Macro Assessment

The economy has been resilient but capacity constraints are binding

1. MACRO ASSESSMENT

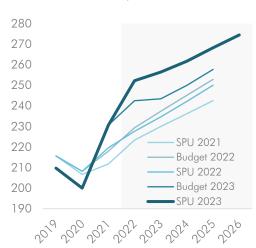
The economy has been resilient but capacity constraints are binding

Growth has been resilient. Despite the impact of much higher inflation in 2022, the Irish economy grew more rapidly than expected. Reflecting stronger momentum, and a lower expected path for inflation in 2023, the Department of Finance increased their forecast for real GNI* growth in the Stability Programme Update 2023 (SPU 2023). As a result, the level of real GNI* is expected to be higher over the next few years than implied by prior forecasts (Figure 1.1A). However, capacity constraints and the likelihood of a global recession are reflected in the Department's expectation that economic growth will slow considerably this year.

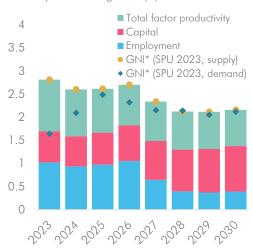
Despite higher inflation in 2022, the Irish economy grew more rapidly than expected

Figure 1.1: Ireland's economy is projected to stay resilient

A. Real GNI* forecasts (demand) € billion, 2020 constant prices



B. Real GNI* forecasts (supply and demand)
Year-on-year % change and p.p. contributions



Sources: Department of Finance and CSO. Get the data.

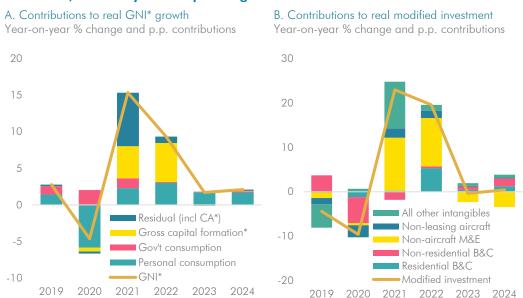
For the first time, the Department has extended its forecasting horizon for its macroeconomic projections to seven years ahead. This is welcome and provides useful insights into how the economy will evolve in the years ahead. In assessing how the economy will evolve out to 2030, it has utilised a growth accounting framework like that used by the Council in its *Long-term Sustainability Report* (Fiscal Council, 2020b). This provides a supply-side complement to the standard demand-side forecasts. The Department projects that real GNI* growth rates will moderate to just over 2% by the end of the decade, reflecting an expected slowdown in the contribution of employment to economic growth (Figure 1.1B).

The Department has extended its forecast horizon

1.1 The short-term economic outlook (2023 to 2024)

The Irish economy grew rapidly in 2022, after a double-digit expansion in 2021, reflecting a strong recovery from the Covid-19 pandemic on economic activity. Figure 1.2A shows that most of the estimated economic growth in 2022 was driven by modified gross capital formation.\(^1\) Within this, modified investment mainly grew as a result of non-aircraft machinery and equipment (M&E). In a recent Analytical Note, Casey (2023) used detailed imports data to show that this can be explained by M&E investment for high-tech computer manufacturing. The Department anticipates a fall in such investment in 2023 and 2024, albeit from an exceptionally high level in 2022.

Figure 1.2: The SPU forecasts a slowdown in real GNI* growth in 2023 and 2024, driven by lower spending on modified investment



Sources: Department of Finance, CSO, and Fiscal Council workings. <u>Get the data.</u>
Notes: Modified gross capital formation is modified gross fixed capital formation (see footnote 1) and the value of physical changes in stocks. M&E stands for machinery and equipment, while B&C stands for building and construction.

