

Chapter 2

Endorsement and Assessment of the Macroeconomic Forecasts

2. Endorsement and Assessment of the Macroeconomic Forecasts

Key messages

- The Irish economy has endured a major Covid-19 shock, and the onset of further nationwide restrictions since October has left 350,000 people in receipt of the Pandemic Unemployment Payment. Nevertheless, the impact of Covid-19 on the domestic economy has been less severe than forecast, helped by multinational entities with substantial employment in Ireland.
- Underlying domestic demand fell by 16 per cent in the second quarter of 2020 in year-on-year terms, yet this outperformed the Council’s most optimistic “mild” scenario published in the May 2020 *Fiscal Assessment Report*, along with the Government’s *Stability Programme Update (SPU) 2020* forecast. Encouragingly, the pace of economic recovery remained strong through the summer while virus transmission slowed, albeit some sectors and regions have been particularly badly affected by the pandemic. New analysis in this chapter finds that activity has been worst affected in western and border counties as a result of their greater reliance on consumer-facing industries, including tourism and hospitality.
- The Council endorsed the Government’s *Budget 2021* macroeconomic forecasts as being within an endorsable range. The forecasts again cover just one year ahead, to 2021, unlike the normal five-year horizon. Medium-term forecasts are important for sound budgetary planning and assessing the consistency of the short-term forecasts. The Council therefore assesses that a return to five-year-ahead forecasting is essential from *SPU 2021*.
- In this *Fiscal Assessment Report*, the Council provides an update to its macroeconomic scenarios out to 2025, now with a focus on estimated quarterly GNI*. As before, one scenario extends the *Budget 2021* forecasts; a “Milder” scenario considers a faster recovery in the event of a vaccine becoming available during 2021, and a disorderly Brexit being avoided; and a “Repeat Waves” scenario is based on recurring periods of Level 5-type restrictions and weaker external demand. The scenarios imply a wide range of possible outcomes for medium- and long-run economic performance.

2.1 Introduction

The Covid-19 pandemic and required policy measures resulted in a sharp economic downturn and major shock to many sectors of the economy. Although the situation continues to evolve rapidly, in the months since the May 2020 *Fiscal Assessment Report* it has become apparent that the impact of Covid-19 on the overall economy has been less severe than expected.

Reflecting the high degree of uncertainty, this chapter updates previous scenario analysis covering 2020–2025, now focusing on estimated quarterly real GNI*. Our Extended *Budget 2021* scenario uses the same assumptions as the Budget macroeconomic forecasts of no vaccine availability before 2022 and a disorderly Brexit. A “Milder” scenario illustrates possible outcomes of a swifter improvement in health and economic conditions if a vaccine becomes available sooner, alongside a free-trade agreement between the UK and EU for 2021 onwards. Lastly, a “Repeat Waves” scenario traces out the impact of worse public health outcomes that would require further restrictions over coming years. The medium- and long-term implications of these scenarios are also considered.

At present, the Repeat Waves scenario appears less likely to transpire given recent announcements by pharmaceutical manufacturers Pfizer/BioNTech, Moderna and AstraZeneca. These developments suggest that an effective vaccine could be widely available sooner than assumed in *Budget 2021*.

We are unable to compare these forecasts with those of Government except in the very near term. This because the Government’s *Budget 2021* forecasts, endorsed by the Council in September, cover just one year ahead. This is despite the Council noting in May the importance of a return to the normal practice of forecasting five years ahead. For sound budgetary planning, and to ensure consistency of the short-term forecasts, the Council assesses that a return to five-year-ahead forecasting is essential from next year’s *Stability Programme Update*.

2.2 Endorsement of *Budget 2021* Forecasts

The Council's most recent endorsement exercise of the Department of Finance's macroeconomic forecasts was undertaken in September 2020 (see Appendix A for the endorsement timeline details).¹⁴

The Department's provisional macroeconomic forecasts were completed on 21st September 2020. The Council and Secretariat discussed the forecasts with Department staff on 25th September 2020. On 13th October 2020, following the publication of *Budget 2021*, the Department provided a final update of forecasts reflecting the estimated impact of policy changes introduced in the Budget.

The Department's short-term macroeconomic forecasts for 2020 and 2021 in *Budget 2021* were judged as being within an endorsable range, taking into account the methodology and plausibility of the judgments made. The Council again noted the very high degree of uncertainty around the economic forecasts due to the on-going challenges of Covid-19, and the potential adverse impacts of a hard Brexit.

The endorsement process focuses on three main aspects: the appropriateness of the methodology used; the pattern of recent forecast errors; and comparisons with the Council's benchmark projections and other forecasts. A further consideration of these three aspects is the horizon for the forecasts, as discussed below.

Forecast Horizon

As for the *Stability Programme Update 2020 (SPU 2020)* in April, the Government's forecasts only cover a one-year-ahead forecast horizon. This is shorter than the five-year-ahead forecast horizon adopted by the Department in recent years, and the Council assesses this to be a significant shortcoming of *Budget 2021*.

For April's SPU, the pandemic and associated containment measures led to an unprecedented and fast-moving situation. Limiting the horizon for macroeconomic forecasts was therefore understandable from an operational perspective, if still undesirable for sound planning and crisis management. However, as the situation

¹⁴ The statutory function is detailed in Fiscal Council (2013) and Fiscal Council (2014a). Benchmark projections prepared by the Secretariat form a key part of the endorsement process.

has stabilised in the intervening months, the same rationale for a shortened forecast horizon was less applicable for *Budget 2021*.

The need for medium-term forecasts is now greater given the scale of the shock already suffered due to Covid-19, the threat to the economy posed by a possible disorderly Brexit, and the magnitude of measures that the Government has introduced to support households and businesses during 2020. At the same time, developing five-year forecasts helps to ensure the quality of shorter-term projections from a technical perspective and in terms of their coherence, with a view to where the economy is heading once short-term factors play out. The Council therefore assesses that a return to five-year-ahead forecasting is essential from *SPU 2021*. The Department has committed to delivering medium-term forecasts.¹⁵

Methodology

The Council is satisfied that the Department's forecasting broadly conforms to that of other forecasting agencies, including in the way the unprecedented Covid-19 shock has been addressed.

For *Budget 2021*, the approach to forecasting the economy was somewhat different to *SPU 2020*. The April forecast began with a model-based counterfactual scenario in which no pandemic or Brexit would occur, and subtracted impacts consistent with the Government's assumptions for each of the two shocks.

For September, the Department calibrated an initial forecast according to the assumption that there would be no Covid-19 vaccine available in 2021, and where a limited free-trade agreement (FTA) would be reached between the UK and EU. Additional shocks were then layered in to take account of a disorderly no-deal Brexit. As noted in *Budget 2021* and based on recent research by Daly and Lawless (2020), the overlap between sectors weakened by Covid-19 and those that are most vulnerable to Brexit is limited, implying an additive impact of Brexit shocks; this is also in line with the Council's findings (see Box A in Fiscal Council, 2020c).

¹⁵ Slide 16 in the Department's presentation to Irish Fiscal Advisory Council entitled 'Budget 2021: Macroeconomic outlook', available at: <https://www.gov.ie/en/press-release/4b5e5-minister-donohoe-publishes-economic-forecasts-that-will-underpin-budget-2021/>

Seasonally-adjusted quarterly profiles for the key variables can be useful in building up estimated impacts of a shock through various interlinkages in an economy, such as those described by Conroy and Casey (2017). Quarterly profiles also help to validate that the shocks have been applied in a consistent manner, such that the forecasts represent a plausible short-term path for the economy given assumptions about the path of the virus. At a time when output has shifted significantly between quarters, this also helps to ensure that annual forecasts are consistent with the underlying pattern of activity.

Further scope exists for development of these quarterly profiles, which could strengthen the quality and internal consistency of the Department's forecasts. Profiles for one year ahead (a six-quarter-ahead forecast at Budget time) could be updated following the Budget for the impact of policy changes, which may not necessarily be evenly distributed across quarters. Improvements could also be made to the quarterly profiling itself; for the *Budget 2021* profiles, some of the expenditure components of GDP are forecast with constant quarter-on-quarter growth rates over the forecast horizon. This seems unrealistic and unlikely to be consistent with the medium-term recovery of the economy, although overall the annual figure is within a realistic range.^{16, 17} A richer framework would instead prioritise the coherence of quarterly developments for the level of activity in each subcomponent, and their rates of change.

