stating Ireland's medium term (budgetary) objective as a structural deficit of 0.5 per cent of GDP.

More tailored indicators suggest a different position in the economic cycle for Ireland.[5] For instance, estimates generated using more bespoke methods preferred by the Department of Finance point to an economy that is broadly in balance at this point. On this basis, the structural deficit for this year would be eliminated.

The debt-to-GDP ratio is projected at 61.1 per cent of GDP for this year, closing in on the 60 per cent threshold set out in the Treaty.[6] As highlighted previously, the debt-to-GDP ratio paints an overly benign picture of public indebtedness in Ireland *inter alia* given the exceptional nominal growth rate of GDP recorded in 2015. Other metrics – such as debt interest payments as a share of revenue or the ratio of debt-to-modified GNI[7] – show that, while declining, public indebtedness remains high in Ireland (the ratio of debt-to-GNI* is projected at 102.2 per cent for this year). This highlights the importance of the Government's strategy of implementing prudent budgetary policies designed to further reduce the elevated burden of public debt.

Net public indebtedness in Ireland – that is the general government sector's financial liabilities less its financial assets – is forecast at 53.1 per cent of GDP for this year. This takes into account accumulated financial assets amounting to around 8.3 per cent of GDP at year-end.

The figure does not, however, take into account the State's remaining assets in the domestic banks. It is Government policy that any receipts from the disposal of banking assets and the winding down of NAMA will be used to reduce public indebtedness. The rationale for this is simple: the collapse of the banking system resulted in a massive increase in public indebtedness; accordingly, the repair of the banking system must be used to reduce this indebtedness. As these receipts are realised over time, the outstanding amount of both gross and net debt will decline.[8]

In terms of fiscal strategy, estimates set out in this document are based on a number of moving parts and will evolve over time. The economic and budgetary situation will continue to be monitored and the next estimates will be set out in the *Summer Economic Statement 2019* which will be published shortly. This will set out the Government's overall economic and budgetary strategy, and establish the parameters for the forthcoming Budget.

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[5] See Estimating Ireland's Output Gap (2018) available at:
https://www.gov.ie/en/publication/65c119-estimating-irelands-output-gap/

[6] Protocol 12 attached to the Treaty on the Functioning of the European Union.

[7] 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.

[8] A more detailed analysis of public debt developments in Ireland will be outlined in the Department's *Annual Report on Public Debt in Ireland* which will be published shortly.

Chapter 2
Economic Outlook

2.1 Summary

The central scenario set out in this document is one in which the pace of economic growth in Ireland is set to moderate to a more sustainable rate, from the very strong rates recorded in recent years. The forecast is for headline GDP to increase by 3.9 per cent this year, a projection which incorporates a modest downward revision relative to the Department's Autumn forecasts in order to reflect less favourable near-term prospects in key export markets. Modified domestic demand – a more meaningful measure of underlying economic activity in Ireland – is set to expand by 4.0 per cent. For next year, both GDP and MDD are projected to increase at a rate of 3.3 per cent.

The projections set out in this document are contingent upon a 'soft' exit of the UK from the EU.[9] Despite the decision of the European Council to extend Article 50 until 31 October to ensure an orderly withdrawal, the probability of a disorderly, no-deal exit in late 2019 is still, by no means, a tail-risk.

There are both upside and downside risks to this central scenario, although the balance of risk is firmly tilted to the downside. Upside risks to the forecast are mainly statistical in nature: the measured rate of GDP growth may be higher than forecast due to factors that have little bearing on domestic living standards but are included in Irish GDP.[10] Downside risks are mainly, though not exclusively, external in origin. The most pertinent of these relates to the possibility of a harder-than-assumed UK exit from the European Union, which remains a non-trivial risk and which would have severe implications for the Irish economy.

Over the medium-term, key sources of risk relate to the UK's future relationship with the EU as well as the possibility of a rolling-back of globalisation (from which Ireland has undoubtedly benefitted). Domestic risks mainly relate to the possibility of an overheating economy, including through an overshooting of housing supply. The balance of risk over the medium term is tilted firmly to the downside.

2.2 Macroeconomic Outturn 2018

First estimates show that GDP increased by 6.7 per cent last year. This is ¾ percentage points lower-than-assumed at the time of the Budget and reflects a combination of factors, including slightly weaker-than-assumed personal consumer spending, a decline in net exports associated with 'contract manufacturing'[11] and de-stocking by firms in the third and fourth quarters.

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[9] The central scenario involves a transition period applying until end-2020 during which the status quo applies, followed by a free trade agreement between the UK and EU. The GDP growth rate is reduced by ½ of a percentage point on average each year over the three years 2021 to 2023.

[10] GDP in Ireland is calculated in line with European and international standards.

[11] Contract manufacturing is a form of outsourcing where a company in Ireland engages a company abroad to manufacture products on its behalf (and *vice versa)* but where the Irish-resident firm retains ownership of all inputs into the production process.

The headline export performance – with growth of 8.9 per cent recorded in 2018 – was driven heavily by pharmaceutical exports, with goods exports up almost 12 per cent as a result. Exports of goods associated with contract manufacturing were a modest drag on overall exports last year. Service exports were strong once again, with exports of computer services and royalties underpinning growth of 5 per cent. The expansion of royalty exports in recent years is a direct consequence of the on-shoring of intellectual property assets: with these assets now housed in Ireland, foreign affiliates must pay the Irish entity in order to produce goods and services, thereby generating a royalty export. Having said that, net exports of royalties remains in negative territory (royalty payments abroad exceed royalty payments to Irish entities).

On the domestic front, investment increased by 9.8 per cent last year, although the headline figure was distorted by a significant increase in aircraft purchases, offset in part by a decrease in investment in intangible assets (both of these transactions are GDP-neutral in the short-term as the assets are sourced from abroad and, accordingly, classified as imports). Other components of capital formation were also weak last year with 'core' machinery and equipment spending (i.e. excluding the volatile components referred to above) essentially flat. In fact, building and construction was the only category of investment in positive territory, rising by 16 per cent last year with strong contributions from both the residential and non-residential construction sub-components.

In line with strong growth in disposable income, improving consumer confidence and modest inflation, personal consumer spending grew at a healthy rate of 3 per cent last year, although the pace of growth moderated over the second half of the year. At an aggregate level, preliminary data suggest a pick-up in the savings ratio last year, to around 11½ per cent of disposable income.

After a contraction in the first half of the year, imports picked up sharply thereafter, growing by 7 per cent for the year as a whole, with growth recorded in both the goods and service categories. The volatility in imports is largely due to erratic investment patterns, notably in aircraft and intangible assets, both which were weak in the first half of last year but which rebounded in the second half. The surge in aircraft investment in the second half of the year was particularly noteworthy, although it must be stressed that the impact of these transactions on the domestic economy is limited, given that these investments were mainly acquisitions by the aircraft leasing sector, with limited implications for the actual (as opposed to the measured) domestic capital stock.

Export growth in nominal terms exceeded import growth last year and, accordingly, the trade balance widened once again, reaching its highest level ever. The cross-border factor income flow deficit also widened, albeit not to the same extent as the increase in the trade surplus. As a result, the current account of the balance of payments reached 9.1 per cent of GDP last year.

In terms of the labour market, 63,000 (net) jobs were created over the course of last year, so that the level of employment was 2.9 per cent higher than a year earlier. There was also a noticeable shift from part-time employment into full-time employment, a further sign of the health of the labour market at present.

On the nominal side, headline inflation was once again subdued, averaging just 0.7 per cent (on a HICP basis) for the year, as the dampening impact on prices of euro-sterling exchange rate appreciation offset the impact of rising oil prices and price increases in the services sector. The GDP

deflator – a wider measure of inflationary pressures in the economy – increased slightly last year, largely due to exchange rate–related changes in the terms-of-trade.

2.3 Macroeconomic Projections 2019

2.3.1 External assumptions

Incoming data confirm a softening of external demand since around the summer of last year, with the pace of growth in Ireland's main export markets losing momentum. Several factors appear to be at work and near-term prospects have been revised downwards accordingly (table 2).

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

	2018	2019	2020	2021	2022	2023
External GDP growth						
United States	2.9	2.3	1.9	1.8	1.6	1.6
Euro area	1.8	1.3	1.5	1.5	1.4	1.4
United Kingdom	1.4	1.2	1.4	1.5	1.6	1.6
Technical assumptions						
Euro-sterling exchange rate (€1=)	0.88	0.86	0.86	0.86	0.86	0.86
Euro-dollar exchange rate (€1=)	1.18	1.13	1.13	1.13	1.13	1.13
Brent crude (dollars per barrel)	71.6	65.3	64.2	62.5	62.5	62.5

Oil prices (futures) in 2019 – 2023 are calculated on the basis of futures markets as of end-March 2019. Oil price futures are available until 2021 and, thereafter, oil prices are held constant.
Exchange rate outturns as of end-March 2019 and unchanged thereafter.
Source: IMF World Economic Outlook Database (April 2019 Update) 2019-2023.

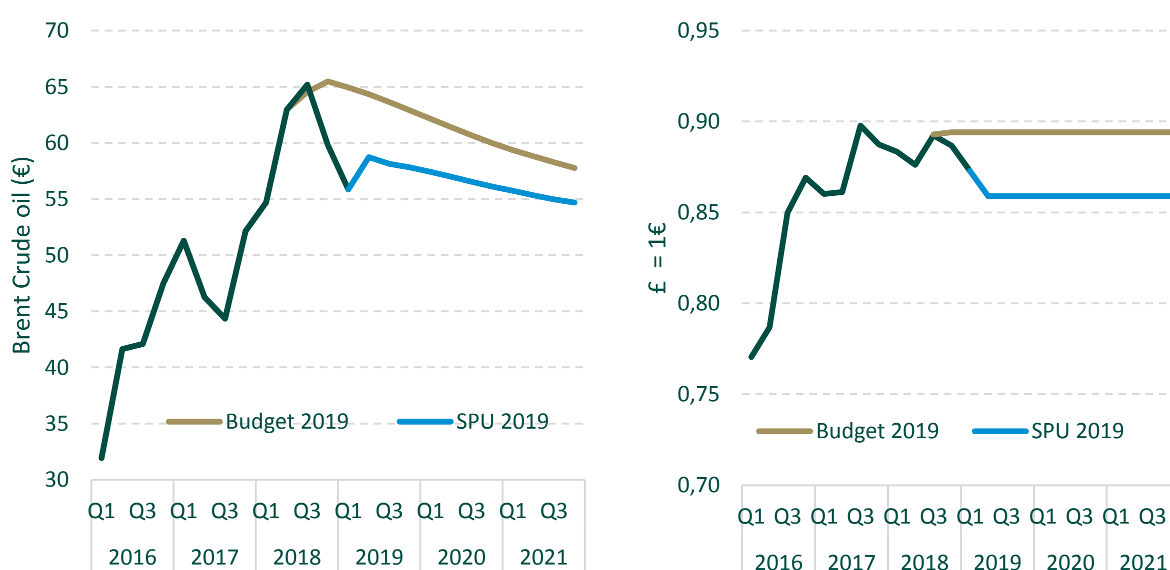
Real income growth in the **UK** (a key source of demand for Irish exports, being the destination for around 15 per cent of total Irish exports) slowed over the course of last year, as investment stalled due to heightened uncertainty associated with 'Brexit'. The lack of clarity about the UK's exit from the EU is affecting consumers also, with some evidence that the household sector is building up precautionary savings. As a result, domestic demand in the UK has slowed, weighing on overall output growth which slowed to just 0.2 per cent in the final quarter of last year. Having said that, slowing output growth has not yet resulted in any deterioration in the UK labour market, where the employment rate continues to rise and the unemployment rate has fallen below 4 per cent for the first time since the mid-1970s, though in part this is driven by firm's holding off on investment and, as a result, substituting labour for capital. For this year, growth in the UK is projected at just 1.5 per cent for this year.

The economic cycle in the **euro area** (the destination for nearly one-third Irish exports) has peaked sooner-than-expected. Part of this reflects sector-specific issues, such as car production in Germany. More generally, the more modest pace of growth internationally has weighed on the euro area economy, denting both consumer and business confidence. In the fourth quarter of last year, the euro area economy expanded at a quarterly pace of just 0.2 per cent and GDP growth is projected at 1.6 per cent this year.

In the **US** (the destination for nearly one-fifth of Irish exports), the economy is now in its second longest continuous expansion ever.[12] However, the pace of growth is set to slow in the short-term as the impact of fiscal stimulus fades. The information content of the 'yield curve' appears to be relatively high (see box 2) and these data are consistent with a maturing of the economic cycle in the US. The latest data show a quarterly growth rate of 0.5 per cent in the final quarter of last year, and high frequency data point to a further moderation in the first quarter of this year. A growth rate of 2.5 per cent is currently forecast for this year.

Elsewhere, the growth rate of the **Chinese** economy (not a particularly important export destination for Irish goods and services – at least in aggregate terms – but, given its size, a key driver of global growth) appears to have moderated, in part due to trade tensions weighing on production and exports. For this year, GDP growth is projected at 6.2 per cent. While still relatively strong, this would be the slowest pace of growth since 1990.

Figure 1: change in external assumptions relative to autumn 2018 forecasts



The Department's Autumn forecasts were set out in the Economic and Fiscal Outlook, October 2018.
In relation to exchange rates, the standard approach is to hold these constant at rates prevailing at a certain cut-off point (end-March for the Department's spring forecasts and end-September for the Department's autumn forecasts).
Source: Macrobond (for oil prices) and Central Bank of Ireland (for exchange rate data).

Oil prices are currently lower relative to the Department's autumn forecasts *inter alia* reflecting lower-than-assumed demand arising from the more modest pace of global expansion. Futures markets currently suggest oil prices averaging $65.3 (€57.6) per barrel this year and $64.2 (€56.8) per barrel next year.

In terms of **exchange rates**, the euro-sterling bilateral rate was around €1 = stg£0.86 at end-March; on the basis of the purely technical assumption of no further change, this would imply a euro depreciation of just under 3 per cent this year relative to last year. The euro-dollar bilateral rate was

[12] National Bureau of Economic Research (NBER) data show that if the expansion in the US was to continue until the summer, the current cycle would be the longest continuous expansion ever.

€1 = $1.13; again on the basis of the purely technical assumption of no further change, this would imply a euro depreciation of around 4 per cent this year relative to last year.

Box 1: The 'yield curve' in the US – information content

The US economy is currently in its longest continuous expansion since the 1991-2001 cycle, with growth recorded in every quarter since June 2009. Other indicators confirm the progress since the global financial crisis: the unemployment rate, for instance, is at its lowest level since 2000 (although it is important to highlight that participation rates – including those for prime-age workers – have not yet returned to their pre-crisis peaks).

It is, of course, impossible to say how long this will continue. However, given the importance of the US economy for Ireland and, indeed, for the global economy, it is worthwhile probing a little deeper into financial market variables, in order to gauge the expectations of market participants.

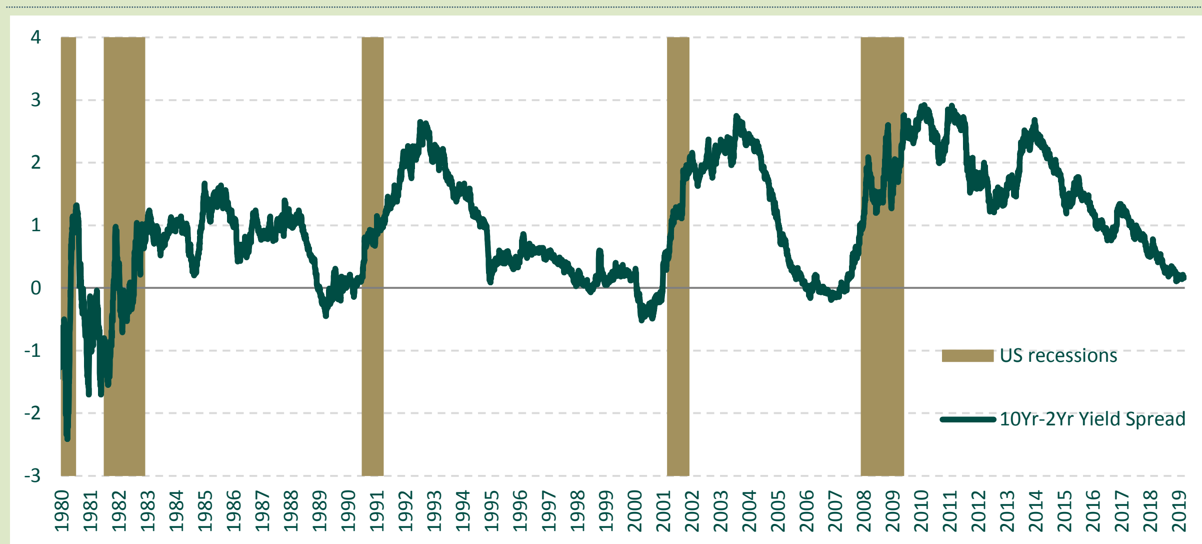
The theory underlying this approach is that forward-looking market participants have important information regarding the future direction of the economy and this is reflected in the price of financial assets. In practice, however, this is a somewhat heroic assumption and several commentators have referenced Nobel laureate Paul Samuelson's observation that equity markets have predicted "9 of the past 5 recessions."

While the track-record of equity markets in predicting recession may not be great, the opposite is true in the case of bond markets which, at least in the US, appear to have some leading-indicator properties. The graph below charts the US yield curve since 1980; the yield-curve is defined here as the interest rate at which the US government can borrow for 10 years less the interest rate at which the government can borrow for 2 years. In 'normal' times, the cost of borrowing for longer period should be higher than borrowing for shorter periods in order to compensate lenders for higher risks (e.g. the risk of inflation). This means that the yield curve typically has a positive slope.

On occasion, however, the US yield curve has 'inverted' – a negative slope. This arises when short-term borrowing is more expensive than long-term borrowing, a situation which has arisen in the US on a number of occasions since 1980. On each occasion, the US economy subsequently moved into recession (shaded area in graph), with an average lead-in time, i.e. time between inversion and recession, of 4/5 quarters. Importantly, the chart shows that there have been no type I errors (false-positives) over this period.

The yield curve in the US has flattened over the past year or so and has come close to inverting (10yr-2yr) at end-March (cut-off point for this document). Bond markets, therefore, appear to be suggesting that a recession in the US over the next year or so cannot be ruled out. Of course, past performance is no guarantee of future performance and it is possible that the adoption of non-standard monetary policies in the US (quantitative easing) or indeed other factors may have reduced the information content of this variable.

US yield curve (10-year minus 2-year), percentage points



Source: Macrobond, Department of Finance.

2.3.2 The Irish economy in 2019

Against a backdrop of slowing external demand, Irish exports are forecast to grow by 5.2 per cent this year. Exports associated with 'contract manufacturing' are assumed to make no contribution to this figure; in any event, to the extent that there is any contribution (positive or negative) from this source, the impact on employment or modified domestic demand is virtually zero, given that actual production takes place elsewhere. As set out in table 2, the forecasts are based on the technical assumption of unchanged exchange rates from those prevailing at end-March; a 'harder' UK exit from the EU than is currently assumed could have implications for the evolution of the euro-sterling bilateral exchange rate.

Modified domestic demand – that is domestic demand excluding the volatile components of investment spending – is projected to increase by 4.0 per cent this year. Continued employment and earnings growth should support increases in household income, as will still-modest price increases. On the other hand, consumer confidence has faltered somewhat and, while not the baseline scenario, a disorderly Brexit could prompt an additional increase in precautionary savings. Overall, it is assumed that consumer spending increases by 2.7 per cent this year, which would be consistent with an increase in the household savings rate. Available data – albeit limited at this stage – support this assessment, with 'core' retail sales reasonably solid in the opening months of this year and taxation receipts related to personal consumption, such as VAT and excise duties, robust in the first quarter.

Modified investment is set to increase by 7.2 per cent this year, with positive contributions expected from all sub-components. Building and construction spending is forecast to increase by 8 per cent, with contributions from both residential and commercial investment. Investment in machinery and equipment is forecast at 4 per cent this year; however, ongoing uncertainty regarding Brexit may prompt some firms to postpone their investment decisions.

The forecasts for investment assume positive contributions from business expenditure on intangible assets and aircraft this year; again, any contribution (positive or negative) does not impact on aggregate demand, given that investment in these assets is assumed to be sourced from abroad (an import). Total investment, therefore, is projected to increase by just under 7 per cent this year.

Imports of goods and services are expected to grow by 5.9 per cent this year, reflecting a slowdown in the main components of final demand. Overall, therefore, GDP is forecast to increase by 3.9 per cent this year. Of this, modified domestic demand and modified net exports, are expected to contribute 2.2 and 1.7 percentage points to overall GDP growth.

Table 3: macroeconomic prospects

	2018	2019	2020	2021	2022	2023
	year-on-year per cent change					
real GDP	6.7	3.9	3.3	2.4	2.5	2.6
nominal GDP	8.3	5.5	5.1	4.1	4.1	4.3
real GNP	5.9	3.7	3.1	2.2	2.3	2.4
Components of GDP	*year-on-year per cent change (real)*					
personal consumption	3.0	2.7	2.5	2.1	2.3	2.5
government consumption	6.4	3.9	2.7	2.0	2.0	2.0
investment	9.8	6.9	5.5	4.2	4.1	4.1
stock changes^	-0.7	0.0	0.0	0.0	0.0	0.0
exports	8.9	5.2	4.5	3.7	3.6	3.5
imports	7.0	5.9	5.0	4.4	4.2	4.1
Contributions to GDP growth	*annual percentage point contribution*					
domestic demand (excl. stocks)	3.9	3.0	2.5	2.0	2.0	2.2
net exports	4.3	1.0	0.8	0.4	0.5	0.5
modified domestic demand (excl. stocks)	2.6	2.3	1.9	1.5	1.6	1.7
modified net exports	5.7	1.6	1.5	0.9	0.9	0.9
stock changes	-0.7	0.0	0.0	0.0	0.0	0.0
statistical discrepancy	-0.9	0.0	0.0	0.0	0.0	0.0
Current prices	*€ millions*					
GDP (nearest €25m)	318,450	335,825	352,850	367,300	382,525	399,050
GNP (nearest €25m)	251,825	265,350	278,400	289,400	301,000	313,400
GNI* (nearest €25m)^^	192,212	201,677	211,490	219,667	228,309	237,623

Rounding can affect totals.
^ contribution to GDP growth.
^^ technical assumption that its growth rate moves in line with nominal GNP growth.
Source: 2018 - CSO; 2019 to 2023 - Department of Finance.

Box 2: Possibility of a disorderly Brexit

Notwithstanding some de-coupling in recent decades, Ireland's economic relationship – trade, investment, labour market, etc. – with the UK remains very strong. A disorderly exit of the UK from the EU would involve inter alia tariff and non-tariff barriers to goods trade, a loss of market access for services trade, and substantial short-run disruption due to uncertainty. While Ireland would be expected to benefit from additional foreign direct investment (FDI) through the relocation of existing investment from the UK and the displacement of new investment that would otherwise go to the UK in a no exit scenario, this will not compensate for the losses arising from lower levels of trade between the two jurisdictions.

