



Rialtas na hÉireann  
Government of Ireland

# Budget 2021

## Economic & Fiscal Outlook

# Budget 2021

## Economic and Fiscal Outlook

(Incorporating the Department of Finance's Autumn Forecasts)

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The data and analysis set out in this document are compiled by Department of Finance staff. Every effort is made to ensure accuracy and completeness. When errors are discovered, corrections and revisions are incorporated into the digital edition available on the Department’s website. Any substantive change is detailed in the online version.

# Chapter 1

## Overview and General Policy Strategy

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### 1.1 Policy Strategy

*Budget 2021* is prepared against a background of extraordinary uncertainty regarding near-term economic and fiscal prospects. The baseline scenario is one in which economic activity increases only modestly next year, with a budget deficit of the order €20½ billion in prospect. Nothing can be assured, however, and it is not difficult, to envisage a situation in which second, or indeed subsequent, waves of the virus trigger more stringent-than-assumed containment measures, including the possibility of ‘level-5’ national lockdowns. In these circumstances, the budget deficit could be of the order €25 billion next year (a ‘*stringent lockdown scenario*’ is set out later in this document). Indeed, there remains uncertainty regarding the scale of the deficit for this year, even at this late stage. This is because of the non-zero possibility of more stringent containment measures being implemented in the final quarter of the year, and the associated fiscal costs. Having said that, it can be reasonably assured that the deficit for this year would still be within the parameters set out in the April forecasts.

Before proceeding, it is important to take stock of developments heretofore, including the Government’s policy response. The Covid-19 pandemic, and the containment measures introduced to limit disease progression, have taken an enormous toll on the Irish economy. Between the final quarter of last year (the peak) and the second quarter of this year (the trough), GDP fell by around 8 per cent. While this was less severe than in other economies, it reflects the concentration of Ireland’s export portfolio in a small number of sectors that are less sensitive to the ebbs and flows of the global economic cycle. These sectors are mainly foreign-owned and make a significant contribution to the domestic economy, including via the wage bill; however, much of the increased income arising from the strength of these exports this year accrues to non-residents, and so the relatively small decline in GDP is somewhat misleading.

A more meaningful metric for monitoring and assessing underlying economic trends in Ireland is modified domestic demand (MDD); on this basis, economic activity contracted by nearly one-fifth in the first half of the year. Within this, consumer spending fell sharply, with the household savings rate – the amount of disposable income of households that is not used for purchasing goods and services – reaching 35 per cent in the second quarter, the highest figure ever and almost twice the previous high water mark. Businesses reined in investment spending in the first half of the year *inter alia* due to exceptionally high uncertainty and, in some cases, the need to conserve cash for cash-flow purposes in the face of sharp declines in turnover. The only component of MDD in positive territory was public consumption, with increased purchases of goods and services – *inter alia* health-related services – by the general government sector.

Like elsewhere, the labour market in Ireland has borne the brunt of the containment measures introduced to suppress virus-transmission. The ‘covid-adjusted’ unemployment rate was 27 per cent in the second quarter, a figure which – more than any other – highlights the gravity of the shock to the Irish economy.

While the unemployment rate has subsequently reduced, it remains in high double-digits. In this regard, labour market policy has evolved rapidly, with Government putting in place policies that help to maintain the employer-employee relationship and to limit the drift from temporary to longer-term unemployment. The *Temporary Wage Subsidy Scheme* and its successor, the *Employment Wage Subsidy Scheme*, have been successful in limiting – in so far as possible – job losses. Additionally, the Government has provided for a temporary *Pandemic Unemployment Payment* to provide income support for those who

have been laid-off directly because of the pandemic. These supports succeeded in maintaining household incomes in the second quarter at the same levels as in the first quarter.

The Government has responded rapidly and forcefully to mitigate the impact of the pandemic, adapting its approach *in tandem* with the evolution of the virus. It is abundantly clear that without the support provided by Government, the economic fall-out would have been even more severe. Broadly speaking, the Government has adopted a three-pronged strategy:

- ramping up healthcare capacity;
- cushioning household incomes;
- providing life-lines to micro-sized firms and to SMEs.

A fiscal envelope amounting to around 12 per cent of national income has been provided this year, encompassing both direct and indirect (mainly credit guarantees) measures. This is an enormous amount of counter-cyclical support and, indeed, compares favourably with that provided in other jurisdictions. Importantly, other policies – financial sector, monetary, labour market – have complemented the fiscal policy response. *Budget 2021* provides for significant fiscal support measures next year also.

The substantial, counter-cyclical budgetary support being provided is only possible because of the prudent management of the public finances in recent years. Because of this, allowing a large, step-increase in public debt is the appropriate strategy, and the best way to absorb the shock to the economy. That said, the pace at which public debt is being accumulated will need to be slowed once the most acute phase of the pandemic has passed. In this context, the Government will set out a medium-term trajectory showing how the deficit will be eliminated in the spring.<sup>1</sup> This repair of the fiscal accounts can be done in a multi-year framework, consistent with the dual needs of supporting economic activity as well as ensuring fiscal sustainability. It is anticipated that economic recovery will likely do most of the ‘heavy lifting’.

Against the backdrop of significant debt accumulation, it is worth highlighting that a large part of Government borrowing is being financed by the increased savings of the domestic private sector, notably the household sector. This is an important difference between the situation now and that of a decade-or-so ago. It means that the nation as a whole is not increasing its liabilities to non-residents: in other words, it is more sustainable.

To compound matters, the probability of a disorderly end to the so-called ‘transition period’, i.e. a disorderly ‘Brexit’,<sup>2</sup> has increased over the summer and is now sufficiently high to justify formulation of budgetary policy on the expectation that bilateral trade between Ireland (and the rest of the EU) and the UK takes place on *World Trade Organisation* (WTO) terms. As a result, bilateral trade between Ireland and the UK will involve varying degrees of tariffs on goods, as well as the possibility of both non-tariff barriers (customs declarations, delays at ports, etc.) and disruption to supply-chains, many of which are characterised by a ‘just-in-time’ nature.

Against this exceptionally difficult backdrop, *Budget 2021* is designed to limit the economic fall-out from the pandemic and from the severe bilateral trade disruption with the UK. At an aggregate level, the short-fall in private demand will be partly offset by increased public demand: public expenditure will exceed revenue by 5.7 per cent of GDP (10 per cent of modified GNI\*) next year, with the gap being

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<sup>1</sup> In the April 2021 Update of the *Stability Programme*.

<sup>2</sup> The UK formally exited the European Union at end-January this year; however, a *status quo* arrangement applies – the so-called ‘transition period’ – until end-2020.

financed by additional public sector borrowing. In monetary terms, this amounts to a budget deficit of around €20½ billion next year. Scenario analysis set out in this document shows that more severe containment measures than assumed – for instance, a ‘level-5’ national lockdown – could result in a deficit of the order of €25 billion.

More specifically, *Budget 2021* involves a (net) budgetary package of around €17¾ billion, the majority of which is being allocated to expenditure. Capital expenditure under the *National Development Plan* will increase to over €10 billion, the largest amount that has ever been allocated to public capital spending. Covid-related expenditure will amount to €8½ billion, while a ‘recovery fund’ – including for Brexit-contingency purposes – is being established, as provided for in the *Programme for Government*.

At this stage, the probability of vaccine development / trial / wide-scale roll-out in the near-term appears remote. Therefore, the dilemma facing governments – in Ireland as elsewhere – is how to cope with additional infection waves without the economic costs associated with the containment measures introduced during the first infection wave.

Walking this tightrope involves several elements, all of which have economic implications. Firstly, containment measures – social distancing, limitations on international travel, restrictions on large physical gatherings, etc. – are likely to persist over the forecast horizon. This means that recovery from the low-point reached earlier this year will likely bypass parts of the economy altogether. Additionally, sporadic but targeted ‘lockdowns’ are likely to be a feature of economic life at least for the next year or so – the degree of ‘lockdown’ is set out in the Government’s *Resilience and Recovery 2020-2021 – Plan for Living with Covid-19*.<sup>3</sup>

The upshot of these factors is that uncertainty will be an important economic headwind for the foreseeable future: a degree of precautionary behaviour by households (weighing on consumer spending growth) and by firms (weighing on investment spending growth) is assumed to persist. This uncertainty will likely dissipate only slowly.

Beyond the short-term, evidence is mounting that ‘scarring’ effects – permanent or lasting effects – are likely. In other words, the supply-side of the economy – the availability of capital and labour, together with the efficiency with which these are combined to produce goods and services – will be negatively affected. These lasting effects would arise via the labour market channel: if some firms or workers permanently exit the market or the market-clearing rate of unemployment was higher (a mismatch between the skillset of employees and the skillset required by employers). Alternatively, weaker investment would weigh on the growth of the capital stock, which would dampen productivity over the medium-term.

It is also unfortunately the case that the business model of some firms (and possibly sectors) will no longer be viable. The role of policy in these circumstances is to facilitate the re-allocation of workers and firms from non-viable firms and sectors to expanding parts of the economy. There are several dimensions, including active labour market policies – such as training and up-skilling – that address mismatches between the skills of workers (the supply of skills) and the skills needed by firms (the demand for skills). This will be a key area for Government with details to be set out in the forthcoming *National Economic Plan*.

Finally, it should be highlighted that, in Ireland as elsewhere, the pandemic is almost certainly an economic ‘game-changer’. The first wave of the virus accelerated many changes that were already underway – the shift to online retail and to electronic payments, greater incidence of home-working –

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<sup>3</sup> <https://www.gov.ie/en/campaigns/resilience-recovery-2020-2021-plan-for-living-with-covid-19/>

many of which have been facilitated by technological advancement in recent years. Additionally, the first wave triggered a massive decline in world trade, some of which was policy-induced.

Many of these changes are likely to be permanent. In other words, when the dust finally settles, the post-pandemic way in which goods and services are produced, and subsequently traded, will almost certainly be very different from the pre-pandemic way. This will create opportunities as well as challenges. From an Irish perspective, a key objective will be to facilitate the movement of firms and workers into expanding areas while, at the same time, supporting those in declining areas.

## 1.2 Short-term Economic and Budgetary Outlook

The phased relaxation of containment measures from mid-May coincided, unsurprisingly, with a fairly sharp rebound in economic activity during the summer. This initial bounce-back is confirmed by high-frequency official data as well as real-time indicators, such as those based on GPS-mobility, payments technology and road-usage. Initial recovery was most evident in consumer spending, in part due to the release of accumulated pent-up demand: purchases of durable goods – ‘delayable’ consumption – rose sharply. On the other hand, available evidence suggests that purchases of services – notably those involving face-to-face contact between consumers and producers – remains subdued. In other words, the rebound over the summer was not uniform across sectors. In addition, notwithstanding the relatively rapid rebound, recovery is incomplete: the level of activity remains well below pre-crisis peaks.

While the richer information set that has become available over recent months helps shine a light on the depth of the economic fall-out, there remains little, if any, line-of-sight on the likely duration of the recession. The timeliest data, for instance, are consistent with economic contraction being past its low-point; however, there is mounting evidence to suggest that, following the initial rebound during the summer, recovery thereafter will be gradual and partial.

Moreover, in Ireland, the downward trend in the infection rate reversed during August, highlighting the difficulty of full virus-suppression. Consistent with the Government’s strategy for living with the virus, the rising inflection rate has been accompanied by the re-imposition of restrictions, albeit more tailored. Renewed upticks in the transmission rate are also evident in countries that had previously flattened the infection curve.

The projections set out in this document were prepared against this background of extraordinary uncertainty and have been endorsed by the *Irish Fiscal Advisory Council*. Importantly, the projections rest on assumptions that are, by their very nature, impossible to predict; accordingly, they are tantamount to a scenario rather than a forecast *per se* (alternative scenarios are presented later in this document).

The first key building-block is the assumption that sporadic peaks-and-troughs in infection rates are likely and this will weigh on economic activity, albeit not to the same extent as during the initial wave. This is because containment measures will likely be more targeted – by geography, sector or (possibly) demographic – rather than full lock-down. In other words, second, or subsequent, waves are assumed not to necessitate full lock-down but, instead, that localised / sectoral containment measures continue to disrupt economic activity over the next year-or-so.

A second building-block relates to the macro-economic impact of transitioning to new trading arrangements with the UK, the single most important export market for many sectors of the Irish economy. As agreed by Government in September, short-term budgetary policy is being formulated on

the assumption that, from the beginning of next year, bilateral trade between Ireland and the UK is on WTO terms.<sup>4</sup>

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

	2019	2020	2021
<i>Economic Activity</i>			
Real GDP	5.6	-2.4	1.7
Real GNP	3.4	-2.9	1.6
Modified domestic demand	3.3	-6.1	4.9
<i>Prices</i>			
HICP	0.9	-0.3	0.4
Core HICP <sup>^</sup>	0.9	0.1	0.2
GDP deflator	3.1	0.6	0.9
<i>Balance of Payments (per cent of GDP)</i>			
Trade balance	12.3	29.1	34.8
Current account	-11.3	5.2	10.7
<i>Labour Market</i>			
Total Employment ('000)	2,323	2,004	2,156
Employment	2.9	-13.7	7.6
Unemployment (per cent)	5.0	15.9	10.3
<i>Public Finances (per cent of GDP, unless stated)</i>			
General government balance	0.5	-6.2	-5.7
Gross debt	57.4	62.6	66.6
Gross debt (per cent of GNI*)	95.6	107.8	114.7
Net debt*	49.4	55.6	60.3

<sup>^</sup> core inflation excludes energy and unprocessed food from the index.

\* net debt figures estimated based on a mechanical extrapolation of assets.

Source: CSO and Department of Finance.

Without historical precedent, it is difficult to quantify the macro-economic impact of such a shock to the economy and, hence, to incorporate into the short-term forecasts. Nevertheless, research at a micro-level (sector-by-sector assessment of the likely change in demand on foot of the imposition of tariffs) conducted by the Department (in conjunction with the ERSI) suggests a permanent output loss of 3½ percentage points over the medium-term. Additional work looked at the potential impact of non-tariff barriers while, finally, joint research examined the potential interaction between the pandemic and bilateral trade shocks.<sup>5</sup> In relation to the latter, an analysis of the trade and Covid exposures of 57 sectors of the economy was undertaken and concluded that there is limited overlap between those exposed to both shocks (this, of course, does not preclude the possibility of some firms within the two sectors being doubly-exposed).

<sup>4</sup> Of course, it remains possible that, even if a trade deal is not concluded this year, agreement between the two jurisdictions is reached at some stage in the future.

<sup>5</sup> See Murphy, G. and Rehill, L. (2020) "Trade costs and Irish goods exports" <https://www.gov.ie/en/publication/a8001-trade-costs-and-irish-goods-exports-september-2020/> ; Daly, L. and Lawless, M. (2020) "Examination of the Sectoral Overlap of Covid-19 and Brexit shocks," ESRI Working Paper Series No. 677. Available at: <https://www.gov.ie/en/publication/e2c5f-examination-of-the-sectoral-overlap-of-covid-19-and-brexit-shocks/>

Taking into account low-frequency data for the first half of the year, higher frequency data for the summer months (complemented by the Department's now-cast models<sup>6</sup>), as well as the assumed scenario set out above, MDD is projected to fall by 6.1 per cent this year (GDP to fall by 2.4 per cent). MDD is forecast to increase by 4.9 per cent next year (with GDP growth of just 1.7 per cent), figures that would have been higher but for the assumption of disruption to bilateral trade with the UK from January.

For this year, the Department is projecting (on a Covid-adjusted basis) a fall in employment of 320,000 (c.14 per cent) resulting in an average unemployment rate of just under 16 per cent. For next year, the increase in employment is projected at 150,000 (7.6 per cent); much of this is mechanical, in that it reflects the effects of the large fall in the second quarter of this year. An annual unemployment rate of 10.3 per cent is in prospect for next year.

Turning to the fiscal situation, voted expenditure this year is projected at €87.1 billion, €16.7 billion (23.7 per cent) higher than foreseen in the *Revised Estimates Volume* (December 2019). For next year, *Budget 2021* provides for voted expenditure of €87.8 billion, an increase of 17.4 per cent compared with that envisaged at the beginning of the year.

On the revenue side, the performance of tax receipts has surprised on the upside this year. Once again, direct tax receipts from the corporate sector have out-performed expectations, and the share of total tax receipts from this source has continued to rise. The relative strength of income taxes this year has also been an important factor. Notwithstanding the large fall in employment, income tax receipts declined by just 2.1 per cent. The progressivity of Ireland's income tax system is one factor behind this,<sup>7</sup> as is the (partly-related) fact that employment in higher value-added sectors has been much less affected. Of course, much of the increase in employment next year will be in those sectors where employment was lost this year; the corollary therefore is that income tax receipts are not expected to increase at the same pace as employment.

In general government terms, a deficit of 6.2 per cent of GDP (10.7 per cent of GNI\*) is assumed for this year, with a deficit of 5.7 per cent of GDP (9.8 per cent of GNI\*) projected for next year. In gross terms, general government indebtedness will increase by 5 percentage points of GDP this year to 62.6 per cent, and by 12.2 percentage points of GNI\*, to 107.8 per cent. For next year, the debt-GDP ratio is projected at 66.6 per cent; the debt-GNI\* ratio is projected at 114.7 per cent.

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<sup>6</sup> See Daly and Rehill (2020) "Where are we now? Examining Irish Economic Developments in Real-Time" <https://www.gov.ie/en/publication/e6b3a7-where-are-we-now-examining-irish-economic-developments-in-real-time/>

<sup>7</sup> OECD data show that Ireland's income tax system is one of the most progressive of all advanced economies.

## Chapter 2 Economic Outlook

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### 2.1 Summary

The Irish economy suffered a severe shock in the first half of this year, unique in origin and unprecedented in both speed and scale. The containment measures necessary to limit the transmission of Covid-19 had a dramatic impact on Irish economic activity in the second quarter and, notwithstanding the rebound evident in the third quarter, recovery remains far from complete. Indeed, the third quarter bounce-back has bypassed some sectors altogether.

The near-term outlook for economic activity is exceptionally uncertain, with the path for economic activity intertwined with that of the virus. To compound matters is the very real possibility of trade with the UK being undertaken on *World Trade Organisation* (WTO) terms from the beginning of next year.

Against this extraordinarily difficult backdrop, the Department estimates that GDP will fall by -2½ per cent this year. Modified domestic demand (MDD) – a macroeconomic aggregate that is unaffected by export-resilience in a small number of mainly foreign-owned sectors – is expected to contract sharply, with a fall of -6 per cent in prospect.

For next year, two key assumptions underpin the projections, and both of these are inherently difficult to predict. First is the assumption that a widespread vaccination will not be available this year, meaning public health restrictions will continue to exert supply and demand constraints on firms and households. Second is the assumption that the UK ends the transition period without a free trade deal being agreed with the EU; accordingly, bilateral trade between Ireland and the UK takes place on the basis of WTO most-favoured-nation tariffs.

A further national lockdown is not assumed, thereby enabling a full four quarters of economic activity (compared to around three this year), GDP is only projected to expand by 1¾ per cent (MDD by 4.9 per cent). The disorderly end to the transition period will have a negative impact on exports, particularly in respect of indigenous SME exporters. The unemployment rate is expected to remain in double digits, averaging just over 10 per cent over the course of the year. Having said that, given the inherent uncertainty at present, it is not difficult to envisage a situation in which the outcome is even worse. For instance, a stringent lockdown scenario analysis is considered in chapter 6 which suggests the growth rate next year would be around 4 percentage points lower than in the baseline.

While the economic fall-out was mainly the result of necessary containment measures, rather than the direct impact of the virus itself, the economic and fiscal legacies of the pandemic will be felt for some time to come. This is especially the case in the labour market, where the unemployment rate could potentially remain relatively higher for some time.