Pattern of Recent Forecast Errors

When analysing patterns of forecast errors, the main objective is to assess whether there is a systematic tendency or bias in forecasts to contextualise current forecasts and possibly highlight areas of risk. Since 2013, year-ahead forecasts by the Department for underlying domestic demand have often been less positive than

¹⁶ For example, the quarterly growth in modified investment in the Department's profiles accelerates from 1.8 per cent in Q4 2020 to 4.9 per cent in Q1 2021, despite the assumption that a disorderly Brexit has taken place. While this reflects a mechanical derivation of the quarterly profiles, a more coherent and nuanced profile would provide an additional sense check on whether further judgement is appropriate for the annual growth forecast. Furthermore, the Department's forecast for business investment (machinery and equipment excluding other transport equipment) appears to be entirely judgement-based. Monthly data sources relevant to machinery and equipment investment, such as merchandise trade data and new goods vehicle licensing, suggest a stronger performance is likely in 2020 than the Budget forecast of -20 per cent.

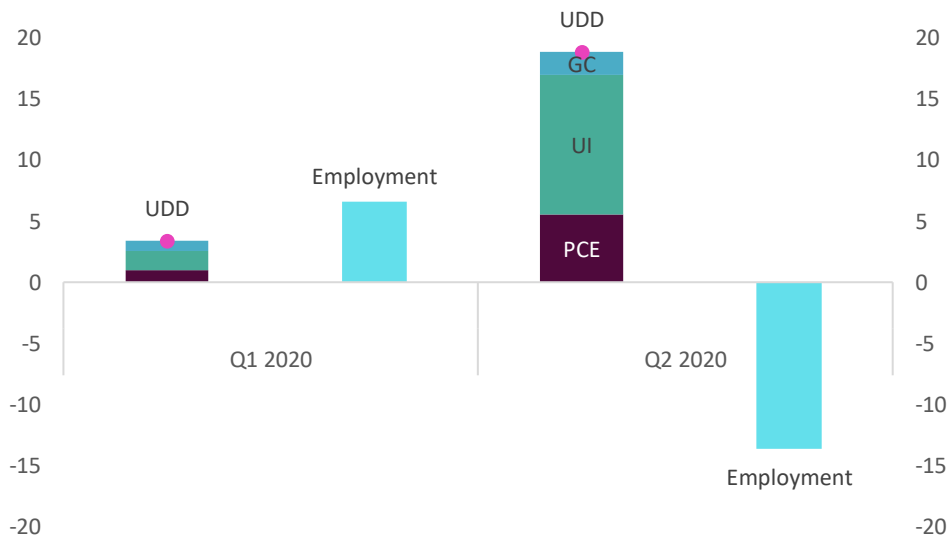
¹⁷ The Department's deflator forecast for government consumption in 2020 is also high. The Department forecasts annual deflator growth of 4.5 per cent, which would require 6.3 per cent of year-on-year deflator growth for the second half of 2020, which seems unlikely.

outturns. This has been down to consistently outperforming personal consumption and government consumption, whereas underlying investment has more often underperformed.

As the sharp and sudden impact of the pandemic has increased emphasis on quarterly forecasts this year, it is worthwhile to compare forecasts with outturns at a higher frequency. Although exceptional uncertainty surrounded any forecast produced in April 2020, it is valuable to compare assumed economic impacts with those that actually occurred as the exercise may help to improve understanding of how the economy functions. This is particularly the case when *SPU 2020* forecasts necessarily relied on a high degree of judgement. Figure 2.1 shows underlying domestic demand (UDD) and employment forecast errors for Q1 and Q2 2020 based on *SPU 2020* forecasts.

Figure 2.1: Underlying domestic demand outperformed *SPU 2020* forecasts despite weak employment

Percentage difference in levels, and percentage-point contributions for UDD components



Sources: CSO; Department of Finance; and Fiscal Council workings.

Note: Employment is measured by the Department of Finance in *SPU 2020* and *Budget 2021* as the ILO definition adjusted for Pandemic Unemployment Payment recipients.

Real UDD for 2019 is now 0.8 per cent higher than assumed at the time of *SPU 2020* due to data revisions, and the short-term impact of Covid-19 was more benign than forecast for UDD in both Q1 and Q2 2020. This performance was largely due to a less

severe fall in investment, owing to a shorter initial period of restrictions affecting the construction sector in Q2 2020.¹⁸

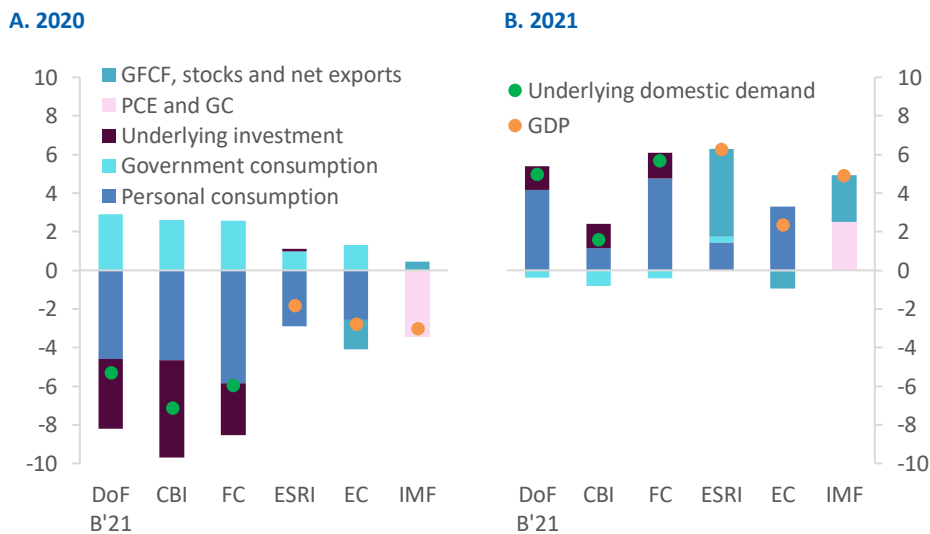
However, the impact of Covid-19 on employment has been more severe than forecast. A factor in this relates to take-up levels for the Pandemic Unemployment Payment as opposed to the Temporary Wage Subsidy Scheme, given that recipients of the latter are still classified as employed. However, the main explanation is that the pandemic had a more severe impact on employment than initially expected.

Comparison with Other Projections

Comparison across forecasts can be a useful way of assessing their robustness. The most recent forecasts of economic growth for Ireland from a selection of forecasters are shown in Figure 2.2.

Figure 2.2: Recent forecasts of economic growth

Percentage-point contributions and year-on-year percentage change in volumes



Sources: Economic and Social Research Institute (ESRI), *Quarterly Economic Commentary, Autumn 2020*; Central Bank of Ireland (CBI), *Quarterly Bulletin No 4 2020*; Department of Finance (DoF B'21), *Budget 2021*; International Monetary Fund (IMF), *World Economic Outlook, October 2020*; European Commission (EC), *European Economic Forecast, Autumn 2020*; and Fiscal Council (FC) workings. Note: For the IMF forecast, contributions from personal consumption expenditure and government consumption are residually determined.

The forecasts for 2020 in Figure 2.2A reveal greater weakness for UDD compared to GDP, owing to the strength of net exports to date in 2020. This export strength has been driven by rising sales by foreign-owned multinationals in pharmaceuticals and

¹⁸ The construction sector began to return to work in May, around six weeks ahead of *SPU 2020* assumptions, which included three months of containment measures followed by a gradual recovery including ongoing social distancing.

computer services. For 2021, the UDD growth forecasts shown in Figure 2.2B have been prepared on the basis of a disorderly Brexit and no widespread availability of a Covid-19 vaccine.¹⁹

The Council's benchmark projections are a key input to the endorsement process and allow the Council to work through the issues in each forecast round. The numbers are presented in Appendix B. These were completed in September and the forecasts were made using real GNI* as the preferred measure of aggregate demand. Overall, the benchmark projections are similar to the *Budget 2021* forecasts.

¹⁹ Recent developments from pharmaceutical manufacturers Pfizer/BioNTech, Moderna and AstraZeneca suggest an effective vaccine could be available sooner than assumed in *Budget 2021*.

2.3 Assessment of the *Budget 2021* Macroeconomic Forecasts and Scenarios to 2025

The economic outlook remains highly uncertain, mainly as a result of Covid-19 and Brexit. A wide range of paths could plausibly occur next year and further ahead.

Although all sectors have been adversely affected by the pandemic, some parts of the Irish economy have been less exposed than others. The presence of large foreign-owned multinationals in pharmaceuticals, medical devices, information and communication technology, and computer hardware has supported activity and earnings, as has the high capacity for working from home.²⁰ Household incomes overall have also been partly insulated from the worst effects of the pandemic through substantial government supports for employment and firms.