In order to quantify the costs of a disorderly exit, the Department and ESRI recently published an updated model-based assessment of the economic and budgetary impacts.[13] This assessment includes a 'deal' scenario, upon which the main macroeconomic projections in this document are based, and a disorderly 'no-deal' scenario. Previous work by the Department and the ESRI in 2016 had quantified the impact of WTO tariffs, and the latest analysis updates this impact while also explicitly accounting for:

- short-run disruptive impacts (such as disruption at ports);
- non-tariff barriers to trade (using new microeconomic research);
- updated assessments by the UK Government on the likely impact on the UK economy; and,
- additional inward investment to Ireland (FDI).

In aggregate terms, a disorderly exit would reduce the level of GDP by around 3¼ per cent after 5 years, and 5 per cent after 10 years, relative to a hypothetical scenario in which the UK did not exit the EU. Reduced output results in lower labour demand, which has knock-on impacts for employment and the unemployment rate: after 5 years the level of employment would be around 2 percentage points below what it otherwise would be and the unemployment rate around 1.2 percentage points higher. With both output and employment below what they otherwise would be, government revenue will worsen, and the increase in the unemployment rate would lead to higher government spending on welfare payments. The net effect is a reduction in the general government balance of a ½ of a percentage point of GDP worse.

Despite these impacts, it should still be noted that the Irish economy will continue to grow but at a slower pace as a consequence of Brexit. Over the long-run (i.e. 10 years) it is estimated that the growth rate will be around ½ of a percentage point below the long-run growth rate of around 3 per cent. Model results generated using structural models are insightful and very useful assessing the medium- and long-term impact of various shocks. They are, however, less well suited to calibrating the short-term impact. Of necessity, this requires an element of judgement. Nevertheless, based on the model results, growth in the first year following a disorderly Brexit could be close to 3 percentage points below what it otherwise would be.

As noted in a number of Department of Finance publications,[14] the negative impacts from Brexit will be most keenly felt in those sectors with strong export ties to the UK market – such as the agri-food, manufacturing and tourism sectors and also SMEs generally – along with their suppliers. The impact will be particularly noticeable in the regions.

Summary of macro-fiscal impacts under a disorderly scenario

Level differences versus no-Brexit scenario	2 years*	5 years	10 years
GDP			
Deal	-0.6	-1.9	-2.6
Disorderly	-3.0	-3.3	-5.0
Unemployment rate			
Deal	0.1	0.5	1.0
Disorderly	0.7	1.2	2.0
General Government Balance			
Deal	0.0	-0.3	-0.5
Disorderly	-0.4	-0.5	-0.9

[13] See Bergin et al (2019): Ireland and Brexit: modelling the impact of deal and no-deal scenarios. Available at: https://assets.gov.ie/7229/43fbeb9ba6404433be5cfd78fe5f0357.pdf

[14] See Brexit: Analysis of Import Exposures in an EU Context, UK EU Exit: Trade Exposures of Sectors of the Irish Economy in a European Context and UK EU Exit – An Exposure Analysis of Sectors of the Irish Economy.

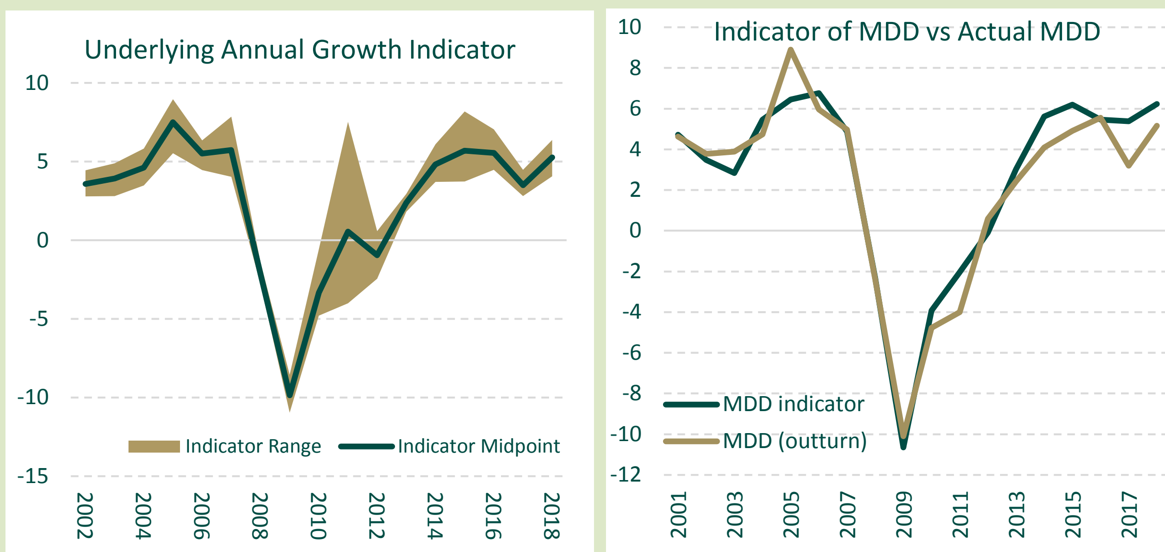
Source: ESRI/Department of Finance. * The 2 year impact assumes no upside in FDI.

Box 3: Underlying measures of economic activity

In recent years, it has become increasingly difficult to distil the underlying health of the Irish economy, as well as its position in the cycle, from the headline GDP statistics. Phenomena such as contract manufacturing, on-shoring of intellectual property (IP), the capitalisation of leased aircraft, and the dominance of certain high-technology sectors, have significantly increased the noise-to-signal ratio in the headline statistics and, accordingly, reduced the information content.^ This was, once again, the case in 2018, with GDP growing in excess of 9 per cent in the first half of the year, before decelerating sharply in the second half, primarily on the back of volatility in the external (and foreign-dominated) sectors of the economy.

To address this, the CSO produces additional annual information, namely modified GNI (GNI*), as well as a measure of gross value added for the sectors of the economy not dominated by foreign-owned multinationals. In the quarterly accounts, several indicators provide useful real-time information about the economy. Modified domestic demand (MDD) – that is domestic demand excluding investment in foreign-owned IP and leased aircraft – increased by 4.5 per cent in 2018. A related measure is underlying domestic demand – which excludes all investments in IP and aircraft, including by Irish owned entities – and this increased by 5.7 per cent last year. A third alternative – though not a measure published by the CSO – uses sectoral data published in the quarterly national accounts to create a quarterly proxy for the CSO's annual series for non-foreign dominated GVA.[15] This involves excluding value added generated in manufacturing and information and communication services from the quarterly GDP series; this proxy increased by 5.4 per cent in 2018. Taking the average of these three underlying measures would give an underlying growth rate of just over 5 per cent for 2018. The average and range for these three measures is set out in the first figure below.

Range of proxies for underlying economic activity, per cent



Source: CSO, Department of Finance

More sophisticated statistical techniques can also be used to generate real-time estimates of underlying economic activity using a range of higher frequency data. These statistical approaches can be used to 'now cast' MDD and have significant informational power, particularly the capacity to detect underlying trends in real time. The Department's toolkit has expanded to incorporate a similar 'now-casting' approach – generated using Principal Component Analysis – for MDD. The work-in-progress results are presented in the second figure above, indicating a very close fit with MDD. The analysis underpinning this will be published over the summer.

^ see Department of Finance note on GDP and Modified GNI. Available at:
https://www.gov.ie/en/publication/498058-gdp-and-modified-gni-explanatory-note-may-2018/

[15] See Table 1 of the quarterly national accounts.

2.4 Balance of Payments

A current account surplus amounting to 9.1 per cent of GDP was recorded last year. A trade surplus amounting to 31 per cent of GDP more than offset a factor income deficit of 22 per cent of GDP.

As highlighted previously, the current account balance in Ireland is inflated by a variety of statistical factors which emanate from the internationalisation of the economy, including so-called 'contract manufacturing', re-domiciled PLC's and the depreciation of Irish-based, foreign-owned capital assets. The modified current account – which adjusts for some of these factors – will be published by the CSO over the summer and will provide a better insight into the underlying trends.[16] The Department's estimate is that a modified surplus of around 2 per cent of GDP was recorded last year (although there is considerably uncertainty surrounding this estimate given the volatility in the input variables).

A modest deterioration in the trade balance (goods and services) is forecast for this year, as further expansion of domestic demand should give rise to additional imports. More modest export growth is assumed, mainly on foot of the slowdown in external demand. Exchange rate developments suggest a very modest deterioration in the terms of trade. Accordingly, the trade surplus is expected to contract slightly. With a modest deterioration in the income balance in prospect – as export growth is assumed to be concentrated in the foreign-owned sectors – a current account surplus of 8.4 per cent of GDP is projected for this year.

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

	2018	2019	2020	2021	2022	2023
Gross Savings	35.1	35.3	35.6	35.5	35.3	35.0
of which:						
- households	3.8	4.5	4.4	4.3	4.2	3.9
- corporate	28.7	28.1	27.9	27.5	27.0	26.6
- government	2.6	2.8	3.3	3.7	4.1	4.5
Investment^	24.9	25.9	26.6	27.1	27.6	28.0
of which:						
- building and construction	8.5	9.2	9.6	9.9	10.2	10.6
- other investment	16.4	16.8	17.0	17.2	17.4	17.5
: investment in tangible assets	7.7	7.6	7.6	7.6	7.6	7.6
: investment in intangible assets	8.8	9.1	9.4	9.6	9.8	9.9
- change in stocks	0.5	0.5	0.5	0.4	0.4	0.4
- statistical discrepancy	0.6	0.5	0.5	0.5	0.5	0.4
Current account	9.1	8.4	8.0	7.5	7.0	6.3
of which:						
- trade balance	31.2	30.7	30.4	30.1	29.6	29.1
- income balance	-22.1	-22.2	-22.4	-22.5	-22.6	-22.8
Modified current account (per cent GNI*)	1.8	0.7	0.5	-0.1	-0.8	-1.8

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.

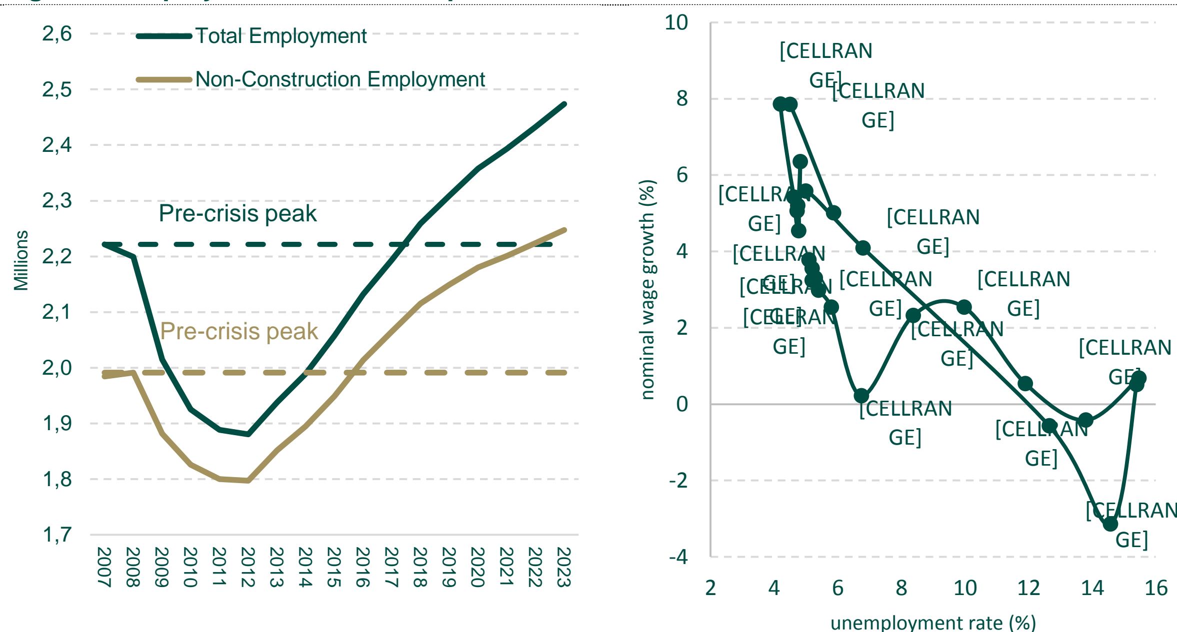
[16] The Department will publish a detailed analysis of Balance of Payments developments shortly.

Source: 2018 - CSO; 2019 to 2023 - Department of Finance.

2.5 The Labour Market

Further gains in employment are in prospect this year, with the number in employment expected to increase by 50,000 (2.2 per cent). Most of these are expected to be in full-time employment. On a sectoral basis, employment gains should be broadly-based with most, though perhaps not all, sectors assumed to post job-gains.

Figure 2: employment and the Philips curve



Source: CSO, Department of Finance.

One of the stand-out features of the labour market has been the dramatic fall in unemployment since its peak of 16 per cent in 2012. More recently, however, there is mounting evidence that the pace of decline has slowed, an inevitable feature given that the economy is closing-in on full employment. Over the course of last year, for instance, the unemployment rate was relatively stable. In part, this reflects increased labour supply due to demographic factors (age structure of the population, inward migration). This year, further increases in labour supply are anticipated; however, the growth is likely to be slightly less than employment growth, so that the unemployment rate is projected to fall to 5.4 per cent.

After a number of years of modest earnings growth (at least at an aggregate level), available evidence points to an acceleration in wage inflation in recent quarters. The continued tightening in the labour market is likely to be associated with an increase in pay per employee to 3 per cent for 2019 as a whole, predominantly driven by growth in hourly pay rather than growth in hours worked.

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

	2018	2019	2020	2021	2022	2023
Employment	2.9	2.2	2.1	1.5	1.6	1.7
Unemployment rate (per cent)	5.7	5.4	5.2	5.3	5.2	5.1
Labour productivity^	3.1	1.5	1.0	0.7	0.7	0.8
Compensation of employees*	6.6	6.4	5.6	4.9	5.2	5.6
Compensation per employee*	2.5	3.0	3.2	3.3	3.5	3.8

^ GDP per hour worked.
*Non-agricultural sector.
Source: 2018 - CSO; 2019 to 2023 - Department of Finance. The wage bill and pay figures for 2018 are Department of Finance estimates pending publication of the 2018 National Income and Expenditure data.

2.6 Price Developments

In the euro area, inflationary pressures remain subdued, with ‘core’ inflation (the harmonised measure excluding the volatile components of unprocessed food and energy) of just 1.2 per cent last year. In Ireland the equivalent figure was 0.2 per cent.

These broad trends look set to continue this year. In the euro area, the slowdown in the growth rate should limit ‘demand-pull’ inflation and figures for the first quarter of the year – where inflation averaged 1.1 per cent – support this assessment. For the year as a whole, HICP inflation in the euro area is forecast at 1.4 per cent.

In Ireland, energy price inflation is likely to be decline this year, given developments in wholesale markets. The moderate depreciation of the euro-sterling bilateral exchange rate may result in a slight increase in import prices. On the domestic front, some pick-up in services price inflation is expected, *inter alia* reflecting reasonably strong domestic demand as well as evidence that wage inflation – and hence production costs – has accelerated somewhat. For the year as a whole, inflation in Ireland is forecast at 0.9 per cent; ‘core’ inflation is projected at 1.1 per cent.

Table 6: price developments, per cent change

	2018	2019	2020	2021	2022	2023
GDP deflator	1.5	1.5	1.7	1.7	1.6	1.6
Personal consumption deflator	1.4	1.5	1.6	1.7	2.0	2.3
Harmonised index of consumer prices (HICP)	0.7	0.9	1.1	1.6	2.0	2.3
Core HICP inflation^	0.2	1.1	1.5	1.8	2.0	2.3
Export price deflator (goods and services)	0.0	0.9	1.5	1.5	1.4	1.3
Import price deflator (goods and services)	0.9	1.1	1.5	1.5	1.5	1.5
Terms-of-trade (good and services)	-0.9	-0.2	0.0	0.0	-0.1	-0.1

^ core inflation is HICP inflation excluding the most volatile components, namely energy and unprocessed food.
Source: 2018 - CSO; 2019 to 2023 - Department of Finance.

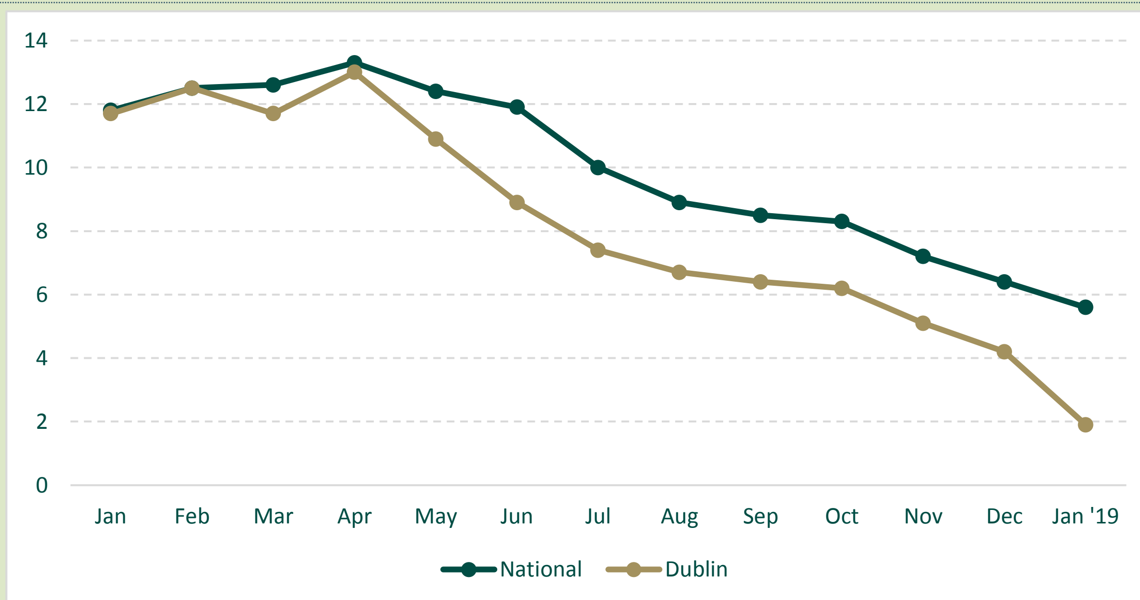
The GDP deflator – a wider measure of the price changes in the economy – is forecast to increase by 1.5 per cent this year, driven by price increases in the domestic components of demand. On the other hand, a modest deterioration in the terms-of-trade is projected for this year.

Box 4: Residential Property Prices

Incoming data suggest a moderation in the pace of house price inflation. The figure below shows that this time last year, the annual rate of house price inflation was at around 13 per cent both nationally and in Dublin; the annual rate is currently 5.6 per cent nationally and 1.9 per cent in Dublin.

Several factors appear to be at work. Firstly, on the supply side, the number of new dwelling completions has increased in recent years, albeit from a very low base. In addition, the increase in supply remains below estimated demand for housing, the latter determined on the basis of demographic factors and a likely return to the long-term trend of increasing headship rates (fewer people per household).

Residential price inflation, nationally and Dublin, Jan '18 – Jan '19



Source: CSO

On the demand side, it appears that the Central Bank of Ireland's macro prudential mortgage measures are having an impact on price dynamics. Residential estate agents such as the Sherry Fitzgerald have suggested that, by the second half of last year, individual banks had exhausted their allowable exemptions to the Loan-to-Income (LTI) and Loan-to-Value (LTV) limits. The market impact of this process was likely a factor in price moderation post-April.

More broadly, the Central Bank's mortgage measures impose a natural brake on price inflation, particularly at the upper-end of the market and in areas with higher values. As median prices rise, the number of mortgaged purchasers with the ability to bid-up prices reduces, lowering inflationary pressures.

Finally, it cannot be ruled out that prospective buyers are temporarily holding off their purchase given the uncertainty associated with the UK's exit from the EU.

2.7 Medium-Term Growth Prospects 2020 to 2023

2.7.1 The Irish economy in 2020

The external environment will have a key bearing on the Irish economic situation next year. On the assumption that the current slowdown in key export markets is short-lived, external demand should stabilise next year. On this basis, Irish exports are projected at 4.5 per cent in 2020, down just over a quarter of a percentage point from the projections last Autumn. Modified domestic demand is projected to increase by 3 per cent, with modified net exports (excluding leased aircraft and foreign

owned IP assets) growing by 1.5 percent. Overall, GDP growth of 3.3 per cent is projected, a reduction of about a quarter of a percentage point in the autumn forecast. Given the assumed composition of growth, a modest deterioration in the balance of payments is in prospect, although the surplus is likely to remain significant, at around 8 per cent of GDP.

A GDP growth rate of 3.3 per cent next year would be sufficient to generate employment increases of around 2.1 per cent and an unemployment rate of around 5.2 per cent.

It must be stressed, however, that there is considerable uncertainty attached to this forecast. First and foremost is the potential for trade (and other) disruption arising from the UK's exit from the EU. As outlined previously, the analysis in this document assumes that a transition period will be agreed that extends or replicates existing frameworks until end-2020, i.e. the UK is assumed to remain in the single market and customs union during this period. This relatively benign outcome cannot be assured, however, and a disorderly exit of the UK remains a possibility (see Box 2).

Secondly, while the external environment has weakened, a modest recovery in the global economy from 2020 remains the central scenario. An important downside risk is that the current slowdown slips into recession – a so-called 'U-shaped' scenario – which would weigh on Irish growth prospects mainly through the export and the inward investment channels.

On the nominal side, inflationary pressures are likely to remain relatively subdued next year, with 'core' inflation projected at 1.1 per cent. The GDP deflator is forecast to increase by 1.5 per cent.

2.7.1 The Irish economy over the medium term

The conventional approach to medium-term projections involves that assumption that the economy converges towards its 'potential' level, i.e. output gap closure, and evolution in line with its trend growth rate thereafter. Medium-term forecasts, therefore, are determined by the supply-side of the economy – the availability of capital and labour together with estimates of the efficiency of with which these inputs are combined to produce output (total factor productivity).

In practical terms, this approach requires estimates of the current position of the economy in the cycle (the output gap) and estimates of the trend growth of the economy. Both of these – the output gap and the trend growth rate – are unobservable and must be estimated. Several methods have been devised to generate these estimates and, under the European fiscal framework (the Stability and Growth Pact), a commonly-agreed approach has been devised. While well-suited to larger economies where output is relatively less volatile, the SGP-approach is less meaningful for small open economies such as Ireland (for reasons that have been documented previously).