### 2.2 Macroeconomic Outturn 2020

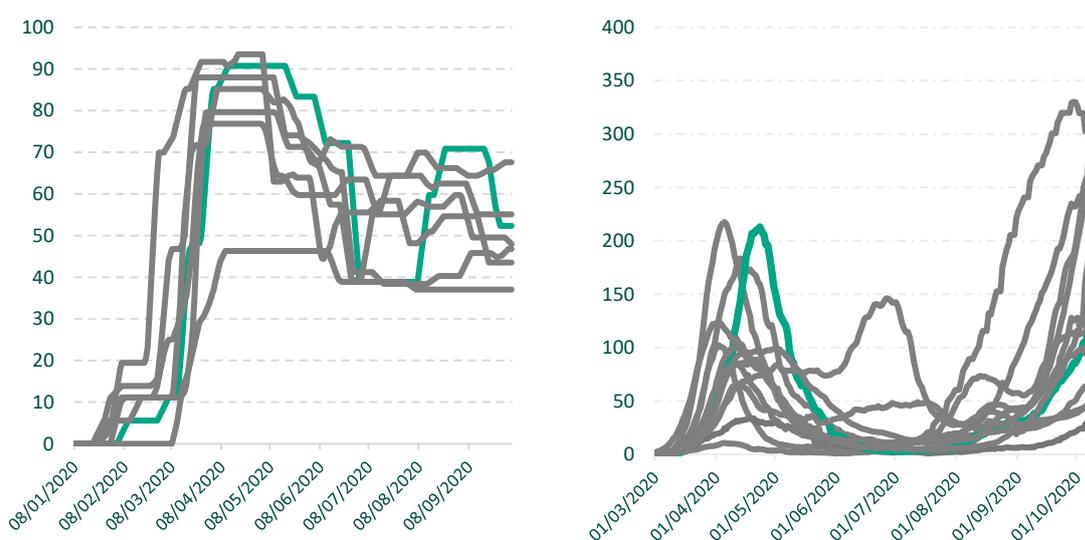
During the spring, the Covid-19 pandemic led to various forms of lockdown across the world. At one point, as much as 80 per cent of the world's economy was under lockdown with a similar share experiencing a recession.<sup>8</sup>

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<sup>8</sup>As a tool to help better understand the evolving external economic situation, the Department developed a high frequency database and model from both the economic and medical literature to track Covid-19 fatalities; see Smith *et al.* (2020) "A high frequency model of the COVID-19 pandemic" available at: <https://www.gov.ie/en/publication/4eb69-a-high-frequency-model-of-the-covid-19-pandemic/>

As the pandemic reached Irish shores and began to spread within the community, a comparatively stringent lockdown regime was introduced in mid-March, which lasted until around mid-May. While the lockdown was successful in suppressing Ireland's pandemic curve, thereby enabling a more rapid than initially expected easing of measures, the economic costs were exceptional. The covid-adjusted unemployment rate (i.e. including PUP recipients) hit 30 per cent in April and consumer spending – as proxied by retail sales data – declined at an annual rate of 40 per cent in the same month. While these data have no historical precedent, they are by no means out of line with the experience of other countries that imposed similar lockdowns.

**Figure 1: a) stringency index<sup>^</sup> b) infection rate, per 100,000 [Ireland in green]**



<sup>^</sup> Stringency index: 100 = complete lockdown; 0 = no restrictions.  
Source: Oxford Government Response Tracker and ECDC.

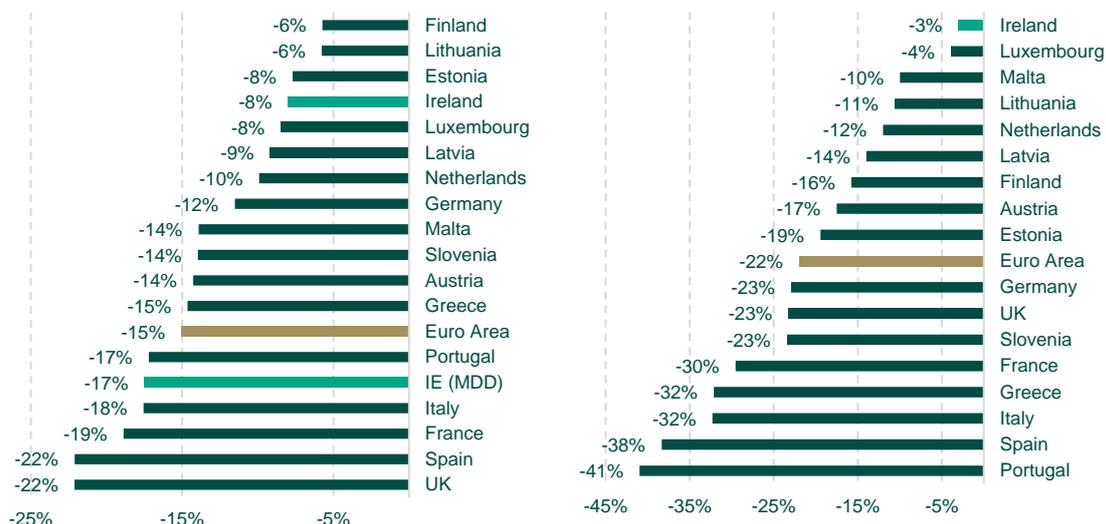
Lower frequency data – that related to quarterly developments – show the Irish economy suffered the largest quarterly decline in GDP on record, with the 6 per cent fall recorded in the second quarter surpassing the 4.7 per cent decline in the fourth quarter of 2008. While this was at the lower-end in an international context – the UK, for instance, experienced a near-20 per cent decline – the GDP figure was boosted by a surge in exports of pharmaceutical and medical products, and masks a very sharp hit in the domestic economy (figure 2). MDD, a more representative measure of domestic economic conditions, recorded an exceptional 16 per cent decline in the second quarter, an outcome more in keeping with labour market conditions. Indeed, the decline in the MDD was more in line with the GDP declines in other euro area Member States and in the UK, while Ireland was one of the most affected countries for private consumption and construction investment, the main drivers of MDD (figure 3).

At this stage, the Irish economy is well past the second quarter low-point, with official data pointing towards a partial (though very much uneven) pent-up-demand-led recovery during the summer. That said, ultra-high-frequency data (payments, mobility data, etc.) point to a stabilisation at a 'new normal' level of activity in the autumn (see box 2). However, the recent pick-up in infection rates and the introduction of localised restrictions in Ireland, and across the world, is likely to be an ongoing phenomenon pending the widespread availability of a vaccine. The associated uncertainty will keep a lid on growth in the second half of the year and into next year.

In terms of the components of GDP, private consumption fell by 22 peak-to-trough over the first half of the year. Within this, declines were evenly distributed between goods and services, though the decline in car sales was a large factor on the goods side. The household savings rate, the difference between

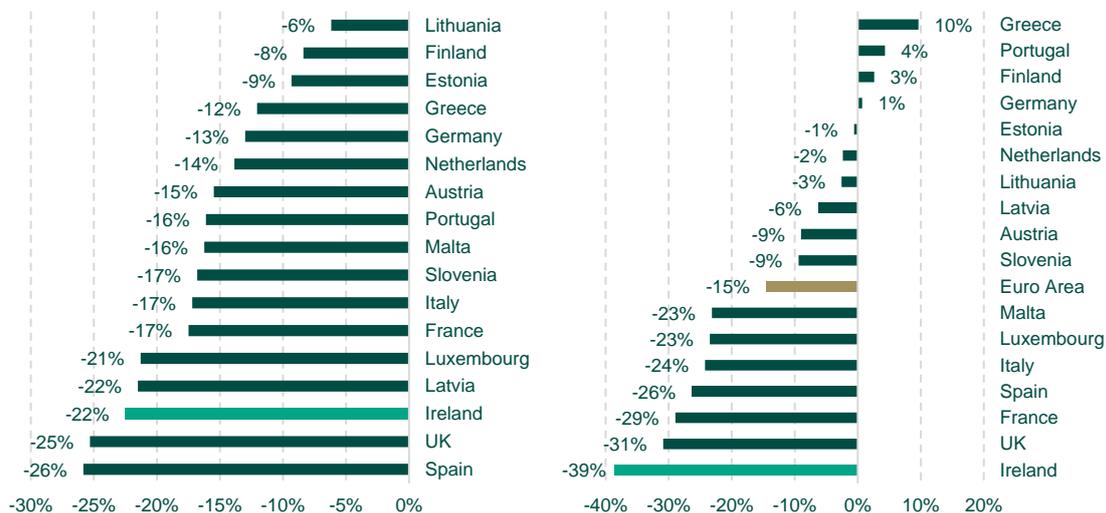
household income and consumption expressed as a percentage of household income, reached 35 per cent in the second quarter. This was by far the highest on record (see Box 3), and above that of the euro area and the UK (25 and 29 per cent respectively); the increase reflected both voluntary (precautionary) saving and involuntary saving (due to the closure of many retail outlets). The higher savings ratio was reflected in deposit accumulation at commercial banks, with a near €8½ billion increase in household deposits from February to August, almost twice the change throughout the same period last year.

**Figure 2: Peak-to-trough cumulative change in a) GDP b) exports, Q4 2019 – Q2 2020**



Source: Eurostat.

**Figure 3: Cumulative change in a) household consumption b) construction investment**



Source: Eurostat.

While retail sales bounced back in May and June, this growth was in part driven by ‘pent-up’ demand for household durables. The recovery in consumer spending was clearly unevenly distributed, with parts of the services sector, particularly those involving personal contact and social gathering continuing to lag.

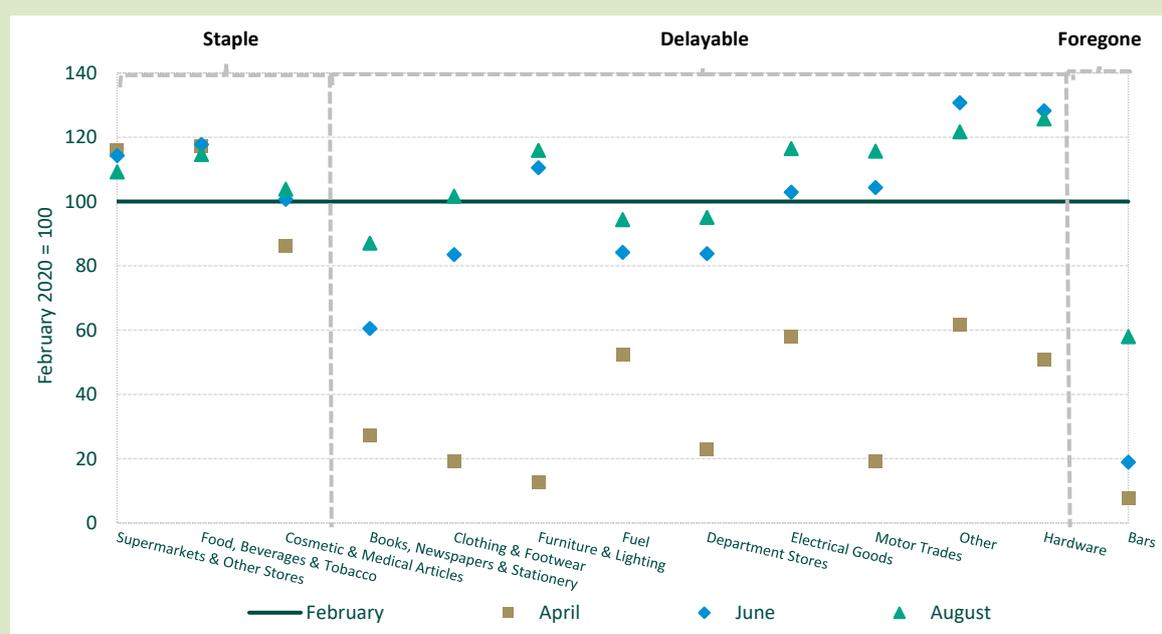
### Box 1: Household consumption and savings during the pandemic

The containment measures introduced earlier this year prompted households in Ireland to ramp-up their savings. The household savings ratio increased to 35 per cent in the second quarter, its highest level on record. In the euro area, the household savings ratio in the first quarter reached record levels (25 per cent), with a similar pattern evident in the US (25 per cent) and the UK (29 per cent).

The surge in the household savings ratio was both involuntary and voluntary. To understand this, it is important to consider developments in both household income and spending. On the income side, while many households suffered an income shock in the second quarter, Government intervention – replacing lost income through the *Temporary Wage Subsidy Scheme* and the *Pandemic Unemployment Payment* – largely offset this. On the spending side, the decline in personal consumer spending was much larger than the decline in household disposable income. Part of the decline in spending was involuntary: households were simply not in a position to consume many goods and services, as these were not 'for sale', or the medium of sale was highly restricted. This rationing of consumption generated involuntary savings. At the same time, in an extremely uncertain environment in which labour market prospects have become more precarious, households (as a whole) have responded by (voluntarily) building up precautionary savings – to allow consumption-smoothing over time.

These involuntary and voluntary elements have different implications for consumption. Considering the involuntary element first, the actual impact on households' consumption depended on the extent of rationing and is evident from looking at retail sales data (figure 4). Those goods and services in the 'delayable' basket recorded across-the-board increases in June relative to April as restrictions were eased; on the other hand, no change in spending was evident in the 'staples' or 'foregone' categories. The increase in the delayables is likely to have been driven by the release of 'pent-up' demand and a partial easing of the involuntary element of household savings.

Figure 4: Categories of personal consumer spending



Source: Department of Finance analysis of CSO retail sales data

In the following two months, after this initial surge from the release of pent-up demand, growth in consumer spending eased significantly. The continuation of social-distancing measures has resulted in capacity restraints for most retail, leisure and hospitality outlets. This, in-turn, may influence consumer behaviour due to the deterioration in the consumer experience, and concerns relating to virus transmission. Additionally, elevated uncertainty over the economic outlook and labour market prospects is likely to have resulted in households' voluntary (precautionary) savings remaining at elevated levels in the near term, weighing on consumer spending.

The outlook for consumer spending over the medium-term is very uncertain, as it will be contingent on the prevailing public health situation as well as any enduring behavioural changes in consumer behaviour. The more consumers feel the virus is under control, the more likely they are to run down accumulated savings and increase spending. Thereafter, the pace of any economic recovery and improvement in labour market prospects will shape the willingness of households to reduce their levels of precautionary savings. In this regard, an unwinding of the very high level of households' savings accumulated during the crisis could act as a potential driver of the economic recovery over the medium-term.

Since then, the rate of growth appears to have moderated, though the overall level of retail sales in August was 9 per cent above pre-pandemic level. For instance, real-time data (payments, mobility data – see box 2) data point towards a levelling off in consumption in August and September, coinciding with an increase in infection rates and the introduction of localised restrictions in parts of the country. In the face of continued uncertainty and the potential for periodic localised restrictions, household consumption is expected to remain relatively flat for the rest of the year, with an overall fall of -7.5 per cent now expected.

Modified investment – which excludes ‘on-shored’ intellectual property assets and investment in aircraft for leasing purposes – fell by 27 per cent in the first half of the year. This decline was led, in large part, by a fall in construction, which fell by just under 40 per cent due to the shutdown in construction sites until mid-May. For the second half of the year, modified investment is expected to fall further as a recovery in construction is expected to be more than offset by falls in machinery and equipment and other business investment asset classes. Overall, a fall of nearly one-fifth in modified investment is projected this year.

On the external front, notwithstanding the synchronised downturn across all trading partners, exports held-up (at least in aggregate terms) in the first half of the year, with high-technology, mainly foreign-owned sectors such as pharma and computer services providing a counter-cyclical buffer to the global downturn. Overall, pharmaceutical exports are up 13 per cent in nominal terms year-to-date, with exports of almost €12 billion recorded in March alone, the highest monthly figure ever recorded for pharmaceuticals, as well as for overall goods exports.

However, as with the GDP figures, aggregate export figures mask declines in a number of sectors, with tourism and transport recording particularly sharp falls. Additionally, a number of the more traditional manufacturing export categories, including food and beverage exports, have recorded declines over the course of the year in the face of falling world demand. Overall, export growth of just under 2 per cent is now expected for the year, an improvement relative to the spring forecasts mainly on the back of the unexpected surge in pharmaceutical output (and subsequent exports).

Modified imports (i.e. imports excluding the purchase of aircraft for leasing purposes and of on-shored intellectual property) have proven resilient. This is not unrelated to the strong exports of pharma and ICT, where intermediate consumption (inputs into production – sourced from abroad) remains strong in these sectors. A number of services sectors recorded very sharp declines, most notably tourism, down over 95 per cent in the second quarter, with out-bound tourism essentially closed off. Imports are expected to continue to grow in the second half of the year compared with the first, in line with the recovery in final demand.

## Box 2: exploiting the information content of ultra-high frequency data

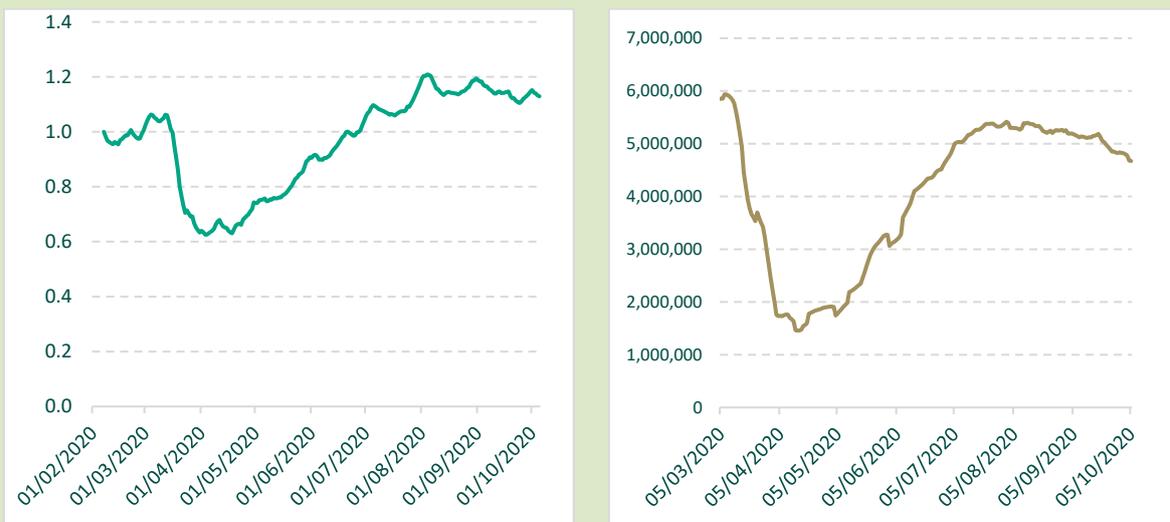
Accurate and timely macro-economic data are a crucial part of the decision-making toolkit. Unfortunately, official data – even high-frequency official data – are only available with a lag *inter alia* due to the large volume of reporting and processing. Given the unprecedented speed and scale at which economic activity went into reverse in the second quarter and the subsequent rapid rebound in the third quarter, economists are increasingly exploiting the information content embedded in so-called ‘big data’ in order to plug important data gaps.

In order to be able to assess economic activity in real-time, the Department has compiled – and published on several occasions – a suite of alternative, ‘ultra-high’ frequency data, available on a daily basis, covering different sectors of the economy.<sup>9</sup> These data can help shine a light on what to expect once official data become available. They also allow the Department to monitor the impact of implementation, and subsequent relaxation, of different levels of restrictions.

These ultra-high frequency data provide reasonable approximations for ‘directions of travel’ for the economy and, as such, complement rather than replace official data. It is important to recognise the health-warnings associated with this approach – for instance, if there were (endogenous) shifts in preferences during the pandemic, comparisons over time would be distorted. Nevertheless, these data provide potentially powerful real-time signals.

The first chart below present real-time payment transaction data supplied to the Department by *Revolut*, a digital banking app. The left chart illustrates the impact of restrictions on consumer spending, which was evident as soon the first containment measures were introduced in mid-March. The low-point was reached in early-April, with a peak-to-trough decline of over 40 per cent. Since then, spending has seen a gradual recovery towards pre-pandemic levels, with this accelerating with each subsequent phase of the Governments *Roadmap for reopening society and business*. This has since levelled off since early August as cases rose and restrictions were re-introduced.

Figure 5: a) spending per user; b) number of cars on roads



Note: in figure a, spending is normalised to average spend in February, 7-day m.a.

Source: Revolut (= a digital banking app with c. 1 million users in Ireland) and Transport Infrastructure Ireland.

Similarly, the chart on the right shows that the recovery in traffic levels – a proxy for economic activity – has remained steady since early August, at a ‘new normal’ level below the pre-pandemic norm, and if anything, appears to be gradually declining in recent weeks.

The Department will continue to monitor and publish these ultra-high frequency data, and conduct an analysis of how closely these data corroborate official data. This analysis will complement the use of the Department’s ‘nowcasting’ models for official measures of economy activity, in order to inform policy in real-time.<sup>10</sup>

<sup>9</sup> For the full set of indicators see here: <https://www.gov.ie/en/publication/e9cfb-emerging-economic-developments-real-time-economic-domestic-indicators-7th-september-2020/>

<sup>10</sup> See Daly and Rehill (2020) “Where are we now? Examining Irish Economic Developments in Real-Time” <https://www.gov.ie/en/publication/e6b3a7-where-are-we-now-examining-irish-economic-developments-in-real-time/>

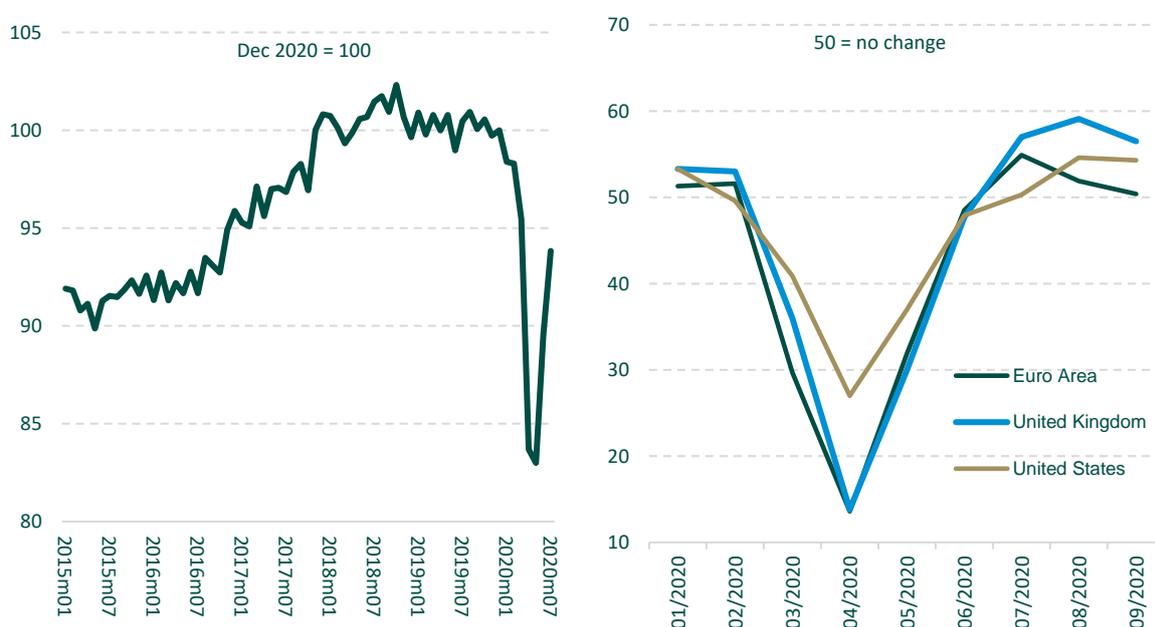
## 2.3 Macroeconomic Projections 2021

### 2.3.1 External Assumptions

Following an unprecedented fall in the first half of this year, global economic activity – certainly in advanced economies with whom Irish companies conduct the bulk of their trade – began to recover in the third quarter. Subsequently, however, disease progression has picked-up once again, and some countries are re-introducing some form of tailored lockdowns, albeit less stringent than was the case earlier in the year.