However, younger workers and those lower in the income distribution have been hardest hit, as have firms in the tourism, hospitality, and retail sectors (Byrne *et al.*, 2020). As discussed in Box C, western and border counties have been worst affected by the pandemic as a result of their greater reliance on such consumer-facing activities. Furthermore, any form of Brexit will compound the challenges faced by the economy in recovering from the pandemic.

This section first assesses the Budget's short-term forecasts, before setting out three scenarios for the economy to 2025.

***Budget 2021* Short-term Forecasts**

The Department's forecast for UDD in 2020 has been revised significantly higher to -5.3 per cent, from -15.1 per cent in *SPU 2020*. For UDD this year, *Budget 2021* forecasts show smaller reductions in underlying investment and personal consumption expenditure, and higher government consumption expenditure.²¹

Table 2.1 sets out forecasts of key macroeconomic indicators contained in *Budget 2021*. Real GNI*, based on nominal GNI* deflated with the GNP deflator, implies a fall

²⁰ EU survey data suggests that Ireland has the second-highest share of hours worked from home during Covid-19: see <https://www.eurofound.europa.eu/data/covid-19>

²¹ Underlying investment: year-on-year fall of -17 per cent, 24 percentage points higher than forecast in *SPU 2020*. Personal consumption expenditure: -7.5 per cent, +6.7 percentage points. Government consumption: +15.2 per cent, +6.1 percentage points.

of 6 per cent in 2020. This represents a considerable upward revision compared to the fall of 16 per cent implied by *SPU 2020* forecasts, mirroring the change for UDD.

Table 2.1: Budget 2021 macroeconomic forecasts

Percentage change in volume, unless stated

	2019 ^a	2020	2021
Demand			
GNI* (implied) ^b	1.7	-6.0	2.0
<i>...of which (contributions)</i>			
Underlying domestic demand ^c (p.p.)	3.5	-4.4	4.8
Change in stocks, subsidies less taxes ^c (p.p.)	0.3	0.0	0.0
Adjusted net exports ^c (p.p.)	-2.1	-1.6	-2.8
Underlying domestic demand	4.1	-5.3	5.0
GDP	5.6	-2.4	1.7
Personal consumption	3.2	-7.5	7.0
Government consumption	6.3	15.2	-1.6
Underlying investment ^b	4.7	-16.9	9.2
Exports	10.5	1.9	1.0
Underlying imports ^b	12.8	2.8	2.7
Labour market			
Population	1.3	1.1	0.7
Labour force	2.0	-2.6	0.9
Employment ^d	2.9	-13.7	7.6
Unemployment rate (% labour force) ^d	5.0	15.9	10.3
Prices (year-on-year percentage change)			
Harmonised index of consumer prices	0.9	-0.3	0.4
Personal consumption deflator	2.4	1.5	1.6
GDP deflator	3.1	0.6	0.9
Gross national product (GNP) deflator	3.5	0.9	0.7
Nominal value			
Nominal GNI*	7.6	-5.1	2.7
Nominal GNI* (€ billion)	213.7	202.8	208.3
Nominal GDP	8.9	-1.8	2.6
Nominal GDP (€ billion)	356.1	349.5	358.7
Modified current account (% of GNI*)	7.7	6.5	2.6

Sources: CSO; Department of Finance; and Fiscal Council workings.

Notes: ^a Denotes latest outturns from the CSO.

^b Derived from nominal GNI* in *Budget 2021* deflated with the GNP deflator.

^c Contributions to real GNI* growth rates in percentage points. Adjusted net exports are residually determined from the implied real GNI* forecast less real UDD, stocks, and subsidies less taxes (which are assumed unchanged from 2019 onwards).

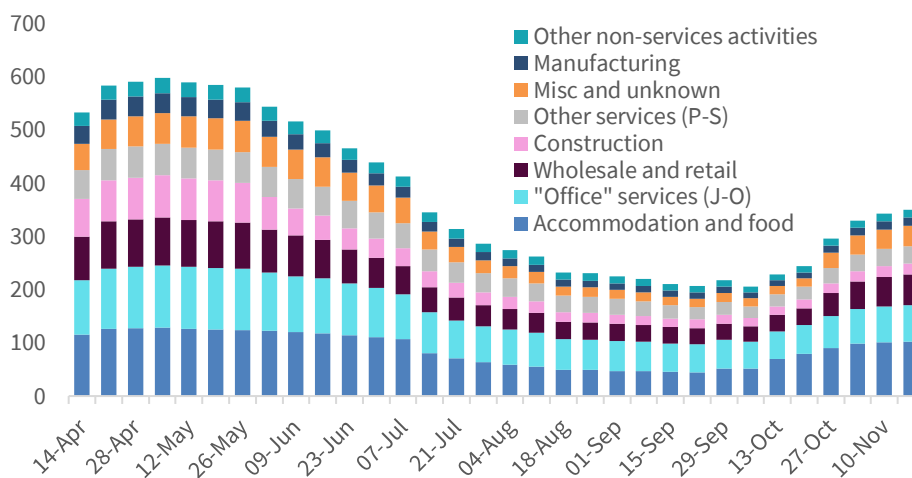
^d Employment and unemployment in 2020 and 2021 are measured by the Department as the ILO definition, but adjusted to consider PUP recipients as a reduction in employment and increase in unemployment. In line with the ILO definition, workers whose jobs are supported by the Government's wage subsidy schemes are included as employed.

Although level forecasts for 2021 have also been revised up, the quarter-on-quarter path for UDD is now flat, and the quarterly levels of activity forecast in *Budget 2021* and *SPU 2020* almost converges by early 2022 (see Box D, Figure D.1B). This is due to a faster-than-forecast rebound from the initial Covid-19 shock — which was less severe for UDD than assumed, as shown in Figure 2.1 — and the change in assumption that there will be a disorderly Brexit at the beginning of 2021.

However, the restrictions to activity due to Covid-19 caused a large fall in employment of close to 600,000 people in Q2 2020. The impact of Covid-19 on the **labour market** was more severe in April and May (the initial restrictions) than in October and November (when restrictions on activity were increased to the top of the five-level *National Framework for Living with Covid-19*, in response to a rise in infection levels). This is reflected in Figure 2.3, which shows a relatively high current level of enforced inactivity for accommodation and food services workers in receipt of the Pandemic Unemployment Payment (PUP), but lower levels for other sectors.

Figure 2.3: Pandemic Unemployment Payments up 145,000 since October

Thousands



Sources: Department of Employment Affairs and Social Protection; and Fiscal Council workings. Note: "Office" services sectors J-O comprise the following industries: information and communication; financial and insurance; real estate; professional, scientific, and technical; and public administration and defence. Other services P-S includes: education; human health and social work; and arts, entertainment, recreation, and other services.

As restrictions were initially eased in May and into June, and several sectors were able to return to work, a transition took place for many workers out of PUP and into the Temporary Wage Subsidy Scheme — which was replaced in September by the Employment Wage Subsidy Scheme. The easing of restrictions encouraged a rapid recovery in hours worked in the third quarter of the year, which rebounded to 5 per

cent lower than for the same period in 2019 — up from 22 per cent lower in Q2 2020. Although a gradual reduction in the number of subsidised workers took place over the summer months, the Employment Wage Subsidy Scheme has returned to similar levels seen in its temporary predecessor at the end of May (see Figure 1.3D).

The impact of Covid-19 disruptions to **output and value added** in the domestic Irish economy at a sectoral and regional level is considered in Box C. The analysis combines PUP data by sector and region (kindly supplied by the Department of Employment Affairs and Social Protection) with CSO data for regional gross value-added excluding foreign-owned multinational firms, which is imputed from sector-level aggregates. The findings suggest substantial falls in output for all regions in Q2 2020, but that Dublin’s activity was relatively less affected than elsewhere in Ireland. This is due to a higher share of employment and activity in Dublin in sectors that have been less exposed to lost value-added as a result of the pandemic.

Box C: The regional impact of Covid-19 on Ireland’s domestic economy

This Box highlights some of the regional differences in terms of activity lost due to Covid-19. For the analysis we estimate lost gross value added (GVA) excluding foreign-owned multinational firms across sectors and regions of Irish economy in Q2 2020.

The estimates are based primarily on the impact of the pandemic on regional employment, and also with reference to value-added outturns from the CSO’s latest *Quarterly National Accounts*. This approach effectively assumes that employment and activity impacts have been concentrated in Irish-owned entities. The advantage of excluding foreign-owned multinational firms is that it allows for a more realistic analysis of the likely losses in Irish incomes in the form of domestic profits and labour earnings (see FitzGerald, 2020).²²

Initial estimates for losses of GVA excluding foreign-owned multinational firms (GVAX) for a sector (j) and region (k) of the economy are imputed as:

$$\frac{GVAX_{j,k,2017}}{Employment_{j,k,2017}} * PUP_{j,k,Q2\ 2020}$$

That is, we calculate economic activity by worker in each sector for each region in 2017, and estimate the loss by each sector and region by seeing how many workers were displaced by the Covid-19 disruption using the region-sector PUP numbers. This estimate assumes a uniform output of any lost worker within a regional sector, and also that this productivity has remained unchanged since 2017. While basic, it provides a preliminary comparison of the sectoral impact of the pandemic across regions in Ireland.