To address the shortcomings of the SGP-approach, the Department has developed alternative methodologies that are more tailored to the Irish economy.[17] This approach, which deviates from the methodology set out in the SGP, has been welcomed by the Irish Fiscal Advisory Council.[18] On this basis, the estimated output gap is 0.2 per cent of potential GDP this year and 0.8 per cent of potential

[17] The Department of Finance's paper Estimating Ireland's Output Gap, available at:
https://www.gov.ie/en/publication/65c119-estimating-irelands-output-gap/

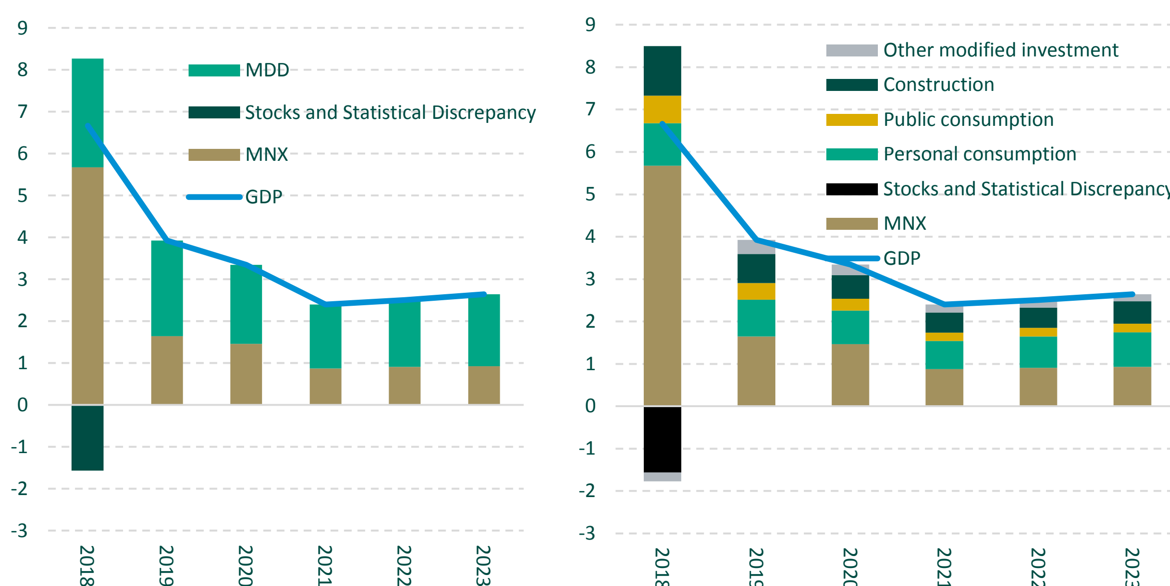
[18] As set out in IFAC's Fiscal assessment report, available at:
https://www.fiscalcouncil.ie/fiscal-assessment-report-november-2018_/

GDP next year. Over the period 2021-2023, the estimated trend growth rate of the economy averages 2.1 per cent per annum.

In 'normal' circumstances, medium-term forecasts would converge towards the trend growth rate and evolve in line with this thereafter. However, two key identifiable factors at present are likely to result in some divergence from trend over the medium term. On the downside, it is assumed that, even under a 'soft' exit, the UK's exit from the EU at end-2020 (with some form of free trade agreement in place) will reduce the level of GDP by almost 2 per cent over the 2021-2023 period relative to a no-Brexit baseline. Second, following almost a decade of under-investment in the residential sector, house completions are projected to increase over the medium-term, exceeding equilibrium demand by the early part of the next decade and reaching almost 50,000 units by the end of the forecast horizon. While overshooting is necessary to meet significant un-met ('pent-up') demand, if realised this will lead to a re-allocation of capital and labour from the traded sector to the less productive non-traded sector. The estimated impact of both of these developments – the UK's exit from the EU and a possible overshooting of housing investment – are incorporated into the Department's baseline forecasts.

Modified domestic demand is projected to be the main driver of growth over the 2021-2023 period, contributing 1.5 percentage points on average to the average growth rate of 2.5 percent over this period. Personal consumer expenditure is expected to grow by just over 2.2 per cent on average over this period, with consumption per capita just below the pre-crisis peak by the end of the forecast horizon. Underlying investment as a share of modified GNI is projected to continue to increase over the forecast horizon as residential investment reverts to more 'normal' levels. Exports are projected to continue to grow in excess of external demand reflecting compositional effects, i.e. the concentration of Irish exports in 'high-growth' service sectors. Imports are projected to grow broadly in line with weighted final demand.

Figure 3: Contributions to changes in GDP, modified domestic demand and modified net exports



Source: CSO, Department of Finance.
Modified domestic demand represents the sum of private consumption, public consumption and investment excluding stocks, investments in aircraft by the leasing sector and net R&D imports. Modified net exports is net

exports (exports less imports) excluding investments in aircraft by the leasing sector and net R&D imports. Other modified investment is machinery and equipment excluding investments in aircraft by the leasing sector, plus domestic R&D.

The level of employment growth is expected to expand further over the medium-term, with average growth of 1.6 per cent per annum over 2021-2023. Both demographics (the 'natural' increase in the population of working age and net inward migration) and increased participation should contribute positively towards increased labour supply, with demographics the main driver. Employment growth will be broadly in line with labour force growth for much of the period, so that the unemployment rate broadly should remain stable at around 5¼ per cent. On the income side, earnings per person are forecast to increase at an average rate of around 3½ per cent per annum. In real terms, this is expected to be higher than assumed productivity growth and reflects the assumption of increased housing output.

2.8 Comparison of Forecasts

This section compares the Department's forecasts with those of other forecasting institutions as well as comparing how the Department's forecasts for this year and next have evolved since the last set of forecasts.[19]

Table 7 shows the Department's short-term forecasts relative to those of other public sector institutions. For this year, the differences in GDP growth forecasts primarily relate to timing. In particular, the Department's forecast takes into account the moderation in the growth rate recorded in the second half of last year (these figures were not available at the time of the latest Commission, OECD and IMF forecasts). For 2019, the range of forecasts extends from 3.8 per cent to 4.1 per cent.

Table 7: range of forecasts, per cent change

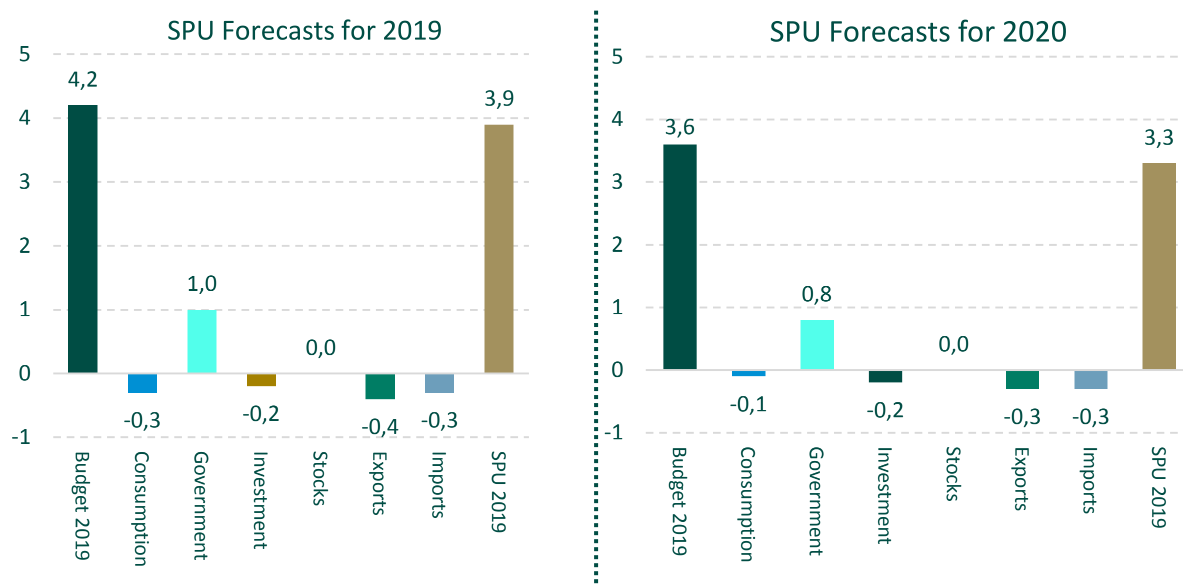
2019	GDP	GNP	HICP	Employment
Department of Finance	3.9	3.7	0.9	2.2
Central Bank of Ireland	4.2	4.0	0.7	2.1
ESRI	3.8	3.4	1.0*	2.5
IMF	4.1	NA	1.2	NA
European Commission	4.1	NA	0.9	NA
OECD	4.1	NA	1.9	NA
2020	**GDP**	**GNP**	**HICP**	**Employment**
Department of Finance	3.3	3.1	1.1	2.1
Central Bank of Ireland	3.6	2.2	1.1	1.7
ESRI	3.2	3.0	1.4*	2.1
IMF	3.4	NA	1.5	NA
European Commission	3.7	NA	1.4	NA
OECD	3.4	NA	2.2	NA

Source: latest forecasts from the institutions cited.
*ESRI forecasts for CPI shown as HICP forecast not published.

[19] The Department publishes two sets of forecasts per annum – in the autumn (as part of the Budget) and in the spring (as part of the SPU). In line with best international practice, the Department also outlines how the forecasts for both t and t+1 evolve between the two sets of forecasts.

Figure 4 compares the Department's current forecasts with its Autumn 2018 forecasts, published alongside *Budget 2019*. GDP growth for this year is 0.3 percentage points lower than the Autumn forecasts, reflecting *inter alia* a slightly weaker contribution from domestic demand. For next year, GDP growth is also 0.3 percentage points lower than the Autumn forecasts, with modest downward revisions for all variables (with the exception of public consumption).

Figure 4: comparison of autumn 2018 and spring 2019 GDP forecast, per cent change



Source: Department of Finance.

Chapter 3
Exchequer Developments and Outlook

3.1 Summary

An Exchequer deficit of €2.1 billion is now projected for 2019, which compares with a €0.1 billion surplus recorded last year. This year-on-year dis-improvement is due *inter alia* to the continued expansion of capital investment under the 2018 – 2027 National Development Plan and the projected €0.5 billion contribution from the Exchequer to the Rainy Day Fund this year.

An Exchequer surplus of €0.4 billion is projected for next year. The improvement in the Exchequer position next year reflects several factors, including receipts from NAMA amounting to €2 billion which, in-line with Government policy, will be used to lower the elevated stock of public debt.

3.2 Fiscal Outturn 2018[20]

Total Exchequer tax receipts of €55.6 billion last year were 2.6 per cent (€1.4 billion) ahead of the 2018 profile and 8.3 per cent (€4.3 billion) higher in annual terms. A large part of this increase was due to the exceptionally strong corporation tax performance recorded last year. All the major tax headings recorded strong positive annual growth, with the exception of excise duties, which is reflective of the broad-based economic growth experienced last year.

From an expenditure perspective, total gross voted expenditure of €63.1 billion for 2018 was 2.1 per cent (€1.3 billion) above the *2018 Revised Estimates for Public Services* profile. The bulk of this in-year increase can be directly related to the policy decision to provide additional support for the delivery of public services, including health (€0.6 billion), education and justice (€0.2 billion). Separately, extra capital investment of €0.1 billion was provided for health and housing. Accordingly, gross voted current expenditure was 2.0 per cent (€1.1 billion) above profile, with gross voted capital expenditure 3.2 per cent (€0.2 billion) ahead of expectations.

Aggregate non-tax revenue and capital receipts of €4.8 billion were down 37.8 per cent year-on-year, mainly due to the base effect of the 2017 €3.4 billion AIB share sale. Non-voted expenditure was, in net terms, €0.4 billion lower than the previous year, due to a range of factors including lower debt service costs; the cessation of Exchequer transfers to the Local Government Fund under the *2017 Water Services Act* and no further capital contribution to Irish Water. All of these were sufficient to offset higher EU Budget contributions.

In aggregate terms, therefore, a headline Exchequer surplus of €0.1 billion was recorded last year, the first underlying surplus since 2006. Adjusted for the 2017 impact of the proceeds of the AIB share disposal, the underlying improvement in the Exchequer balance was €1.6 billion.

[20] Provisional outturn, final figures to be audited by C&AG and published in Finance & Appropriation Accounts.

3.3 Fiscal Outlook 2019

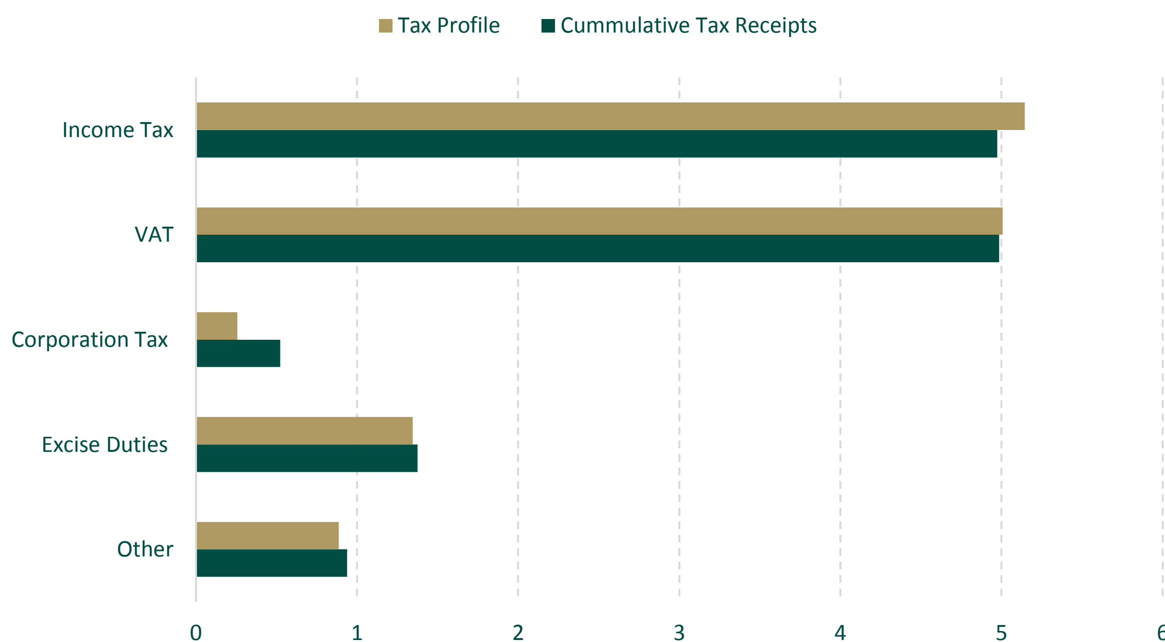
3.3.1 Tax forecast

At the end of the first quarter, taxation receipts were 7.1 per cent (€843 million) higher than in the first quarter of last year. Receipts were 1.2 per cent (€157 million) ahead of profile.

In terms of individual tax headings, income tax receipts to end-March recorded a strong performance, up 6.5 per cent (€305 million) in annual terms, reflecting positive labour market developments. However, receipts were 3.3 per cent (€171 million) behind expectations. Having said that, the key PAYE income tax component (which accounts for about 70 per cent of revenue under this heading), was broadly in-line with collection expectations.

The other main direct tax heading – corporation tax – was virtually unchanged in annual terms (down just €9 million or 1.6 per cent), although receipts were €267 million ahead of profile. However, it should be noted that the first quarter of the year is not significant for this heading, as receipts are concentrated in May, June and November (around two-thirds of overall receipts in this heading are paid in these months). Arising from the exceptional strong performance in the final quarter of last year, the projected 2019 yield for this heading has been revised upwards by €0.5 billion, and will be kept under review over the course of the year.[21]

Figure 5: end-March cumulative tax receipts relative to profile, € billions



Source: Department of Finance.

[21] Following consultation with the Revenue Commissioners, €0.5 billion of the €0.8 billion over-performance relative to the Budget 2019 target is assumed to enter the base. The Corporation Tax returns in May and/or June will help to provide a clearer indication regarding the extent to which last year's over-performance is of a recurring nature.

On the indirect tax side, VAT performed in line with expectations during the first quarter. Receipts amounted to €5.0 billion, bolstered in part by strong January returns from the Christmas trading period. Relative to the same period last year, VAT receipts were up by 6.6 per cent (€310 million) in the first quarter, indicative of a continuation of relatively solid growth in consumer spending.

Excise duties were 2.2 per cent (€30 million) ahead of expectations in the first quarter, and up 11.5 per cent (€141 million) in year-on-year terms. This suggests that the extended distortionary impact arising from the introduction of 'plain packaging' on tobacco products in 2017 has now unwound. Other excise elements were broadly stable in annual terms.

In overall terms, the tax yield for this year is now projected at €58.4 billion, an increase of 5.2 per cent on 2018. As outlined above, the stronger-than-assumed corporation tax performance in the final quarter of last year justifies this technical upward revision.

3.3.2 Non-tax revenue

Non-tax receipts for this year are projected at €3.1 billion, which is €0.5 billion higher-than-assumed in last October's Budget. The revision is mainly due to higher-than-projected payments to the Exchequer from the Central Bank, arising from its disposals of the Floating Rate Notes (FRNs).[22] While these exceptional receipts flatter the Exchequer position, the bulk of these extra monies are not treated as general government revenue under the European statistical methodologies; in other words, the bulk of these receipts do not boost the general government position.

On the capital resources side, a rescheduling of expected receipts from IBRC will benefit the Exchequer to the tune of €0.2 billion this year. Again, these receipts are classified as financial transactions, there is no impact in general government terms.

3.3.3 Expenditure

In relation to voted expenditure, the *Revised Estimates for Public Services 2019 (REV 2019)* details the allocations for all Government departments. Total gross voted expenditure of €66.6 billion is projected for this year, with net voted expenditure projected at €53.9 billion.

In terms of the performance in the year-to-date, gross voted expenditure at the end of the first quarter was 2.2 per cent (€343 million) below profile. In annual terms, gross voted expenditure was up 6.6 per cent (€932 million) at end-March. Gross voted current spending was 1.7 per cent (€245 million) below expectations, but 6.2 per cent (€827 million) higher year-on-year. Gross voted capital expenditure was 10.1 per cent (€98 million) behind target, but 13.7 per cent (€105 million) higher in annual terms. It is imperative that Department's continue to manage expenditure in-line with profile.

Non-voted capital expenditure[23] has increased by €1.1 billion relative to the budget projections. This reflects a Government decision to replace *Irish Water's* existing commercial debt with more

[22] The Floating Rate Notes were issued to replace the promissory notes originally issued to recapitalise *Anglo Irish Bank* and *Irish Nationwide Building Society.*

[23] The previously budgeted contribution of €0.5 billion to the Rainy Day Fund, to be established this year, is now included under non-voted capital expenditure and is treated on a like-for-like basis in this chapter.

competitively priced State funded debt.[24] This is a technical, efficiency-driven transaction which impacts the Exchequer but will not affect the general government deficit or debt positions.

The outlook for non-voted current expenditure for this year has been reduced by €0.2 billion, mainly due to debt service savings offsetting minor changes in 'other' non-voted elements. These debt service savings arise due to the continuation of benign market conditions.

3.3.4 Summary

Taking all of these factors into consideration, the Exchequer borrowing requirement for this year has improved by €0.2 billion versus the *Budget 2019* projection.

3.4 Fiscal Outlook 2020-2023

3.4.1 Tax forecast

Taxes are forecast to grow on average by 4.6 per cent over the 2020-2023 forecast horizon,[25] broadly in line with the assumption for nominal GDP growth over the same period. As the macro-economic scenario is based on the assumption of a 'soft' exit, it follows that the fiscal forecasts are contingent upon this assumption also.

Continued positive employment and earnings growth are expected to support an increase in income tax yield over the forecast horizon, while increases in consumer spending will boost the VAT yield (income tax and VAT are the two largest tax headings – when aggregated, they account for two-thirds of all receipts). Corporation tax revenues – which account for a rising share of total receipts – are expected to increase in line with corporate profitability (although as highlighted in the Department's *Annual Taxation Report 2019*, any shock to corporate profitability or changes in other jurisdictions could potentially open a significant gap in the public finances).[26] Excise duties, the last of the so-called 'big 4' tax headings, are projected to rise at an average annual rate of 2.6 per cent over the forecast horizon.

3.4.2 Non-tax revenue

Non-tax revenue will continue to benefit from dividend payments to the Exchequer in the coming years. In particular, payments by the Central Bank – arising from the disposal, by the Bank, of the FRNs – should continue, albeit at a lower level. Overall capital resources are assumed to be largely unchanged versus *Budget 2019* over the forecast horizon; the projections make no provision regarding potential receipts from the resolution of the financial crisis. NAMA is in a position to frontload payment of its surplus, with €0.5 billion being moved from 2021 and now benefitting the Exchequer in 2020.

Given Ireland's elevated level of public debt, it is Government policy that any resources arising from the resolution of the financial crisis will be used to lower the stock of public debt. This is a cornerstone of the Government's approach to building up fiscal capacity in order to deal with a number of potential external challenges, including Brexit.

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[24] Implements the recommendation of the Working Group on the Replacement of *Irish Water's* Commercial Debt.
[25] A Tax Forecasting Methodology Review Group has been established to assess the Department of Finance's current tax forecasting processes. The Group's report will be published by end-year.

https://www.gov.ie/en/publication/beb7c8-annual-taxation-report-2019/

3.4.3 Capital Investment Plan

As set out in the *National Development Plan (NDP) 2018 – 2027* the Government has committed to increasing public capital investment to 3.8 per cent of GNI* by 2021, and sustaining investment thereafter at an average of 4 per cent per annum out to 2027. The Exchequer contribution to the NDP is estimated at €35 billion over the 2020-2023 period. A mid-term review will be undertaken in 2022 in order to facilitate the preparation and publication of an updated 10-year capital plan to 2032.

3.4.4 Expenditure

Relative to *Budget 2019*, non-voted expenditure is likely to be, on average, €0.3 billion per annum lower over the 2020–2023 period, due mainly to projected debt service savings. These savings will offset increased spending demands in other areas.

Voted expenditure over 2020-2023 is largely unchanged from *Budget 2019*. The gross voted current expenditure amounts for the period 2020-2023, show an average annual increase of 2.5 per cent or €1.5 billion. In 2020, the overall increase in gross voted current expenditure is just over €1.45 billion. This includes pre-committed costs of the order of €1.2 billion in respect of the estimated impact of demographics; public service pay increases and the carryover of *Budget 2019* measures which would need to be accommodated within this overall increase for 2020.

3.5 Rainy Day Fund

Legislation[27] to provide for the establishment of the Rainy Day Fund (RDF) is currently proceeding through the Oireachtas. If, as envisaged, it is established later this year, it will be capitalised by an initial €1.5 billion transfer from the Ireland Strategic Investment Fund (ISIF). Thereafter annual allocations of €0.5 billion per annum are provided for over the period 2019 to 2023 through transfers from the Central Fund. The annual allocation will operate, in the first instance, as a contingency reserve in the event of an unforeseeable and serious event occurring requiring substantial unanticipated expenditure, with any unused balance then being transferred into the RDF.

There is also provision to allow additional transfers from the Central Fund into the RDF, by resolution of Dáil Éireann. For example, if there are windfall receipts, similar one-off income to the Exchequer or if there is a substantial budget surplus. The establishment of the RDF will enhance the State's resilience to external shocks and underscores the Government's commitment to the continued implementation of sound fiscal policy.