It remains to be seen how temporary these tailored lockdown measures in other countries are; but what is clear is that some form of containment measures will persist – social distancing, mask-wearing, etc – for the foreseeable future. In addition, uncertainty will continue to dominate the economic landscape in many advanced economies, at least until the health situation improves.

**Figure 6: a) World trade volume; b) composite PMIs in main trading partners**



Source: CPB World Trade Monitor; Macrobond.

Against this background, short-term prospects for demand in Ireland’s main export markets remain poor. While a rebound in GDP is to be expected, this is somewhat ‘mechanical’ – very little quarterly growth is anticipated but this, in itself, would generate a significant increase for the year as a whole given the large annual increase in prospect for the second quarter of next year (base effect). Of course, there is extraordinary uncertainty surrounding any projections, given the lack of clarity regarding virus progression.

Oil prices are currently higher than assumed in the Department’s spring forecasts, reflecting a faster-than-expected recovery following the collapse in March. Futures markets point to an average oil price of \$43.2 (€38) per barrel this year and \$46.6 (€39.4) per barrel next year. In terms of exchange rates, the euro-sterling bilateral rate averaged around €1 = stg £0.91 in the first half of September; on the basis of the purely technical assumption of no further change, this would imply a euro appreciation of around 2 per cent next year relative to this year. The euro-dollar bilateral rate averaged €1 = \$1.18 over the same period; again, on the basis of the purely technical assumption of no further change, this would imply a euro appreciation of 3.5 per cent next year relative to this year.

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

	2019	2020	2021
<b>External GDP growth</b>			
United States	2.2	-3.8	4.0
Euro area	1.3	-7.9	5.1
United Kingdom	1.5	-10.1	7.6
<b>Technical assumptions</b>			
Euro-sterling exchange rate (€1=)	0.88	0.89	0.91
Euro-dollar exchange rate (€1=)	1.12	1.14	1.18
Brent crude (dollars per barrel)	64.1	43.2	46.6

Oil prices (futures) in 2020 – 2021 are calculated on the basis of futures markets as of mid-September 2020.

Exchange rate outturns as of mid-September 2020 and unchanged thereafter.

Source: OECD Economic Outlook, Interim Report (September 2020)

**Figure 7: change in external assumptions relative to spring forecasts**



SPU relates to Stability Programme Update, which incorporates the Department's spring forecasts.

In relation to exchange rates, the standard approach is to hold these constant at rates prevailing at a certain cut-off point (mid-March for the Department's spring forecasts and mid-September for the Department's autumn forecasts). Thus, given the recent appreciation of the euro against sterling, holding the exchange rate unchanged at mid-September levels would imply an appreciation of 1.9 per cent for 2021 relative to what had been assumed in the spring.

Source: Macrobond (for oil prices) and Central Bank of Ireland (for exchange rate data).

### 2.3.2 Domestic prospects

The macroeconomic projections set out below are based on two key building blocks – it is important to stress that these are inherently uncertain. Firstly, it is assumed that a widespread vaccine is not available in 2021; accordingly, the economy – and wider society – must coexist with the virus involving *inter alia* varying levels of localised restrictions on a sporadic basis. Crucially, the baseline scenario does not assume a full, nation-wide lockdown; instead, containment measures are assumed to be tailored on the basis of geography, sector, etc. A significant downside risk to these projections, therefore, is the possibility of a more restrictive lockdown (as discussed in chapter 6).

Secondly, it is assumed that the trading relationship between the UK and the EU is on the basis of WTO tariff schedules from January. The Department's methodological approach to incorporating these assumptions into its projections is discussed in Box 3. A key modelling assumption is that the impact of a disruptive end to the current trading relationship adds to the negative impact of the pandemic in a

linear manner, rather than in a non-linear, compounding sense. The overall impact of Brexit is to reduce the existing Covid and 'deal' baseline in GDP terms by close to 3 percentage points.

**Table 3: macroeconomic prospects**

	2019	2020	2021
	year-on-year, per cent change		
real GDP	5.6	-2.4	1.7
nominal GDP	8.9	-1.8	2.6
real GNP	3.4	-2.9	1.6
components of GDP			
personal consumption	3.2	-7.5	7.0
government consumption	6.3	15.2	-1.6
investment	74.8	-39.9	-25.7
<i>modified investment</i>	1.2	-19.3	6.6
exports	10.5	1.9	1.0
imports	32.4	-12.5	-5.6
<i>modified imports</i>	12.4	2.0	2.6
contributions to GDP growth			
	percentage points		
modified domestic demand	1.9	-3.2	2.6
modified net exports	3.6	0.9	-0.9
stock changes	0.1	0.0	0.0
statistical discrepancy	-0.1	0.0	0.0
nominal value			
	current prices, nearest €25m		
GDP	356,050	349,475	358,725
GNP	274,325	268,750	275,050
GNI* (see footnote)	213,700	202,825	208,350

Rounding can affect totals.

^Contribution to annual GDP growth

GNI\* calculation based on GNI less depreciation of R&D-related service imports and trade in IP, depreciation of aircraft for leasing, and net factor income of re-domiciled PLCs.

Modified domestic demand = a measure of domestic demand that excludes investment in aircraft for leasing and investment in R&D from abroad, likewise for modified investment and modified imports.

Modified net exports = a measure of underlying net exports that excludes the imports associated with aircraft leasing and imports of R&D.

Source: 2019 - CSO; 2020-2021 - Department of Finance.

The main channel through which a disorderly UK exit is expected to impact on the Irish economy next year is via trade, with tariff and non-tariff barriers weighing on exports, and thereafter passing-through to domestic demand with a lag.<sup>11</sup> A disorderly exit also results in lower activity in the UK and elsewhere, further reducing the demand for Irish exports. The impact on the more traditional manufacturing sectors could be severe, especially if tariff and non-tariff measures on their UK-sourced intermediate inputs led to production shortages. The impact on exports from the multinational sector is assumed to be fairly modest, as these are less reliant on the UK market and less responsive to short-term fluctuations in global demand – the current very strong growth in exports of pharmaceuticals and computer services being a case-in-point. In aggregate terms, export growth of 1 per cent is expected next year, around 4 percentage points below what would be expected under a deal scenario.

<sup>11</sup> It should be noted that in Bergin *et al* (2019) the long-term impacts of a no-deal Brexit are front-loaded, with half of the impacts taking place in the first year. Furthermore, an additional 'disorderly' impact is felt in the first year, through higher-than-assumed non-tariff measures, as a proxy for *inter alia* delays at ports, etc.

### Box 3: Modelling a disorderly end to the ‘transition period’

Operationalising macroeconomic forecasts based on a disorderly exit involves a number of steps (see Box 4 in *Economic and Fiscal Outlook*, Department of Finance, October 2019). Importantly, however, the economic forecasts which underpinned *Budget 2020* examined the impact of a disorderly Brexit on the Irish economy based on a pre-pandemic world and, additionally, were based on an economy operating at ‘full employment’. Accordingly, it was necessary to update previous work, by examining the inter-relationship between the two shocks and how this could influence the *Budget 2021* macroeconomic forecasts.

To take account of both the simultaneous pandemic and disorderly trade shocks, the calibration of economic forecasts required, in the first instance, the production of counterfactual ‘orderly’ (‘deal’) forecasts – the ‘baseline’. In other words, the counterfactual forecasts took account of the impact of Covid-19 on the economy but assumed that a trade deal was reached between the UK and the EU. To calibrate the disorderly (‘no deal’) forecasts, the results of joint work by the Department of Finance and ESRI using the COSMO macroeconomic model were super-imposed on the baseline forecasts.<sup>12</sup>

Simulations using macro-models such as COSMO tend to be anchored in the medium-term. Accordingly, a number of subsequent adjustments are necessary to construct a short-term forecast. Firstly, expert judgement is used alongside the model predictions to calibrate the short-term impact and to assess the year-to-year trajectory. Secondly, an assumption is required regarding the timing of increased FDI flows (relocation of existing investment from the UK and diversion of new investment from the UK). The Department’s approach is to assume that additional FDI flows occur with a 2-year lag, i.e. there is no additional (Brexit-induced) inward FDI for 2 years.

Overall, therefore, the main (first-year) impact of a disorderly UK exit is via the trade channel, with exports falling by four percentage points relative to a scenario where a deal is reached; the imposition of tariff and non-tariff barriers is the main reason why trade is affected. The overall impact is to reduce GDP by c. three percentage points relative to the ‘deal’ baseline.

#### Overlap of the two shocks

In order to correctly calibrate the no-deal shock, it was important to understand the degree to which the two shocks could potentially overlap. For example, are the two shocks likely to exacerbate each other or could the impact of a no deal Brexit be somewhat lessened given the significant decline in demand already experienced as a result of Covid-19?

In this regard, additional joint research by the Department of Finance and ESRI examined the sectoral overlap between the Covid-19 and no-deal shocks.<sup>13</sup> The analysis ranked each sector (57 sectors) of the economy according to its exposure to either shock, with each sector ‘RAG-ranked’ (Red = severely affected; Amber = moderately affected; Green = relatively unaffected). In terms of the results of this analysis, no sector was found to be severely affected by both shocks (figure 8). However, a small number of sectors did fall into the category of being severely exposed to one shock and moderately exposed to the other, a combination that leaves them at risk if the two shocks are combined.

**Figure 8: Comparison of sector rankings, Covid-19 vs Brexit**

		BREXIT			Sum Covid
		Green	Amber	Red	
COVID	Green	7	10	6	23
	Amber	2	11	5	18
	Red	12	4	0	16
	Sum Brexit	21	25	11	57

Source: Daly and Lawless (2020).

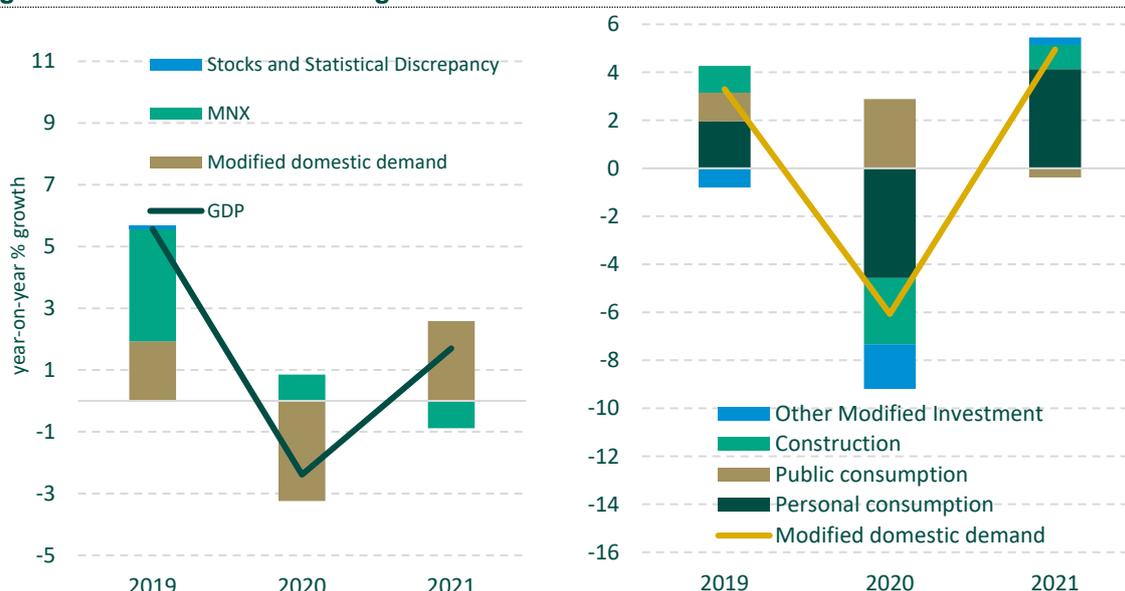
<sup>12</sup> ^ See Bergin *et al* (2019): Ireland and Brexit: modelling the impact of deal and no-deal scenarios. Available at: <https://www.gov.ie/en/publication/ca41b6-r/>

<sup>13</sup> See Daly, L. and Lawless, M. (2020) “Examination of the Sectoral Overlap of Covid-19 and Brexit shocks,” ESRI Working Paper Series No. 677. Available at: <https://www.gov.ie/en/publication/e2c5f-examination-of-the-sectoral-overlap-of-covid-19-and-brexit-shocks/>

Turning to domestic demand, two factors influence the overall outlook. Firstly, a full year of economic activity is assumed for next year, compared with around three quarters this year (due to the national lockdown which straddled the first and second quarters). Without any improvement in *intra-year* growth next year, this would, on its own, give rise to a ‘technical recovery’. Secondly, the impacts on the domestic demand from the new trading arrangements are assumed to come with a lag, with less of a drag on growth in 2021 compared to what is expected on the exports side.

Private consumption is expected to remain muted throughout next year, with very modest growth expected in the face of the twin shocks (i.e. pandemic and absence of free trade agreement). Household disposable income – in the aggregate sense – should increase, mainly due to higher levels of labour income. Nevertheless, uncertainty is likely to weigh on consumer spending: with future income prospects more precarious, households are likely to maintain their savings from disposable income at high levels, albeit not as high as this year. In other words, precautionary savings will dampen consumer spending next year. Overall, personal consumer spending is projected to increase by 7 per cent, with a relatively static level of consumption on a quarterly basis throughout the year.

**Figure 9: Contributions to changes in GDP and modified domestic demand**



Modified domestic demand represents the sum of private consumption, public consumption and investment excluding stocks, investment 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 investment in aircraft by the leasing sector, plus domestic R&D.

Source: 2019 - CSO; 2020 and 2021 - Department of Finance.

On top of what is already a subdued outlook for investment, the absence of a free trade agreement between the EU and UK will significantly affect the pathway for modified investment next year. Under a ‘deal’ scenario, most of the losses experienced in the second quarter this year were expected to have been recovered by the end of next year. The ‘no-deal’ means that the level of modified investment will still be about 10 per cent below the pre-crisis peak at end-2021, with firms responding to lower external demand by deferring investment plans.

In terms of asset class, the main drivers are expected to be a continued weakness in respect of spending on machinery and equipment and on commercial real estate. Residential construction investment will provide some support, with housing output expected to increase again, due to pent-up demand and other structural factors, as will the continued roll-out of the *Public Capital Programme*. As

a result, modified investment is expected to grow by just 6½ per cent next year, following a near 20 per cent decline this year.

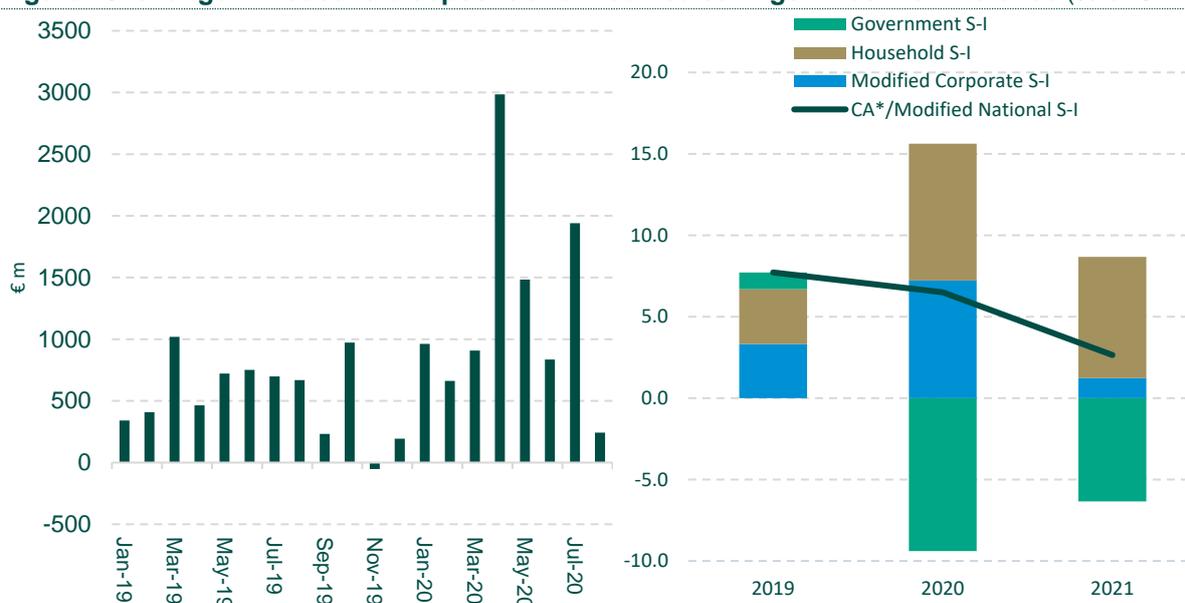
Headline investment, which has increasingly been distorted by investment in on-shored IP assets, will be affected by this asset class once again, assuming more normal levels of on-shoring following a number of years of significant growth (i.e. a negative 'base effect' is expected next year due to the large IP investment in the first quarter of this year).

Overall, GDP is project to grow by 1 ¾ per cent, around three percentage points below what would have been expected under a 'deal' scenario. MDD is projected to grow by just under 5 per cent, a technical outcome on foot of a full year of economic activity, with MDD expected to contribute around 2 ½ percentage points to GDP growth as a result. On the other hand, (modified) net exports are expected to contribute negatively, with export growth subdued due to the no-deal Brexit and modified imports growing at a more rapid rate than exports due to the recovery in MDD.

## 2.4 Balance of Payments and Flow-of-Funds

The strong surpluses recorded on Ireland's underlying, or *modified*, current account in recent years continued in 2019, highlighting the sustainability of the Irish external position pre-pandemic. This position has not been substantially affected by the pandemic thus far, with strong growth in net trade supporting the headline GDP figure, and a significant external surplus is forecast once again this year.

**Figure 10: change in household deposits and modified savings-investment balance (% of GNI\*).**



Source: Central Bank of Ireland. DoF estimates based on CSO data. Modified savings-investment balance is measured as per cent of GNI\*. Modified Corporate S-I adjusts for trade in and depreciation of IP and aircraft leasing and the profits of redomiciled plcs.

The headline current account balance was once again distorted by large-scale on-shoring of IP assets in the first quarter of the year, along with the depreciation bill associated with those assets and other globalisation-related factors. As such, the modified current account (CA\*), which adjusts for these factors, provides a better indicator of the underlying external position.<sup>14</sup> A modified current account

<sup>14</sup> See *Balance of Payments in Ireland: Two Decades in EMU*, available at: <https://www.gov.ie/en/publication/7b9c21-balance-of-payments-in-ireland/>

surplus of 6.5 percent of GNI\* is projected for this year, driven by the strong performance of parts of the exporting sector which, in turn, has driven a widening of the underlying trade balance.

For next year, the modified current account surplus is projected to reduce to 2.6 per cent of GNI\*, as the impact of a no-deal Brexit falls disproportionately on the traded sector of the economy. This will primarily affect domestic exporters, with the foreign-owned sector relatively insulated.

**Table 4: savings, investment and the balance of payments**

	2019	2020	2021
Gross Savings (per cent of GDP)	35.2	34.0	32.0
Modified Gross Savings (per cent of GNI*)	29.8	25.5	22.5
<i>of which:</i>			
- households	6.8	11.6	10.7
- modified corporate	18.1	18.9	13.7
- government	4.9	-5.0	-1.9
Investment^ (per cent of GDP)	46.6	28.9	21.5
Modified investment (per cent of GNI*)	22.1	19.3	20.2
<i>of which:</i>			
- households	3.4	3.2	3.3
- modified corporate	14.8	11.7	12.5
- government	3.9	4.4	4.5
Current account (per cent of GDP)	-11.3	5.2	10.7
<i>of which:</i>			
- trade balance	12.3	29.1	34.8
- income balance	-23.6	-23.9	-24.1
Modified current account (per cent GNI*)	7.7	6.5	2.6
<i>of which:</i>			
- modified trade balance	76.0	80.7	76.8
- modified income balance	-68.3	-74.2	-74.1

Totals may be affected by rounding and the estimation methods used for modified components.