²² 2017 output data is used as this is the latest available breakdown of GVA by sector and region published by the CSO, along with GVA excluding foreign-owned multinational firms (S.11a, S.11c, and S.12a) by industrial sector group in the *Institutional Sector Accounts*. Imputation is then used to derive a more detailed breakdown of gross value added excluding foreign-owned multinational firms by sector and region. The results are therefore approximations. The South-West and Mid-West regions have been combined due to confidentiality suppression.

Next, as a check on the preliminary estimates above, we compare the aggregate estimated losses in GVAX to the actual annualised sectoral losses in total GVA in Q2 2020, as shown in Table C.1. This shows that in certain sectors such as agriculture, hospitality, professional admin/support, and arts/entertainment, imputed GVAX losses based on lost employment are likely to be underestimated. As a result, we allocate additional lost GVAX for each sector to regions in proportion to the 2017 regional GVA breakdown. Figure C.1 presents results.

Table C.1: Lost activity in many sectors is underestimated by lost employment

€ billion, annualised

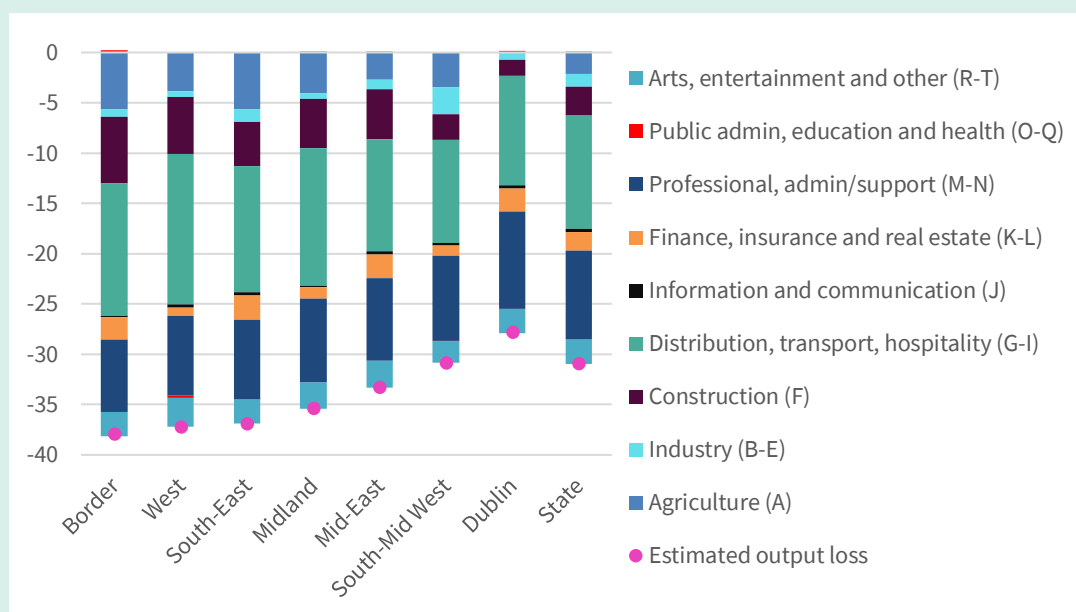
Sector group	Estimated loss in GVAX	Actual loss in total GVA	Additional loss in GVAX
Agriculture (A)	0.2	2.6	2.4
Industry (B-E) ^a	1.5	1.5	N/A
Construction (F)	3.5	3.6	0.1
Distribution, transport, hospitality (G-I)	8.9	13.9	5.0
Information and communication (J) ^a	0.4	0.4	N/A
Finance, insurance, real estate (K-L)	2.1	2.3	0.2
Professional, admin/support (M-N)	2.0	10.8	8.8
Public admin, education, health (O-Q)	2.7	-0.1	-2.8
Arts, entertainment, other (R-T)	0.4	3.0	2.6
Total estimated output loss	21.8	38.0	16.3

Sources: CSO; Department of Employment Affairs and Social Protection; and Fiscal Council workings.

Notes: The table compares employment-based losses in estimated GVAX with actual losses in total GVA (annualised for seasonally adjusted outturns in Q2 2020 compared to Q4 2019). ^a Employment-based estimates for lost domestic activity in Industry (B-E) and Information and communication (J) are preferred to actual GVA losses, given total GVA in these sectors is dominated by foreign-owned multinational firms.

Figure C.1: Q2 2020 activity in Dublin was likely less affected than elsewhere

% change (based on 2017 gross value added data by sector and region)



Sources: CSO; Department of Employment Affairs and Social Protection; and Fiscal Council workings.

Note: South-West and Mid-West have been combined because of repressed data due to confidentiality.

While all regions suffered severe declines in domestic value added in the second quarter, the fall was least acute in Dublin. This reflects a lower negative contribution from agriculture and construction than in other regions, given the higher share of employment and activity in Dublin in sectors that have been less reliant on PUP support.

In regions that are particularly reliant on the tourism and hospitality sectors, such as in the West (counties Galway, Mayo, and Roscommon), the estimated fall in activity is the second-largest. The largest contribution to the decline is in the sector group including hospitality (G-I).

Further analysis of the impact of Covid-19 on the Western Region and Atlantic Economic Corridor is available in Lydon and McGrath (2020) — see also Lydon (2020) for a regional labour market analysis of the impact of Covid-19.

For the State as a whole, the estimates in Figure C.1 show domestic activity losses due to the pandemic in Q2 2020 of about 30 per cent. This is a sharper decline compared to domestic demand in the second quarter, which was close to 20 per cent below its pre-pandemic (Q4 2019) level. Although some of this difference in performance is likely to reflect a weakened net exports position for the domestic economy, it also highlights the importance of foreign-owned multinational firms in Ireland. The difference implies that the Irish economy would be worse off in a downturn if foreign-owned firms were not supporting domestic activity and employment. This emphasises that the risks to the economy of a fall in future foreign direct investment would exceed the related losses in corporation tax.

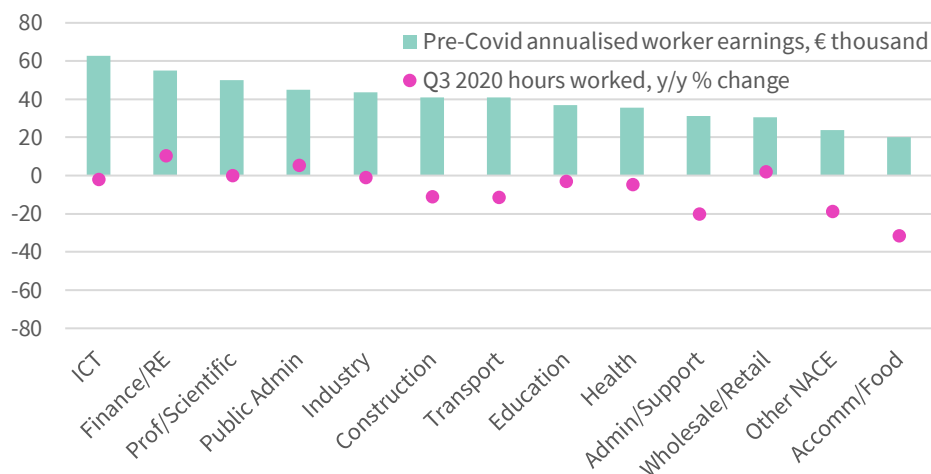
Personal consumption expenditure fell sharply in Q2 2020 by 22 per cent in volume terms, with similar declines across goods and services. Compared to high-frequency indicators such as credit/debit card and ATM statistics, which fell €3.8 billion in the quarter, the year-on-year decline in the value of consumption excluding cars was more severe at €5 billion. Similarly, retail sales values excluding motor trades declined by 15 per cent whereas the value of goods consumption, excluding cars, fell by 18 per cent. These differences suggest some upward revisions to personal consumption are possible. Nonetheless, while the indicators all confirm that a large decline in consumption took place as a result of Covid-19, the fall was less severe than forecast by the Department in *SPU 2020*, and marginally less severe than in the Council's Mild scenario in the May 2020 *Fiscal Assessment Report*.