[27] National Surplus (Reserve Fund for Exceptional Contingencies) Bill 2018

Table 8: budgetary projections 2018-2023, € million

	2018	2019	2020	2021	2022	2023
CURRENT BUDGET						
Expenditure						
Gross voted current expenditure	57,055	59,290	60,740	62,180	63,735	65,330
Non-voted current expenditure*	8,770	8,265	8,235	7,690	8,030	8,415
Gross current expenditure	**65,825**	**67,555**	**68,975**	**69,870**	**71,760**	**73,745**
less expenditure receipts and balances	12,590	12,675	12,830	12,985	13,145	13,300
Net current expenditure	**53,225**	**54,885**	**56,145**	**56,880**	**58,620**	**60,445**
Receipts						
Tax revenue	55,555	58,445	61,245	63,870	66,735	70,020
Non-tax revenue	2,905	3,075	1,835	1,235	1,080	945
Net current revenue	**58,460**	**61,520**	**63,080**	**65,105**	**67,810**	**70,965**
CURRENT BUDGET BALANCE	**5,235**	**6,635**	**6,935**	**8,225**	**9,190**	**10,520**
CAPITAL BUDGET						
Expenditure						
Gross voted capital expenditure	6,010	7,340	8,065	8,660	8,935	9,400
Non-voted capital expenditure*	980	2,760	1,695	1,675	1,705	1,740
Gross capital expenditure	**6,995**	**10,105**	**9,760**	**10,335**	**10,640**	**11,140**
Less capital receipts	20	30	20	20	20	20
Net capital expenditure	**6,970**	**10,075**	**9,740**	**10,315**	**10,615**	**11,120**
Capital resources	1,845	1,345	3,245	2,705	1,210	1,195
CAPITAL BUDGET BALANCE	**-5,130**	**-8,730**	**-6,490**	**-7,610**	**-9,410**	**-9,920**
Exchequer Balance	**105**	**-2,095**	**445**	**615**	**-220**	**600**
Government Expenditure Ceiling**	63,060	66,630	68,805	70,840	72,670	74,730

* Central Fund.
** Projected GEC.
Figures are rounded to the nearest €5 million and may affect totals.
Note: Fiscal forecasts are presented on an *ex-post* basis. These assume distribution of estimated baseline fiscal space as set out in the Summer Economic Statement 2016 adjusted for base effects from outturns and technical and policy adjustments including NDP.
Source: Department of Finance forecasts.

Table 9: alternative presentation of exchequer position, € million

	2018	2019	2020	2021	2022	2023
Revenue	**69,750**	**72,630**	**75,105**	**77,685**	**80,610**	**83,915**
: tax revenue	55,555	58,445	61,245	63,870	66,735	70,020
- Income tax	21,240	22,905	24,180	25,520	27,050	28,760
- VAT	14,235	15,140	15,860	16,440	17,145	17,980
- Corporation tax	10,385	9,980	10,465	10,865	11,275	11,705
- Excise duties	5,420	5,940	6,120	6,255	6,410	6,580
- Stamp duties	1,455	1,675	1,765	1,840	1,805	1,845
- Motor tax	975	940	900	915	930	950
- Customs	335	365	385	405	420	435
- Capital gains tax	995	1,000	1,050	1,090	1,135	1,180
- Capital acquisitions tax	520	495	520	540	560	585
: A-in-As (inc. PRSI, NTF and balances)	12,620	12,705	12,850	13,010	13,165	13,320
: non-tax revenue	1,480	1,420	930	725	630	495
: capital resources	90	60	75	85	85	75
Expenditure	**71,815**	**74,895**	**77,030**	**78,520**	**80,690**	**83,140**
: gross voted current expenditure	57,055	59,290	60,740	62,180	63,735	65,330
: gross voted capital expenditure	6,010	7,340	8,065	8,660	8,935	9,400
: non-voted current expenditure	8,750	8,260	8,230	7,685	8,020	8,410
- debt servicing	5,960	5,345	5,000	4,240	4,450	4,695
Balance excl. transactions with no GG impact	**-2,065**	**-2,265**	**-1,930**	**-835**	**-80**	**775**
Revenue transactions with no GG impact	**3,185**	**2,940**	**4,075**	**3,135**	**1,570**	**1,570**
: non-tax revenue	1,430	1,655	900	515	450	450
: capital resources	1,755	1,285	3,170	2,620	1,120	1,120
Expenditure transactions with no GG impact	**1,005**	**2,765**	**1,700**	**1,685**	**1,710**	**1,745**
: non-voted current expenditure	25	5	5	5	5	5
: non-voted capital expenditure	980	2,760	1,695	1,675	1,705	1,740
- transfer to Rainy Day Fund	0	500	500	500	500	500
Balance of transactions with no GG impact	**2,170**	**175**	**2,370**	**1,450**	**-140**	**-175**
Exchequer balance	**105**	**-2,095**	**445**	**615**	**-220**	**600**

Figures are rounded to the nearest €5 million and may affect totals.
Source: Department of Finance.

Chapter 4
General Government Developments and Outlook

4.1 Summary

A general government surplus of 0.2 per cent of GDP is projected for this year, improving further next year with a headline surplus of 0.4 per cent of GDP in prospect. After adjusting for the impact of the economic cycle, a structural deficit of 1.1 per cent of GDP is projected for this year, with the medium term budgetary objective (MTO) projected to be achieved next year. It must be acknowledged, however, that distortions to GDP are having a severe impact on estimates of the cyclical position of the economy, which make assessments of the structural balance extremely uncertain at the current juncture. Under the Department of Finance's alternative methodology, the MTO has been achieved.

4.2 General Government Balance in 2019

General government revenue is projected at €85,955 million this year. This is 4.8 per cent higher than in 2018. General government expenditure is projected at €85,345 million this year, 4.1 per cent higher than last year. As a result, a general government balance of €610 million – 0.2 per cent of GDP – is projected for 2019.

4.3 General Government Balance in 2020

For next year, general government revenue is forecast to increase by 3.4 per cent to €88,835 million, mainly on foot of stronger general government tax receipts. General government primary expenditure is forecast at €83,275 million. With interest expenditure amounting to a projected €4,325 million, a general government surplus of 0.4 per cent of GDP (€1,235 million) is projected for next year.

Table 10: exchequer balance to GGB 2018-2023, € million (unless stated)

	2018	2019[1]	2020	2021[1]	2022	2023
Exchequer balance	105	-2,095	445	615	-220	600
Walk[2]	-60	2,705	790	1,915	4,005	4,745
General Government balance	**45**	**610**	**1,235**	**2,530**	**3,785**	**5,345**
of which:						
General Government revenue	**82,035**	**85,955**	**88,835**	**92,235**	**96,065**	**100,360**
Taxes on production and imports	25,520	26,790	27,640	28,465	29,320	30,360
Current taxes on income, wealth	34,560	35,925	37,715	39,415	41,420	43,625
Capital taxes	520	495	520	540	560	585
Social contributions	13,390	14,835	15,455	16,250	17,060	17,975
Property Income	1,295	1,730	1,445	1,285	1,225	1,105
Other	6,750	6,175	6,060	6,280	6,475	6,715
General Government expenditure	**81,985**	**85,345**	**87,600**	**89,700**	**92,280**	**95,015**
Compensation of employees	22,230	23,015	23,555	23,925	23,960	23,925
Intermediate consumption	10,865	13,000	13,070	13,320	13,635	14,025
Social payments	29,820	29,880	30,350	30,640	30,745	30,860
Interest expenditure	5,230	4,760	4,325	4,105	4,365	4,610
Subsidies	1,685	1,635	1,645	1,640	1,610	1,670
Gross fixed capital formation	6,525	7,740	8,040	8,405	8,895	9,490
Capital transfers	1,865	1,945	2,265	2,450	2,655	2,775
Other	3,770	3,375	3,745	3,880	3,985	4,085
Resources not allocated	0	0	605	1,330	2,430	3,570
memo items						
GGB per cent GDP	0.0	0.2	0.4	0.7	1.0	1.3
GGB per cent GNI*	0.0	0.3	0.6	1.2	1.7	2.3
Total revenue per cent GNI*	42.7	42.6	42.0	42.0	42.1	42.2
Total expenditure per cent GNI*	42.7	42.3	41.4	40.8	40.4	40.0

Figures are rounded to the nearest €5 million and may affect totals.
1. The statistical reclassification of two pension funds as on-balance sheet reduces a heretofore assumed capital transfer of approximately €140 million and €980 million in 2019 and 2021 respectively.
2. The 'walk' from the exchequer balance to the general government balance is set out in table A1 in the appendix.
Note: Fiscal forecasts are presented on an *ex-post* basis. These incorporate the impact of measures announced in *Budget 2019* over the medium term. Full details of these measures are available at www.budget.gov.ie.
Source: Department of Finance, Department of Public Expenditure and Reform, CSO.

4.4 Structural Budget Balance

The Medium Term (Budgetary) Objective (MTO) is the cornerstone of the preventive arm of the Stability and Growth Pact. Member States are required to be at, or on the adjustment part towards, their (country-specific) MTOs. Ireland's MTO is a structural deficit of 0.5 per cent of GDP. The structural balance primarily reflects developments in the headline (general government) balance and the output gap. At Budget time, using the European Commission's Commonly Agreed Methodology (CAM), the output gap was estimated to be positive in 2018 and 2019 at +1.6 and +1.3 per cent,

respectively. This meant that Ireland's structural position was worse than the headline (general government) position with a structural balance of -1.0 per cent projected for 2018 and -0.7 per cent for 2019. Estimating the cyclical position of the economy in Ireland has become increasingly complex, largely because of the distortions to GDP arising from activity in parts of the multinational sector. On the basis of the agreed methodology, the output gap is significantly more positive this year and, as a result, it may be 2020 before the MTO is formally achieved. Having said that, alternative methodologies produced by the Department of Finance, more suited to the Irish economy, point to an economy that is broadly in balance at this point.

Table 11: structural budget balance, per cent of GDP (unless stated)

	2018	2019	2020	2021	2022	2023
Headline fiscal developments						
General government balance	0.0	0.2	0.4	0.7	1.0	1.3
One-off / temporary measures	-0.1	0.0	0.0	0.0	0.0	0.0
Interest expenditure	1.6	1.4	1.2	1.1	1.1	1.2
General government primary balance	1.7	1.6	1.6	1.8	2.1	2.5
Economic cycle						
GDP growth rate	6.7	3.9	3.3	2.4	2.5	2.6
Potential GDP growth, per cent	4.9	4.7	4.4	3.5	3.4	3.3
contribution from labour, pp.	2.2	1.8	1.4	0.6	0.5	0.4
contribution from capital accumulation, pp.	0.2	0.3	0.5	0.5	0.5	0.5
contribution from total factor productivity, pp.	2.5	2.5	2.4	2.4	2.4	2.4
Output gap	3.3	2.5	1.6	1.0	0.5	0
Structural fiscal developments						
Cyclical budgetary component	1.7	1.3	0.8	0.5	0.3	0.0
Structural budget balance	-1.6	-1.1	-0.4	0.2	0.7	1.3
Structural primary balance	0.0	0.3	0.8	1.3	1.8	2.5

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

4.5 Comparison of Forecasts

Table 12 shows how the Department's fiscal forecasts compare with those of other institutions. For the headline balance, there is very little variance amongst the set of forecasts for this year, with the range extending from deficit of 0.6 per cent of GDP to a surplus of 0.2 per cent of GDP. For next year, the range extends from deficit of 0.4 per cent of GDP to a surplus of 0.4 per cent of GDP. Differences in relation to estimates of the structural fiscal position for this year are mainly timing-related.

In terms of forecasts for general government debt, the range extends from 61.1 per cent of GDP to 73.4 per cent of GDP this year and from 55.8 per cent of GDP to 70.7 per cent of GDP for next year (debt dynamics are set out in more detail in chapter 5).

Table 12: comparison of budgetary forecasts, per cent of GDP

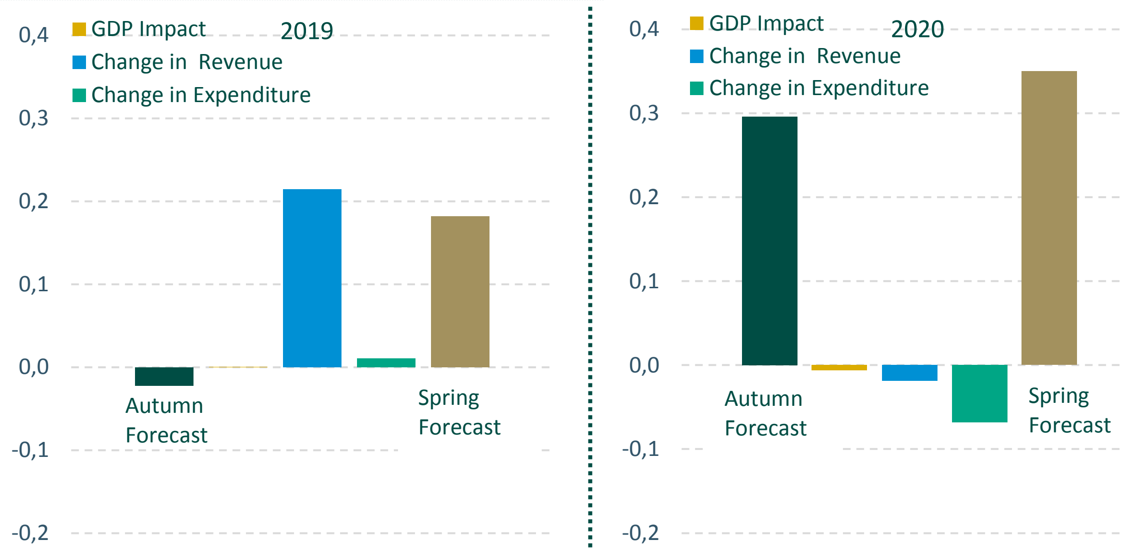
2019	GG debt	GG Balance	Structural Balance
Department of Finance	61.1	0.2	-1.1
IMF	64.2	-0.6	-0.4
ESRI	63.1	-0.3	n/a
European Commission	61.1	-0.1	-0.5
OECD	73.4	-0.2	n/a

2020	GG debt	GG Balance	Structural Balance
Department of Finance	55.8	0.4	-0.4
IMF	60.6	-0.2	-0.1
ESRI	58.3	-0.4	n/a
European Commission	56.0	0.2	-0.3
OECD	70.7	0.1	n/a

GG = general government.
Source: latest forecasts from the institutions cited.

Figure 6 compares the Department's spring forecasts for the general government balance with its autumn forecasts, published in the Economic and Fiscal Outlook in October 2018. The forecast for the general government balance has improved due to the improved forecast for revenue, mainly tax, in 2019 and reduction in expenditure, mostly debt service savings, for 2020.

Figure 6: comparison of autumn 2018 and spring 2019 GG balance forecast, per cent of GDP



Source: Department of Finance

Chapter 5
General Government Debt

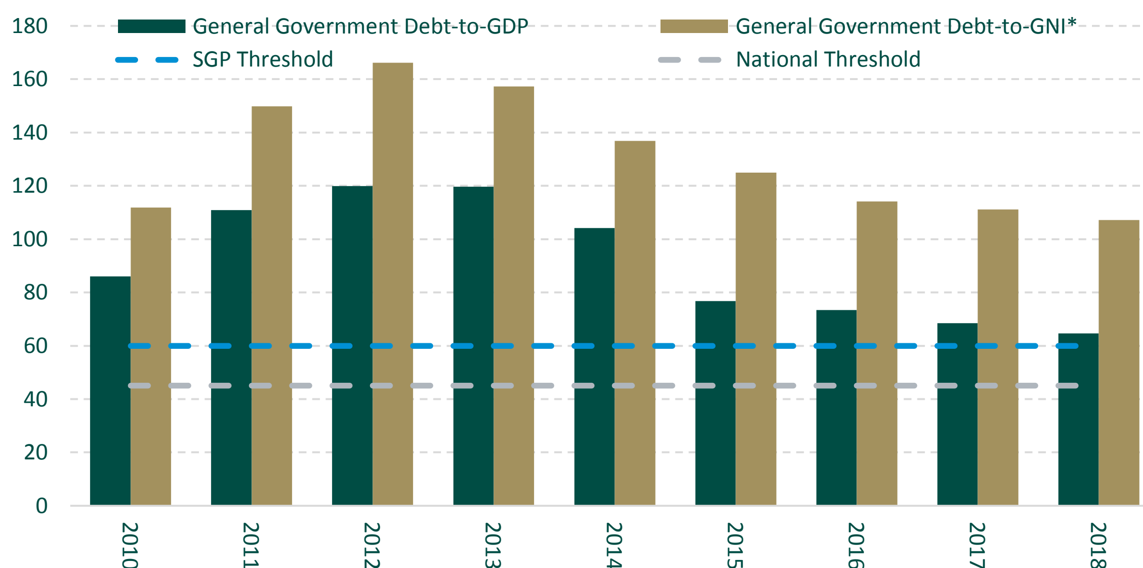
5.1 Summary

While the debt-to GDP-ratio continues to decline, this fall is due in its entirety to the increase in the level of GDP (the 'denominator effect'). Other sustainability metrics show that, although declining, public indebtedness remains high in Ireland; these metrics include the absolute level of debt, debt interest payments as a share of revenue and debt to GNI*.

5.2 Debt Developments

Data from the CSO show that, at end-2018, Ireland's general government gross debt stood at just over €206 billion, or 64.8 per cent of GDP. In terms of this year, the absolute level of debt is expected to decrease slightly and the ratio is set to decline further to 61.1 per cent. The ratio has fallen considerably since the peak of just below 120 per cent in 2012, particularly so in 2015, when 'measured' nominal GDP growth was in excess of 30 per cent. Ireland is on track to bring the debt-to GDP ratio below 60 per cent – as required by the *Stability and Growth Pact* – next year.

Figure 7: General Government Debt to GDP and debt to GNI*, per cent



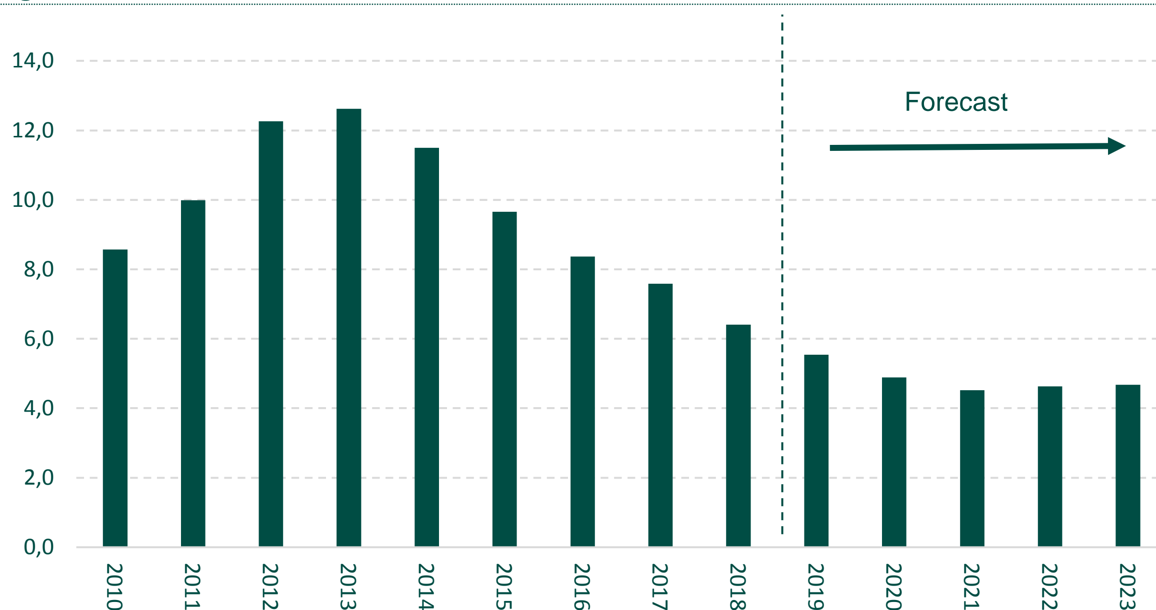
Source: CSO, Department of Finance.

Modified GNI (GNI*) is an alternative measure of economic activity in Ireland that strips out part of the distortions arising in the multinational sector. As such, it is a better measure of actual economic activity taking place in Ireland. Measured on this basis, the debt ratio remains at around 107 per cent; thus, while debt remains manageable in Ireland, it is crucial that the burden of debt is reduced further.

Debt interest payments as a percentage of total general government revenue are a useful means of assessing debt sustainability. Figure 8 shows the portion of general government revenue absorbed by debt interest payments over the period 2010-2023. As this measure is dependent on domestic revenue streams, it is less prone to distortion by the effects of globalisation on the Irish economy and, accordingly, provides a better insight into repayment capacity. After peaking in 2013, this metric has

subsequently been on a downward trajectory, reflecting a combination of higher general government revenue and lower interest payments.

Figure 8: debt interest to revenue ratio, per cent



Source: CSO, Department of Finance.

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. The debt-to-GDP ratio for this year is 3.7 percentage points lower than the 2018 year-end figure, which was 64.8 per cent of GDP. The forecast movements in debt levels and debt dynamics are set out in Table 13.