^ Gross capital formation which is the sum of gross domestic fixed capital formation, changes in stocks and the statistical discrepancy.

The modified trade balance adjusts for imports of R&D services, trade in IP and trade in aircraft related to leasing. The modified income balance adjusts for depreciation of R&D service imports and trade in IP, depreciation of aircraft related to leasing, and the profits of redomiciled plcs.

Source: 2019 = CSO; 2020-21 = Department of Finance.

The current account can also be viewed from a domestic savings and investment perspective – a current account surplus implies that national savings are greater than national investment. Breaking this approach down by sector provides insights into the flow of funds between the household, corporate and government sectors of the economy.

A large flow of funds from the government to the household and corporate sectors occurred this year (PUP, wage subsidy schemes, etc.) and is expected to continue as pandemic-related government employment and welfare supports remain in place. These supports have led to substantial dis-saving in the government sector (and the significant fiscal deficit). Of course, the flow of funds is in some way circular, such that the surplus deposits of the household and corporate sectors have funded the Government deficit.

Household savings have increased substantially, with households saving a record 35 per cent of their income in the second quarter of this year. This was due to involuntary saving, when households could

not spend in lockdown, as well precautionary saving, while at the same time household incomes were largely unchanged in the quarter due to government transfers. Meanwhile corporate savings have held up through a combination of resilient exports and government supports. Investment fell in both the household and corporate sectors, which has further increased their net lending positions, thus supporting the current account balance.

The trends in the household and government sectors are expected to moderate next year but the underlying positions will remain unchanged: the government budget deficit will continue to support the economy while households will remain cautious and save. The corporate sector will, however, be significantly impacted by a disorderly Brexit, with profitability falling. Despite this, the corporate sector will remain a net lender.

#### **Box 4: global value chains and the pandemic**

One notable feature of the pandemic was a temporary breakdown in parts of supply chains for some global health products (personal protective equipment, some medicines, etc.). In part, this was due to cross-border trade restrictions being imposed by some public authorities; another factor was reduced output of intermediate goods (i.e. inputs into the production of other goods) in one country impacting upon final output elsewhere. Indeed, this was seen in Irish trade data where goods imports fell 22 percent year-on-year in April, including a 6 per cent fall in machinery and equipment imports (excluding aircraft).

While this disruption was subsequently largely reversed, the episode illustrates the exposure of both countries and firms to supply chain breakdowns. One potentially lasting side-effect of the pandemic is, therefore, a shortening – sometimes called re-shoring or near-shoring – of cross-border supply chains. Ireland is very exposed to such a trend, given its deep integration into the global supply chains.

Globalisation – defined as the cross-border integration of product (goods and services) and factor (capital and labour) markets – intensified in the three decades leading up to the global financial crisis. With the regulatory-driven decline in trade barriers, technological advancement and improvements in telecommunications, MNEs have located different parts of production in different parts of the world, with location decisions based on comparative advantage. For instance, labour-intensive production could be located in countries where labour was plentiful; human-capital intensive production where knowledge and skills were plentiful, etc. A notable feature of the global trading system in recent decades, has been increased trade in intermediate goods; this intra-company trade was a key factor behind the increase in the ratio of trade-to-GDP increased (figure below).

Ireland has benefitted enormously from this expansion of global value chains (GVCs), with a comparative advantage in the production of knowledge-intensive goods and services. Ireland's participation in global value chains is relatively high and Irish exports have one of the highest shares of intermediate inputs sourced from abroad – so-called 'trade in value-added' data from the OECD show that Ireland has the 6<sup>th</sup> highest share of intermediate inputs sourced from abroad in gross exports (backward participation in GVCs).

Even before the pandemic, there is evidence to suggest that the pace of globalisation was slowing and, on some measures, even going into reverse. Trade tensions, for instance, have surfaced in recent years. On top of this, the pandemic has highlighted some of the limitations of global supply chains. In particular, the pandemic has shown vulnerabilities associated with a lack of geographical diversification.

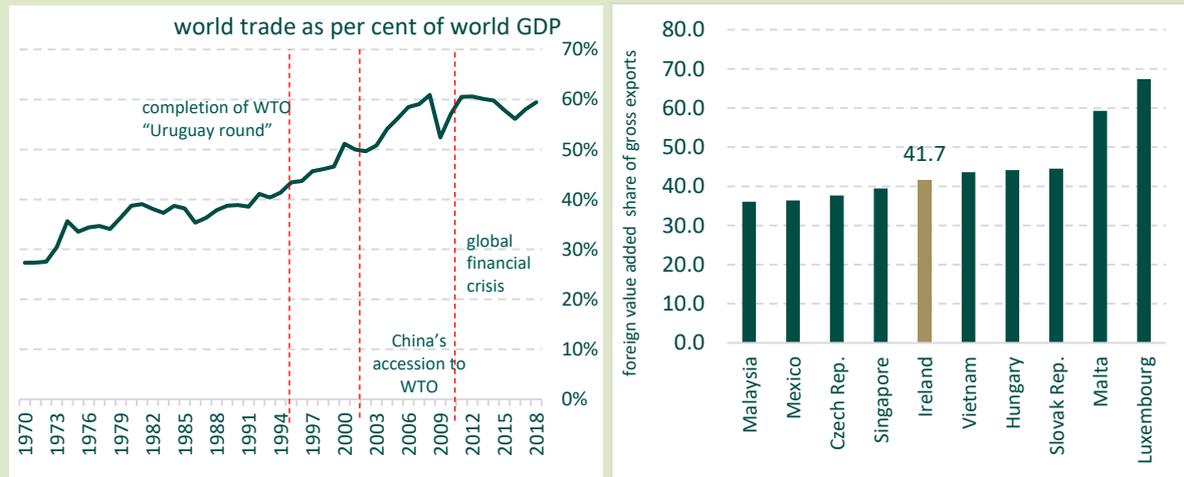
Going forward, firms may seek to reduce this over-reliance on one country or one region for intermediate goods. Put simply, MNEs may be re-balancing the trade-offs between minimising production costs (i.e. lower input costs) and the need to ensure security of supply, encouraged by protectionist policies seeking to insulate domestic markets. This may result in a shortening of supply chains, with MNE re-shoring (bringing production of intermediates or final products 'home') potentially triggering an unwinding of GVC integration; Ireland would not benefit from this.

However, the momentum towards re-shoring building earlier in the pandemic appears to have abated somewhat, with firms discouraged by the substantial investment required to build new plants in their home markets. Recent research by the OECD suggests that re-shoring would in fact reduce stability as well as efficiency, as production would be less geographically diversified and thus more exposed to a domestic shock.<sup>15</sup>

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<sup>15</sup> OECD Working Party 1 Issues Note (2020): Efficiency and risks in global value chains in the context of COVID-19

**Figure 11: Trade intensity and GVC participation**



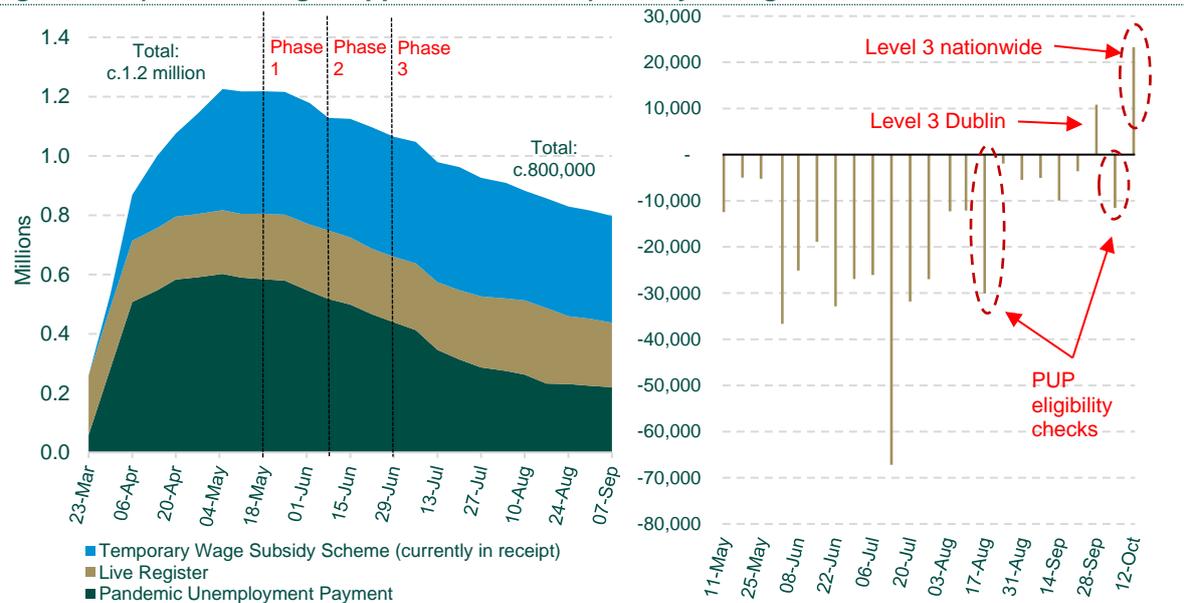
Note: The GVC participation graph includes the top 10 countries from the OECD TiVA database. Source: OECD Trade in value added (TiVA) and CSO.

## 2.5 The Labour Market

The labour market has borne the brunt of the pandemic. The Covid-adjusted unemployment rate, which counts all recipients of the PUP as unemployed, peaked at over 30 per cent in April, having been less than 5 per cent at the beginning of the year. While this has since declined, reaching an estimated 14.7 per cent by September, it remains very high.

Vital new income support schemes in the form of the PUP and Temporary Wage Subsidy Scheme (TWSS) were swiftly introduced, and helped to cushion the impact of the pandemic shock on employment and incomes. Data on these schemes and the traditional Live Register demonstrate the scale of the labour market impact, with the total number of recipients peaking at approximately 1.2 million in early May –with 600,000 on the PUP alone – before declining to approximately 800,000 by the beginning of September.

**Figure 12: a) income/wage support schemes; b) weekly change in the PUP**



Source: DEASP, Revenue. Analysis D/Finance. Overall totals include overlaps between schemes. Income support schemes data as of 12<sup>th</sup> October 2020. PUP changes are week-on-week since May 5<sup>th</sup> peak.

The average unemployment rate (including PUP) is projected to remain elevated at 15.9 per cent for 2020, with total employment falling by almost 14 per cent, or approximately 319,000 jobs. For next year, as the economy gradually recovers, employment is expected to grow by approximately 153,000 jobs (+7.6 per cent) with the unemployment rate approximately 10.3 per cent.

The immediate labour market impact of the UK's assumed disorderly exit from the transition period at the beginning of 2021 is expected to be less severe than the impacts on net trade and GDP. This is because the impact on domestic demand, the key driver of labour market outcomes, is assumed to occur at a lag. Nevertheless, the average unemployment rate is c. ¼ percentage points higher in 2021 as a result of a no-deal. The negative impact on employment is expected to be concentrated in sectors with greater exposure to UK trade, such as agri-food, traditional manufacturing and financial services – sectors which have been relatively less affected by the pandemic.

The severe impact on employment will also affect incomes. The overall wage bill is projected to fall by 11 per cent this year, before growing by 8.9 per cent in 2021, with the recovery next year a result of the increase in employment. With employment losses so far mainly affecting relatively lower-paid jobs and sectors more severely, recent CSO earnings data exhibit a rise in the level of average earnings per worker in the economy – a 'composition effect'. As a result, an increase in average wages per worker (compensation per employee) is expected for 2020, with more subdued growth expected in 2021 as this impact washes-out.

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

	2019	2020	2021
Employment <sup>^</sup>	2.9	-13.7	7.6
Unemployment rate <sup>^</sup>	5.0	15.9	10.3
Labour productivity <sup>^^</sup>	2.6	13.1	-5.5
Compensation of employees*	7.3	-11.0	8.9
Compensation per employee*	3.5	2.9	1.2

<sup>^</sup> Forecasts for employment and unemployment are based on CSO COVID-adjusted monthly unemployment measures. Many persons in receipt of the PUP do not meet the official statistical classification of unemployment as defined by the International Labour Organisation (ILO) and reported by the CSO Labour Force Survey official measures of employment and unemployment. For the purposes of these forecasts, all PUP recipients are classified as 'unemployed' as they are receiving an income support payment having lost employment, and this payment is considered transfer income. These figures thus correspond to the CSO's 'upper bound' measure of unemployment, meaning the total employment measure may be considered a 'lower bound'. Wage subsidy scheme recipients (TWSS/EWSS) are classified as 'in employment'.

<sup>^^</sup> GDP per person employed.

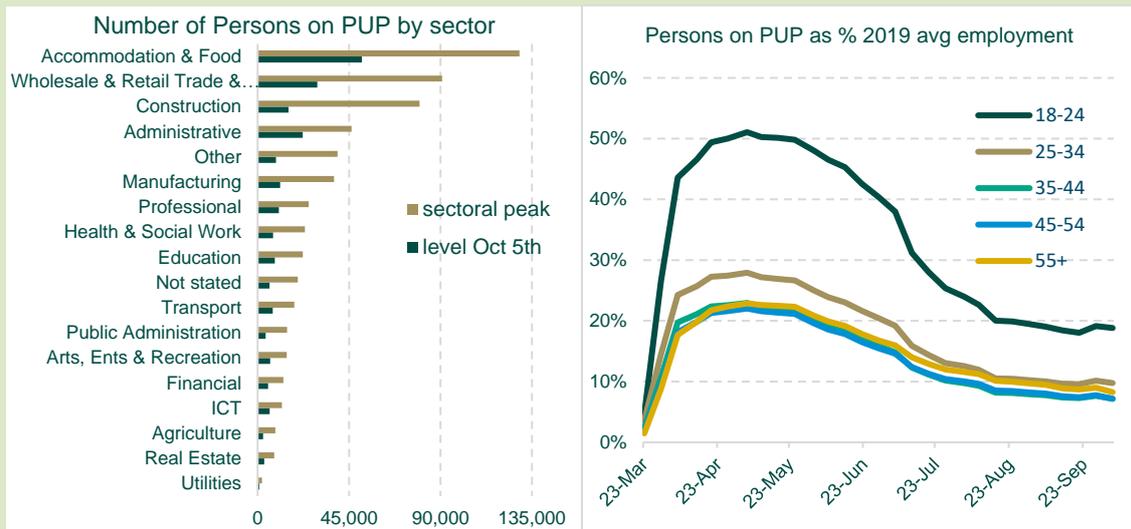
\*Non-agricultural sector.

Source: 2019 - CSO; 2020 - 2021 - Department of Finance.

### Box 5: Demographic and sectoral analysis of the PUP

While the aggregate labour market impact of Covid-19 has been unprecedented, some sectors have been more severely affected than others, as clearly seen in the data on the PUP and TWSS income support schemes. Consumer-facing services sectors, where activity is labour-intensive and involves a high degree of interaction between workers and customers, have been significantly affected. Other sectors, where remote working is more feasible or where activity is deemed 'essential', have seen smaller impacts. While aggregate numbers of PUP claimants have declined, and aggregate TWSS numbers have been relatively static, there has been a significant degree of churn between the schemes. While the majority of former PUP claimants have returned to 'standard' employment, sectors that remain hampered by public health restrictions (hospitality, leisure and other services) have seen large movements of workers from the PUP into subsidised employment.

**Figure 13: Pandemic Unemployment Payment claimants by sector and age**



Source: DEASP, CSO

The disproportionate impact of job losses for younger workers is clear. Not only are the sectors that have been worst affected by COVID relatively lower-paid on average, they are also sectors where workers are more likely to work on a part-time basis. When workers remain out of work for 12 months or more, their detachment from the labour market grows, harming their prospects for finding new employment. This is true of all age groups, but particularly younger workers with less experience. The possibility of so-called 'scarring' effects due to long-term unemployment, particularly youth unemployment, is a clear risk as the legacy of this crisis unfolds.

## 2.6 Price Developments

The Covid-19 pandemic can be thought of as both a demand- and a supply-side shock: demand for goods and services has fallen (putting downward pressure on prices) while, at the same time, the ability of firms and workers to provide goods and services has been hampered by mobility and other restrictions (putting upward pressure on prices).

The actual impact on prices will, of course, depend on the interplay between demand and supply. To date, the net impact of the Covid-19 shock has been disinflationary, with the annual rate of inflation, measured by the harmonised index of consumer prices (HICP), averaging -0.1 per cent in the first eight months of the year. This compares with 0.5 per cent in the euro area over the same period, with the difference likely due, in-part, to the larger impact of the recent sterling depreciation on consumer prices in Ireland and more resilient rental price inflation in the euro area. Core inflation, which excludes the volatile components of energy and unprocessed food, averaged 0.2 per cent in Ireland over the same period.

Despite resilient services prices in the first half of the year, and the expected recovery in oil prices in the second half, inflation is forecast to remain low throughout the rest of 2020. Air fares are expected to act as a drag on services inflation for the remainder of the year, while the recent appreciation of the euro-sterling exchange rate alongside weak domestic demand will keep a lid on non-energy industrial goods prices this year. For the year as a whole, headline inflation of -0.3 per cent is forecast, with core inflation averaging 0.1 per cent.

Next year, headline HICP is forecast at 0.4 per cent, with 'core' inflation projected at 0.2 per cent. The increase in headline HICP in 2021 will be driven by rising energy prices, which are expected to grow in line with the assumed recovery in oil prices. Services prices are also forecast to grow throughout 2021, in line with the improvement in labour market developments, putting upward pressure on both headline and core inflation.

The GDP deflator, a wider measure of price changes in the economy, is forecast to grow by 0.6 per cent this year and by 0.9 per cent next year, with positive contributions from the personal consumption deflator and a negative contribution from the terms-of-trade.

**Table 6: price developments, per cent change**

	2019	2020	2021
GDP deflator	3.1	0.6	0.9
Personal consumption deflator	2.4	1.5	1.6
Harmonised index of consumer prices (HICP)	0.9	-0.3	0.4
Core HICP inflation <sup>^</sup>	0.9	0.1	0.2
Export price deflator (goods and services)	1.5	-0.7	0.8
Import price deflator (goods and services)	-0.4	-0.5	1.4
Terms-of-trade (good and services)	1.9	-0.2	-0.6

<sup>^</sup> 'Core' inflation excludes the impact of energy and unprocessed food.  
Source: 2019 - CSO; 2020 and 2021 - Department of Finance.

## 2.7 Comparison of Forecasts

This section compares the Department's forecasts for 2020 and 2021 against other forecasting institutions. Direct comparisons are not as straight forward as in 'normal times', given different assumptions on Brexit, whereby the Department's and the Central Bank's projections are based on a no-deal exit with all others based on the assumption of a deal.

For this year, the Department's forecasts are middle of the range, though others would be expected to revise upwards later in the year to take account of the stronger than expected intra-year figures. For next year, the Department's forecasts are at the bottom of the range, mostly as a result of the Department's no-deal assumption. By way of comparison, the Central Bank's no-deal projection, places it closer to the Department's projections than that of the other institutions, which are based on a 'deal' assumption.

Figure 14 compares the Department's current forecast with the spring forecast in April. GDP growth for this year is 8.1 percentage points higher, mainly as a result of higher than expected exports. Exports were supported by a very strong performance in the pharmaceutical sector. Consumption and construction investment performed better than anticipated due to the national lockdown and subsequent re-opening being shorter and more rapid, respectively, than previously expected.

For next year, growth has been revised down by just over 4 percentage points with revisions to the contributions from modified-investment and exports being the main factors. Both of these are largely due to the change in the assumption of a deal to a no-deal Brexit assumption since the spring forecasts.

**Table 7: range of forecasts, per cent change**

2020	GDP	GNP	HICP	Employment
Department of Finance	-2.4	-2.9	-0.3	-13.7
Central Bank of Ireland	-0.4	n.a.	-0.6	-4.1
IMF	-6.8	n.a.	0.4	n.a.
ESRI	-1.8	-2.3	n.a.	-13.3
European Commission	-8.5	n.a.	-0.2	n.a.
OECD	-6.8	n.a.	0.2	n.a.

2021	GDP	GNP	HICP	Employment
Department of Finance	1.7	1.6	0.4	7.6
Central Bank of Ireland	3.4	n.a.	0.2	-4.2
IMF	6.3	n.a.	1.7	n.a.
ESRI	6.3	5.2	n.a.	11.2
European Commission	6.3	n.a.	0.8	n.a.
OECD	4.8	n.a.	0.6	n.a.

Source: latest forecasts from the institutions cited.

**Figure 14: comparison of autumn and spring 2020 GDP forecast, percentage point contributions**



Source: Department of Finance.

Note: Private consumption, government consumption, modified investment, exports and modified imports all expressed as percentage point contributions to the change in the GDP growth forecast.

### Box 6: Medium-term recovery scenarios

Anticipating how, and when, the Irish economy might recover from the COVID-19 shock is extremely difficult, *inter alia* due to the uniqueness of the shock and the lack of sight regarding the pathway for the virus. Instead, scenario analysis is more appropriate and, in this box, a range of alternative scenarios for the economy is presented, based on joint research carried out by the Department of Finance and ESRI using the structural macro-econometric model COSMO.