Budget 2021 forecasts for consumption in Q3 2020 reflect the stronger recovery indicated by a number of high-frequency data sources. Retail sales have been exceptionally strong since June, which likely reflects pent-up demand from the

initial Covid-19 restrictions. While *Budget 2021* forecasts were finalised prior to the escalation of nationwide restrictions in early October, current indications from daily card and ATM spending data suggested a more limited impact on consumption in Q4 2020. Spending for the first six weeks of the quarter was 5 per cent below the same period in 2019, whereas the corresponding decline for the first six weeks of Q2 2020 was 34 per cent. This may indicate that consumers are adapting their spending habits around the Covid-19 constraints; online shopping and substitution towards goods and services that are available to purchase could explain some of the higher spending in October and November compared to April and May.

A further possible explanation for the resilience of consumption in the third quarter can be found in the sectoral composition of earnings and hours worked. Figure 2.4 (updating Chart D in Hickey *et al.*, 2020) ranks sectors by pre-Covid annualised average earnings and considers the year-on-year change in hours worked for each sector. The top five sectors for annualised gross earnings experienced limited declines (or increases in some cases) in hours worked in Q3 2020, unlike for lower-earning sectors such as administration and support and accommodation and food, where hours worked fell 20-30 per cent.

Figure 2.4: Workers in low-earning sectors are worst affected by Covid-19



Sources: CSO, Labour Force Survey and Earnings and Labour Costs; and Fiscal Council workings. Note: Annualised worker earnings are shown for Q3 2019. These are millions of hours worked per week, times (365/7), times average hourly earnings, divided by total employment in a quarter.

In *Budget 2021*, income tax forecasts have been prepared on the basis that much of the gain in employment in 2021 will be down to returning workers, mainly from lower-income sectors. As discussed in Chapter 3, this assumption forms the basis for the negative judgement applied to forecasts for PAYE and USC revenues next year.

However, the Department's macroeconomic forecast for labour income does not align well with this assumption; labour income is forecast to grow by 9 per cent in 2021 despite the impact of Covid-19 and an assumed disorderly Brexit.²³

A further potential source of upside risk to the forecasts is the *Budget 2021* quarterly profile for personal consumption expenditure, which is assumed to remain essentially unchanged for six quarters after rebounding strongly in Q3 2020. This is despite an ongoing forecast gain in employment and concurrent fall in the unemployment rate. The high marginal propensity to consume by those with lower earnings that are expected to return to employment in 2021 suggests an increasing consumption profile may be more likely. The Department's forecast assumes that the savings ratio remains very high in 2021. While this is possible due to precautionary savings in the event of a hard Brexit, Irish households already amassed €11 billion of savings (34 per cent of gross disposable income) in Q2 2020, following over a decade of deleveraging and balance-sheet repair. The possibility that consumption could grow more rapidly than profiled for 2021 therefore represents an upside risk. Finally, the strong possibility that a Covid-19 vaccine will become available sooner than expected in *Budget 2021* represents an additional upside risk.

Government consumption in *Budget 2021* is set to grow by 15 per cent in volume terms in 2020 as a result of higher health spending and other government activity to manage the impact of Covid-19 (see Chapters 1 and 3 for detailed analysis of these policy measures). In 2021, government consumption is forecast to fall 1.6 per cent as temporary supports are scaled back.

By contrast, **underlying investment** is projected in *Budget 2021* to fall by close to 20 per cent in 2020 — a substantial upward revision from the 42 per cent fall forecast in *SPU 2020*. The Department forecast growth of 3.5 per cent for residential construction in 2021, with annual completions expected to reach 20,000 units, up from 18,000 this year. However, data released since the Budget suggest a stronger performance in 2020. Monthly completions data provided with the most recent

²³ According to the Budget's forecast, the fall in average labour income per lost worker in 2020 is close to €35,000 (-€11 billion in labour income and -320,000 for employment), whereas 2021 forecasts for employment (+150,000) and labour income (+€8 billion) suggest a higher average increase in labour income per worker of over €50,000.

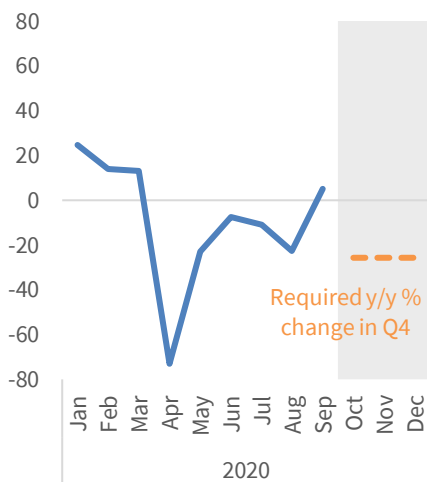
release indicate a return to year-on-year growth in September 2020 (Figure 2.5A), and significant pent-up demand is evident in mortgage approvals for the same month (up 21 per cent year-on-year). Conversely, the Department forecasts non-residential construction to grow more rapidly than residential construction in 2021 at 7.5 per cent. This is despite possibly weakened prospects for commercial property, given the prevalence of working from home during Covid-19 could lead to a permanently reduced demand for office construction, and the elevated prior level (9.7 per cent of GNI* in 2019) of investment in non-residential construction.

Underlying machinery and equipment investment is forecast by the Department to grow by 6 per cent in 2021, following a sharp decline of 20 per cent this year. As discussed in relation to the forecast methodology, this forecast appears to be heavily reliant on judgement. Monthly merchandise trade imports of machinery and equipment, along with commercial vehicles licensed for the first time (Figure 2.5B), and outturn data for Q2 2020, suggest business investment may outperform the Budget forecast in 2020.

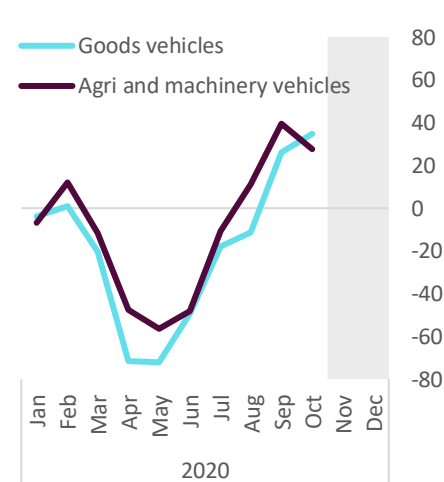
Figure 2.5: Recovery in new-dwelling completions and commercial vehicles

Year-on-year percentage change

A. New dwelling completions



B. Commercial vehicles licensed for the first time



Source: CSO; and Fiscal Council workings.

Note: Panel B shows growth in new and second-hand imported vehicles licensed for the first time. Agri and other machinery is tractors, new public services vehicles, and vehicles NEC.

External demand was very weak in Q2 2020 given that most of Ireland’s main trading partners were simultaneously in lockdowns during April and May.²⁴ Despite

²⁴ See <https://covidtracker.bsg.ox.ac.uk/> for cross-country comparisons of government responses to Covid-19 over time.

this, Ireland's measured exports performed strongly due to chemicals/pharmaceuticals and computer services, which respectively grew 11 and 4 per cent in year-on-year terms for the three months to end-June. Furthermore, monthly merchandise trade data indicate that growth in organic chemicals and medicinal/pharmaceutical products increased to 23 per cent in Q3 2020. This performance has driven total exports value into growth in 2020, whereas *SPU 2020* had forecast a contraction in the value of exports of 6.5 per cent. Although some outperformance was expected for pharmaceuticals and computer services, the strength of outperformance was not anticipated, while other components of exports (more relevant to employment) performed more in line with expectations. Non-computer services fell 16 per cent in the second quarter, including a 90 per cent fall in tourism exports. Merchandise exports excluding organic chemicals and medicinal/pharmaceutical products fell by 20 per cent in the second quarter, and continued to decline by 12 per cent in Q3 2020.

For underlying imports, some outperformance relative to recent forecasts has occurred, in line with the outperformance in final demand.²⁵ *SPU 2020* (page 18) noted that imports were not expected to fall as much as final demand, reflected in an underlying import share of 47 per cent for the first half of 2020. This is higher than the recent ten-year average of 43 per cent, although outturns show an underlying import content in final demand of about 45 per cent.

The Council has previously noted that Ireland's external trade variables have been difficult to forecast accurately, given the distortions caused by multinational firms. The composition of GDP and GNP result in headline economic growth rates that are often overstated relative to a more relevant measure of aggregate demand, such as modified gross national income (GNI*). The issue arises due to the overweighting of net exports. An 18 per cent outperformance for the level of underlying net exports in Q2 2020 provided a strong boost to the GDP outturn. However, GNI* is unlikely to have performed as well, as the offset due to lower imports in 2020 is likely to be far less relevant for the level of GNI* than for GDP.