Table 13: general government debt developments, per cent of GDP (unless stated)

	2018	2019	2020	2021	2022	2023
Gross debt (€ billions)	206.2	205.1	196.7	203.6	203.5	206.0
Gross debt ratio	64.8	61.1	55.8	55.4	53.2	51.6
Change in gross debt ratio(=1+2+3)	-3.7	-3.7	-5.3	-0.3	-2.2	-1.6
Contributions to change in gross debt ratio:[1]						
General Government deficit (1=1a+1b)	0.0	-0.2	-0.4	-0.7	-1.0	-1.3
: interest expenditure (1a)	1.6	1.4	1.2	1.1	1.1	1.2
: primary balance (1b)	-1.7	-1.6	-1.6	-1.8	-2.1	-2.5
Stock-flow adjustment (2=2a+2b+2c+2d+2e+2f+2g)	1.5	-0.1	-2.0	2.6	1.0	2.0
: change in liquid assets (2a)	1.4	-0.8	-2.3	1.4	-0.3	0.3
: interest adjustments (2b)	0.1	0.1	0.1	0.0	0.0	0.0
: equity transactions (2c)	-0.5	-0.2	-0.8	-0.5	-0.1	-0.1
: accrual adjustments (2d)	0.0	0.2	0.2	0.1	0.1	0.1
: impact of ISIF (2e)	0.1	0.1	0.1	0.1	0.1	0.1
: collateral held (2f)	0.0	0.0	0.0	0.0	0.0	0.0
: other (2g)	0.5	0.3	0.8	1.5	1.2	1.6
Nominal GDP contribution (3)	-5.2	-3.3	-2.9	-2.2	-2.2	-2.2
Memorandum items						
: average interest rate	2.6	2.3	2.1	2.1	2.1	2.3
: gross debt per cent of GNI*	107.3	101.7	93.0	92.7	89.2	86.7

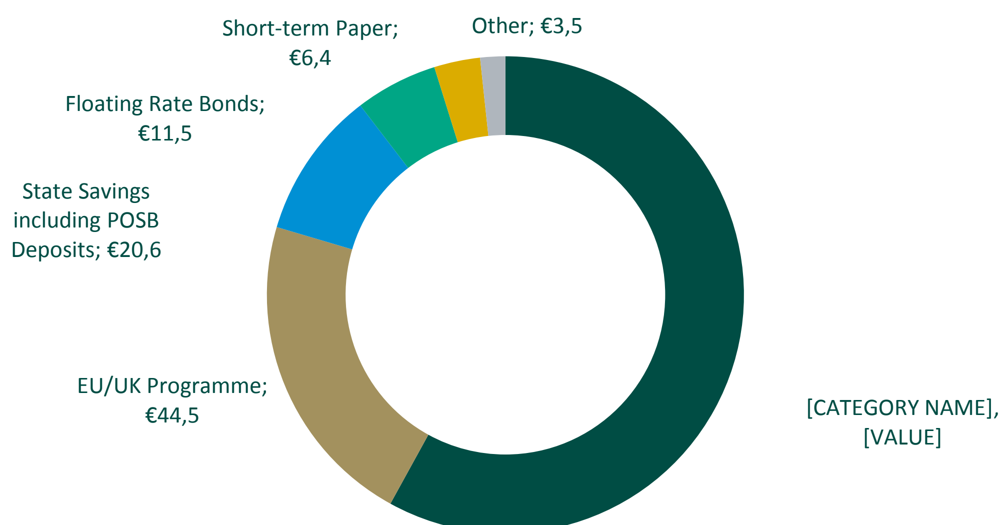
Source: CSO, Department of Finance and National Treasury Management Agency (NTMA), the National Debt data provider.

5.3 Debt Composition

Figure 9 shows the compositional breakdown of the stock of general government debt at end-2018. The most notable changes to the composition from end-2017 are the increase in Fixed Rate Treasury Bonds and the decline in the Floating Rate Bonds issued in 2013 to replace the IBRC promissory notes held by the Central Bank of Ireland (CBI).

The NTMA purchased and subsequently cancelled €4 billion of Floating Rate Bonds from the CBI in 2018, replacing them with medium to long-term fixed rate market funding. The outstanding balance of Floating Rate Bonds was reduced to €11.5 billion at year-end. It was reduced by a further €1 billion in the first quarter of 2019.

Figure 9: composition of general government debt at end-2018, € billions



Source: CSO and NTMA (National Debt data provider).
Note: the "other" category includes consolidation adjustments in respect of debt, including government bonds held by general government entities.

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 deducting the value of the financial assets corresponding to the categories of financial liabilities which comprise Gross Debt) is reported in table 14. 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 14: gross and net general government debt, per cent of GDP at end-year

	2018	2019	2020	2021	2022	2023
General government debt (gross)	64.8	61.1	55.8	55.4	53.2	51.6
EDP debt instrument assets	9.0	8.3	5.5	6.7	6.1	6.2
Net debt position	55.8	52.8	50.3	48.8	47.1	45.5

Source: CSO, NTMA (National Debt data provider) and Department of Finance.

5.4 Credit ratings

Ireland's long-term credit rating is now firmly in the 'A' category with all of the main rating agencies, as set out in the table below.

Table 15: Irish sovereign credit ratings

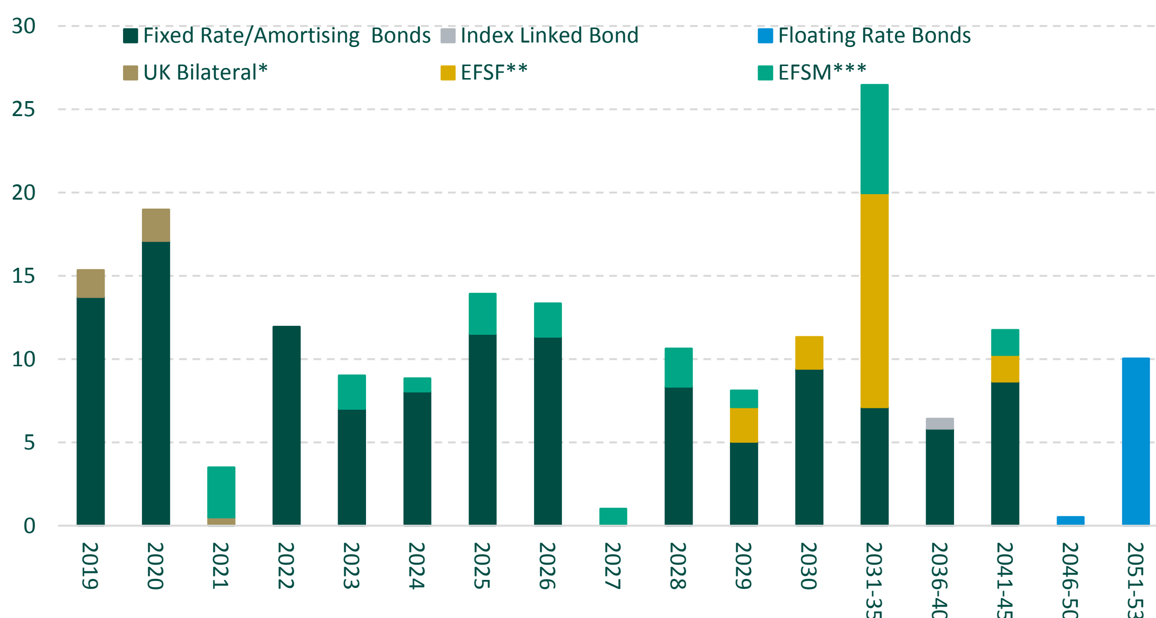
Rating Agency	Long-term rating	Short-term rating	Outlook
Standard & Poor's	A+	A-1	Stable
Moody's	A2	P-1	Stable
Fitch Ratings	A+	F1+	Stable

As at March 2019
Source: institutions cited and NTMA

5.5 Funding Developments

The NTMA announced plans last December to issue €14-18 billion of Government bonds during 2019. By mid-April 2019, €5.4 billion had been issued at a weighted average yield of just below 1.1 per cent and with a weighted average maturity of close to 11 years.

Figure 10: maturity profile of long-term marketable and official debt, € billion at end-March 2019



Note that the figures in the chart are unaudited figures. Rounding can affect totals.
**UK Bilateral includes the effect of currency hedging transactions.*
*** EFSF loans reflect the maturity extensions agreed in June 2013.*
**** EFSM loans are also subject to extension, such that their original aggregated weighted average maturity will be a maximum of 19.5 years. 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 above reflects both original and revised maturity dates of individual EFSM loans.*
Source: NTMA.

A new 10-year benchmark bond issued in January 2019 raised €4 billion at a yield of 1.123 per cent. There was also a dual bond auction in February, with the sale of bonds maturing in 2029 and 2037 raising €1.4 billion. In addition, a new 26-year inflation-linked bond issued in March raised €300 million at a real yield of minus 0.05 per cent.

Exchequer cash balances at the end of the first quarter of this year were over €23 billion, up from €15 billion at end-2018. Balances will reduce in the coming months reflecting the two bond maturities this year, one in June and the second in October, and also short term-term debt maturities.

Year-end cash balances are expected to be of the order of €13 billion, leaving the Exchequer well positioned heading into 2020. There are two further bond maturities in 2020, the first in April and the second in October. The combined outstanding balance on these bonds is currently just over €17 billion.

In terms of official sector debt, there are three tranches of the UK bilateral loan maturing this year, the first of which is in April and a further four tranches maturing in 2020. Each maturity is £0.4 billion.

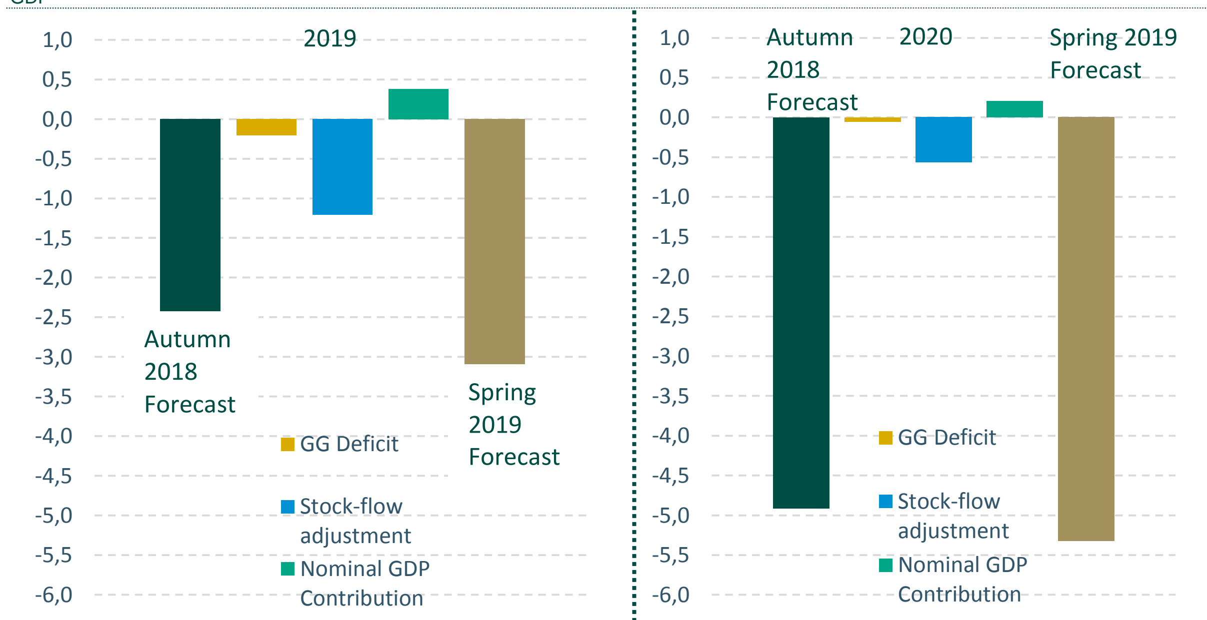
5.6 Comparison of Forecasts

Figure 11 below compares the Department's autumn forecasts for general government debt published alongside the Budget 2019 with its spring forecasts published in this document.

For this year, the debt ratio is projected at 61.1 per cent, 0.3 percentage point improvement from the autumn forecasts, while for next year the debt ratio of 55.8 per cent represents a 0.7 percentage point improvement.

The main reason underlying the improvement is the denominator effect along with a reduction in the nominal debt forecast - from €209.6 billion to €205.1 billion for this year; and from €203.3 billion to €196.7 billion for next year.

Figure 11: comparison of autumn 2018 and spring 2019 change in GG debt forecast, per cent of GDP



Source: Department of Finance

Chapter 6
Risk and Sensitivity Analysis

6.1 Summary

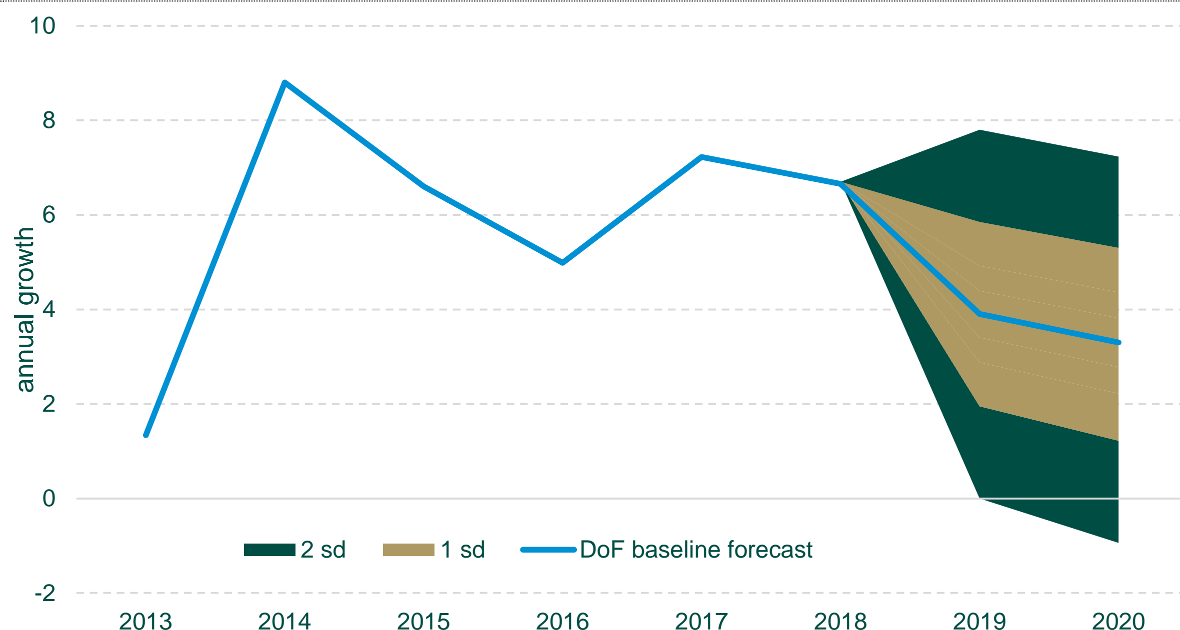
The purpose of this chapter is to set out the main identifiable risks which, if they were to materialise, could alter the economic and fiscal trajectory in Ireland over the short- and medium-term.[28] While the UK's exit from the EU is probably the most important risk for the economy, this is dealt with in Box 2 and in Department of Finance research.

The impact of 'Brexit' is dealt with in the previous chapter; instead, this chapter focuses on other possible shocks to the economy and quantifies their likely impact using the ESRI's COSMO[29] model.

6.2 Risks to the Economic and Fiscal Forecasts

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 21. Other than 'Brexit', the main short-term risks relate to a sharper-than-assumed deterioration in the international environment, an escalation of trade protectionism and a tightening of financial market conditions. Over the medium term, the principal risks relate to potential overheating as the economy approaches full-employment, and changes in other jurisdictions that affect the competitiveness of Ireland's corporate tax regime. The balance of risk is firmly tilted to the downside at present, both in the short-term and over the medium-term.

Figure 12: confidence bands for real GDP growth 2019-20, per cent change



Confidence bands represent the areas one and two standard deviations from the growth forecast, based on historical forecast errors. 2015 forecast errors are excluded; the growth rate shown for 2015 is based on growth in modified domestic demand.

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[28] The National Risk Assessment 2018, which was published in August 2018, represents a comprehensive cross-government assessment of the strategic risks that Ireland faces over the short, medium and long-term.

[29] **Co**re **S**tructural **Mo**del.

Source: Department of Finance calculations.

Box 5: 'Brexit' through the prism of the euro-sterling bilateral exchange rate

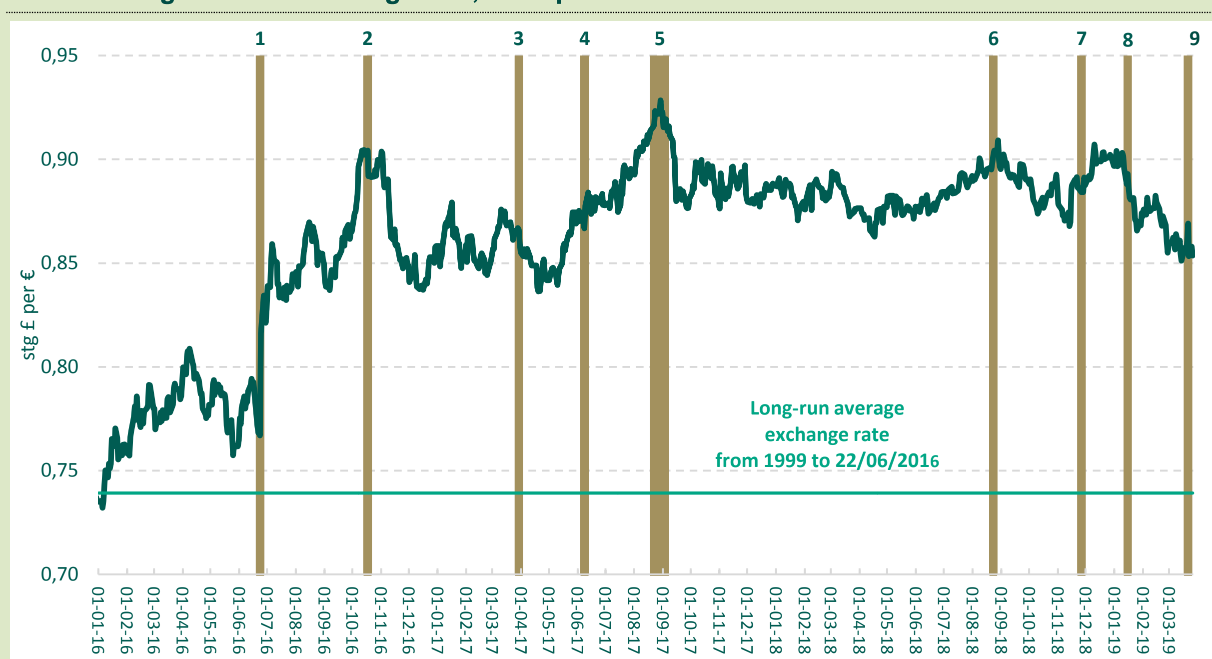
There are several channels through which the UK's exit from the EU will impact upon the Irish economy. While the UK has clearly not yet exited, 'Brexit' has already had an impact via the exchange rate channel.

The graph below charts the evolution of the euro-sterling bilateral rate since 2016. The average bilateral rate from the beginning of monetary union in 1999 until mid-2016 (€1 = stg£0.74) is also shown. At the start of 2016, the prevailing exchange rate was broadly in line with this long-run average. In the opening quarter of that year, some modest depreciation of sterling was evident, as market participants began to 'price-in' the possibility of a 'leave' majority in the June 2016 referendum. From an economic perspective, investors assessed that an exit from the EU would permanently damage UK growth prospects: the potential growth rate of the UK economy would be adversely affected as long-term productivity growth would be lower than otherwise. Lower growth prospects, in turn, reduce the return on UK assets, prompting lower (net) capital inflows (than would otherwise be the case) and, accordingly, sterling depreciation.

Subsequent to the referendum, sterling depreciated sharply with the euro-sterling bilateral rate appreciating by 12 per cent almost immediately, and reaching €1 = stg£0.90 by the Autumn of that year. While significant volatility was evident over the following twelve months, there was much less volatility during 2018, when the bilateral exchange rate hovered around €1 = stg£0.88. Volatility has increased once again in the first quarter of this year reflecting political uncertainty in the UK. At end-March, the bilateral rate was €1 = stg£0.86.

Any further depreciation of sterling would pose serious disruption for the Irish economy. While there is no single 'tipping point', clearly any further convergence towards parity would have significantly negative implications for many sectors, with exports to the UK becoming more expensive with knock-on effects for output and employment. The sectors most affected would be those most exposed to the UK market, including agri-food, tourism and cross-border trade (including retail). *In extremis*, the viability of some firms would be under threat.

Euro-sterling bilateral exchange rate, 2016-present



1 UK referendum vote
2 Article 50 legal challenge
3 Article 50 triggered
4 UK General Election
5 Next round of talks begin
6 UK publishes no-deal planning papers
7 EU endorses withdrawal agreement
8 MPs reject withdrawal agreement
9 European Council agrees Article 50 extension options

Source: Macrobond, Department of Finance.

6.3 Sensitivity Analysis

To assess the sensitivity of the forecasts to changes in baseline inputs, the ESRI COSMO macroeconomic model is used to simulate the impact of stylised shocks to the following four exogenous inputs:

- World demand shock (1 per cent deterioration in world demand);
- Competitiveness shock (1 per cent increase in average wages);
- Monetary policy shock (1 percentage point increase in the ECB interest rate); and,
- Sterling depreciation shock (10 per cent fall in sterling euro exchange rate).

Figures presented in Table 16 show the response, relative to baseline projections, for a range of key macro-fiscal variables to the simulated shocks to world demand, average wages, interest rates and exchange rates. In each of the simulations presented, Government solvency/budget rules are not imposed; in other words, there is no fiscal policy response to the change in the economic environment. Therefore, the results give the full impact of the shock, free from the addition of presumptive policy changes. Each of the shocks are introduced in year 't'.

External demand shock (1 per cent deterioration in world demand)

An external demand shock is simulated by assuming a permanent reduction in the level of global output of 1 per cent relative to baseline projections. This dampens Irish growth, with the effects transmitted primarily through the trade channel. In the traded sector, a decrease in external demand contributes to reductions in the demand for Irish produced goods and services which, in turn, lead to falls in investment, employment and wages in that sector. These effects in the traded sector result in lower domestic demand and, accordingly, reduced employment (relative to baseline) and a rise in the unemployment rate. Lower employment and wages lead to lower personal incomes and decrease consumption which, in turn, negatively affect the tax base.

Overall, the level of output would be around 1.0 per cent lower after 5 years relative to a baseline projection. The level of employment would be 0.6 per cent 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.

Competitiveness shock (1 per cent increase in average wages)

A shock to domestic competitiveness is simulated by assuming a 1 per cent increase in the domestic wage level (relative to baseline) that is not offset by higher productivity. This loss in competitiveness reduces Irish exports and depresses output in the traded sector of the Irish economy. The non-traded sector also sees a decline in production due to the impact of higher labour costs. The impact is to reduce employment over the medium- to long-run, with a slightly higher unemployment rate than under the baseline scenario.

Overall, the level of output would be 0.2 per cent below baseline after 5 years. Employment falls by 0.1 per cent lower below baseline after 5 years, with the unemployment rate increasing by 0.2 percentage points. After an initial modest improvement in the fiscal position, results show that the deficit to GDP ratio slightly worsens by 0.01 percentage points, and the debt to GDP ratio falls by 0.3 percentage points after 5 years.