The approach used is to replicate the initial pandemic shock using available data and to examine a series of alternative adjustment paths for the economy. The pandemic is affecting the economy through a number of channels: lower consumption, investment and employment and a weakened international environment. Three main recovery scenarios are explored:

- **Recovery scenario:** there is some rebound in output and employment in 2020Q3 and then a return to the no-pandemic 'baseline' path over the course of 2023;
- **Second wave scenario:** assumes a rapid increase in the virus in 2020Q4 leading to a re-introduction of restrictions, the economic impact of which is equivalent to three-quarters of the shock observed 2020Q2;
- **Delayed recovery scenario:** sees continued uncertainty or the continuation of public health measures resulting in a slower overall recovery.

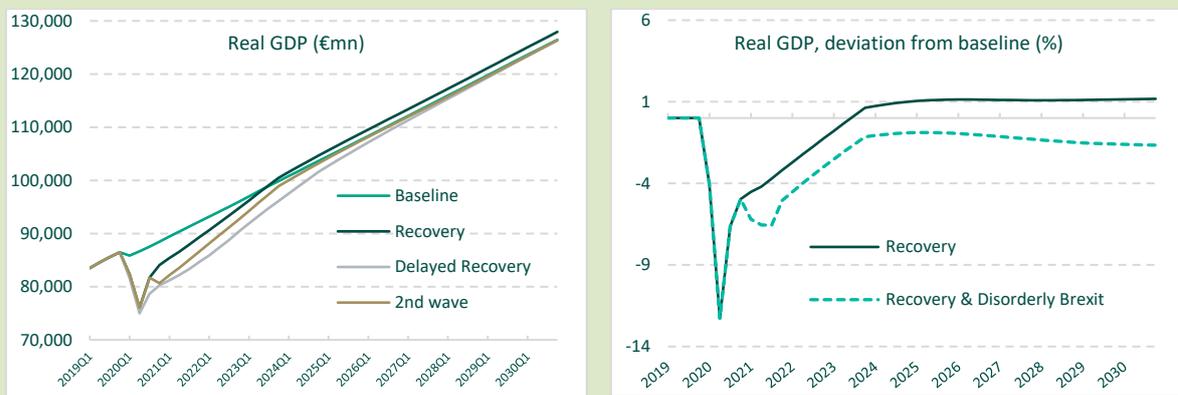
For each scenario, the counterfactual is a no-pandemic baseline which assumes a free trade agreement between the UK and EU being in place by the beginning of 2021.

Figure 15 (LHS) shows the level of GDP in the no-pandemic baseline and the three scenarios. The negative economic impacts peak in Q2 of 2020 and the economy rebounds at different speeds in each scenario. The results suggest a strong reduction in output in 2020 of around 7 per cent in the Recovery scenario, 8 per cent in the Second Wave scenario and 9.5 per cent in the Delayed Recovery scenario compared to the no-pandemic baseline.

In the Second Wave and Delayed Recovery scenarios, the permanent loss of output in the non-traded sector means that, although output largely recovers, it remains below no-pandemic baseline path over the medium term, i.e. there is a permanent scar on the economy.

The economic recovery from the pandemic will also be influenced by the outcome of Brexit. The baseline path assumes a FTA agreement being in place. A disorderly no-deal outcome results in output in the recovery scenario remaining permanently below baseline. The results are shown in figure 15 (RHS).

Figure 15: COVID-19, impact on GDP



Source: Bergin, A., A. Garcia Rodriguez, L. Rehill and É. Sweeney (2020) 'Exploring the Impacts of COVID-19, A Hard Brexit and Recovery Paths for the Economy'. Quarterly Economic Commentary, Autumn 2020 (ESRI).

## Chapter 3

# Exchequer Developments and Outlook

### 3.1 Summary

An Exchequer deficit of €16.7 billion is estimated for this year. This would represent a significant deterioration relative to last year, and reflects the counter-cyclical budgetary policy adopted by the Government to limit the fall-out from the pandemic.

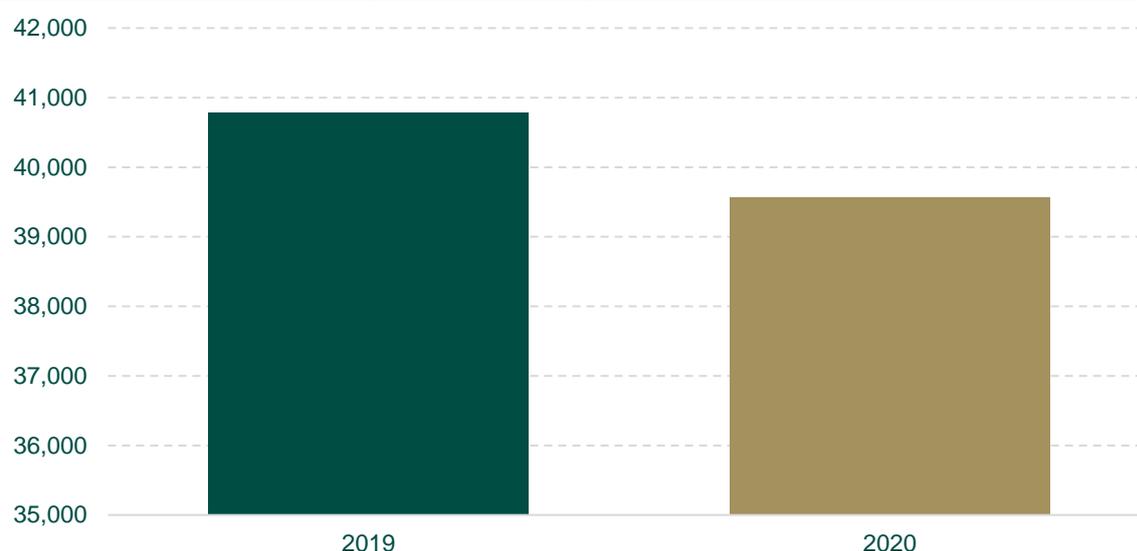
The deficit is projected at €17.7 billion for next year. This reflects additional Government support for the economy against the backdrop of two exceptional ‘shocks’, namely the ongoing pandemic as well as the disruptive, tariff-based trading relationship with the UK assumed from January.

### 3.2 Exchequer Outturn 2020

At end-September, taxation receipts were €1.2 billion (3.0 per cent) lower than in the same period last year. This was, however, 22 per cent (€7 billion) ahead of expectations, largely because of the resilience of direct tax receipts. Indeed, a notable feature of tax revenue developments this year has been the diverging performance between direct and indirect taxes.

In relation to direct taxes, both income and corporate tax revenues performed relatively well this year. Income tax receipts — the single largest source of revenue for the State — were notably resilient, declining by just 2.1 per cent (€0.3 billion) in the year to end-September. The key PAYE income tax component (which accounts for about two-thirds of revenue under this heading) declined by 3.2 per cent. This partly reflects the composition of job losses during the pandemic, combined with the progressivity of the Irish income taxation system.

**Figure 16: end-September cumulative tax receipts relative to 2019, € millions**



Source: Department of Finance.

In addition, corporation tax receipts continued to exceed earlier expectations. Receipts were up 28 per cent (€1.6 billion) to end-September, in part due to increased profitability in parts of the multinational sector (as outlined earlier, parts of the foreign-owned sector provided significant support for overall output – GDP – this year, underpinning a significant upward revision to the headline macroeconomic forecasts).

In contrast, indirect tax revenue recorded a sharp decline this year. VAT receipts were down at an annual rate of 20 per cent (€2.4 billion) in the year to end-September. The decline reflects *inter alia* the significant reduction in consumer spending during April and May, ongoing social distancing measures that are weighing on spending on many services, as well as Government policy that allows firms to 'warehouse' VAT receipts. In a similar vein, excise receipts were down 13 per cent (€0.6 billion) in the year to end-September.

Turning to the relatively smaller taxes, receipts from capital taxes – capital gains tax and capital acquisitions tax – increased at annual rates of 1.8 and 4.6 per cent, respectively, in the first nine months. Stamp duty receipts were down by just 3.2 per cent over this period, in part to due relatively strong trading in equities. In contrast, customs duty revenues declined by 26 per cent so far this year, reflecting changing levels of trade with non-EU countries and the varying mix of goods imported and the tariffs applying on these goods.

#### **Box 7: Covid-19 and implications for the fiscal rules**

The Covid-19 pandemic resulted in a number of important policy responses by the European Union. One of the first responses included a proposal by the Commission – subsequently endorsed by the Council – to activate the so-called "general escape clause" of the *Stability and Growth Pact*.

This was the first time that this clause has been activated, and its activation allows Member States take all of the necessary expenditure and taxation measures in response to the pandemic without legal or procedural implications. In practical terms, Member States have been temporarily absolved of the annual requirement to be at, or moving towards, their medium-term budgetary objectives.

Clearly the pandemic remains a rapidly evolving situation. The national borrowing to finance the necessary fiscal support measures, as well as the normal operation of the automatic stabilisers, will directly add to general government debt and deficit ratios in all Member States. In contrast to the last economic crisis to face the EU – the euro area sovereign debt crisis – budgetary policy across the EU is strongly counter-cyclical on this occasion. This is being supported by the accommodative monetary policy stance.

While not an immediate issue, there is a question regarding the correct treatment of discretionary fiscal support from the perspective of the fiscal rules. In particular, it remains difficult to say with certainty whether some of the fiscal measures adopted across the EU are classified as temporary or permanent in nature. Estimates of the structural balance – which exclude temporary measures – will be affected by these classifications. For the moment, however, estimates of the structural balance are of second order importance, not least because the impact of the crisis on potential output remains uncertain. In any case, the activation of the general escape clause means that Member States have not been given a quantitative structural adjustment target in 2020 or 2021.

A final issue from a European fiscal surveillance and monitoring perspective relates to the various support mechanisms that have been agreed by Heads of State and Government. Examples include *Next Generation EU* and the *SURE* programme. While the funding associated with these programmes is provided centrally, this creates some contingent liability risks for Member States – borrowing by the EU is backed by the Member States. Discussions on all of these issues and their ramifications are continuing at a technical level.

For this year as a whole, tax revenue is projected at €56.7 billion, a fall of 4.4 per cent relative to last year. Of the larger tax headings, only corporation tax receipts are assumed to increase: revenue from this source is projected at €12.3 billion, its highest level ever. Income tax is projected to decline by 6.1 per cent, with larger falls – 15.3 and 7.0 per cent respectively – in store for VAT and excise duty receipts.

Non-tax revenue, excluding capital resources, is projected at €2.7 billion for this year. This is lower than last year and is almost entirely due a fall in dividend income, as a number commercial semi-state companies reversed earlier decisions to pay dividends to the Exchequer in 2020.

Total voted expenditure for this year is projected at €87.1 billion. This is an increase of €16.7 billion (23.7 per cent) relative to the amount allocated in the *Revised Estimates Volume* (REV) published in

December last year, and reflects Government support for households and SMEs during the pandemic, as well as additional expenditure to fund the expansion of healthcare capacity.

**Table 8: exchequer balance 2020-2021, € million**

	2019	2020	2021
<b>CURRENT BUDGET</b>			
<b>Expenditure</b>			
Gross voted current expenditure	60,090	77,225	77,695
Non-voted current expenditure	7,935	7,750	8,040
<b>Gross current expenditure</b>	<b>68,025</b>	<b>84,975</b>	<b>85,735</b>
less expenditure receipts and balances	13,270	15,375	15,465
<b>Net current expenditure</b>	<b>54,755</b>	<b>69,600</b>	<b>70,270</b>
<b>Revenue</b>			
Tax revenue	59,315	56,695	60,390
Non-tax revenue	3,345	2,700	1,085
<b>Net current revenue</b>	<b>62,660</b>	<b>59,395</b>	<b>61,475</b>
<b>CURRENT BUDGET BALANCE</b>	<b>7,905</b>	<b>-10,205</b>	<b>-8,795</b>
<b>CAPITAL BUDGET</b>			
<b>Expenditure</b>			
Gross voted capital expenditure	7,365	9,845	10,120
Non-voted capital expenditure*	1,710	1,390	1,195
<b>Gross capital expenditure</b>	<b>9,075</b>	<b>11,235</b>	<b>11,320</b>
Less capital receipts	45	30	40
<b>Net capital expenditure</b>	<b>9,030</b>	<b>11,205</b>	<b>11,280</b>
<b>Revenue</b>			
Capital resources	1,770	4,715	2,435
<b>CAPITAL BUDGET BALANCE</b>	<b>-7,260</b>	<b>-6,490</b>	<b>-8,845</b>
Includes Recovery Fund			3,400
<b>EXCHEQUER BALANCE</b>	<b>645</b>	<b>-16,695</b>	<b>-17,640</b>
Government Expenditure Ceiling	67,455	87,070	87,815

Rounded to nearest €5 million which may affect totals.

\* Central Fund, minor difference in 2020 vis-à-vis White Paper due to cash/accrual for a semi-state, with no GG impact

Source: Department of Finance and Department of Public Expenditure.

Total voted expenditure is composed of €77.2 billion and €9.8 billion in current and capital expenditure, respectively. Voted current expenditure is €15 billion (24.1 per cent) higher than assumed in the REV, while voted capital expenditure is €1.7 billion (20.6 per cent) higher.

Non-voted current expenditure is projected at €7.8 billion this year. Debt service costs is the main component within this and, while the volume of public debt has increased, the decline in sovereign borrowing costs since the spring has favourably impacted on this. Non-voted capital expenditure is projected at €1.4 billion this year.

Aggregating all of these revenue and expenditure developments implies an Exchequer deficit of €16.7 billion for this year.

### 3.3 Exchequer Outlook 2021

Tax revenue next year is projected at €60.4 billion; this is an annual increase of 6.5 per cent and reflects the assumption of relatively modest economic growth (nominal GDP is the tax base).<sup>16</sup> In terms of the main direct tax headings, income tax receipts are projected at €22.7 billion, an increase of 5.5 per cent. This is a lower rate of growth than implied by trends in the income tax base (the wage bill); this arises from the assumption that the increase in employment is assumed to be concentrated in those sectors where substantial employment losses were recorded this year, i.e. less income tax-rich employment. Corporation tax receipts are forecast at €13.0 billion, an increase of 5.4 per cent, a more modest increase than seen in recent years and reflecting the assumption for corporate profitability (the corporate tax base).

Of the indirect tax headings, VAT receipts are projected at €13.9 billion next year, an increase of 9.0 per cent, reflecting a projected annual increase in consumer spending. Similarly, receipts from excise duties are projected at €6.1 billion, an annual increase of 9.5 per cent.

Non-tax revenue (including capital receipts) for next year is projected at €1.1 billion, a fall of €1.6 billion (59 per cent). This decline reflects a number of factors, most notably the unavailability of the *Rainy Day Fund* and a reduction in Central Bank surplus income. It is important to note that the majority of this income for the Exchequer is neutral in general government terms.

On the expenditure side, total gross voted expenditure for next year is projected at €87.8 billion, an increase of €0.8 billion (1 per cent) relative to this year. This consists of an increase of €0.5 billion (1 per cent) in voted current expenditure, alongside an increase of €0.3 billion (3 per cent) in voted capital expenditure; the latter reflects higher investment spending under the *National Development Plan* as part of Government support for the economy.

With non-voted expenditure projected at €9.2 billion next year, an Exchequer deficit of €17.6 billion is in prospect for next year.

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<sup>16</sup> Overall taxation revenue for next year is inflated by the assumed large increase in customs duty receipts which arise from the assumption that trade with the UK is on WTO terms from January next year, i.e. imports from the UK are subject to tariffs given that the UK is no longer part of the European Union under the baseline assumption that underpins *Budget 2021*. Importantly, three-quarters of any additional revenue arising from this source is automatically allocated to the EU budget.

**Table 9: estimated impact of Budget 2021 on fiscal position in 2020 / 21, € million (unless stated)**

	€m	€m
<b>Tax reductions</b>		-430
<b>Revenue increases</b>		165
<b>Net Revenue change</b>		-265
<b>New expenditure measures</b>		
Current		6,295
Capital		745
<i>Impact of new measures on Budget 2021 forecast (=tax buoyancy)</i>		<b>8%</b>
	<b>White Paper</b>	<b>Budget 2021</b>
<b>Current expenditure</b>		
Net voted current expenditure	56,485	62,225
Non-voted current expenditure	8,025	8,040
Net current expenditure	64,515	70,270
<b>Current revenue</b>		
Tax revenue	60,100	60,390
Non-tax revenue	1,085	1,085
<b>Net current revenue</b>	61,185	61,475
<b>CURRENT BUDGET BALANCE</b>	-3,330	-8,795
<b>Capital expenditure</b>		
Net voted capital expenditure	9,345	10,080
Non-voted capital expenditure	1,200	1,200
Net capital expenditure	10,540	11,280
<b>Capital resources</b>	2,435	2,435
<b>CAPITAL BUDGET BALANCE</b>	-8,105	-8,845
<b>EXCHEQUER BALANCE</b>	-11,435	-17,640
<b>General Government Balance</b>	-14,050	-20,485
per cent of GDP	-4.0	-5.7

Source: Department of Finance calculations.

**Table 10: alternative presentation of exchequer position, € million**

	2019	2020	2021
<b>Revenue</b>	<b>74,300</b>	<b>73,575</b>	<b>76,980</b>
: tax revenue	59,315	56,695	60,390
- Income tax	22,935	21,545	22,720
- VAT	15,120	12,800	13,945
- Corporation tax	10,890	12,325	12,990
- Excise duties	5,940	5,525	6,050
- Stamp duties*	1,515	1,920	1,390
- Motor tax	960	930	920
- Customs** of which:	350	265	985
o retained by Exchequer	50	55	245
o contributes to EU Budget	280	210	740
- Capital gains tax	1,075	935	955
- Capital acquisitions tax	530	450	435
: A-in-As (inc. PRSI, NTF and balances)	13,270	15,375	15,465
: non-tax revenue	1,685	1,475	1,085
: capital resources	30	30	40
<b>Expenditure</b>	<b>75,345</b>	<b>94,815</b>	<b>95,845</b>
: of which Recovery Fund			3,400
<b>Balance excl. transactions with no GG impact</b>	<b>-1,045</b>	<b>-21,240</b>	<b>-18,865</b>
<b>Revenue transactions with no GG impact</b>	<b>3,400</b>	<b>5,940</b>	<b>2,425</b>
: non-tax revenue	1,665	3,230	1,000
: capital resources	1,735	2,710	1,425
<b>Expenditure transactions with no GG impact</b>	<b>1,710</b>	<b>1,395</b>	<b>1,195</b>
: non-voted current expenditure	5	5	6
: non-voted capital expenditure	1,705	1,390	1,200
<b>Balance of transactions with no GG impact</b>	<b>1,690</b>	<b>4,545</b>	<b>1,225</b>
<b>Exchequer balance</b>	<b>645</b>	<b>-16,695</b>	<b>-17,640</b>

Figures are rounded to the nearest €5 million and may affect totals.

Source: Department of Finance.

\*2020 receipts include transfer of once-off previously unallocated amount

\*\*see earlier footnote regarding impact on customs duties of disorderly UK exit.

## Chapter 4

# General Government Developments and Outlook

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### 4.1 Summary

A significant deterioration in the fiscal accounts is in prospect for this year, as the Government has actively used budgetary policy to support household incomes, provide life-lines to firms and to ramp-up healthcare capacity. General government revenue is projected at €84.2 billion, while general government expenditure is projected at €105.9 billion. Accordingly, a deficit of €21.6 billion, the equivalent of -6.2 per cent of GDP (-10.7 per cent of GNI\*), is in store for this year. There are no legal implications of breaching the 3 per cent of GDP Treaty (TFEU) reference value.

A general government deficit of €20.5 billion – the equivalent of -5.7 per cent of GDP – is currently forecast for next year. This is contingent on the economic assumptions set out in chapter 2 and, clearly, a worsening of the pandemic would trigger a deterioration in the fiscal position.

### 4.2 General Government Balance: 2020

General government revenue is projected at €84.2 billion this year, resulting in a revenue-GDP ratio of 24.1 per cent (revenue-GNI\* ratio of 41.5 per cent). In compositional terms, taxes on income and wealth – mainly income and corporation taxes – are projected at €37.5 billion, an increase of 2.3 per cent relative to last year. Taxes on production and imports (mainly indirect taxes such as VAT, excise and customs duties) amounted to an estimated €24.9 billion, a sharp annual decline of 9.2 per cent. Social security receipts are projected at €14.0 billion, an annual fall of 11.3 per cent. Other general government receipts are projected at €6.3 billion.

General government expenditure is projected at €105.9 billion this year, resulting in an expenditure-GDP ratio of 30.3 per cent (expenditure-GNI\* ratio of 52.2 per cent). Primary expenditure – total expenditure excluding debt interest payments – is estimated at €102.0 billion, mainly due to increased outlays associated with income (e.g. *Pandemic Unemployment Payments*) and employment (e.g. *Temporary Wage Subsidy Scheme*) support. Interest expenditure is projected at €3.8 billion this year, a modest reduction relative to last year.

On foot of these developments, the general government deficit is projected at €21.6 billion (-6.2 per cent of GDP) for this year, the largest deficit since 2011.