²⁵ Underlying imports exclude investments in aircraft and intangibles, which are heavily imported and distort investment and import trends due to their large size and irregular timing.

Macroeconomic Scenarios to 2025

A high degree of uncertainty applies to any short-term economic forecast at present. While the *Budget 2021* forecasts include a brief discussion of more adverse scenarios for GDP and their implications for the general government balance, this *Fiscal Assessment Report* provides further context for the range of risks to the forecast by developing three scenarios to 2025: “Milder”, “Extended *Budget 2021*”, and “Repeat Waves”. These scenarios cover a wide range of health, policy and economic outcomes. Given high uncertainty, the likelihood of the scenarios is impossible to assess in a meaningful way.

The Government’s quarterly profiles are used for the Extended *Budget 2021* projections, matching the Department of Finance’s annual forecasts for GNI* in 2020 and 2021. The Department’s preferred GDP-based estimates of the output gap and potential output are then used to assess the implied path for actual output, which is calibrated to UDD until end-2025, with an assumption that personal consumption and underlying investment drive most of the required growth. By 2025, the level of UDD is projected to be 5 per cent below its estimated medium-term path if no pandemic had occurred, whereas real GNI* and employment would remain off by 7–8 per cent. With the output gap already closed by then, this would represent a permanent economic loss in the extended *Budget 2021* projections due to the effects of Covid-19 and a disorderly Brexit.

The scenarios are presented in Box D.

Box D: Updated Macroeconomic Scenarios to 2025

This box describes three scenarios for the Irish economy, in an update to those explored in the Council’s May 2020 *Fiscal Assessment Report* (Fiscal Council, 2020c). As before, the scenarios include an extension of the official forecasts to 2025 at quarterly frequency, with scenarios for a benign “Milder” projection and an adverse “Repeat Waves” outcome also developed.

Further granular detail of the projections is also presented, and the main outcome variable presented is now real GNI* — based on the Council’s latest GNI* forecasting approach (see Box E in Fiscal Council, 2020c).

Comparing the latest macroeconomic scenarios with those published in May

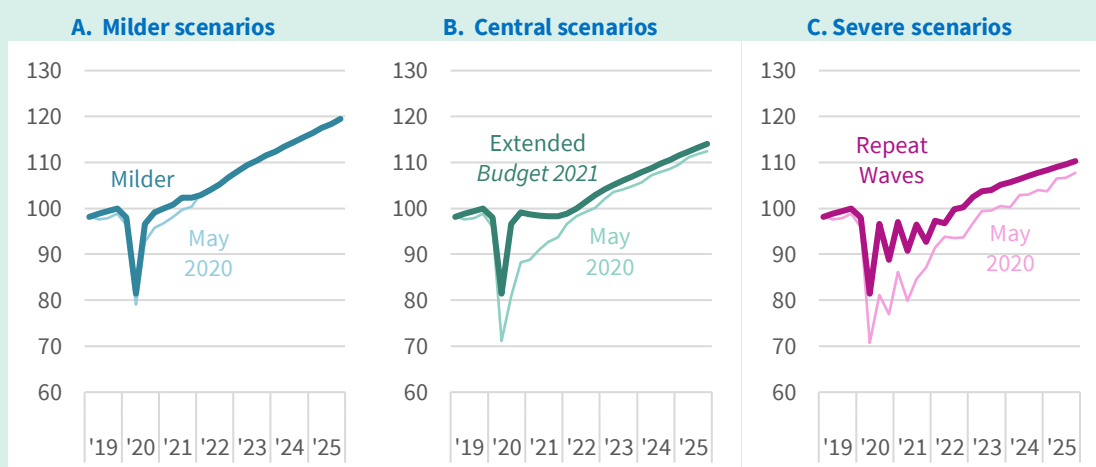
The short-term macroeconomic forecasts in *SPU 2020* were subject to huge uncertainty. To date, the domestic economy as a whole has performed stronger than forecast. Underlying domestic demand (UDD) in Q2 2020 was even stronger than projected in the Council’s “Mild” scenario in May 2020 — although this is despite an even more adverse immediate impact on employment than projected in the Council’s severe scenario.

While not exhaustive, the scenarios aim to capture the most likely trajectories for the economy subject to the outcome for several key assumptions, in particular those relating to Covid-19 and Brexit.

Figure D.1 compares the latest scenarios for UDD with those published by the Council in May 2020, showing an improved short-term projection in each case.

Figure D.1: Underlying domestic demand has outperformed in the short term

100 = Q4 2019 for the latest scenario



Sources: CSO; Department of Finance, *Budget 2021*; and Fiscal Council workings.

Notes: The volume of underlying domestic demand in 2019 was revised up by 0.8 per cent in *National Income and Expenditure 2019*, compared to the initial estimate re-based to 2018 prices. This revision is reflected in the May 2020 data shown above.

Assumptions behind the macroeconomic scenarios

The Milder scenario is now based on two upside risks compared to the central scenario. First, it assumes that a free-trade agreement (FTA) is reached between the UK and EU in advance of 2021. Second, a vaccine for Covid-19 becomes widely available by Q3 2021, sooner than is assumed in *Budget 2021*. Nonetheless, trading is expected to remain challenging for several sectors until next summer at least and employment does not recover as rapidly as previously expected, only reaching its pre-pandemic level by early 2023 (Figure D.1A).

The Extended *Budget 2021* scenario sees a rapid initial recovery in the second half of 2020 stagnate in 2021 on account of a disorderly Brexit and the absence of a widely available vaccine until 2022 at the earliest.

Compared to the Department of Finance’s *SPU 2020* forecast in April and the Council’s central scenario in May, a key difference for this scenario is that a relatively benign FTA outcome for Brexit is no longer assumed. This is expected to constrain activity next year and beyond. Nonetheless, the path for UDD remains higher, with the two paths converging by early 2022 (Figure D.1B).

The Repeat Waves scenario assumes no effective mass vaccination until 2023, and that fluctuations in virus transmission levels result in further periods of Level 5-type restrictions. The intermittent eight-week restrictions and gradual reopenings are assumed to occur in alternating cycles throughout 2021 and 2022, although with dissipating initial impacts for subsequent periods of restrictions over time. However, the economy remains on a shallower trajectory over the medium term, reflecting more lasting damage to growth prospects as a result of the protracted disruption (Figure D.1C). Table D.1 sets out the key assumptions for each scenario.

Table D.1: Key assumptions for the scenarios

	Milder	Extended Budget 2021	Repeat Waves
Broad description	A vaccine by mid-2021 and a free-trade agreement between the UK and EU ensures a more rapid recovery can take hold.	The Government’s <i>Budget 2021</i> forecasts assume a disorderly Brexit and no vaccine available by end-2021, delaying a full recovery until mid-2022.	With effectively no vaccine before 2023, repeated restrictions in response to cycles of higher infection are compounded by a disorderly Brexit.
Covid-19 containment measures	Social distancing and disruptions to certain sectors remain in place until summer 2021.	Social distancing and disruptions to certain sectors remain in place until end-2021.	Eight-week restrictions and gradual reopenings run on half-year cycles in 2021 and 2022, but with diminishing impacts.
Employment prospects	A gradual recovery in jobs takes three full years to reach pre-pandemic levels, and remaining 5 per cent below trend by 2025.	By end-2021, a quarter of overall jobs lost in Q2 2020 have not yet been recovered, and a complete recovery does not take place until late-2023.	Each eight-week disruption causes vast job losses concentrated in hospitality sectors; employment remains 17 per cent below trend by 2025.
Recovery	GNI* recovers to pre-crisis (Q4 2019) levels by Q2 2022, with UDD recovering by Q2 2021.	About a year beyond the Milder scenario: Q1 2023 for GNI*, Q2 2022 for UDD.	Economy does not recover to pre-pandemic (Q4 2019) GNI* levels until Q4 2023.
Potential output	Growth returns to previous projections of about 3 per cent per annum over the medium term.	Growth reverts to previous projections of about 3 per cent per annum over the medium term.	Permanent scarring on growth; remains closer to 2 per cent per annum over the medium term.