Table 16: 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	-0.8	-0.9	-1.0
Employment	-0.1	-0.2	-0.3	-0.4	-0.5	-0.6
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 Debt, per cent GDP	0.1	0.3	0.6	0.8	1.0	1.3
Unemployment Rate, per cent	0.0	0.1	0.2	0.3	0.3	0.4
	1 per cent increase in average wages					
per cent deviation from baseline						
GDP	0.0	0.0	-0.1	-0.1	-0.2	-0.2
Employment	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
percentage point deviation from baseline						
General Government Balance, per cent GDP	0.01	0.01	0.01	0.00	-0.01	-0.01
General Government Debt, per cent GDP	-0.3	-0.4	-0.4	-0.4	-0.3	-0.3
Unemployment Rate, per cent	0.1	0.1	0.2	0.2	0.2	0.2
	1 percentage point increase in interest rates					
per cent deviation from baseline						
GDP	-0.6	-1.1	-1.3	-1.3	-1.1	-0.8
Employment	-0.1	-0.4	-0.6	-0.7	-0.6	-0.4
percentage point deviation from baseline						
General Government Balance, per cent GDP	0.0	-0.2	-0.3	-0.3	-0.3	-0.2
General Government Debt, per cent GDP	0.3	1.0	1.5	1.8	2.1	2.2
Unemployment Rate, per cent	0.1	0.3	0.4	0.5	0.5	0.3
	10 per cent fall in sterling euro exchange rate					
per cent deviation from baseline						
GDP		-0.1	-0.3	-0.4	-0.6	-0.7
Employment		0.0	0.0	0.0	-0.1	-0.2
percentage point deviation from baseline						
General Government Balance, per cent GDP		0.0	0.0	0.0	0.0	0.1
General Government Debt, per cent GDP		0.0	0.1	0.2	0.3	0.4
Unemployment Rate, per cent		0.0	0.0	0.0	0.0	0.1

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

Monetary policy shock (1 percentage point interest rate increase)

A monetary policy shock is simulated by assuming that the ECB policy rate increases by 1 percentage point over a 5 year horizon. The impact of the higher interest rate adversely affects the level of Irish economic activity growth over the medium term. In the model, the main transmission mechanism is the trade channel: lower output in the euro area as a result of higher interest rates leads to a reduction in external demand for Irish exports. In addition to this, the assumed exchange rate appreciation depresses exports further relative to baseline. [30]

[30] The microeconomic impacts of a similar shock a considered in Fahy et al (2019): Exploring the Implications of Monetary Policy Normalisation for Irish Mortgage Arrears. Available at: *https://www.esri.ie/system/files/publications/QEC2019SPR_SA_Fahy_0.pdf*

Overall, the impact reduces the level of GDP by 0.8 per cent relative to baseline after 5 years. Employment falls by 0.4 per cent relative to baseline and the deficit-to-GDP ratio worsens by 0.2 percentage points after 5 years, with the debt-to-GDP ratio 2.2 percentage points higher at that stage.

Sterling depreciation shock (10 per cent fall sterling euro exchange rate)

A sterling depreciation shock is simulated by assuming a 10 per cent permanent fall in the value of sterling vis-à-vis the euro. This shock is transmitted to the Irish economy through two channels, lower world demand, though to a lesser extent than the direct shock to world demand above, and the competitiveness of Irish exports via higher relative prices. Whilst the overall impact of a 10 per cent depreciation in sterling is lower than a 1 per cent fall in world demand, the mechanisms by which the Irish economy is affected are similar. Initially the shock affects the traded sector, with less demand for labour as a result, which causes a feedthrough to the non-traded sector through lower domestic demand.

Overall, the level of output would be 0.7 per cent below baseline after 5 years. Overall this is about two thirds that of that direct impact on a world demand shock, with the other variables broadly scaled by this amount. The level of employment would be 0.2 per cent lower after 5 years, with the unemployment rate increasing by 0.1 percentage points. The annual deficit-to-GDP ratio rises towards 0.1 over the medium term, with the debt-to-GDP ratio rising by 0.4 percentage as a result.

6.4 Monitoring imbalances in the Irish economy

The use of a heat map to identify and monitor macroeconomic imbalances in the Irish economy was introduced in *Budget 2019*, focusing on the variables included in the European Commission's Macroeconomic Imbalance Procedure.

The heat-map can be used to trace the imbalances that emerged in the Irish economy both in the build-up to and aftermath of the financial crisis, with overheating followed by severe recession. Darker colours suggest imbalances (whether dark red or dark green) while light yellow shading represents values broadly in line with the long-run average. The most recent data points can also be examined to assess whether imbalances are at present (the latest available data are used, or the Department's forecasts for 2019 where available). The heat map currently points to the large current account surplus, the net international investment position and private sector debt as potential imbalances. All three of these, however, are distorted by the activities of multinationals in Ireland, with underlying indicators suggesting the imbalances may be much less significant (e.g. CA* as a per cent of GNI*, as set out in Table 4, is a more appropriate measure of the current account surplus).[31]

It is also important to note that such visualisation tools, given their high-level nature, are limited in the extent to which they can predict future imbalances, and as such should be assessed in conjunction with other tools.

[31] For an explanation of the distortions to private sector debt, see Analysis of Private Sector Debt in Ireland (2019): https://assets.gov.ie/7079/dc2b93dbcf1d40af9e01c2920c90acd3.pdf. A forthcoming Department of Finance publication will discuss the distortions to the balance of payments and the net international investment position.

Box 6: Fiscal Heat Maps

Heat maps are a useful visualisation tool to depict a wide range of data in a fast and convenient manner.[32] In Budget 2019, a heat map of macroeconomic indicators was presented, showing the evolution of key economic aggregates over a timeframe of nearly two decades. As part of regular monitoring of fiscal developments by the Department, a range of public finance heat maps are used. These cover both the revenue and expenditure side of the accounts, as well as compliance with fiscal rules. A subset of these maps is discussed here.

The approach used in building each heat map is to use the longest time series available, with as high a frequency as possible. For most series, standardised year-on-year growth rates are calculated.[33] The shadings in the heat maps are based on economic theory, historical trends, judgment, fiscal rules or a combination of the above. Typically, the maps are constructed based on the value of a series relative to its mean. For example, a growth rate of two standard deviations or more above the mean is assigned the darkest red; observations within a standard deviation of the mean have a neutral shading. By highlighting deviations, the maps provide a high-level overview of potential imbalances. It is important to stress that a variable 'flashing red' is not necessarily problematic, although persistent strong colours may be symptomatic of emerging imbalances.

In the panel below, a heat map based on exchequer current spending outturns relative to plans for the three largest votes (social protection, health and education) highlights a clear pattern of persistent overruns in health.

Heat maps can also be used to assess key fiscal metrics. The second panel looks at real-time and current estimates of the structural balance.[34] Calculation of the structural balance requires an estimate of the output gap. Under the Stability and Growth Pact, estimates of the output gap are produced using the Commonly Agreed Methodology (CAM). Because this approach does not sit well with the Irish economy, the Department has produced an alternative methodology for estimating the output gap.[35] While compliance with the preventive arm will still be undertaken on the basis of the CAM approach, estimates of the structural balance based on the alternative approach are also used in the heat map. The second heat map indicates that real-time estimates of the change in the structural balance did not highlight the underlying vulnerabilities in the public finances in the years preceding the economic crisis, highlighting the issues with measurement of the economic cycle in Ireland.

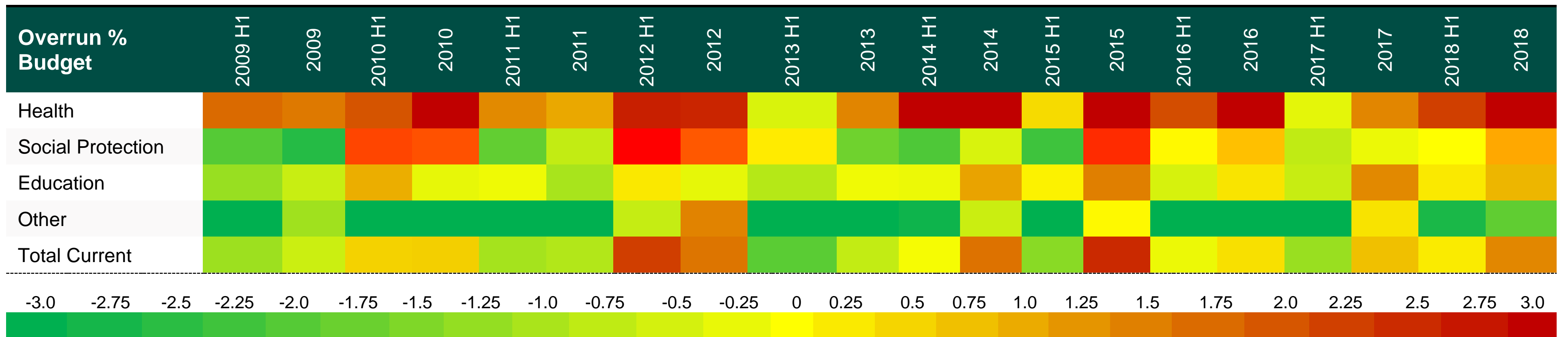
[32] See Central Bank of Ireland (2016), Quarterly Bulletin 2 'Box A: A Macroeconomic Heat Map for Ireland' and Quarterly Bulletin 3 'Box D: An Inflation Heat Map for Ireland", and more recently Irish Fiscal Advisory Council (2018) 'A "Heat Map" for Monitoring Imbalances in the Irish Economy'.

[33] By standardised we mean that each variable was measured relative to its mean and standard deviation.

[34] The structural balance is defined as the general government balance net of the cyclical component and one off and temporary measures. Real-time estimates are based on estimates of structural balance taken in time, *t,* i.e. the 2018 structural balance is taken from Budget 2019 estimates. Estimates from 2014-2018 are taken from Budget forecasts. Before this, the estimates are taken from respective SPU documents.

[35] See Murphy, Nacheva, Daly (2018), 'Estimating Ireland's Output Gap: An Analysis Using Selected Statistical Filters'. https://www.gov.ie/en/publication/65c119-estimating-irelands-output-gap/

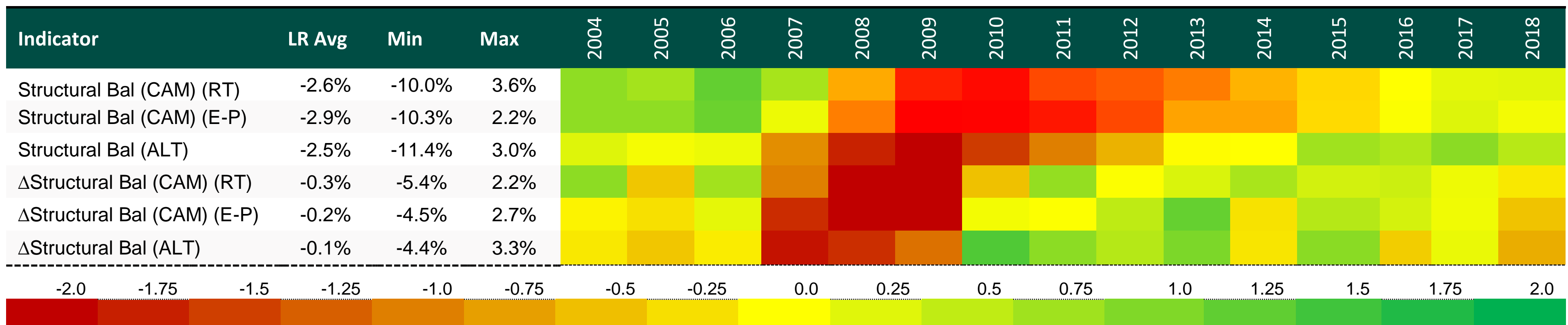
Table 17: Exchequer Spending: 2009-2018: Plans v Outturns



Overrun % Budget	2009 H1	2009	2010 H1	2010	2011 H1	2011	2012 H1	2012	2013 H1	2013	2014 H1	2014	2015 H1	2015	2016 H1	2016	2017 H1	2017	2018 H1	2018
Health																				
Social Protection																				
Education																				
Other																				
Total Current																				

Source: *Department of Finance.*

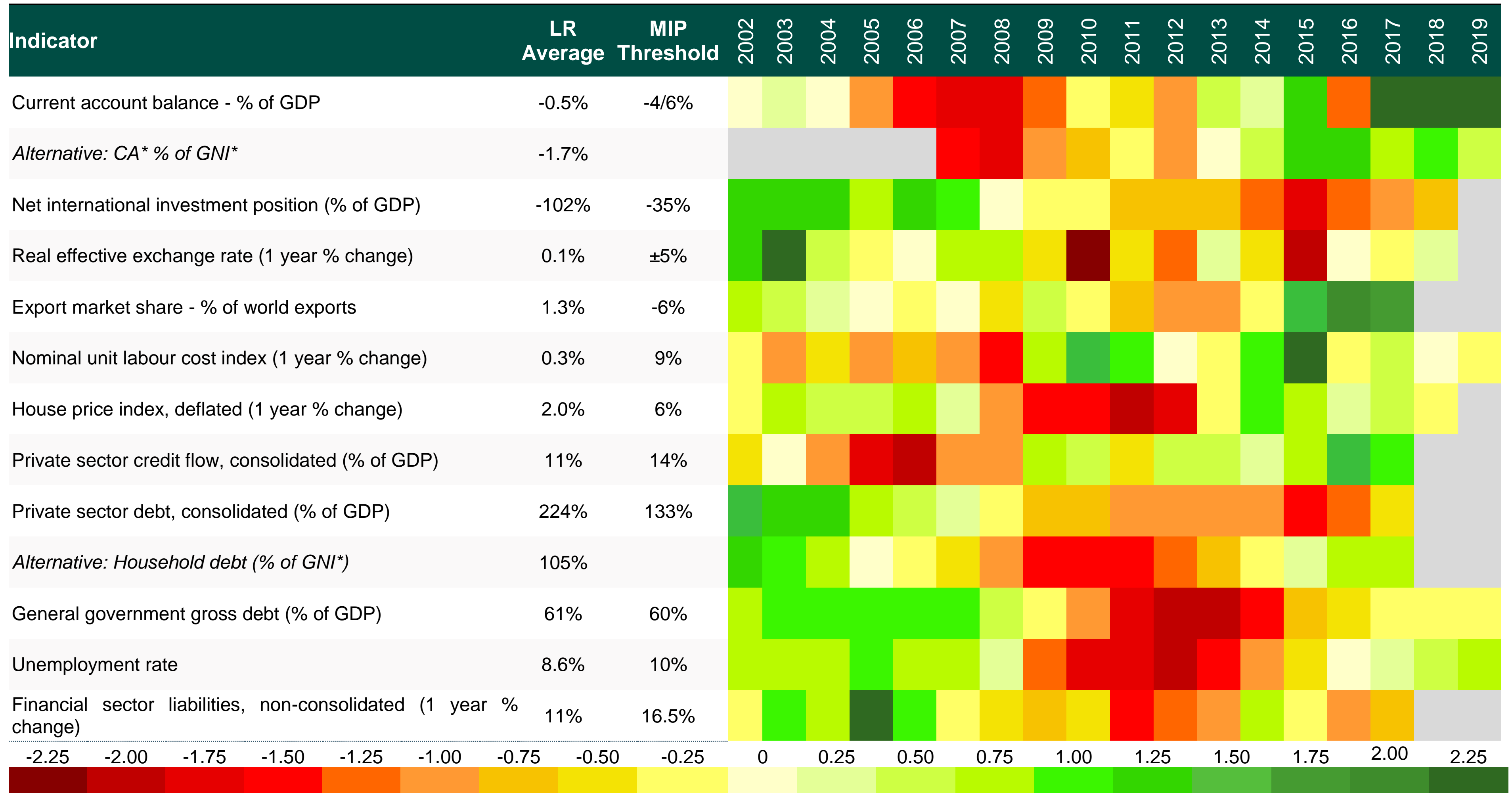
Table 18: Real-time v Current Estimates of the Structural Balance 2004-2018



Indicator	LR Avg	Min	Max	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Structural Bal (CAM) (RT)	-2.6%	-10.0%	3.6%															
Structural Bal (CAM) (E-P)	-2.9%	-10.3%	2.2%															
Structural Bal (ALT)	-2.5%	-11.4%	3.0%															
ΔStructural Bal (CAM) (RT)	-0.3%	-5.4%	2.2%															
ΔStructural Bal (CAM) (E-P)	-0.2%	-4.5%	2.7%															
ΔStructural Bal (ALT)	-0.1%	-4.4%	3.3%															

Source: *Department of Finance.* RT= Real Time, E-P= ex-post

Table 19: Heat-map of Macroeconomic Indicators, 2002-2019



Indicator	LR Average	MIP Threshold	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Current account balance - % of GDP	-0.5%	-4/6%																		
Alternative: CA % of GNI**	-1.7%																			
Net international investment position (% of GDP)	-102%	-35%																		
Real effective exchange rate (1 year % change)	0.1%	±5%																		
Export market share - % of world exports	1.3%	-6%																		
Nominal unit labour cost index (1 year % change)	0.3%	9%																		
House price index, deflated (1 year % change)	2.0%	6%																		
Private sector credit flow, consolidated (% of GDP)	11%	14%																		
Private sector debt, consolidated (% of GDP)	224%	133%																		
Alternative: Household debt (% of GNI)*	105%																			
General government gross debt (% of GDP)	61%	60%																		
Unemployment rate	8.6%	10%																		
Financial sector liabilities, non-consolidated (1 year % change)	11%	16.5%																		

Source: Department of Finance calculations, Eurostat. Note: the indicators for unit labour costs, private sector credit and debt, household debt, government debt, and unemployment have been inverted such that red represents a value above the long-run average, and vice versa. The three additional employment indicators in the MIP scoreboard are not shown.

6.5 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 2017 Appropriation Accounts for the year ended 31 December 2017[36] were published last 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[37] category in Table 20 relates to entities such as Housing Finance Agency and the Credit Guarantee Act. Additional details on most of these can be accessed in the Finance Accounts (Statement 1.11).

Table 20: contingent liabilities, per cent of GDP at end-year

	2016[1]	2017[1]	2018
Public guarantees	1.5	0.1	0.0
of which linked to the financial sector			
Eligible Liabilities Guarantee	0.6	0.1	0.0
National Asset Management Agency	0.9	0.0	0.0
Other	0.0	0.0	0.0

Note: Rounding may affect totals.
1 Data have been updated to reflect the CSO's reclassification of a pension fund within general government.
Source: Department of Finance, CSO.

On 25 October 2017, the National Asset Management Agency (NAMA) redeemed the final €500 million of senior debt originally issued in 2010 and 2011 to acquire bank loans, meaning this guarantee is no longer active.

Following a Government decision on 26 February 2013, the then Minister for Finance announced the ending of the ELG Scheme for new liabilities from midnight 28 March 2013. Existing liabilities continued to be covered by the ELG Scheme until the date of maturity of the liability (subject to a maximum of 5 years from 28 March 2013). Therefore, the final eligible liabilities matured on 28 March 2018, and there are no further eligible liabilities under the Scheme.

Other liabilities

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* (DPER) publishes information on the PPP[38]

[36] https://www.audit.gov.ie/en/Find-Report/Publications/Appropriation%20Accounts/Appropriation-Accounts-2017.pdf
[37] https://assets.gov.ie/4481/131218114605-255538233f3a47f28f913099f82286b1.pdf

programme including the level of estimated outstanding future financial commitments in nominal terms arising under existing PPP contracts. The calculation of the contractual capital value of all Irish PPPs as at December 2018 is €0.5 billion on the government balance sheet, and €5 billion off-balance sheet amounting to a total of €5.5 billion.

The DPER measures the accrued liability of the occupational pension promises that the State has made to its serving and former employees. An actuarial review of the State's pension liabilities was completed last year using 2015 data and concluded that the value of accrued public service pension obligations is estimated to be €114.5 billion as at 31st December 2015. The underlying assumption built into this scenario was that future pension increases will continue to be in line with pay parity. The value of the accrued liability was also calculated under the assumption that pensions in payment increase in line with the Consumer Price Index (CPI). In this scenario, the accrued liability figure falls to €97.2 billion as at 31st December 2015.

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 was published by the Department of Employment Affairs and Social Protection in 2017 based on data at 31st December 2015. A key result from this review is the net present value of future projected shortfalls, which is estimated at €335 billion over the period 2015-2071.

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.[39] The most significant of these contingent or potential liabilities is Ireland's callable commitment of approximately €9.87 billion to the European Stability Mechanism.

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[38] www.ppp.gov.ie

[39] https://assets.gov.ie/4481/131218114605-255538233f3a47f28f913099f82286b1.pdf

Table 21: macro-economic risk assessment matrix

Risk	Likelihood	Impact and main transmission channel
External		
External demand shock	**Medium**	**High** – the global economy has slowed and it is possible that the temporary slowdown becomes more prolonged.
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.
Disruption to world trade	**Medium**	**High** – the Irish economy is deeply embedded in the international economy and has benefited enormously from globalisation, so that any increase in protectionism could potentially have a detrimental impact on living standards.
"Hard-Brexit"	**Medium**	**High** – An outcome to the continuing EU-UK negotiations 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. While boosting growth over the short-term, overheating pressures could generate significant imbalances over the medium-term.

Source: Department of Finance

Table 22: 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 (current & capex) are needed simply to address changes in the structure of the population.
Corporation tax concentration risks	**High**	**Medium** – corporation tax revenue has increased significantly in recent years and the 'Top 10' payers contribute around 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 State's disposal of shareholding in a number of financial institutions. 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 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 to 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 receipts and changes in the composition of economic activity can impact upon the public finances.
Statistical classifications	**Medium**	**Low –** Ireland's compliance with the EU fiscal rules is measured under the ESA 2010 statistical framework. Therefore statistical revisions, updated guidance and classification decisions, including by Eurostat, represent a fiscal risk with both down and upside potential.
Climate change and renewable energy targets	**High**	**High** – Ireland is obliged to reduce greenhouse gas emissions by 20 per cent on 2005 levels by 2020. Separately, Ireland has a binding 2020 target that 16 per cent of all energy be from renewable sources. Failure to meet these targets will imply financial costs or sanctions.
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
Quality of the Public Finances

7.1 Summary

Since 2015, modest, sustainable annual increases in expenditure have been implemented. This approach, which is based on steady increases in public expenditure underpinned by growing and broad-based tax revenues, is targeted at delivering ongoing, sustainable improvements in public services and infrastructure. In allocating funding for the delivery of public services, it must be ensured that the level of spending is affordable both now and in the future.

A number of reforms to the overall budgetary process, with specific emphasis on expenditure, have been introduced in recent years to enhance the quality of public finances. These changes include implementation of Performance and Equality Budgeting, adopting a new approach to Spending Reviews and the publication of new reports, including the Mid-Year Expenditure Report and the Public Service Performance Report. These initiatives aim to increase transparency around the Budget process and create meaningful dialogue about what is being achieved with public funds. In addition, this suite of reforms is intended to ensure that the best possible value-for-money and progressing towards achieving social and economic goals through the sustainable delivery of public services. This process is supported by the Public Spending Code which details procedures to ensure public money is spent or invested wisely, and the continued expansion of Irish Government Economic and Evaluation Service tasked with carrying out evaluations and value-for-money reviews.

7.2 Spending Review

The 2017 Stability Programme Update outlined the approach taken to carrying out the Spending Review 2017-2019. In particular, it highlighted the need to shift the emphasis away from the incremental nature of the annual Estimates process to instead focus on assessing the effectiveness of the totality of existing expenditure. This review differs from the 'comprehensive' reviews of expenditure of the past, with the introduction of a 'rolling' system of selective reviews with the objective of reviewing a significant portion of current expenditure over the three year period 2017-2019.