### 4.3 General Government Balance: 2021

For next year, general government revenue is projected at €88.7 billion. This would represent an annual increase of 5.3 per cent, and result in a revenue-GDP ratio of 24.7 per cent (revenue-GNI\* ratio of 42.6 per cent).

General government primary expenditure is projected at €105.6 billion for next year. With a projected interest expenditure amounting to €3.6 billion next year – an average (effective) interest rate of 1.6 per cent – this implies general government expenditure of €109.2 billion; this would result in an expenditure-GDP ratio of 30.4 per cent (expenditure-GNI\* ratio of 52.4 per cent).

Against this backdrop, a general government deficit of €20.5 billion – the equivalent of -5.7 per cent of GDP – is in prospect for 2021. In the spring, the Government will set out a medium-term trajectory to eliminate borrowing, which will be done in a multi-year framework.

**Table 11: exchequer balance to GGB 2019-2021, € million (unless stated)**

	2019	2020	2021
Exchequer balance <sup>1</sup>	645	-16,695	-17,640
Walk <sup>2</sup>	1,205	-4,920	-2,845
<b>General Government balance</b>	<b>1,850</b>	<b>-21,620</b>	<b>-20,485</b>
of which:			
<b>General Government revenue</b>	<b>89,125</b>	<b>84,245</b>	<b>88,695</b>
Taxes on production and imports	27,465	24,945	25,705
Current taxes on income, wealth	36,625	37,455	38,305
Capital taxes	530	450	435
Social contributions	15,840	14,040	15,425
Property Income	1,580	1,065	365
Other	7,085	6,285	8,465
<b>General Government expenditure</b>	<b>87,275</b>	<b>105,865</b>	<b>109,180</b>
Compensation of employees	23,015	24,625	25,805
Intermediate consumption	12,515	16,805	14,765
Social payments	31,650	39,280	38,380
Interest expenditure	4,455	3,850	3,555
Subsidies	1,710	6,135	4,765
Gross fixed capital formation	8,080	9,250	9,830
Capital transfers	1,920	1,925	2,155
Other	3,930	3,990	4,425
Resources not allocated <sup>1</sup>	0	0	5,500
memo items			
GGB per cent GDP	0.5	-6.2	-5.7
GGB per cent GNI* <sup>3</sup>	0.9	-10.7	-9.8
Total revenue per cent GDP	25.0	24.1	24.7
Total revenue, per cent GNI* <sup>3</sup>	41.7	41.5	42.6
Total expenditure, per cent GDP	24.5	30.3	30.4
Total expenditure per cent GNI* <sup>3</sup>	40.8	52.2	52.4

1. Includes Recovery Fund.

2. The 'walk' from the exchequer balance to the general government balance is set out in table A1 in the appendix.

3. GNI\* calculation based on GNI less depreciation of R&D-related service imports and trade in IP, depreciation of aircraft for leasing, and net factor income of re-domiciled PLC's.

See Annex 4 for nominal GDP and GNI\*.

Source: Department of Finance

## 4.4 Comparison of Forecasts

Table 12 shows how the Department's fiscal forecasts compare with those of other institutions. For the headline balance, there is some variation between the Department's projection for this year and that of other public sector organisations. This largely relates to timing – some of the forecasts presented are somewhat dated and, accordingly, do not incorporate the most up-to-date data.

For next year, the most important source of variation relates to differences in assumptions: the Department is assuming a disorderly end to the 'transition period', while some organisations are

assuming an orderly end. Differing assumptions for this outcome will drive a wedge between the various economic forecasts and, accordingly, between the projections for the public finances.

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

2020		GG debt	GG Balance
Department of Finance	Oct-20	62.6	-6.2
IMF	April-20	n.a	-5.2
ESRI	Oct-20	67.0	-7.3
European Commission	May-20	66.4	-5.6
OECD	May-20	73.6	-9.7

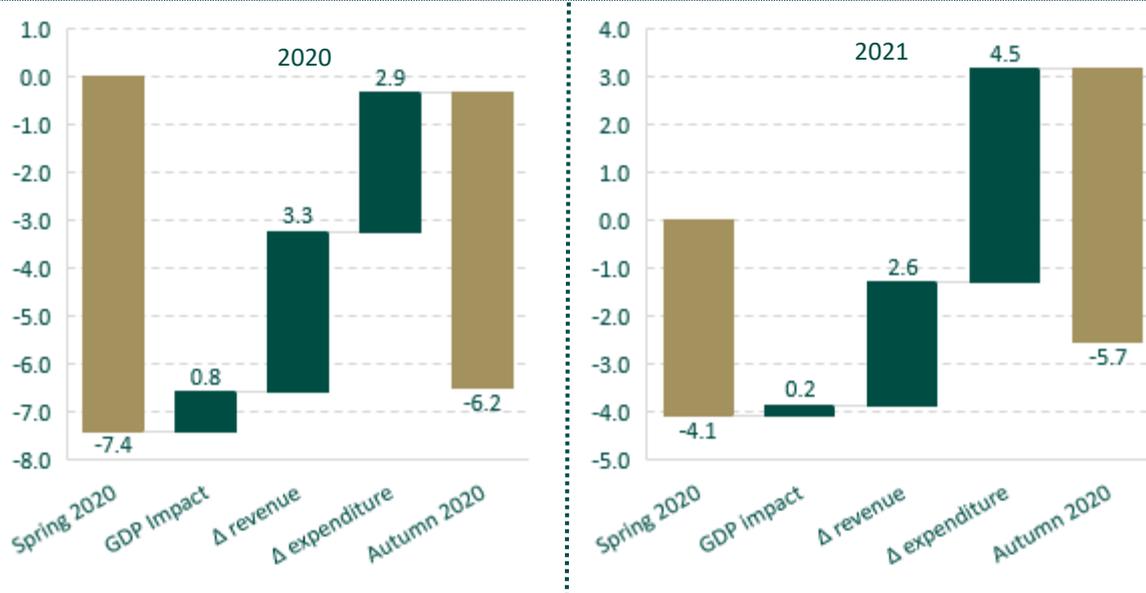
  

2021		GG debt	GG Balance
Department of Finance	Oct-20	66.6	-5.7
IMF	April-20	n.a	-0.8
ESRI	Oct-20	n.a	-3.9
European Commission	May-20	66.7	-2.9
OECD	May-20	83.2	-9.0

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

Figure 17 shows the evolution of the Department's autumn forecasts for the general government balance with its spring forecast published in the SPU at end-April. The forecast for the general government balance this year has improved, mainly due to higher-than-assumed revenue. For next year, the current deficit projection is 1.6 percentage points higher than in the spring.

**Figure 17: comparison of spring and autumn 2020 GG balance forecast, per cent of GDP**



Source: Department of Finance

## Chapter 5 General Government Debt

### 5.1 Summary

The downward trajectory in the debt-income ratio, evident since 2013, has been reversed on foot of the pandemic. The nominal amount of outstanding general government debt is projected at €218.6 billion at the end of this year, a debt-to-GDP ratio of 62.6 per cent. This compares with a debt-GDP ratio of 57.4 per cent last year. A further increase in the debt-GDP ratio is projected next year.

The debt-GNI\* ratio is considerably higher, at an estimated 107.8 per cent this year. This is set to rise to 114.7 per cent next year.

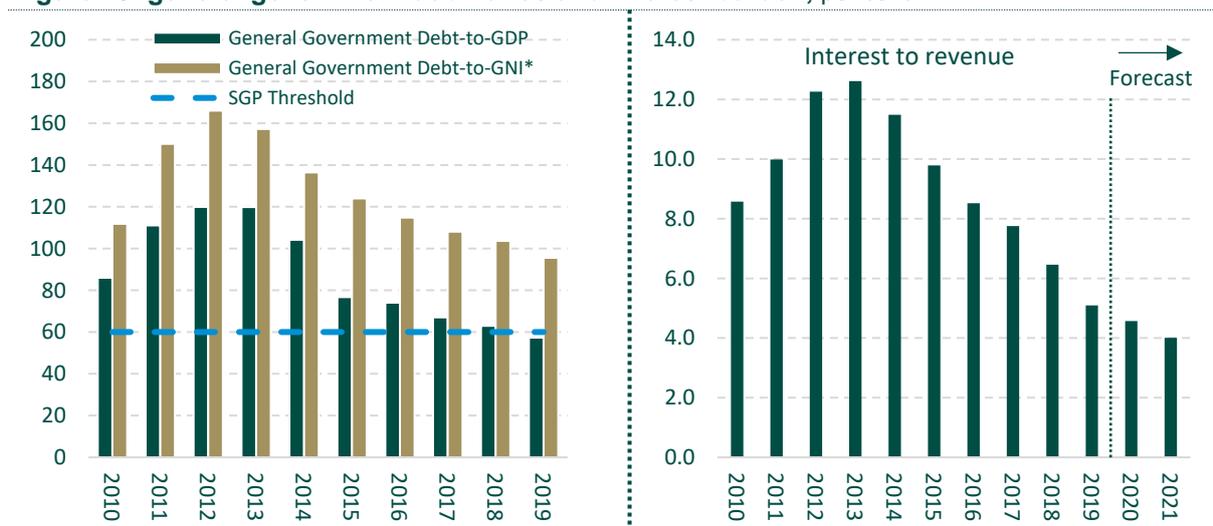
### 5.2 Debt Developments

At end-2019, Ireland's outstanding general government gross debt was €204.2 billion, the equivalent of 57.4 per cent of GDP (95.6 per cent of GNI\*).

The necessary fiscal supports, provided by Government over the course of the year to limit the fall-out from the pandemic, have clearly had an adverse impact on public indebtedness. At end-2020, general government debt is projected at €218.6 billion. At 62.6 per cent of GDP, this would be a 5.2 percentage point increase in the debt-GDP ratio; the debt-GNI\* ratio would be 107.8 per cent, a 12.2 percentage point increase.

Further public debt accumulation is in prospect for next year. The gap between revenue and expenditure projected for the coming year will be largely financed by issuing debt securities, thereby increasing general government liabilities. On the basis of current expectations for the headline deficit, the stock of outstanding public indebtedness is projected to increase to €239 billion by end-2021; this would result in a debt-GDP ratio of 66.6 per cent and a debt-GNI\* ratio of 114.7 per cent.

**Figure 18: general government debt ratios and interest burden, per cent**



Source: CSO, Department of Finance.

Notwithstanding the rapid increase in public indebtedness, financing conditions remain favourable *inter alia* due to a supportive monetary policy backdrop in the euro area. Debt interest payments as a percentage of total revenue – an important indicator of repayment capacity as it sets out the share of

revenue absorbed by debt interest payments – is set out in figure 18. The key takeaway from this is that the burden of servicing public debt has not deteriorated on foot of increased liabilities. Of course, once the exceptional monetary support is withdrawn, accumulated liabilities will need to be refinanced at potentially higher rates (albeit not immediately, given the maturity profile of these instruments). It will be important to set out a pathway that shows the debt-income ratio on a declining trajectory over the medium-term, in order to ensure roll-over of debt at reasonable rates into the future.

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

	2019	2020	2021
Gross debt (€ billions)	204.2	218.6	239.0
Gross debt ratio	57.4	62.6	66.6
Change in gross debt ratio(=1+2+3)	-5.6	5.2	4.1
Contribution to $\Delta$ in debt ratio <sup>^</sup>			
GG deficit (1=1a+1b)	-0.5	6.2	5.7
: interest expenditure (1a)	1.3	1.1	1.0
: primary balance (1b)	-1.8	5.1	4.7
SFA (2=2a+2b+2c+2d+2e+2f+2g)	0.0	-2.1	0.0
: change in liquid assets (2a)	0.3	-1.0	-0.2
: interest adjustments (2b)	0.2	0.2	0.1
: equity transactions (2c)	-0.7	-1.3	-0.4
: accrual adjustments (2d)	0.2	0.7	0.1
: impact of ISIF (2e)	0.1	0.0	0.0
: collateral held (2f)	0.0	0.0	0.0
: other (2g)	-0.1	-0.6	0.4
Nominal GDP contribution (3)	-5.1	1.1	-1.6
Memorandum items			
: average interest rate	2.2	1.9	1.6
: gross debt per cent of GNI* <sup>^^</sup>	95.6	107.8	114.7

Figures may not sum due to rounding.

<sup>^</sup> A positive sign indicates that a component is increasing the debt ratio and *vice versa*.

SFA = stock-flow adjustment

Nominal GNI\* is presented in Annex 4.

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

### Box 8: Debt dynamics and the interest growth rate differential

The pandemic will have a marked impact on government debt this year. The Department's forecasts point to a 5.2 percentage point rise in the debt-to-GDP ratio this year (to 62.6 per cent), and a 12.2 percentage point rise in debt-to-GNI\* ratio (to 107.8 per cent). In 2021, both ratios are expected to rise, increasing to 66.6 and 114.7 per cent respectively.

A key issue will be the time it takes the debt shock to unwind – in other words for the ratios (as opposed to the outstanding amount of debt) to decline below a certain threshold, such as 60 per cent. While Ireland has a track record of correcting fiscal shocks, it is useful to consider some hypothetical and simplified scenarios to consider this issue in more detail.

The analytical framework for trying to answer this question is the standard debt accumulation formula set out below. This states that the change in the debt-income ratio (d) in any one year is the sum of the 'snowball effect' (the gap between the interest rate (r) and the nominal economic growth rate (g)), the primary balance (pb) and the stock-flow adjustment (sfa)<sup>17</sup>:

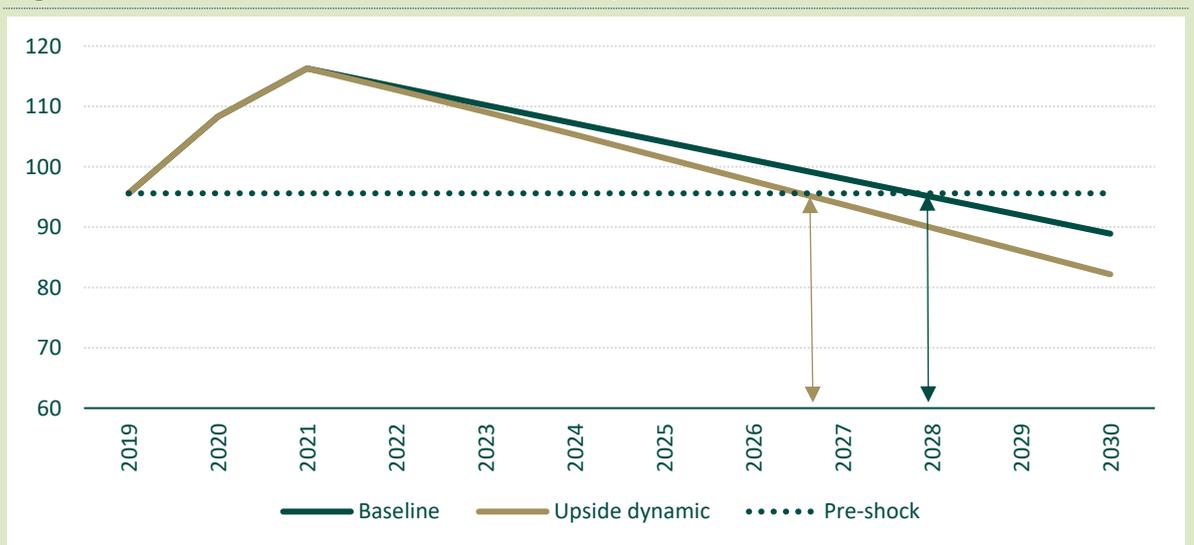
$$\Delta d = \frac{(r - g)}{(1 + g)} * d_{t-1} + pb_t + sfa_t^{17}$$

This makes clear that the debt-income ratio can be reduced through a range of options, namely, through growth rates in excess of the average interest rate on debt; via primary surpluses and through negative stock-flow adjustments (e.g. normal debt management operations). If the latter is assumed to be zero (as is normally the case over time), then reducing the debt ratio boils down to policies that raise economic growth, managing debt to reduce financing costs and the stance of fiscal policy.

To simplify matters further, if it is assumed that fiscal policy is neutral with a balanced primary budget on average over time, then the focus moves to the snowball term. Looking at an extended period since 1995, the (nominal) growth rate in Ireland has averaged c. 6¼ per cent, with an equivalent interest rate of c. 4¼ per cent (the latter has been much lower in recent years).

Taking the equation above and using these historic ratios, the path for the debt-ratio is projected forward in the figure below, for purely illustrative purposes. With no net impact from the primary balance assumed, and based simply on a repeat of historical averages for interest rates and nominal growth rates, the debt shock is not corrected until towards the end of the decade (or slightly earlier if the interest rate is 1 percentage point lower). While these scenarios are highly stylised, they serve to emphasise the importance of all the various channels through which fiscal and economic policy impact on debt dynamics.

Figure 19: Debt to GNI\* – illustrative scenarios, per cent



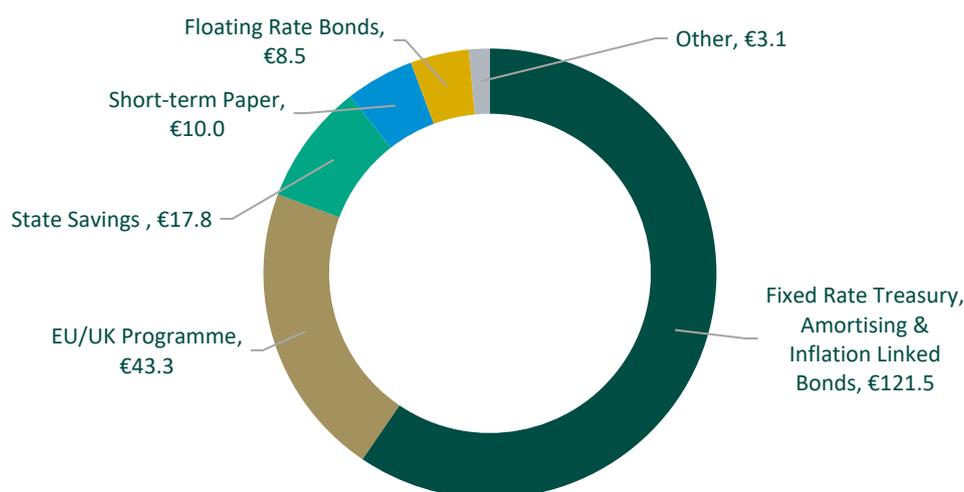
Source: Department of Finance calculations.

<sup>17</sup> For a detailed derivation see *Annual Report on Public Debt in Ireland 2018*, Department of Finance, available at: <https://www.gov.ie/en/publication/574c78-annual-report-on-public-debt-in-ireland/>.

### 5.3 Debt Composition

Figure 20 shows the compositional breakdown of outstanding general government liabilities at end-2019. Of the total outstanding liabilities of €204.2 billion, over half of these were fixed rate treasury, amortising and inflation linked bonds. Obligations to the official sector – the EFSM, EFSF and UK bilateral loan – were the next most important, accounting for around a quarter of liabilities. Of particular note has been the steady decline in recent years of the Floating Rate Notes (FRNs) issued in 2013 (to replace the IBRC promissory notes held by the Central Bank). Over the course of 2019, the NTMA has purchased, and subsequently cancelled, €3 billion of FRNs from the Central Bank, replacing them with medium- to long-term fixed rate market funding.

**Figure 20: composition of general government debt at end-2019, € 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 financial assets deducted include:

- Liquid assets held by the exchequer;
- Ireland Strategic Investment Fund (ISIF) cash and non-equity investments; and,
- Other cash and assets held by general government.<sup>18</sup>

**Table 14: gross and net general government debt, per cent of GDP at end year**

	2019	2020	2021
General government gross debt	57.4	62.6	66.6
EDP debt instrument assets	8.0	6.9	6.4
General government net debt	49.4	55.6	60.3

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

<sup>18</sup> For a broader discussion on government financial assets and liabilities, including cash balances, see section 6 of the Department’s *Annual Report on Public Debt in Ireland, August 2019, (op. cit.)*

Net public indebtedness is lower than the gross figure; taking account of financial assets held by the general government sector, net public indebtedness is estimated at around 55.6 per cent of GDP at end-2020.

**Table 15: Irish sovereign credit ratings**

	Long-term	Short-term	Outlook
Standard and Poor's	AA-	A-1+	Stable
Moody's	A2	P-1	Stable
Fitch Ratings	A+	F1+	Stable

At end-September 2020.

Sources: institutions cited and NTMA (National Debt data provider).

Ireland's long-term credit rating is now firmly in the "A" category with all of the main rating agencies as set out in table 16.

## 5.4 Funding Developments

The NTMA has, so far this year, issued €22.8 billion<sup>19</sup> of Irish government bonds, with a weighted average yield of just above 0.2 per cent and a weighted average maturity of over 11 years. This issuance included three new benchmark bonds:

- a new 15-year benchmark bond issued in January raised €4 billion (yield of 0.45 per cent);
- a new 7-year bond issued in April raised €6 billion (yield of 0.24 per cent);
- a new 10-year issued in June raised €6 billion (yield of 0.285 per cent).

There have also been five bond auctions, raising a total of €6.75 billion.