An approximation of seasonally adjusted quarterly real GNI*

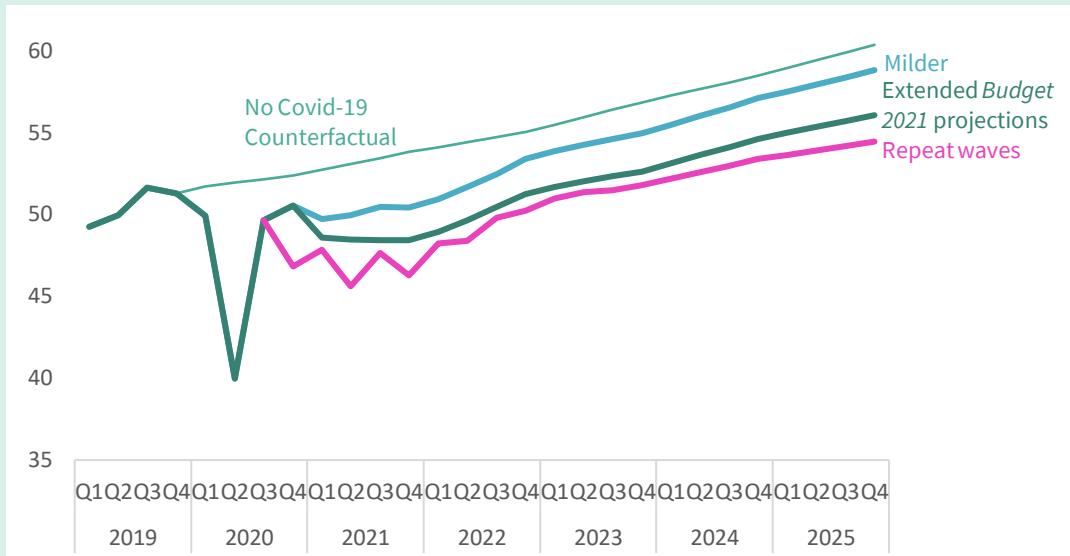
The Council’s approach to forecasting real GNI* using adjusted exports and adjusted imports can also be used to approximate seasonally adjusted quarterly real GNI*. This is constructed as the sum of UDD, the change in inventories, estimated quarterly subsidies less taxes, and estimated adjusted exports less adjusted imports. The latter items are broadly based on

traded sectors with the most relevance to domestic-owned firms, since foreign-owned multinationals' profits included in measured net exports are largely excluded from GNI*.²⁶

Figure D.2 presents the projections for each of the scenarios and a counterfactual, where Covid-19 did not occur and where an EU-UK FTA is agreed in advance of 2021.²⁷

Figure D.2: Scenarios for real quarterly GNI*

€ billion, 2018 constant prices



Sources: CSO; Department of Finance, *Budget 2021*; and Fiscal Council workings.

Notes: Quarterly real GNI* is estimated as the sum of UDD, the change in inventories, subsidies less taxes, and adjusted exports less adjusted imports, where the latter items are constructed according to the method described in Box E of the May 2020 *Fiscal Assessment Report*.

The Milder and Extended *Budget 2021* projections diverge initially in Q1 2021 due to the more benign assumption in the Milder scenario regarding Brexit. Although the move to an EU-UK FTA still results in a modest initial fall in GNI*, this is followed by a pickup in activity in response to the widespread availability of a Covid-19 vaccine in Q3 2021. For the Extended *Budget 2021* and Repeat Waves projections, there is assumed to be no such vaccine available, and an assumed disorderly Brexit further compounds the challenges posed by Covid-19 for the economy.

For the Milder scenario, the Extended *Budget 2021* projections are first adjusted to exclude the estimated additional impact of a disorderly Brexit relative to an EU-

²⁶ Although a higher level of adjusted exports can be assumed based on which sectors of merchandise or services trade are excluded, the higher the level of adjusted exports, the higher the estimate of adjusted imports content of final demand. Ultimately, the implications of adjusted net exports for annual real GNI* growth remain limited given that UDD comprises the vast majority of GNI* — although it can contribute more prominently to quarter-on-quarter GNI* growth rates.

²⁷ The counterfactual in Figure D.2 is projected by first building a no-Covid and no-Brexit counterfactual for quarterly real GNI*, which is informed by the Government's expectations for UDD pre-*SPU 2020*, alongside IMF pre-Covid world demand growth rates. Shocks are then applied to each component of final demand in line with prior ESRI/Department of Finance analysis of the impact of an EU-UK FTA, using the Cosmo model (Bergin *et al.*, 2019). Employment forecasts are then generated as a function of the quarterly change in UDD.

UK FTA, based on the findings of Conefrey and Walsh (2020). Furthermore, the components of UDD are income- and behaviour-adjusted according to the Keogh-Brown *et al.* (2009) framework, as previously described in relation to the May 2020 scenarios.

The estimated impacts of Covid-19 on categories of personal consumption in Q2 2020 have been updated to reflect impacts on comparable categories of retail sales and credit/debit card spending. The strong V-shaped consumption rebound in Q3 2020, as projected in *Budget 2021*, requires little additional gain for a full recovery to its Q4 2019 level, and the Milder scenario assumes that any ongoing effects from the shock dissipate entirely by Q2 2023. Underlying machinery and equipment and adjusted exports also gain on account of a more benign assumed path for external demand compared to the Extended *Budget 2021* scenario.

UDD is projected to settle marginally (0.6 per cent) below its estimated level in 2025 if no pandemic had occurred, with real GNI* and employment remaining 2½–5 per cent lower respectively. While this implies a structurally reduced level of potential output and employment below trend, which is not expected to be regained in the absence of a cyclical upswing, it is consistent with a far lower degree of lasting economic damage than under the Extended *Budget 2021* projections.

For the Repeat Waves scenario, alternating eight-week periods of Level 5-type restrictions and gradual reopenings continue until end-2022, and a disorderly Brexit compounds the situation for a strained domestic economy. Each eight-week disruption causes significant job losses, which are assumed to be concentrated in hospitality sectors, although many retail jobs are also lost; by 2025, the resulting scarring effects cause a 17 per cent permanent loss.

The most adverse outcome considered for external demand is the OECD's September 2020 "downside" scenario, which applies to the Repeat Waves scenario from Q4 2020 onwards, and a shallower medium-term path follows relative to the Extended *Budget 2021* projections. This results in a larger fall in adjusted exports and underlying machinery and equipment in 2021, and permanent impacts leave UDD and GNI* 8-9 per cent below trend by 2025.

2.4 Medium- and Long-term Growth Implications and Risks

Medium- and Long-run Growth Implications

In each scenario in Box D, it is likely that permanent losses in activity and employment will result from the Covid-19 and Brexit shocks. Besides causing a shock to demand, the economy's long-run potential level and growth rate could also be negatively affected. Although this is difficult to estimate, three key factors of production could be affected: productivity, labour supply, and investment in capital. The Council assesses that long-run growth is likely to be lower than in the absence of Covid-19 and Brexit. Impacts could include a loss of capital in businesses and firm destruction, missed investment, and lower inward migration.

The scenarios cover a plausible range of potential outcomes. However, there is continuing uncertainty surrounding the future path of Covid-19 and Brexit. Furthermore, the scenarios do not allow for possible spillover effects, such as a banking or financial crisis arising due to increases in non-performing loans, and the more adverse implications this would entail. Table 2.2 summarises annual volumes for GNI*, UDD, and employment for each scenario, along with the permanent percentage loss versus trend in 2025.

Table 2.2: Lasting losses to employment could range between 5 and 17 per cent

	2020	2021	2022	2023	2024	2025	Permanent loss, %
Milder							
GNI* (% change)	-6.0	5.5	3.9	4.4	3.4	3.3	N/A
GNI* (2018 € billion)	190.0	200.5	208.4	217.6	225.0	232.5	2.5
UDD (2018 € billion)	168.9	182.5	188.6	197.9	205.2	212.4	0.6
Employment (000s)	2,004	2,185	2,291	2,390	2,460	2,527	4.8
Extended Budget 2021							
GNI* (% change)	-6.0	2.0	3.3	4.2	3.2	3.1	N/A
GNI* (2018 € billion)	190.0	193.8	200.2	208.6	215.4	222.0	6.9
UDD (2018 € billion)	168.9	177.4	181.6	190.1	196.7	203.1	4.9
Employment (000s)	2,004	2,157	2,239	2,330	2,392	2,449	7.8
Repeat Waves							
GNI* (% change)	-7.8	0.6	4.9	4.6	2.7	2.4	N/A
GNI* (2018 € billion)	186.3	187.3	196.6	205.5	211.0	216.1	9.4
UDD (2018 € billion)	164.3	169.8	177.5	187.0	192.2	196.9	7.8
Employment (000s)	1,964	1,971	2,039	2,136	2,176	2,207	16.9

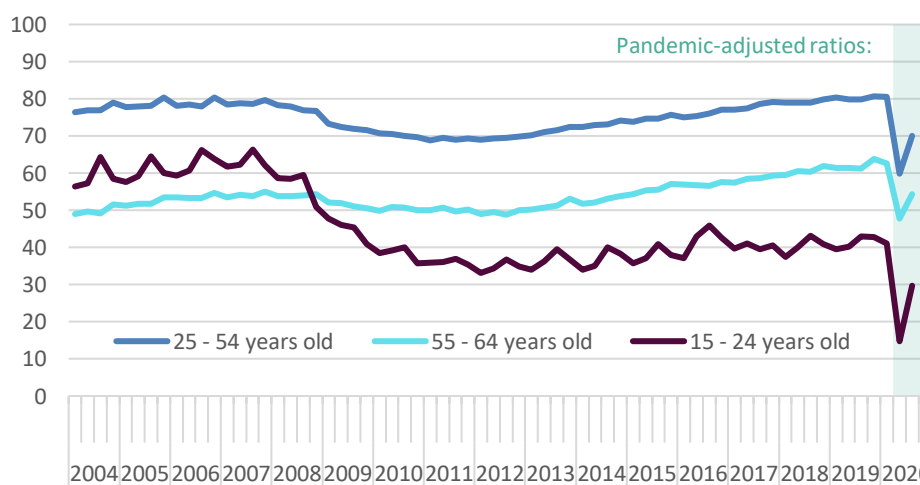
Sources: Department of Finance, SPU 2020; and Fiscal Council workings.