The fiscal and economic context in Ireland has changed since the last Comprehensive Reviews of Expenditure. The economy is stronger and we have seen steady expenditure growth over the last number of years. The focus now is on ensuring that the totality of Government expenditure is considered in Budget decisions. With that in mind, the Spending Review process is focused on five main objectives:-

- Creating a larger stock of analysis and evaluation to support the Government in its resource-allocation decisions;
- Underpinning efficiency and effectiveness across all areas of spending, with a greater focus upon outcomes and impacts;
- Providing the evidence base for reform efforts across Departments and the wider public service;
- Spotlighting areas of innovation and good practice, both in programme design and service delivery, that will be of wider interest and applicability; and
- Ensuring that the Spending Reviews are more firmly embedded within the budgetary process.

In 2017, 23 analytical papers were published as part of the Spending Review. A number of outcomes resulted from these reviews, including providing an evidence base for estimates discussions that took place prior to the Budget and in highlighting an additional body of analysis to be carried forward in the Spending Review 2018.

For the Spending Review in 2018, a key aim was to further encourage greater input of policy departments in the Spending Review and to further enhance the role for Irish Government Economic and Evaluation Service (IGEES) staff throughout the Civil Service. This was achieved as seven analytical papers were produced by policy departments with one paper jointly produced by the Department of Defence and the Department of Public Expenditure and Reform. In July 2018, 27 papers were published as part of the Spending Review with a further 3 papers published alongside Budget 2019, bringing the number of papers to 53 overall in 2017 and 2018.

The 2019 Spending Review will build on this progress by providing a stronger evidence base to support Government in allocating resources in the Budget. This is of key importance for the public finances at present in particular given risks in the external environment.

7.3 Equality Budgeting Pilot

Equality Budgeting involves providing greater information on the likely impacts of proposed and ongoing budgetary measures, which, in turn, enhances the potential to better facilitate the integration of equality concerns into the budgetary process, avoid unintended adverse outcomes and enhance the Government's decision making framework. An equality budgeting pilot was announced on Budget day in 2017 and adopted for the 2018 budgetary cycle. The approach is anchored in the performance budgeting framework that is currently in place and involves Departments setting concrete measurable targets for equality objectives.

For the pilot exercise, a number of diverse policy areas were selected with associated objectives and indicators. The learning from the pilot is being used to inform the expansion of the equality budgeting initiative to further develop the gender budgeting elements, and to broaden its scope to other dimensions of equality including poverty, socioeconomic inequality and disability. An Equality Budgeting Expert Advisory Group has also been established. This group is comprised of a broad range of relevant stakeholders and policy experts to provide advice on the most effective way to advance Equality Budgeting policy and progress the initiative.

7.4 Other reforms

In recent years, reforms to the budgetary framework and the adoption of the whole-of-year budgetary process have sought to achieve greater openness, transparency and public accountability in relation to public expenditure. More information than ever before is now available in relation to how public resources are allocated and utilised.

A number of key milestone events facilitate the publication of detailed information during the year:

- The SES outlines the overall economic and budgetary strategy for Government, and establishes the parameters for the upcoming Budget;

- the National Economic Dialogue facilitates an open exchange of views from various stakeholders, including members of Oireachtas Committees, on the competing economic and social priorities facing the Government;
- the Mid-Year Expenditure Report provides the pre-Budget baseline for Departmental expenditure and represents the starting point for examination of budgetary priorities by the Oireachtas and identifies areas where expenditure pressures may arise;
- Expenditure allocations for the coming year are published in the Expenditure Report at Budget time alongside three year multi-annual ceilings in addition to details of specific budgetary measures;
- the Revised Estimates Volume, published in December, details the specifics of the coming year's allocations and also provides the public and Oireachtas Committees with convenient 'at-a-glance' information on what services are being provided;
- The Public Service Performance Report provides timely information on what has been delivered with public funds in the previous year.

Furthermore, to facilitate the Oireachtas in engaging with the Budget process, the Parliamentary Budget Office was established in 2017 as an independent specialist unit within the Houses of the Oireachtas Service. These changes are have allowed for greater transparency to our public finances as well greater oversight by Dáil Éireann of the funding of this national service.

Chapter 8
Long-Term Sustainability of the Public Finances

8.1 Summary

Ireland currently has a favourable demographic profile compared with many other EU Member States. According to the latest *Eurostat* annual population estimates, Ireland has the highest share of population aged less than 15 years old and has the lowest share of over 65 year olds in the EU.[40] Additionally, Ireland has the lowest median age of population and the third highest (after France and Sweden) fertility rate in the EU.

Despite this, unfavourable demographic trends in the coming decades will have significant implications for the economy and the evolution of the public finances. Foremost amongst these is a projected significant rise in age-related public expenditure, as a larger share of the population moves into age brackets requiring such spending. Given the budgetary implications of likely demographic shifts, a range of reform measures have been implemented in recent years in order to mitigate the future impact on the public finances.

8.2 Background

Given the importance of population ageing in Ireland and elsewhere in Europe, the EU Economic Policy Committee (EPC) undertakes an assessment of the impact of long-term demographic trends on the public finances of the Member States every three years.[41] The results set out in Table 23 relate to the Ageing Report 2018 (AR 2018) published in May 2018, and are based on long-term demographic projections produced by *Eurostat* (Eurostat 2015-based projections).[42] As part of the process, Member States produce long-term pension expenditure projections, while the Commission produces health care, long-term care, education and unemployment benefit expenditure projections unilaterally.

Ireland's demographic profile is set to change significantly over the coming decades. The share of the population aged 65 and over is set to nearly double from 13 per cent in 2016[43] to a peak of 26 per cent in 2054 before falling slightly to 24 per cent in 2070.

At the same time, the share of the working age population is projected to gradually decline from approximately 64 per cent in 2016 to 56 per cent in 2050.[44] Reflecting these changes, the old age dependency ratio is set to increase from approximately 21 per cent in 2016 to a peak of 46 per cent in the mid-2050s.[45] In other words, there are currently around 5 persons of working age for each person aged 65 and over; by 2050, the equivalent figure will be just over 2.

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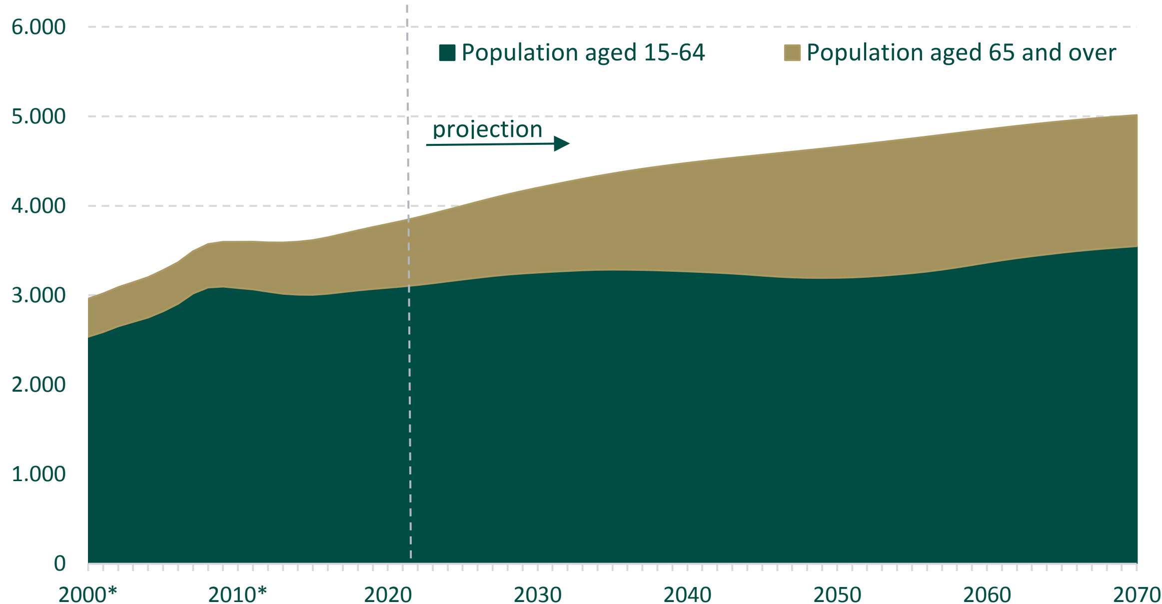
[40] Annual Eurostat population data released in July 2018.
[41] The EPC provides economic analyses, opinions on methodologies and draft formulations for policy recommendations, in particular on structural policies for improving growth potential and employment in the EU.
[42] The macro-economic assumptions and the methodologies used in the European Commission (EC)-EPC 2018 Ageing Report are published in the 2018 Ageing Report: Underlying Assumptions and Projection Methodologies. https://ec.europa.eu/info/sites/info/files/economy-finance/ip065_en.pdf
[43] 2016 is the base year of the EPC 2018 Ageing Report.
[44] Working age population (WAP) defined for these purposes as those aged 15-64.
[45] Old age dependency ratio = (population aged 65 and over/population aged 15-64)

These projections are used in the context of:

- the European Semester to identify policy challenges in the area of age-related spending;[46]
- for annual assessments of the sustainability of the public finances (to update the long run sustainability indicators, known as S1 and S2); and
- for updating Member State's medium-term (budgetary) objectives (MTOs).

Figure 13: population aged 15 and over by age group, 000s



* 2000-2015 population data from the CSO. Population estimates from 2016 onwards are based on *Eurostat* projections.
Source: Eurostat 2015-based demographic projections and CSO Population and Migration estimates.

8.3 Long-Term Budgetary Prospects

Table 23 shows the increase in age-related public expenditure for Ireland in each of the demographically-sensitive components over the period 2016-2070. Total age-related expenditure is projected to increase by 4.1 percentage points of GDP, reaching 20 per cent of GDP in 2060 before falling slightly to 19.3 per cent of GDP in 2070. These increases are primarily driven by higher pensions-related expenditures and health costs.

When seen through the prism of GDP, age-related public expenditure in Ireland is projected to remain well below the EU average over the forecast horizon (EU-28 average total age-related expenditure is projected to be 26.6 per cent of GDP in 2070). However, once again these metrics are heavily affected by denominator effects as GDP overstates the size of the economy.[47]

[46] As the quantitative underpinning for Country Specific Recommendations.
[47] This is discussed in more detail in "GDP and 'Modified GNI'- Explanatory Note", Department of Finance. Available at: https://www.gov.ie/en/publication/498058-gdp-and-modified-gni-explanatory-note-may-2018/

The Central Statistics Office publishes an alternative measure of the size of the Irish economy, commonly referred to as 'modified Gross National Income (GNI*)'. Fiscal ratios, including the fiscal costs of ageing, are more meaningful when GNI* is used to scale the data in Ireland.[48]

In this context, the Department of Finance published *"Population Ageing and the Public Finances in Ireland"* in September 2018.[49] This document builds upon the work undertaken in the 2018 Ageing Report and focuses specifically on the impact of demographic trends on the public finances in Ireland. One innovation in this document is the scaling of expenditure projections by GNI*.

Table 23: long-term spending projections, per cent of GDP unless otherwise stated

	2016	2020	2030	2040	2050	2060	2070
Total age-related expenditure	**15.2**	**15.0**	**16.6**	**17.8**	**19.4**	**20.0**	**19.3**
- Total pension expenditure	5.0	5.1	5.8	6.7	7.4	7.2	6.6
: Gross state pension	3.8	3.8	4.3	5.2	6.1	6.3	6.0
: Public service occupational pension	1.2	1.3	1.5	1.5	1.4	0.9	0.6
- Health care	4.1	4.3	4.6	4.9	5.1	5.2	5.1
- Long-term care	1.3	1.4	1.7	2.1	2.7	3.1	3.3
- Education	3.6	3.5	3.6	3.2	3.4	3.5	3.3
- Unemployment benefits	1.1	0.8	0.9	0.9	0.9	0.9	0.9
Main Demographic Developments	**2016**	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
Labour input (growth rate)	3.1	0.8	0.5	0.1	0.0	0.5	0.4
: Employment (growth rate)	2.8	0.9	0.6	0.1	-0.1	0.5	0.4
: Hours worked per employee (growth rate)	0.4	-0.1	-0.1	0.0	0.0	0.0	0.0
Labour productivity (growth rate)	1.8	2.4	1.3	1.5	1.5	1.5	1.5
: Total Factor Productivity (growth rate)	1.9	1.8	0.9	1.0	1.0	1.0	1.0
: Capital deepening (growth rate)	-0.1	0.6	0.4	0.5	0.5	0.5	0.5
Potential GDP (growth rate)	5.0	3.3	1.8	1.6	1.5	2.0	1.9
population aged >= 65 ('000s)	629	712	947	1,212	1,461	1,488	1,464
Population aged 15-64 ('000s)	3,018	3,085	3,255	3,268	3,196	3,366	3,550
Old-age dependency ratio (per cent)	20.9	23.1	29.1	37.1	45.7	44.2	41.2

Rounding may affect totals.
Source: Ageing Report 2018 and Department of Finance calculations.

As shown in Table 24, total age-related expenditure as a share of GNI* was estimated at 23.8 per cent in 2016 rising to 30.3 per cent in 2070 – this compares to 19.3 per cent in 2070 on a GDP basis. Comparing total pension expenditure forecasts on a GDP and GNI* basis clearly illustrates that the GDP ratio paints an overly benign picture.

Looking at the components of total age-related expenditure, pension-related expenditure, which currently amounts to just under 8 per cent of GNI*, is projected to increase by 2.5 percentage points, thereby accounting for around one-third of all age-related expenditure by 2070. Expenditure on

[48] The figure for GNI* in 2016 is taken from outturn data from the CSO's 2017 National Income and Expenditure release. From 2017, GNI* is assumed to evolve in line with the projections for GDP growth.
[49] https://www.gov.ie/en/publication/2e8463-population-ageing-and-the-public-finances/

healthcare and long-term care [50] is projected to increase by 1.7 and 3.0 percentage points of GNI*, respectively, under the baseline scenario.[51] Operating in the other direction, the projected expenditure on education[52] and unemployment benefits is expected to decrease by 0.4 percentage points over the projection period, to 5.2 and 1.4 per cent of GNI*, respectively.

Table 24: long-term spending projections, per cent of GNI* unless otherwise stated

	2016	2020	2030	2040	2050	2060	2070
Total age-related expenditure	**23.8**	**23.6**	**26.0**	**28.0**	**30.4**	**31.2**	**30.3**
- Total pension expenditure	7.8	8.0	9.1	10.5	11.7	11.3	10.3
: Gross state pension	6.0	6.0	6.8	8.1	9.5	9.9	9.4
: Public service occupational pension	1.9	2.0	2.3	2.4	2.2	1.5	1.0
- Health care	6.5	6.6	7.2	7.7	8.0	8.2	8.2
- Long-term care	2.1	2.2	2.7	3.4	4.0	4.7	5.1
- Education	5.6	5.6	5.6	5.0	5.3	5.5	5.2
- Unemployment benefits	1.8	1.2	1.4	1.4	1.4	1.4	1.4

Rounding may affect totals.
Source: Ageing Report 2018 and Department of Finance calculations.

In order to test the robustness of the pension projection results to a range of assumptions, a sensitivity analysis was carried out in line with the harmonised range of shocks agreed by the Ageing Working Group (AWG).[53] The sensitivity scenarios are applied exclusively to the State Pension (SP). It is worthwhile noting that the results set out are broadly symmetrical and that, within reason, could be scaled in a broadly linear manner.

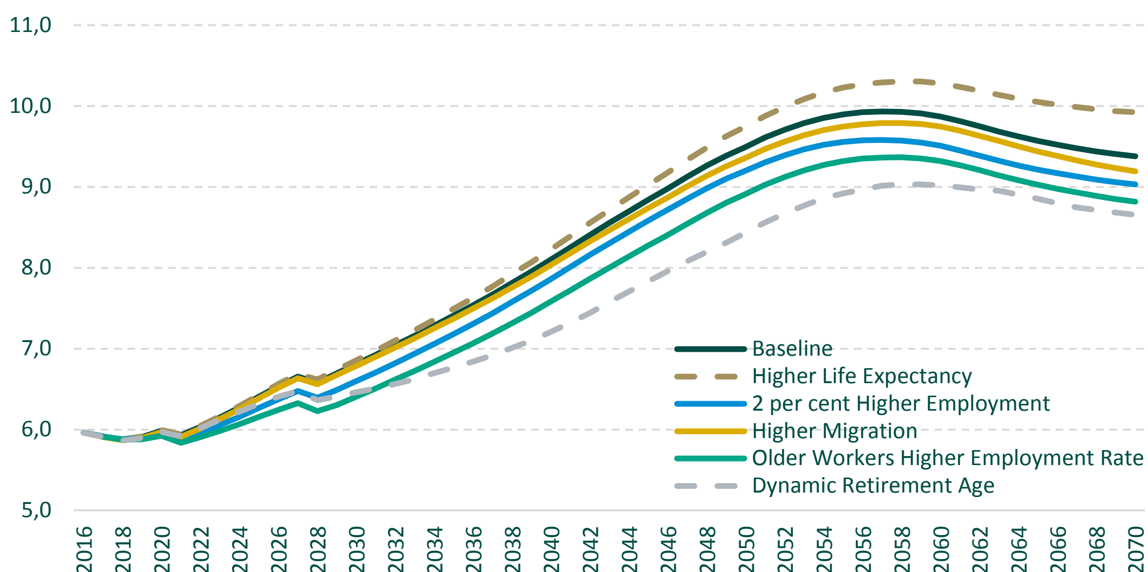
These scenarios are illustrated in Figure 14, below. This highlights that a scenario with higher life expectancy clearly results in increased SP-related pension expenditure, as, ceteris paribus, recipients spend longer in retirement. The higher life expectancy scenario assumes an increase in life expectancy at birth of two years by 2070 compared with the baseline scenario. In these circumstances, SP expenditure in 2070 is 0.5 percentage points of GNI* higher than in the baseline scenario.

The *Roadmap for Pension Reform 2018-2023* sets out a commitment to link future changes in the State pension age to life expectancy, subsequent to the already planned increases in 2021 and

[50] Long-term care is defined as services required by persons with a reduced degree of functional capacity, who as a consequence of this, are dependent for an extended period of time on help with basic or instrumental activities of daily living.
[51] Due to data limitations, the Commission had to use EU-15 average age cost profiles as a proxy for specific age cost profiles when producing health-care and long-term care projections for Ireland.
[52] Education expenditure is made up of four components: expenditure on staff compensation, other current expenditure, capital expenditure and transfers (e.g. scholarships and public subsidies).
[53] The sensitivity shocks were applied exclusively to social security pension schemes (PSS). The higher life expectancy scenario assumes an increase in life expectancy at birth of two years by 2070 compared to the baseline scenario. The higher employment rate of older workers scenario assumes an increase of 10 percentage points in the employment rate of older workers (55 to 74) between 2018 and 2030 and maintains its value thereafter. The dynamic retirement age scenario links the retirement age to increases in life expectancy. In particular, the statutory retirement age follows the evolution of life expectancy in every year, i.e. if life expectancy increases by 10 per cent of a year in a given year, the statutory retirement age will increase by 10 per cent of a year.

2028.[54] The impact of such a policy is highlighted in the dynamic retirement age scenario shown in figure 14. The impact of linking retirement age to life expectancy is estimated to reduce – relative to the baseline – SP expenditure by 0.7 percentage points of GNI* by 2070.

Figure 14: state pension expenditure under selected scenarios, per cent of GNI*



Sensitivity scenarios applied to State Pension expenditure only.
Source: Department of Finance calculations.

A scenario in which the employment rate of older workers is increased is also considered. Under this scenario, an increase of 10 percentage points in the employment rate of older workers (those aged 55-74) over the period 2018-2030 is assumed and the employment rate remains unchanged thereafter. Unsurprisingly, the impact is to reduce annual SP expenditure by 0.6 percentage points of GNI* – relative to the baseline case – by 2070. This suggests that targeted policies designed to boost employment for older workers could have a pronounced impact on fiscal sustainability.

A scenario in which net migration was 33 per cent higher than the baseline assumption would reduce pension expenditure by 0.2 per cent of GNI* by 2070, relative to the baseline. This standardised assumption was applied to all EU Member States and may not be appropriate for Ireland given the history of migration flows here. It is certainly conceivable that net migration could be much larger than the baseline assumes which would reduce pension expenditure accordingly.

In a scenario where the overall employment rate for the 20-64 age group was 2 percentage points higher than the baseline assumption (for instance, through reforms designed to increase female labour force participation), pension expenditure could be around 0.3 percentage points of GNI* lower than baseline in 2070.

8.4 Policy Strategy

[54] The *Roadmap for Pension Reform 2018-2023*, sets out a commitment that there will be no further increase in the State pension age prior to 2035 other than those already provided for in 2021 and 2028 and that any future changes after 2035 will be directly linked to increases in life expectancy.

A range of policy reforms have been introduced in recent years to address the budgetary challenges posed by population ageing, a number of which are detailed below:

Public service pensions

The Single Public Service Pension Scheme (Single Scheme) for all new entrants to public service employment took effect from 1 January 2013. Under this scheme, pension benefits are based on career average earnings rather than final salary. The Single Scheme minimum pension age was raised to 66 bringing it in line with the statutory state pension age, rising progressively to 67 in 2021 and 68 in 2028. In addition, post-retirement pension increases for Single Scheme members are linked to consumer prices (CPI) rather than wage movements of existing public servants.

Department of Public Expenditure and Reform estimates suggest that the long-term annual savings from the introduction of this scheme will amount to €1.8 billion, with over a half of those savings due to changes to indexation (CPI linkage), almost a third due to the impact of career averaging, and the remainder arising from the increase in the pension age. A significant and growing reduction in longer-term pension costs is therefore envisaged once this cohort begins to retire.

The *Public Service Pay and Pensions Act 2017* provided for the introduction of a permanent Additional Superannuation Contribution (ASC) for public servants from January 2019. This contribution is in addition to existing pension contributions made by public servants and will provide a further €550 million towards the cost of public service pensions when fully implemented from 2020, placing public service pensions on a more sustainable long-term footing.

The *Public Service Superannuation (Age of Retirement) Act 2018*, which was enacted in December 2018, provides for a new compulsory retirement age of 70 for public servants recruited prior to 1 April 2004. This Act gives affected public servants the choice to work beyond the age of 65 to 70 years, on existing terms and conditions, subject to the normal standards of health and performance, etc. This new retirement age reflects the fact that people are living longer, healthier lives and that many public servants wish to remain at work past the age of 65.

State pensions

A number of reform measures have been implemented in recent years to improve the sustainability of the state pension system. The State Pension Transition payment was abolished in 2014, which had the effect of increasing the State Pension eligibility age to 66, and the age of eligibility will further rise to 67 in 2021 and then to 68 in 2028. Separately, the criteria to qualify for a contributory pension were amended to increase the minimum number of years of paid contributions required for a contributory pension from five to ten years in April 2012.

The *Roadmap for Pensions Reform 2018-2023*, published last year, includes measures designed to further address the long term sustainability of the State Pension system. It proposes the introduction of a ‘total contributions approach’ (TCA) to replace the current ‘yearly average’ contributions test for the State Pension (Contributory) from 2020 onwards. This will ensure that the level of pension payments would be directly proportionate to the number of social insurance contributions the person

has over their working life, thereby removing some of the anomalies associated with the current averaging approach. The Department of Employment Affairs and Social Protection (DEASP) is in the process of finalising plans for the implementation of the TCA. The Roadmap further proposes that in future the rate of the State Pension will be benchmarked against average earnings. DEASP is also developing plans for implementation of this approach and is consulting with DPER in this regard.