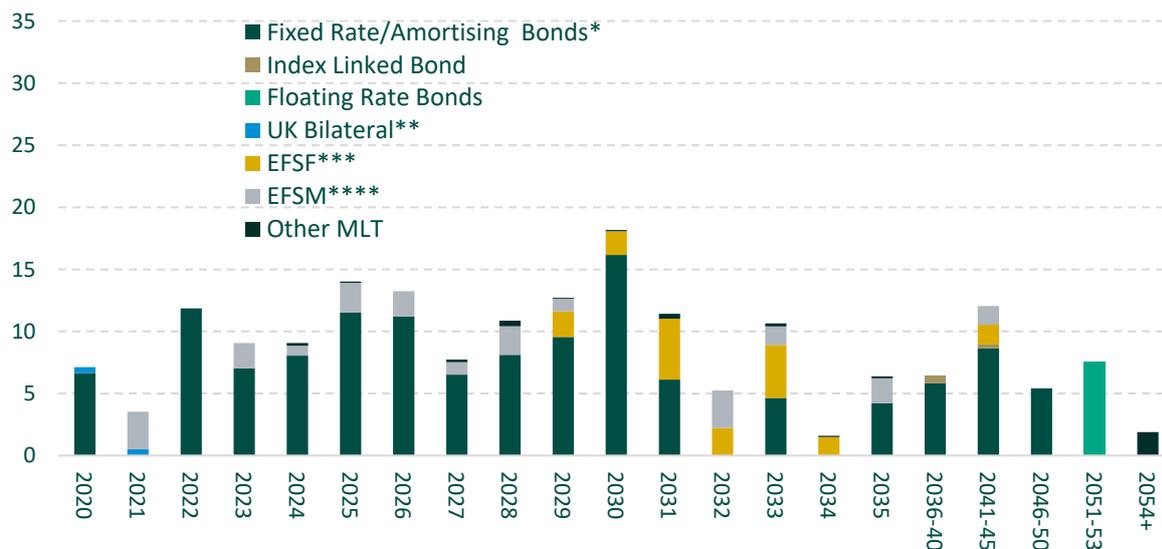
Following the release of the Government's stimulus package in July, the NTMA stated that it planned to issue to the top-end of the revised €20 – €24 billion funding range that had been announced in April. There is one further bond auction this year, scheduled for November. In addition, the NTMA has also increased its presence in short-term debt markets, most notably through an increase in the regularity and size of its Treasury Bill auctions.

Exchequer cash balances at end-September were over €31 billion, up from €16.5 billion at end-2019. A significant part of these balances will be used to fund a €6.5 billion bond that matures in October. The redemption of this particular bond will mark the end of the 'chimneys': the re-financing of the five large bonds which matured over the two-year window October 2018 – October 2020. The next bond maturing is in March 2022. In terms of official sector debt, there are two remaining tranches of the UK bilateral loan, one which falls due in December and the final tranche which falls due in the first quarter of next year. Each tranche is £0.4 billion.

The Exchequer cash reserves are estimated to be €12- €13 billion at end-2020, leaving it well positioned heading into 2021. While there are no benchmark bonds maturing next year, clearly there will be a large deficit to finance.

<sup>19</sup> Excluding funds raised from non-competitive bond auctions.

**Figure 21: maturity profile of long-term marketable and official debt, € billion at end-September 2020**



Note that the figures in the chart are unaudited.

\* Includes NTMA Repo activity.

\*\* Includes effect of currency hedging transactions.

\*\*\* EFSF loans reflect the maturity extensions agreed in June 2013.

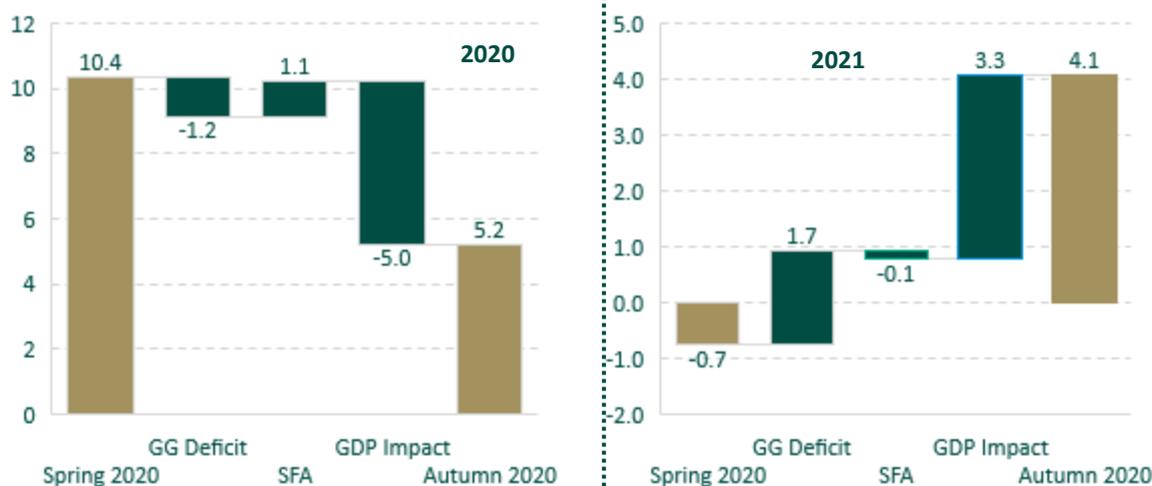
\*\*\*\* EFSM loans are also subject to extension, such that their original aggregated weighted average maturity will be a maximum of 19.5 years. It is not expected that Ireland will have to refinance any of its EFSM loans before 2027. However the revised maturity dates of individual EFSM loans will only be determined as they approach their original maturity dates. The chart reflect both the original and revised maturity dates of individual EFSM loans.

Source: NTMA (National Debt data provider).

## 5.5 Comparison of Forecasts

Figure 22 compares the Department's latest forecast change in the debt ratio in 2020 and 2021 against its previous forecasts published in the SPU in the spring. For this year, the debt ratio is projected at 62.6 per cent, a 6.5 percentage point decrease relative to the spring forecasts, while for next year the debt ratio of 66.6 per cent represents 1.8 percentage point decrease from the spring forecasts.

**Figure 22: comparison of spring and autumn 2020 change in GG debt forecast, per cent of GDP**



Source: Department of Finance

## Chapter 6

# Risk and Sensitivity Analysis

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### 6.1 Summary

The near-term outlook for the economy – covering the final quarter of this year and all of next year – is extraordinarily uncertain. The progression of the virus is, quite simply, unknowable; second, or indeed subsequent waves, could potentially have severe implications for the economy and public finances.

### 6.2 ‘Stringent lockdown’ scenario

In the absence of a vaccine, or advancement in therapeutics, the trajectory for the economy is intertwined with that of the virus. This is the case for Ireland as for other countries. Because of this, the epidemiology of the virus is highly uncertain, casting a dark shadow over near-term economic prospects.

The baseline scenario, outlined earlier in this document, is based on a ‘co-existence’ assumption: the economy (and wider society) co-exist with the virus, with epidemiological peaks-and-troughs triggering different, phased restrictions, but no full ‘lockdown’. Of course, nothing is assured in the current environment, and this necessitates scenario analysis for the economy. The analysis set out below is based on a severe epidemiological scenario that triggers the re-introduction of stringent restrictions over a prolonged period. Importantly, the analysis does not assess the probability of such a scenario – it simply tries to quantify the economic fall-out in the event of stricter containment measures.

Constructing this scenario requires a number of conditioning assumptions. Importantly, it is assumed that the economic costs of a second lockdown will be less severe than in the first lockdown – capacity in many areas such as ‘testing-and-tracing’ has improved (relative to the starting point in March); knowledge including public health knowledge of the virus has advanced, and many behavioural changes such as home-working are already embedded.

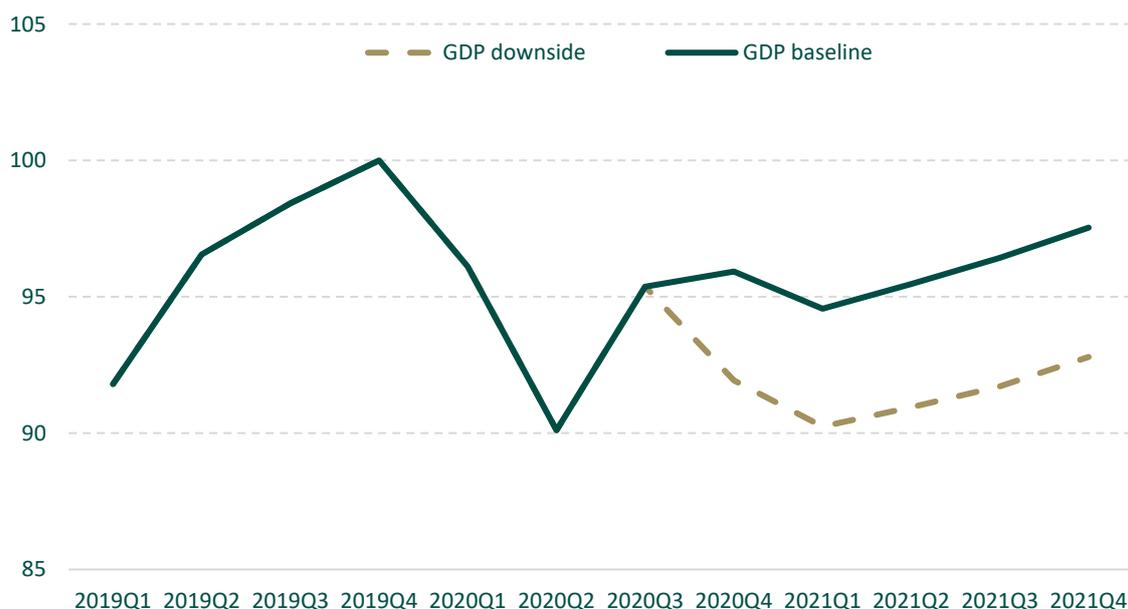
That said, a stringent lockdown would probably induce permanent behavioural changes by households and firms: economic agents would ‘price-in’ the probability of future, additional lockdowns and adapt their behavioural response accordingly. Heightened uncertainty would adversely affect consumers and businesses, dampening the (already gradual) recovery in consumption and investment that is projected in the Department’s baseline. More jobs would be lost permanently as some businesses would not be expected to survive repeated levels of restrictions, leading to scarring effects on the domestic economy. A similar situation is assumed to play out internationally, with varying levels of restrictions leading to a more prolonged weakness in the global economy, reducing the demand for Irish exports.

In modelling this severe downside impact, joint research by the Department of Finance and the ESRI is drawn on (see box 6 in chapter 2). For purely illustrative purposes, the severe lockdown is assumed to be triggered in the final quarter of this year; this is not a forecast, it is a hypothetical assumption necessary to illustrate the economic costs of a second wave.

The second wave scenario is modelled as a shock to consumption, output and employment in the non-traded sector of around three-quarters of the shock observed in the second quarter of this year. The delayed recovery in 2021 is based on continued uncertainty, or the continuation of public health measures, resulting in a slower overall recovery, but also the permanent loss or ‘scar’ (of 5 per cent) to non-traded employment and output (as some businesses do not survive repeated levels of restrictions). This scenario also incorporates a delayed recovery in world demand for Irish exports.

The results of this analysis is then super-imposed on the Department's baseline projections to illustrate a possible severe scenario that captures a number of the main downside risks listed in table 19. In this downside scenario, after a brief bounce-back in the third quarter of this year, the economy contracts again in the fourth quarter by almost 4 per cent. With a disorderly end to the transition period assumed from January, the economy will further contract in the first quarter of next year, before a very gradual recovery begins in the second quarter of next year. Although firms and households gradually begin to adapt to the new trading environment, they still have to grapple with varying degrees of Covid throughout the course of next year.

**Figure 23: GDP downside scenario quarterly profile, 2019q4=100**



Source: CSO, Department of Finance and ESRI calculations.

Overall, GDP growth would be reduced by 1 percentage point this year to a -3.4 per cent fall, and by almost 4 percentage points next year, resulting in a further contraction of -2.1 per cent. At the end of next year, the Irish economy would be approximately 7¼ per cent smaller than it was at end-2019, and facing a long and protracted road to recovery.

Turning to the impact on the labour market, a downside scenario unfolding would lower employment growth by just over 1¼ percentage points, i.e. an overall decline of 15 per cent (taking into account that employment is already expected to fall by 13.7 per cent). The impact would be even greater next year, with most of the recovery in employment wiped-out. Employment growth would be reduced by almost 6 percentage points to around 1¼ per cent. Meanwhile, the unemployment rate would be 1 percentage point higher this year, bringing it to 17 per cent for the year, and almost 4 percentage points higher in 2021, resulting in an unemployment rate of about 14 per cent.

The implications for the public finances would be significant in both the short- and medium-term. The general government deficit would rise to €22 billion this year and up to €25 billion next year (deficits of 6.3 per cent and 7 per cent of GDP, respectively). Beyond 2021, even in the advent of a vaccine, the economy's medium-term growth rate would be permanently lower due to the scarring effects of the pandemic.

**Table 16: Baseline versus downside projections, per cent**

	2020	2021
GDP baseline	-2.4	1.7
GDP downside	-3.4	-2.1
Employment baseline	-13.7	7.6
Employment downside	-15.0	1.7
Unemployment rate baseline	15.9	10.3
Unemployment rate downside	16.9	14.1
General government deficit baseline (€bn)	21.6	20.5
General government deficit downside (€bn)	22	25

Source: Department of Finance estimates

### 6.3 Risks to the economic and fiscal forecasts

The Department's assessment of the main economic and fiscal risk is set out in tables 19 and 20. In the near-term, most of the economic risks relate to the progression of the virus. As usual, there is two-sided uncertainty regarding the outlook; without a vaccine, however, the distribution of risk around the baseline is firmly skewed to the downside.

A disorderly end to the EU-UK 'transition period' is a key building block of the baseline scenario that underpins *Budget 2021*. As this is without historical precedent, it is not difficult to envisage a situation in which the outcome is worse-than-assumed – especially in the first quarter of next year when *inter alia* infrastructural bottlenecks could aggravate the situation. That said, it remains a possibility that an 'eleventh hour' agreement is reached between the two jurisdictions, which would have a beneficial impact on the economy next year.

On the fiscal side, most of the exposure of the public finances is economy-related: sharper-than-assumed changes in the economic situation (e.g. through a change in epidemiological circumstances), would pass-through directly to the fiscal aggregates. One important exception, however, relates to the exposure of the public finances to corporate taxation receipts (including to unilateral or multilateral policy changes internationally). The deterioration in the fiscal accounts of other countries could lead to an intensification for unilateral policy changes in this domain, with possible spill-overs to Irish revenues.

### 6.4 Contingent and other liabilities

Contingent liabilities, as set out in the Appropriation Accounts for the year ended 31 December 2019,<sup>20</sup> are set out in table 17 below.

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). The calculation of the contractual capital value of all Irish PPPs as at December 2019 is €0.5 billion on the government balance sheet, and almost €5 billion off-balance sheet amounting to an overall total of almost €5.5 billion.

The Department of Public Expenditure and Reform (DPER) measures the accrued liability of the occupational pension promises that the State has made to its serving and former employees. An

<sup>20</sup><https://www.audit.gov.ie/en/Find-Report/Publications/Appropriation%20Accounts/Appropriation%20Accounts%202019.pdf>

actuarial review of the State's pension liabilities was completed in 2017 using 2015 data and concluded that the value of accrued public service pension obligations is estimated to be €114.5 billion as at 31<sup>st</sup> December 2015 (on the basis that future pension increases are in line with pay parity; the accrued liability figure falls to €97.2 billion if increases are in line with consumer price inflation. DPER is currently carrying out an actuarial review as at 31 December 2018 with the results to be finalised over 2020.

**Table 17: contingent liabilities, per cent of GDP at end-year**

	2019	2020
Public guarantees	0.0	0.5
<i>of which:</i>		
Eligible Liabilities Guarantee (ELG)	0.0	0.0
National Asset Management Agency	0.0	0.0
Other [e.g. CIE, Insurance Acts; HFA, Credit Guarantee Act]	0.0	0.5

Forecasts for 2021 are not produced.

Note: Rounding may affect totals.

Source: Department of Finance, CSO.

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 31<sup>st</sup> December 2015. A key result from this review is the net present value of future projected shortfalls, which is €335 billion from 2015 to 2071.

Ireland also has a commitment to provide capital (either paid-in or callable capital) to the various international organisations of which it is a member.<sup>21</sup> The most significant of these contingent or potential liabilities is Ireland's callable commitment of approximately €9.87 billion to the European Stability Mechanism.

## COVID-19 Measures

The Covid-19 Credit Guarantee Scheme (the 'Scheme') is a €2bn Scheme to facilitate lending to SMEs, small mid-caps and primary producers. Loans of between €10,000 and €1 million are available for terms of 3 months up to 5.5 years for working capital, liquidity and investment purposes.

An 80 per cent State guarantee is provided on the loans, with no limit on the level of the lending portfolio which can be included by a finance provider under the Scheme, subject to its allocation. The guarantee provides a strong incentive for banks to lend under the Scheme.

The *Credit Guarantee (Amendment) Act 2020* amends the *Credit Guarantee Act 2012* as necessary to provide for the establishment of the Scheme. It provides for a maximum contingent liability under the Scheme of €1.6 billion, based on maximum lending of €2 billion provided with an 80 per cent guarantee and no portfolio cap. The cost of the Scheme will largely be dependent on the level of default experienced by finance providers. The Scheme operates under the Temporary State Aid Framework, and it will remain open for applicants only while the Temporary State Aid Framework is in operation.

S.I. 218 of 2020 introduced a temporary State guarantee scheme for credit notes issued by Irish licensed travel agents and tour operators in accordance with the *Transport (Tour Operators and Travel*

<sup>21</sup> <https://www.gov.ie/en/publication/89166-finance-accounts-2019/>

*Agents) Act 1982* and the *European Package Travel Directive, 2302/2015*. Under the temporary scheme, the State will guarantee the monetary value of a credit note issued to a customer of an Irish licensed travel agent or tour operator who have had to cancel holiday bookings due to the COVID-19 pandemic.

## 6.5 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* 'scoreboard'.<sup>22</sup> The rationale is simple: to identify any emerging imbalances in the Irish economy and help avoid the type of vulnerabilities that emerged in the lead-up to the financial crisis.

The pandemic has laid bare some underlying vulnerabilities across European economies, and while the full impact on macro imbalances remains to be seen, it is already evident that a number of pre-existing imbalances have been exacerbated by the crisis. In particular, government debt ratios that were still recovering after the global financial crisis are now rising rapidly again; Ireland's debt to GNI\* ratio is now flashing a deep amber (although, importantly, financing costs remain low, at least at the moment). The other major macroeconomic impact of the pandemic in Ireland (thus far) has been on the labour market, with the unemployment rate flashing red for 2020 after a rapid shift from full employment last year.

Other imbalances are likely to emerge on foot of the pandemic although the impact is yet to be borne out in hard data, e.g. private sector debt. Corporate debt is likely to rise as firms borrow to cover the income losses suffered, and the resulting future debt overhang could weigh on future investment.

Importantly, spill-overs from the pandemic to the financial sector have been relatively contained thus far. A prolonged downturn would jeopardise this: a protracted downturn would impact on the repayment capacity of households and firms. These issues are not unique to Ireland; many advanced economies could potentially face these issues in the future.

On a more positive note, the underlying sustainability of the economy as implied by Ireland's strong current account surplus is expected to be relatively unaffected by the pandemic. In other words, the nation as a whole is saving more than it is investing. This means that, while public sector indebtedness is increasing, external indebtedness is not (for instance, the household sector is building up (net) financial assets through the surge in the savings ratio). Ultimately, this means that the situation is very different to that prior to the financial crisis 2008-2010, which was characterised by very large current account deficits in the lead-up to the bursting of the bubble.

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<sup>22</sup>[https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/macro-economic-imbalance-procedure\\_en](https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/macro-economic-imbalance-procedure_en)

**Table 18: Heat-map of Macroeconomic Indicators, 2003-2021**

Indicator	LR Average	MIP Threshold	2019 Value	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21
Current account balance (% of GDP)	-1.5%	-4/6%	-11%																			
<i>Alternative: CA* % of GNI*</i>	-0.3%	-4/6%	7.7%																			
Net international investment position (NIIP % of GDP)	-108%	-35%	-172%																			
<i>Alternative: underlying NIIP (% of GNI*)</i>	-43%	-35%	-48%																			
Real effective exchange rate (1 year % change)	0.0%	±5.0% (EA)	-2.7%																			
Export market share - % of world exports	1.3%	-6.0%	2.0%																			
Nominal unit labour cost index (1 year % change)	0.5%	9.0% (EA)	0.9%																			
House price index, deflated (1 year % change)	2.0%	6.0%	0.1%																			
Private sector credit flow, consolidated (% of GDP)	8.3%	14%	-9.1%																			
Private sector debt, consolidated (% of GDP)	224%	133%	202%																			
<i>Alternative: Household debt (% of GNI*)</i>	100%		63%																			
General government gross debt (% of GDP)	61%	60%	57%																			
<i>Alternative: General government gross debt (% of GNI*)</i>	80%	60%	96%																			
Unemployment rate	8.4%	10%	5.0%																			
Financial sector liabilities, non-consolidated (1 year % change)	10.9%	16.5%	15.5%																			
	-2.25	-2.00	-1.75	-1.50	-1.25	-1.00	-0.75	-0.5	-0.25	0	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25			

Source: Department of Finance calculations, Eurostat, CSO, Central Bank. Note: the indicators for unit labour costs, private sector credit and debt, household debt, government debt, unemployment and financial sector liabilities have been inverted such that red represents a value above the long-run average, and vice versa. The long-run average for underlying NIIP was estimated from the headline NIIP from 2002 to 2007 and underlying NIIP values from 2016 to 2019 due to data availability, as the headline NIIP was particularly distorted by globalisation from 2008.