Notes: Permanent losses are calculated as the percentage difference to counterfactual in 2025. Employment and unemployment are measured as the ILO definition, but adjusted to consider PUP recipients as a reduction in employment and increase in unemployment.

Productivity growth could be affected by the pandemic in a variety of ways. Firms might take pandemic risks into greater account, hence imposing higher costs. There could be less favourable terms of trade, and reduced travel. There could also be a loss of human capital and tacit knowledge if businesses fail. “Reshoring” of global supply chains is a possible response — that is, companies reversing the process of spreading production across the globe to mitigate future risks to production. Yet firms might still find diversification of production across countries more secure than reshoring. Productivity might still improve due to other factors: accelerated moves to automate work; remote working; and through creative destruction. Some of these factors would allow firms to adjust more flexibly to changing demand conditions and to lessen their reliance on workers subject to infection.

Labour supply could be negatively affected, with many workers unable to return to businesses that suffer insurmountable losses. The longer they remain out of work, the higher the probability that they will not return to employment. The current crisis is unusual in that the expectations of returning to work quickly might reasonably be higher, as supported by the recovery in hours worked in Q3 2020. Policy supports have also helped firms and employers to maintain a relationship. Furthermore, fundamentals at the onset of the crisis were better than those at the time of the financial crisis, following which there was a full recovery in employment/population ratios for those aged 25-64 to pre-financial crisis levels, as shown in Figure 2.6.

Figure 2.6: Employment-population ratios fully recovered following the Great Recession for those aged 25-64



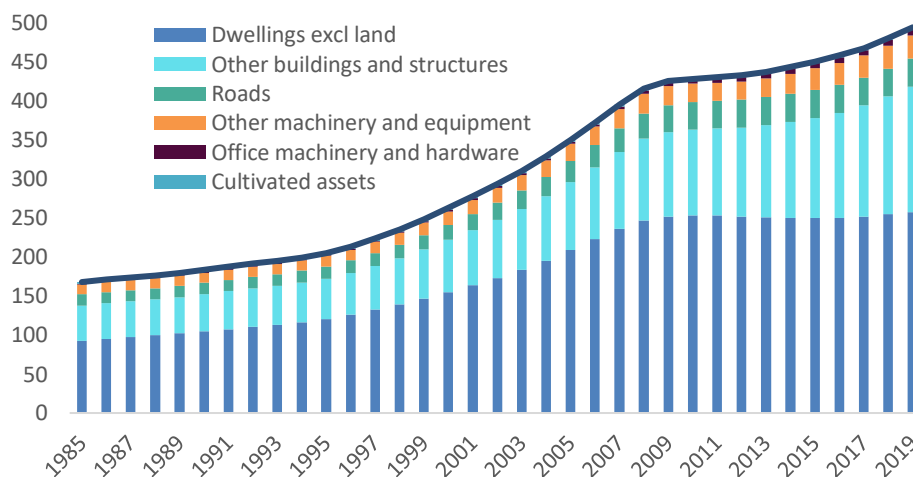
Sources: CSO; Department of Employment Affairs and Social Protection; and Fiscal Council workings. Note: Employment data for Q2 and Q3 2020 have been adjusted for average PUP claims by age.

However, a significant challenge could be workers with low level of skills in sectors that don't fully recover. Reduced net migration into Ireland could also reduce labour supply, especially if travel restrictions are in place for an extended period. An accelerated shift to automation could push people out of the workforce.

Investment in capital (e.g. infrastructure and machinery and equipment, etc) may also suffer as a result of the Covid-19 and Brexit shocks reflecting the dampening role played by elevated uncertainty. Private business investment in certain sectors that might otherwise have occurred might be shelved due to lower revenues, firm bankruptcy, lack of liquidity, and weaker expected demand in future. The recent example of the Great Recession revealed the consequences of large-scale firm failure concentrated in a particular sector. As shown in Figure 2.7, Ireland's net capital stock of dwellings excluding land has not increased for the past decade, reflecting overheating and subsequent collapse in the construction sector that took place in the mid-2000s.

Figure 2.7: Ireland's net capital stock of dwellings has remained flat for the past decade

€ billion, 2018 constant prices



Sources: CSO; and Fiscal Council workings.

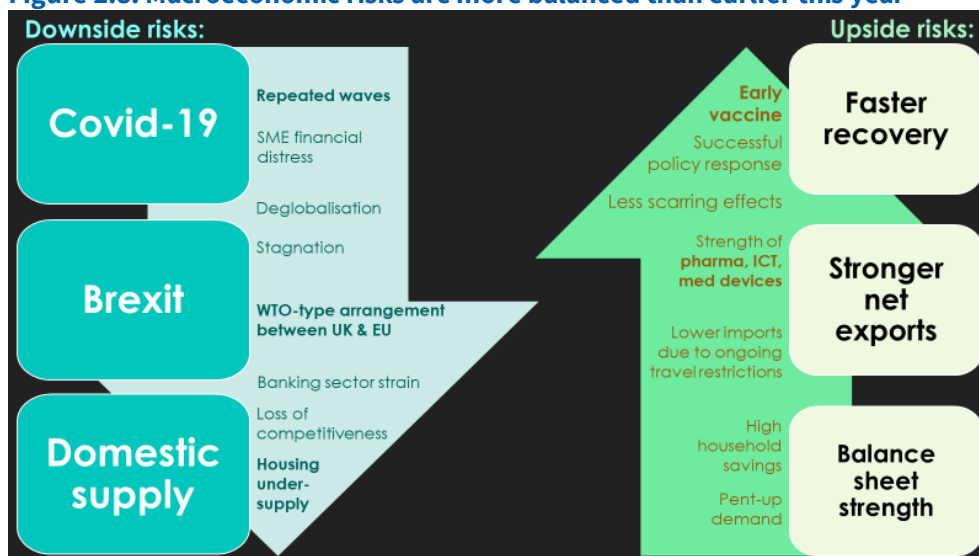
Notes: Domestic net capital stock excludes transport equipment and intangible assets.

Macroeconomic Risks

Uncertainty around the macroeconomic outlook remains high, albeit lower than at the beginning of the Covid-19 emergency given the resilience shown by the economy in the period since. Relative to the *Budget 2021* forecast and the Extended *Budget 2021* projections described in Box D, risks are now more balanced than was the case earlier this year. As a small open economy, Ireland is particularly exposed to global economic conditions, which have been severely disrupted by Covid-19. Besides a more adverse impact than forecast of a disorderly Brexit in 2020 and 2021, other risks include the possible relocation of multinational firms' activities out of Ireland, global trade tensions, and deglobalisation resulting in lower external demand. The realisation of such external downside risks could result in a slower economic recovery over the medium term.

However, *Budget 2021* notes that there are also upside risks to the forecasts. These include a vaccine becoming available earlier than anticipated in *Budget 2021* (as appears likely given recent announcements by Pfizer/BioNTech, Moderna, and AstraZeneca), the possibility of positive forecast revisions to personal consumption expenditure and underlying investment, less scarring of employment and firms in the Irish economy, and continued outperformance of net exports. Irish households have accumulated significant net savings in 2020, and these could be deployed more rapidly than anticipated in *Budget 2021* over coming years. Figure 2.8 summarises the downside and upside risks facing the Irish economy.

Figure 2.8: Macroeconomic risks are more balanced than earlier this year



Sources: Department of Finance, SPU 2020; and Fiscal Council workings.

Note: Size of arrows indicates subjectively assessed combined impacts and likelihoods.