Long-term care

The Nursing Homes Support Scheme (NHSS), commonly referred to as Fair Deal, is a system of financial supports for people who require long-term residential care. Participants contribute to the cost of their care according to their means while the State pays the balance of the cost. The Scheme aims to ensure that long-term nursing home care is accessible and affordable for everyone and that people are cared for in the most appropriate settings.

An applicant to the Scheme can enter any nursing home (public, private or voluntary) subject to it having an available bed and being able to cater for their particular needs.

When the Scheme commenced in 2009, a commitment was made that it would be reviewed after three years. The report of the review was published in July 2015. The review included a general examination of the Scheme, as well as the balance between residential care and care in the community, and the cost of long-term care in public and private residential facilities.

An Interdepartmental/Agency Working Group has been established to progress the recommendations contained in the Review. This Group is chaired by the Department of Health and includes representatives from the Department of the Taoiseach, the Department of Public Expenditure and Reform, the HSE, the Revenue Commissioners and, when required, the National Treatment Purchase Fund (NTPF). These recommendations include:

- Improvements to the administration of the Scheme, including an examination of the treatment of farm and business assets for the purposes of the financial assessment element of the Scheme; Legislation on this is planned for 2019.
- A review of how prices for private and voluntary nursing homes are set by the National Treatment Purchase Fund (NTPF); this report is expected in 2019.
- A Value for Money and Policy Review of the cost differentials in public and private/voluntary residential facilities, which commenced in early 2018.
- Improving home-care services so that people can continue to live with confidence, dignity and security in their own homes for as long as possible is a key commitment of the Government.

To support the latter, the Department of Health is currently engaged in the development of a new stand-alone statutory scheme and system of regulation for home-support services. This will introduce clear rules in relation to the services for which individuals are eligible and in relation to service-allocation. It will therefore be an important step in ensuring that the system operates in a consistent and fair manner as well as improving access to home-support services on an affordable and sustainable basis. The introduction of a system of regulation for home-support will help to ensure public confidence in the services provided.

In preparation for the development of the statutory scheme, the Department of Health commissioned the Health Research Board to undertake a review of the home-care systems in four European countries. The review, which was published in April 2017, will help to ensure that Ireland's new statutory scheme and system of regulation for home-support services is informed by international experience. In addition, a public consultation on home-care services was undertaken in 2017, which enabled the Department to find out about the views of service-users, their families and healthcare workers on current and future service-provision. A report on the findings of the consultation was published in June 2018 and will also inform the development of the new scheme. Further consultation with stakeholders, including with service-users, will take place later this year.

The development of a new statutory scheme and system of regulation for home-support services is a complex process and a significant amount of preparatory work remains to be undertaken. This is required if the reforms are to be successful, affordable and sustainable. The Department's *Sláintecare Implementation Strategy* (2018) commits to the introduction of the statutory scheme in 2021.

8.5 Conclusion

Ireland faces a number of challenges arising from population ageing. In summary, ageing costs are expected to increase by 6.5 per cent of GNI* between 2016 and 2070. Ireland also faces a challenge from a moderating pace of growth as additional labour supply becomes scarcer with labour productivity becoming the main source of improved living standards.

A range of policy reforms to combat population ageing, have already been enacted, such as increases in the State pension age, as well as reform of public service pension entitlements. Analysis by the Department of Finance suggests that an increase in both the employment rate of older workers and of those of working age will help to counteract the costs associated with the 'greying' of the population. However, in order to safeguard the public finances, additional policy responses-including fiscal restraint in non-age related spending-will be necessary.

Annex

Annex 1
Additional Fiscal Statistics and Tables

Table A1: difference between exchequer balance and general government balance, € millions

	2018	2019	2020	2021	2022	2023
Exchequer balance	105	-2,095	445	615	-220	600
Exclude equity and loan transactions	-1,700	-755	-2,880	-1,960	-365	-335
Adjust for interest accrual	450	375	515	50	40	75
Adjust for tax accruals	275	340	345	285	295	280
Adjust for other accruals	-370	475	240	130	125	120
Net lending/borrowing of non-commercial State bodies	105	-70	-295	-195	-335	-340
Impact of ISIF	375	485	435	395	375	355
Net surplus of Social Insurance Funds	1,070	1,705	2,170	2,655	3,195	3,815
Net surplus of other EBF's	-260	-130	-60	-15	-10	-15
Net lending/borrowing of Local Government	-5	-220	-175	65	190	295
Rainy Day Fund	0	500	500	500	500	500
General government balance	45	610	1,235	2,530	3,785	5,345
General government balance as per cent of GDP	0.0	0.2	0.4	0.7	1.0	1.3
Nominal GDP	318,450	335,825	352,850	367,300	382,525	399,050

Rounding may affect totals. GDP is rounded to nearest €25m
Source: Department of Finance, Department of Public Expenditure and Reform, CSO and NTMA estimates.

Table A2: general government balance 2018-2023, per cent of GDP (unless stated)

	2018 (€m)	2018	2019	2020	2021	2022	2023
Net lending by sub-sector							
General government balance	**45**	**0.0**	**0.2**	**0.4**	**0.7**	**1.0**	**1.3**
Central government[1]	50	0.0	0.2	0.4	0.7	0.9	1.3
Local government	-5	0.0	-0.1	0.0	0.0	0.0	0.1
General government							
Total Revenue	82,035	25.8	25.6	25.2	25.1	25.1	25.2
Total Expenditure	81,985	25.7	25.4	24.8	24.4	24.1	23.8
Net lending/borrowing	45	0.0	0.2	0.4	0.7	1.0	1.3
Interest expenditure	5,230	1.6	1.4	1.2	1.1	1.1	1.2
Primary balance	5,275	1.7	1.6	1.6	1.8	2.1	2.5
One-off / other temporary measures	0	0.0	0.0	0.0	0.0	0.0	0.0
Main components of revenue							
Total taxes	60,600	19.0	18.8	18.7	18.6	18.6	18.7
Taxes on production and imports	25,520	8.0	8.0	7.8	7.7	7.7	7.6
Current taxes on income, wealth etc.	34,560	10.9	10.7	10.7	10.7	10.8	10.9
Capital taxes	520	0.2	0.1	0.1	0.1	0.1	0.1
Social contributions	13,390	4.2	4.4	4.4	4.4	4.5	4.5
Property Income	1,295	0.4	0.5	0.4	0.3	0.3	0.3
Other	6,750	2.1	1.8	1.7	1.7	1.7	1.7
Total revenue	**82,035**	**25.8**	**25.6**	**25.2**	**25.1**	**25.1**	**25.2**
p.m.: Tax burden	74,695	23.5	23.5	23.3	23.3	23.3	23.4
Main components of expenditure							
Compensation of employees	22,230	7.0	6.9	6.7	6.5	6.3	6.0
Intermediate consumption	10,865	3.4	3.9	3.7	3.6	3.6	3.5
Social payments	29,820	9.4	8.9	8.6	8.3	8.0	7.7
Social transfers in kind via market producers	6,450	2.0	2.0	1.9	1.8	1.8	1.7
Social transfers other than in kind	23,370	7.3	6.9	6.7	6.5	6.3	6.0
Interest expenditure	5,230	1.6	1.4	1.2	1.1	1.1	1.2
Subsidies	1,685	0.5	0.5	0.5	0.4	0.4	0.4
Gross fixed capital formation	6,525	2.0	2.3	2.3	2.3	2.3	2.4
Capital Transfers	1,865	0.6	0.6	0.6	0.7	0.7	0.7
Other	3,770	1.2	1.0	1.1	1.1	1.0	1.0
Resources to be allocated	0	0.0	0.0	0.2	0.4	0.6	0.9
Total expenditure	**81,985**	**25.7**	**25.4**	**24.8**	**24.4**	**24.1**	**23.8**
p.m. : Government consumption	36,830	11.6	12.1	11.8	11.1	11.2	10.8
GDP at current market prices	318,450	318,450	335,825	352,850	367,300	382,525	399,050

Rounding may affect totals.
1 The Coillte No 2 and Eircom No. 2 pension funds, both in respect of former civil servants, have been reclassified by the CSO in the social security funds sub-sector of general government. However as the combined expenditure is c. €100 million per year these have been included in the central government sub-sector for presentational purposes.
Source: Department of Finance, Department of Public Expenditure and Reform, CSO and NTMA estimates.

Table A3: comparison of vintages of receipts and expenditures for 2019, € millions

	Autumn 2018	Spring 2019	Δ	New Data Δ	Other Δ	notes
General Government Revenue						
Taxes on production and imports	26,485	26,790	305	105	200	2
Current taxes on income, wealth	35,550	35,925	375	375		1
Capital taxes	475	495	20	20		1
Social contributions	14,700	14,835	135	135		1
Property Income	1,465	1,730	265	465	-200	2
Other	6,555	6,175	-380	-380		1
Total revenue	85,235	85,955	720	720		1
General Government Expenditure						
Compensation of employees	23,030	23,015	-15	-15		1
Intermediate consumption	12,885	13,000	115	115		1
Social payments	29,625	29,880	255	155	100	3
Interest expenditure	4,985	4,760	-225	-225		1
Subsidies	1,830	1,635	-195	-195		1
Gross fixed capital formation	7,745	7,740	-5	-5		1
Capital transfers	1,660	1,945	285	285		1
Other	3,555	3,375	-180	-180		1
Total expenditure	85,310	85,345	35	35		
General government balance	**-75**	**610**	**685**			

Rounding may affect totals
1. Reflects more up to date data since the Budget 2019 estimates.
2. Eurostat advised that receipts from the Lotto should be reclassified as a tax rather than property income.
3. Reclassification of pension funds, see footnote table 10.
Source: Department of Finance.

Table A4: general government interest expenditure 2018-2023, € million

	2018	2019	2020	2021	2022	2023
National Debt Cash Interest	5,740	5,153	4,826	4,079	4,290	4,536
per cent tax revenue	10.3	8.8	7.9	6.4	6.4	6.5
per cent of GDP	1.8	1.5	1.4	1.1	1.1	1.1
National Debt Cash Interest Accruals	-251	-250	-447	-28	-30	-75
Consolidation and Grossing Adjustments	-78	-33	-3	43	67	97
Accrued promissory note interest	0	0	0	0	0	0
Other	-181	-111	-52	12	40	52
Total Interest on ESA2010 basis	5,231	4,759	4,324	4,106	4,367	4,609
per cent of total general government revenue	6.4	5.5	4.9	4.5	4.5	4.6
per cent of GDP	1.6	1.4	1.2	1.1	1.1	1.2

Rounding may affect totals
Source: Department of Finance, CSO and NTMA (National Debt data provider)

Table A5: projected movement in general government debt 2018-2023, € billions

	2018	2019	2020	2021	2022	2023
Opening general government debt	201.4	206.2	205.1	196.7	203.6	203.5
Exchequer borrowing requirement	-0.1	2.1	-0.4	-0.6	0.2	-0.6
Change in Exchequer Deposits	4.4	-2.5	-8.3	5.1	-1.2	1.3
Net lending of NCSSBs*	-0.2	-0.2	0.2	0.2	0.2	0.3
Net lending of local government	0.4	0.2	0.2	-0.1	-0.2	-0.3
Change in collateral held	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.3	-0.7	-0.1	2.3	0.8	1.8
Closing general government debt	206.2	205.1	196.7	203.6	203.5	206.0
General government debt to GDP ratio	64.8	61.1	55.8	55.4	53.2	51.6

*NCSSBs = Non-commercial semi-state bodies
Source: Department of Finance, CSO and NTMA.

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

	2018	2018	2019	2020	2021	2022	2023
	€ million						
Total Revenue at Unchanged Policies	81,183	25.5	25.3	25.1	25.1	25.2	25.2
Discretionary revenue	852	0.3	0.3	0.1	0.0	0.0	0.0

Source: Department of Finance

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

	2018	2018	2019	2020	2021	2022	2023
	€ billion						
Exp. on EU Programmes matched by revenue from EU funds	0.6	0.2	0.1	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	0.0
Non-discretionary changes in unemployment benefit expenditure	-0.5	-0.1	-0.1	-0.1	0.0	0.0	-0.1

Source: Department of Finance calculations and Department of Public Expenditure and Reform

Table A8: budgetary plans, per cent of GDP

	2018	2019	2020	2021	2022	2023
1. General government balance	0.0	0.2	0.4	0.7	1.0	1.3
2. Structural balance	-1.6	-1.1	-0.4	0.2	0.7	1.3
3. Cyclical budgetary component	1.7	1.3	0.8	0.5	0.3	0.0
4. One-offs and other temporary measures	-0.1	0.0	0.0	0.0	0.0	0.0
5. General government balance	0.0	0.2	0.4	0.7	1.0	1.3
6. Total revenue	25.8	25.6	25.2	25.1	25.1	25.2
7. Total expenditure	25.7	25.4	24.8	24.4	24.1	23.8
Amounts to be excluded from the expenditure benchmark						
7a. Interest expenditure	1.6	1.4	1.2	1.1	1.1	1.2
7b. Expenditure on EU programmes fully matched by EU funds revenue	0.2	0.1	0.2	0.2	0.2	0.2
7c. Cyclical unemployment benefit expenditure	-0.1	-0.1	-0.1	0.0	0.0	-0.1
7d. Effect of discretionary revenue measures	0.3	0.3	0.1	0.0	0.0	0.0
7e. Revenue increases mandated by law	0	0	0	0	0	0
8. Tax burden	23.5	23.5	23.3	23.3	23.3	23.4
9. Gross debt	64.8	61.1	55.8	55.4	53.2	51.6

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

Annex 2
Table A9: Macro-Economic aggregates 2018 to 2023

	2018	2019	2020	2021	2022	2023
Economic activity			year-on-year change (unless stated)			
Real GNP	5.9	3.7	3.1	2.2	2.3	2.4
Real GDP	6.7	3.9	3.3	2.4	2.5	2.6
Nominal GDP (nearest €25m)	318,450	335,825	352,850	367,300	382,525	399,050
Nominal GNP (nearest €25m)	251,825	265,350	278,400	289,400	301,000	313,400
Nominal GNI* (nearest €25m)	192,212	201,677	211,490	219,667	228,309	237,623
Components of GDP						
Personal consumption	3.0	2.7	2.5	2.1	2.3	2.5
Government consumption	6.4	3.9	2.7	2.0	2.0	2.0
Investment	9.8	6.9	5.5	4.2	4.1	4.1
Modified domestic demand	4.5	4.0	3.3	2.7	2.8	3.0
Exports	8.9	5.2	4.5	3.7	3.6	3.5
Imports	7.0	5.9	5.0	4.4	4.2	4.1
Contributions to real GDP growth			percentage point			
Domestic demand (excl. stocks)	3.9	3.0	2.5	2.0	2.0	2.2
Stock changes	-0.7	0.0	0.0	0.0	0.0	0.0
Net exports	4.3	1.0	0.8	0.4	0.5	0.5
Price developments			year-on-year change			
HICP	0.7	0.9	1.1	1.6	2.0	2.3
GDP deflator	1.5	1.5	1.7	1.7	1.6	1.6
Personal Consumption Deflator	1.4	1.5	1.6	1.7	2.0	2.3
Labour market			year-on-year change			
Employment	2.9	2.2	2.1	1.5	1.6	1.7
Unemployment	5.7	5.4	5.2	5.3	5.2	5.1
Labour Productivity	3.6	1.7	1.2	0.9	0.9	0.9
Compensation of Employees	6.6	6.4	5.6	4.9	5.2	5.6
Compensation per Employee	2.5	3.0	3.2	3.3	3.5	3.8
External			per cent of GDP			
Trade balance	31.2	30.7	30.4	30.1	29.6	29.1
Current Account	9.1	8.4	8.0	7.5	7.0	6.3
Cyclical Developments						
Output Gap Estimate	-0.5	0.2	0.8	1.0	1.4	1.8

Source: CSO (for 2018) and Department of Finance for 2019-2023

Table A10: exchequer & general government aggregates, 2018-2023

	2018	2019	2020	2021	2022	2023
Exchequer *(€ millions)*						
Exchequer Balance	105	-2,095	445	615	-220	600
Tax Revenue	55,555	58,445	61,245	63,870	66,735	70,020
General government *(€ millions)*						
Total Revenue	82,035	85,955	88,835	92,235	96,065	100,360
Total Expenditure	81,985	85,345	87,600	89,700	92,280	95,015
General government balance	45	610	1,235	2,530	3,785	5,345
per cent of GDP						
Total Revenue	25.8	25.6	25.2	25.1	25.1	25.2
Total Expenditure	25.7	25.4	24.8	24.4	24.1	23.8
General government balance	0.0	0.2	0.4	0.7	1.0	1.3
Interest expenditure	1.6	1.4	1.2	1.1	1.1	1.2
Primary balance	1.7	1.6	1.6	1.8	2.1	2.5
Gross fixed capital formation	2.0	2.3	2.3	2.3	2.3	2.4
Structural balance	-1.6	-1.1	-0.4	0.2	0.7	1.3
Primary structural balance	0.0	0.3	0.8	1.3	1.8	2.5
Gross debt	64.8	61.1	55.8	55.4	53.2	51.6
Net debt	55.8	52.8	50.3	48.8	47.1	45.5
*per cent of GNI**						
Gross debt	107.3	101.7	93.0	92.7	89.2	86.7
Net debt	92.4	87.9	83.9	81.6	78.9	76.3

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

Table A11: Previous GDP forecasts endorsed by the Irish Fiscal Advisory Council, per cent

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Autumn 2013	0.2	2.0	2.3	2.8							
Spring 2014		2.1	2.7	3.0	3.5	3.5					
Autumn 2014		4.7	3.9	3.4	3.4	3.4					
Spring 2015			4.0	3.8	3.2	3.2	3.0	3.0			
Autumn 2015			6.2	4.3	3.5	3.2	3.1	3.0	2.9		
Spring 2016				4.9	3.9	3.9	3.3	3.1	2.9		
Autumn 2016				4.2	3.5	3.4	3.2	2.8	2.6		
Spring 2017					4.3	3.7	3.1	2.7	2.5		
Autumn 2017					4.3	3.5	3.2	2.8	2.6		
Spring 2018						5.6	4.0	3.4	2.8		
Autumn 2018						7.5	4.2	3.6	2.5	2.6	2.7
Outturn	1.3	8.8	25.1	5.0	7.2	6.7					

Source: Department of Finance Forecasts
Note: Autumn forecasts refer to the Draft Budgetary Plans.
Spring forecasts refer to the Stability Programme Updates.

Table A12: Previous general government balance forecasts, per cent of GDP

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Autumn 2013	-7.3	-4.8	-3	-2.4							
Spring 2014		-4.8	-3	-2.2	-1.2	0.0					
Autumn 2014		-3.7	-2.7	-1.9	-0.9	0.3					
Spring 2015			-2.3	-1.7	-0.9	-0.1	0.7	1.7			
Autumn 2015			-2.1	-1.2	-0.5	0.2	1.0	1.8	2.5		
Spring 2016				-1.1	-0.4	0.4	1.2	2.0	2.8		
Autumn 2016				-0.9	-0.4	-0.3	0.2	0.7	1.1		
Spring 2017					-0.4	-0.1	0.1	0.6	1.0		
Autumn 2017					-0.3	-0.2	-0.1	0.3	0.8		
Spring 2018						-0.2	-0.1	0.3	0.4		
Autumn 2018						-0.1	0.0	0.3	0.4	1.1	1.4
Outturn	-6.1	-3.6	-1.9	-0.5	-0.2	0.0					

Source: Department of Finance Forecasts, CSO (for outturn)
Note: Autumn forecasts refer to the Draft Budgetary Plans.
Spring forecasts refer to the Stability Programme Updates.

Annex 3
Ireland's National Reform Programme: Summary of Progress

Preparation of our National Reform Programme (NRP) is an important part of the European Semester process.

Ireland's NRP reports on the progress made and measures taken to address key economic and social policy challenges, including those identified in the European Commission's Country Report on Ireland published in February. Challenges and priorities identified include:

- Brexit;
- Future Jobs Ireland;
- Supporting the Regions;
- Housing

The NRP also reports on progress addressing the policy recommendations given to Ireland under the 2018 European Semester process. Country Specific Recommendations (CSRs) are tailored, concrete recommendations for actions in areas where it is considered that individual member States should focus their reform efforts. Ireland received three CSRs in 2018 covering:

- Public Finances;
- National Development Plan implementation including in terms of clean energy, transport, housing, water services and affordable quality childcare and the upskilling of the adult working-age population with a focus on digital skills
- Foster productivity growth of Irish firms and reductions in long-term arrears.

The NRP also outlines progress towards the five headline targets under the Europe 2020 Strategy covering:

- Employment;
- Research and Development;
- Climate Change and Energy;
- Education; and
- Poverty.

Additionally the NRP outlines the use of European Structural and Investment Funds to meet Europe 2020 objectives, and reports on stakeholder engagement.

Annex 4
Irish Fiscal Advisory Council's Endorsement of the Macroeconomic Forecasts

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Dear Secretary General Moran,

The Council has a statutory obligation to endorse, as appropriate, the macroeconomic forecasts prepared by the Department of Finance on which *SPU 2019* will be based.[1] The Department provided its *SPU 2019* forecasts—which cover a four-year-ahead forecast horizon—to the Council on 28th March 2019. The Council discussed these forecasts with Department of Finance staff on 5th April 2019, ahead of the Council's endorsement meeting.

There are three elements to the Council's endorsement approach:

- a comparison of the Department of Finance's macroeconomic forecasts to the Council's Benchmark projections;
- a consideration of the methodology used to produce the forecasts; and
- a review of past forecast errors for evidence of systematic bias.

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 *SPU 2019* for the years 2019 to 2023.

The Council is satisfied that the forecasts are within an endorsable range, taking into account the methodology and the plausibility of the judgements made.

This endorsement comes at a time of exceptional uncertainty for the Irish economy. The endorsement decision covers a set of forecasts that assume a scenario in which the UK makes an orderly and agreed exit from the EU.

The Council welcomes the Department's use of alternative estimates of the supply side, which are more plausible than estimates produced under the EU Commonly Agreed Methodology (CAM). The Council verified the Department's mechanical application of the CAM to estimate trend supply-side variables.[2]

The Council will discuss the endorsement process and assess the macroeconomic projections in its forthcoming Fiscal Assessment Report, due in June 2019.

Yours sincerely,

Seamus Coffey, Chairperson.

[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".
[2] The CAM is primarily a tool used for fiscal surveillance by the European Commission. As highlighted by the Council in previous Fiscal Assessment Reports and on numerous occasions by the Department of Finance, the CAM is not well equipped to estimate the supply side of the Irish economy. Furthermore, the results do not reflect the Department's own views regarding the cyclical position of the economy. The Department will continue to report CAM estimates in an annex for compliance purposes.

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An Roinn Airgeadais
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