**Table 19: macro-economic risk assessment matrix**

Risk	Likelihood	Impact and main transmission channel
<b>External</b>		
Additional virus waves	<b>High</b>	<b>High</b> – see scenario analysis
Brexit impact leads to non-linearities	<b>Medium</b>	<b>High</b> – the combined impact of a disorderly UK exit from the EU and Covid-19 may lead to non-linearities, including large scale insolvencies among domestic firms, thus resulting in a greater economic shock than projected.
Additional lockdowns in export markets	<b>High</b>	<b>High</b> – a resurgence of the virus in our main trading partners leading to additional national lockdowns would have detrimental impacts on their economies and consequently weaken demand for Irish exports.
Geopolitical factors	<b>Medium</b>	<b>High</b> – geopolitical uncertainty may disrupt growth in key regions, generating headwinds for output and employment in Ireland.
Disruption to world trade	<b>Medium</b>	<b>High</b> – the pandemic could result in more permanent shifts away from trade and globalisation, exacerbating previous trade tensions and trends, with adverse implications for a small, open economy such as Ireland.
<b>Domestic</b>		
Concentrated production base	<b>Low</b>	<b>High</b> – 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	<b>Low</b>	<b>Medium</b> – 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 relative to other economies.
Housing supply pressures	<b>High</b>	<b>Medium</b> – supply constraints in the housing sector can adversely impact on competitiveness by inter alia restricting the mobility of labour
Scarring effects	<b>High</b>	<b>High</b> – the slower the pace of recovery, the higher the probability that some firms and workers become permanently detached from production, reducing the potential growth rate of the economy.

Source: Department of Finance

**Table 20: fiscal risk assessment matrix**

Risk	Likelihood	Impact and main transmission channel
Pandemic-related budgetary pressures	<b>High</b>	<b>High</b> – the longer the pandemic persists, the higher the fiscal costs will be, both direct (by way of supports from Government) and indirect (by way of lost revenue).
Corporation tax concentration risks	<b>High</b>	<b>High</b> – corporation tax receipts accounted for 18 per cent of total taxation revenue in 2019, and are highly concentrated in nature with the top 10 companies accounting for around 40 per cent of receipts. International tax policy changes will have an impact on this revenue stream.
Population ageing	<b>Medium</b>	<b>Medium</b> – Ireland’s currently favourable age profile will change and will begin to put increasing pressures on the public finances, specifically in the areas of pensions, health and long-term care.
EU budget contributions	<b>Medium</b>	<b>Low</b> – the stronger-than-anticipated GDP performance this year will raise the relative level of GNI, with implications for Ireland’s contribution to the EU budget
Contingent liabilities	<b>Low</b>	<b>Medium</b> – contingent liabilities are on a broadly declining trajectory, although the public finances would be affected if any of these liabilities were ‘called’ [see section 6.3].
Financing conditions	<b>Low</b>	<b>Medium</b> – financing conditions remain favourable at present, in part due to accommodative monetary policy; any change in stance could affect borrowing costs, though the bulk of Ireland’s debt is at fixed rates with relatively long maturities.
Climate change and renewable energy targets	<b>High</b>	<b>High</b> – failure to meet the State’s climate change obligations could result in significant financial costs or sanctions.
Litigation Risk	<b>Medium</b>	<b>Low</b> – an adverse litigation outcome against the State could result in additional, unplanned expenditure.

Source: Department of Finance

# Annex 1: Interaction with the Irish Fiscal Advisory Council

## Irish Fiscal Advisory Council's Endorsement of the Macroeconomic Forecasts



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Whitaker Square, Sir John Rogerson's Quay, Dublin D02 K138, Ireland.

28 September 2020

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 *Budget 2021* will be based.<sup>1</sup>

The Department provided its forecasts to the Council on 21st September 2020. The Council discussed these forecasts with Department of Finance staff on 25th September 2020, ahead of the Council's endorsement meeting.

The Council's approach to endorsing the Department's macroeconomic forecasts has three elements:

- 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 *Budget 2021* covering the years 2020 and 2021.**

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

The Department's forecasts only cover a 1-year-ahead forecast horizon (2020 and 2021). This is shorter than the 5-year-ahead forecast horizon adopted by the Department in recent years. It would be preferable for informing policy decisions with a medium-term orientation and for ensuring the consistency of short-term forecasts that a longer 5-year forecast horizon be used for all forecast exercises.

This endorsement comes as the Irish economy faces on-going challenges as a result of the Covid-19 pandemic, as well as the potential adverse impacts of a

<sup>1</sup> 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".



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hard Brexit. As such, there is very high uncertainty at this time around any set of economic forecasts.

The Council will discuss the endorsement process and assess the macroeconomic projections in its forthcoming Fiscal Assessment Report, due in November 2020.

Yours sincerely,

Sebastian Barnes, Chairperson.

## Fiscal Council-endorsed and final macroeconomic forecasts

**Table 21: Macroeconomic developments, per cent change (unless stated)**

	2020 <i>final</i>	2021 <i>final</i>	2021 <i>endorsed</i>	Difference (pp)
Real GDP	-2.4	1.7	1.4	0.3
<i>Components of real GDP</i>				
Personal consumption	-7.5	7.0	5.8	1.2
Government consumption	15.2	-1.6	-1.8	0.2
Gross fixed capital formation	-39.9	-25.7	-26.2	0.5
Stocks	0.0	0.0	0.0	-
Exports of goods and services	1.9	1.0	1.0	-
Imports of goods and services	-12.5	-5.6	-5.9	0.3

All numbers in this table are subject to rounding.  
Source: Department of Finance forecasts

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

	2020 <i>final</i>	2021 <i>final</i>	2021 <i>endorsed</i>	Difference (pp)
GDP deflator	0.6	0.9	0.7	0.2
Personal consumption deflator	1.5	1.6	1.4	0.2
HICP	-0.3	0.4	0.4	-
Export price deflator	-0.7	0.8	0.8	-
Import price deflator	-0.5	1.4	1.4	-

All numbers in this table are subject to rounding.  
Source: Department of Finance forecasts

**Table 23: Labour market developments, per cent change (unless stated)**

	2020 <i>final</i>	2021 <i>final</i>	2021 <i>endorsed</i>	Difference (pp)
Unemployment rate	15.9	10.3	10.7	-0.4
Labour productivity, persons <sup>^</sup>	13.1	-5.5	-5.3	-0.2
Compensation of employees*	-11.0	8.9	8.4	0.5
Compensation per employee	2.9	1.2	1.3	-0.1
Employment, persons ('000)	2,004	2,156	2,145	11

<sup>^</sup>GDP per person employed.

\*Non-agricultural sector.

All numbers in this table are subject to rounding.  
Source: Department of Finance forecasts

**Table 24: Sectoral balances, per cent of GDP**

	2020 <i>final</i>	2021 <i>final</i>	2021 <i>endorsed</i>	Difference (pp)
Current account	5.2	10.7	11.2	-0.5

All numbers in this table are subject to rounding.  
Source: Department of Finance forecasts

## Annex 2: Glossary of terms used in chapter 2

**Table 25: glossary of terms used in Chapter 2 – Economic Outlook**

'Core' inflation	A measure of consumer price inflation (harmonised across the EU) that excludes the unprocessed foods and energy components; the rationale is that these components are highly volatile and excluding them from any analysis gives a better indication of underlying price dynamics.
Headline investment	Represents the sum of overall investment, comprising of the sum of building and construction, machinery and equipment spending as well as spending on intangible assets.
Intangible asset	A productive asset that is not physical in nature, which can comprise of brand recognition, goodwill and intellectual property, such as patents, trademarks and copyrights. Intangible assets were included in national accounting under the changes introduced by the 2010 <i>European System of Accounts</i> (ESA2010).
Intellectual Property (IP)	A category of property that includes intangible creations of human intellect. It includes copyrights, patents, and trademarks.
Modified current account	The current account balance excluding net factor income of re-domiciled PLCs, depreciation of R&D imports, traded intellectual property, and leased aircraft. Included are the cost of imported investment in net aircraft related to leasing, R&D-related intellectual property, and imports of R&D services.
Modified domestic demand	A proxy for the domestic economy, comprising of the sum of personal and government consumption and investment, excluding investment in imported IP and aircraft for leasing purposes. It also excludes changes in the value of inventories.
Modified GNI (or GNI*)	Defined as GNI less the effects of the profits of re-domiciled companies and the depreciation of intellectual property products and aircraft leasing companies.
Modified investment	Total of investment excluding investment in imported IP and aircraft for leasing purposes. It also excludes changes in the value of inventories.
Modified net exports	A measure of 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 investment in aircraft by the leasing sector, plus domestic R&D.
Now-cast	A prediction of the past, the very near future, and the very recent past. Not to be confused with a forecast which is an estimate prior to the period of interest, a nowcast is an estimate made during the period of interest.
Output gap	Represents the difference between the actual output of an economy and the maximum potential output of an economy expressed as a percentage of Gross Domestic Product (GDP).
Potential (GDP)	The level of output that an economy can produce at a stable inflation rate.

Source: Department of Finance

## Annex 3: Additional Fiscal Statistics and Tables

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

	2019	2020	2021
Exchequer balance	645	-16,695	-17,640
Exclude equity and loan transactions	-2,480	-4,595	-1,500
Adjust for interest accrual	570	620	215
Adjust for tax accruals	525	1,815	-120
Adjust for other accruals	350	630	335
Net lending of non-commercial State bodies	390	-250	-325
Impact of ISIF	440	60	60
Net surplus of Social Insurance Funds	1,490	-2,210	-585
Net surplus of other EBFs	285	-30	20
Net lending/borrowing of Local Government (incl. AHBs)	-365	-960	-945
General government balance (GGB)	1,850	-21,620	-20,485
per cent of GDP	0.5	-6.2	-5.7
Nominal GDP	356,050	349,475	358,725

Rounding may affect totals. GDP is rounded to nearest €25m

Source: Department of Finance, Department of Public Expenditure and Reform, Central Statistics Office (CSO) and National Treasury Management Agency (NTMA) estimates.

**Table A2: general government balance 2019-2021, per cent of GDP (unless stated)**

	2019 (€m)	2019	2020	2021
<b>Net lending by sub-sector</b>				
<b>General government balance</b>	1,850	0.5	-6.2	-5.7
Central government	2,215	0.6	-5.9	-5.4
Local government	-365	-0.1	-0.3	-0.3
<b>General Government</b>				
Total Revenue	89,125	25.0	24.1	24.7
Total Expenditure	87,275	24.5	30.3	30.4
<b>Net lending/borrowing</b>	<b>1,850</b>	<b>0.5</b>	<b>-6.2</b>	<b>-5.7</b>
Interest expenditure	4,455	1.3	1.1	1.0
Primary balance	6,305	1.8	-5.1	-4.7
One-off / other temporary measures	0	0.0	0.0	0.0
<b>Main Components of Revenue</b>				
Total Taxes	64,620	18.2	18.0	18.0
- Taxes on production and imports	27,465	7.7	7.1	7.2
- Current taxes on income, wealth etc.	36,625	10.3	10.7	10.7
- Capital taxes	530	0.1	0.1	0.1
Social contributions	15,840	4.4	4.0	4.3
Property Income	1,580	0.4	0.3	0.1
Other	7,085	2.0	1.8	2.4
<b>Total revenue</b>	<b>89,125</b>	<b>25.0</b>	<b>24.1</b>	<b>24.7</b>
p.m.: Tax burden	81,075	22.8	22.2	22.7
<b>Main Components of Expenditure</b>				
Compensation of employees	23,015	6.5	7.0	7.2
Intermediate consumption	12,515	3.5	4.8	4.1
Social payments	31,650	8.9	11.2	10.7
- Social transfers in kind via market producers	7,475	2.1	2.6	2.4
- Social transfers other than in kind	24,175	6.8	8.7	8.3
Interest expenditure	4,455	1.3	1.1	1.0
Subsidies	1,710	0.5	1.8	1.3
Gross fixed capital formation	8,080	2.3	2.6	2.7
Capital Transfers	1,920	0.5	0.6	0.6
Other	3,930	1.1	1.1	1.2
Resources to be allocated	0	0.0	0.0	1.5
<b>Total expenditure</b>	<b>87,275</b>	<b>24.5</b>	<b>30.3</b>	<b>30.4</b>
p.m. : Government consumption	42,110	11.8	14.2	13.6
GDP at current market prices	356,050	356,050	349,475	358,725

Rounding may affect totals.

Source: Department of Finance, Department of Public Expenditure and Reform, CSO and NTMA estimates

**Table A3: comparison of vintages of receipts and expenditures for 2020, € millions**

	SPU 2020	Budget 2021	Total Δ	New Data <sup>1</sup>
<b>General Government Revenue</b>				
Taxes on production and imports	21,910	24,945	3,035	3,035
Current taxes on income, wealth	31,355	37,455	6,100	6,100
Capital taxes	415	450	35	35
Social contributions	12,760	14,040	1,280	1,280
Property Income	1,150	1,065	-85	-85
Other	4,960	6,285	1,325	1,325
<b>Total revenue</b>	<b>72,545</b>	<b>84,245</b>	<b>11,700</b>	<b>11,700</b>
<b>General Government Expenditure</b>				
Compensation of employees	24,280	24,625	345	345
Intermediate consumption	14,260	16,805	2,545	2,545
Social payments	34,855	39,280	4,425	4,425
Interest expenditure	3,950	3,850	-100	-100
Subsidies	3,685	6,135	2,450	2,450
Gross fixed capital formation	8,825	9,250	425	425
Capital transfers	1,990	1,925	-65	-65
Other	3,840	3,990	150	150
<b>Total expenditure</b>	<b>95,685</b>	<b>105,865</b>	<b>10,180</b>	<b>10,180</b>
<b>General government balance</b>	<b>-23,135</b>	<b>-21,620</b>	<b>1,515</b>	

Rounding may affect totals

1. Reflects more up-to-date data since the SPU 2020 estimates.

Source: Department of Finance.

**Table A4: general government interest expenditure 2019-2021, € millions**

	2019	2020	2021
National Debt Cash Interest	5,045	4,540	3,800
per cent tax revenue	8.5	8.0	6.3
per cent of GDP	1.4	1.3	1.1
National Debt Cash Interest Accruals	-435	-540	-195
Consolidation and Grossing Adjustments	-65	-90	-65
Other	-90	-60	15
Total Interest on ESA2010 basis	4,455	3,850	3,555
per cent of total general government revenue	5.0	4.6	4.0
per cent of GDP	1.3	1.1	1.0

Rounding may affect totals

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

**Table A5: projected movement in general government debt 2019-2021, € billions**

	2019	2020	2021
Opening general government debt	205.9	204.2	218.6
Exchequer borrowing requirement	-0.6	16.7	17.6
Change in Exchequer Deposits	1.0	-3.6	-0.6
Net lending of NCSSBs <sup>*</sup>	0.9	0.2	0.3
Net lending of local government	0.4	1.0	0.9
Change in collateral held	0.0	0.0	0.0
Other	-3.3	0.2	2.1
Closing general government debt	204.2	218.6	239.0
General government debt to GDP ratio	57.4	62.6	66.6

\*NCSSBs = Non-commercial semi-state bodies

Source: Department of Finance, CSO and NTMA.

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

	2019 (€m)	2019	2020	2021
Total Revenue at unchanged policies	88,168	24.8	23.8	24.8
Discretionary revenue	957	0.3	0.3	0.0

Source: Department of Finance

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

	2019(€bn)	2019	2020	2021
Exp. on EU Programmes matched by revenue from EU funds	0.8	0.2	0.2	0.2
Expenditure fully matched by mandated revenue increases	0	0	0	0
Non-discretionary changes in unemployment benefit expenditure	-0.6	-0.2	1.6	0.7

Rounding may affect totals.

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

**Table A8: estimate of local government income and expenditure for 2021, € millions**

	2021
<b>General government revenues/inflows</b>	<b>9,645</b>
Rates / NPPR (net of bad debt provision for rates)	1,660
Property income	1,590
Other receipts	780
Inflows from central government <sup>1</sup>	5,285
Inflows from operations in financial instruments <sup>2</sup>	330
<b>General government expenditure / outflows</b>	<b>10,590</b>
Compensation of employees <sup>3</sup>	2,115
Interest paid to non-government <sup>4</sup>	15
Social benefits (transfers in kind to households)	910
Capital transfers (capital grants paid)	4,465
Other expenditure (net of bad debt provision for rates)	2,990
Outflows to central government <sup>5</sup>	60
Outflows from operations in financial instruments <sup>6</sup>	35
<b>Local government balance</b>	<b>-945</b>

Figures may not sum due to rounding.

1. Grants and subsidies.

2. Loans.

3. Including pensions.

4. Interest paid other than to the HFA, OPW or NTMA.

5. Interest and principal paid to the HFA, OPW and NTMA.

6. Principal repaid, other than to the HFA, OPW or NTMA.

Source: Department of Finance

## Annex 4: Summary of economic and fiscal outlook

**Table A9: macroeconomic aggregates, 2019 - 2021**

	2019	2020	2021
<b><i>Economic activity</i></b>	year-on-year per cent change (unless stated)		
Real GNP	3.4	-2.9	1.6
Real GDP	5.6	-2.4	1.7
Nominal GDP (nearest €25m)	356,050	349,475	358,725
Nominal GNP (nearest €25m)	274,325	268,750	275,050
Nominal GNI* (nearest €25m)	213,700	202,825	208,350
<b><i>Components of GDP</i></b>	year-on-year per cent change		
Personal consumption	3.2	-7.5	7.0
Government consumption	6.3	15.2	-1.6
Investment	74.8	-39.9	-25.7
<i>Modified domestic demand</i>	3.3	-6.1	4.9
<i>Modified investment</i>	1.2	-19.3	6.6
Exports	10.5	1.9	1.0
Imports	32.4	-12.5	-5.6
<b><i>Contributions to GDP growth</i></b>	percentage point		
Domestic demand (excl. stocks)	22.9	-19.1	-5.3
Net exports	-17.5	16.7	7.0
Stock changes	0.1	0.0	0.0
statistical discrepancy	-0.1	0.0	0.0
<b><i>Price developments</i></b>	year-on-year per cent change		
HICP	0.9	-0.3	0.4
GDP deflator	3.1	0.6	0.9
Personal Consumption Deflator	2.4	1.5	1.6
<b><i>Labour market</i></b>	year-on-year per cent change		
Employment	2.9	-13.7	7.6
Unemployment	5.0	15.9	10.3
Labour Productivity, persons <sup>^</sup>	2.6	13.1	-5.5
Compensation of Employees	7.3	-11.0	8.9
Compensation per Employee	3.5	2.9	1.2
<b><i>External trade</i></b>	per cent of GDP		
Trade balance	12.3	29.1	34.8
Current Account	-11.3	5.2	10.7

Estimates of the output gap are not provided, given the uncertainty associated with measuring potential growth.  
Source: CSO (for 2019) and Department of Finance (for 2020-2021). <sup>^</sup>GDP per person employed.

**Table A10: exchequer & general government aggregates, 2019 - 2021**

	2019	2020	2021
<b>Exchequer position (€ million)</b>			
<b>Exchequer Balance</b>	645	-16,695	-17,640
Tax Revenue	59,315	56,695	60,390
<b>General government developments (€ millions)</b>			
Total Revenue	89,125	84,245	88,695
Total Expenditure	87,275	105,865	109,180
<b>General government balance</b>	1,850	-21,620	-20,485
<b>General government developments (per cent of GDP)</b>			
Total Revenue	25.0	24.1	24.7
Total Expenditure	24.5	30.3	30.4
General government balance	0.5	-6.2	-5.7
Interest expenditure	1.3	1.1	1.0
Primary balance	1.8	-5.1	-4.7
Gross fixed capital formation	2.3	2.6	2.7
Gross debt	57.4	62.6	66.6
Net debt	49.4	55.6	60.3
<b>Debt developments (per cent of GNI*)</b>			
Gross debt	95.6	107.8	114.7
Net debt	82.2	95.9	103.8

Rounding may affect totals.

Source: CSO (for 2019) and Department of Finance for 2020-2021

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

	2014	2015	2016	2017	2018	2019	2020	2021
Autumn 2013	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
Spring 2019						3.9	3.3	2.4
Autumn 2019						5.5	0.7	2.5
Spring 2020							-10.5	6.0
Autumn 2020							-2.4	1.7
Outturn	8.6	25.2	2.0	9.1	8.5	5.6		

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**

	2014	2015	2016	2017	2018	2019	2020	2021
Autumn 2013	-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
Spring 2019						0.2	0.4	0.7
Autumn 2019					0.1	0.2	-0.6	-0.2
Spring 2020						0.4	-7.4	-4.1
Autumn 2020						0.5	-6.2	-5.7
Outturn	-3.6	-1.9	-0.5	-0.2	0.1	0.5		

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.