While household consumption grew rapidly in 2022 — by 6.6% according to the CSO — there are concerns that the recovery from the pandemic has been underestimated in official statistics (Timoney, 2022), and that CSO estimates of the level of consumption are too low. This would imply that the household savings ratio has not remained considerably higher than its pre-pandemic levels, as CSO data shows. Figure 1.3A shows that real household consumption excluding cars in the official data has been slower to recover compared to inflation-adjusted cards spending and ATM withdrawals. The path for real cards spending and ATM withdrawals weakened in the second half of 2022, before rebounding somewhat in Q1 2023. Similarly in nominal terms, household consumption expenditure has

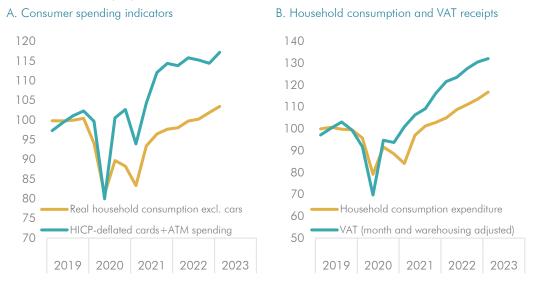
Official data on consumer spending appear low and savings rates too high, implying less scope for "catch-up" growth

¹ These modifications relate to two components of gross fixed capital formation: aircraft for leasing is excluded from machinery and equipment, while expenditure on research and development service imports and trade in intellectual property are excluded from intangibles.

recovered far more slowly in the CSO data compared to VAT receipts (Figure 1.3B).

Figure 1.3: Cards spending and ATM withdrawals grew in Q1 2023, while VAT has recovered more rapidly than household consumption

2019 = 100, seasonally adjusted



Sources: Department of Finance, Eurostat, and Fiscal Council workings. Get the data.

A higher level of consumption and a lower savings ratio could imply less capacity for "catch-up" growth in consumption over the medium term, posing downside risks to the Department's near-term forecasts for consumption growth. Following the approach in Timoney (2022), the faster recovery in cards/ATM spending and stronger VAT receipts imply a nominal level of household consumption about €16 billion higher in 2022 compared to the latest CSO estimates.²

Inflation in Ireland has slowed relative to the near-double-digit rates seen in 2022 following Russia's invasion of Ukraine (Figure 1.4A). This price deceleration has been mainly a result of lower energy prices, and despite persistent food price increases. The SPU 2023 projections assume limited further reductions in consumer energy prices by end-2024. This forecast is based partly on the oil and gas futures, and partly on judgement that these changes will only slowly translate into prices paid by consumers, owing to hedging strategies of energy suppliers and pricing mechanics. Wholesale energy prices have decreased considerably in recent months (Figure 1.4B), towards a mid-2021 level. This could imply that consumer energy prices will fall by more than forecast in SPU 2023. However, energy prices are inherently volatile, and uncertainty about their path and other aspects of inflation remains very high.

Inflation has slowed as energy prices have fallen

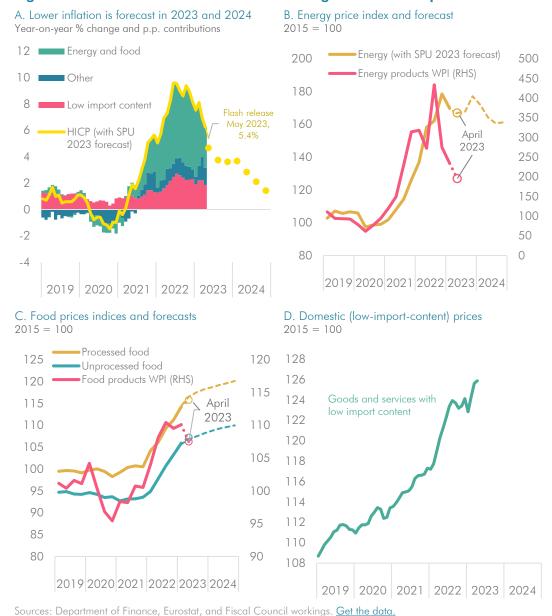
² As discussed in a forthcoming paper by Timoney (2023), this need not imply an underestimate of GNI*, since household incomes are not the subject of uncertainty.

SPU 2023 forecasts show a continuous rise in food prices over the near term (Figure 1.4C). However, recent wholesale price signals suggest that prices for food products may have peaked around mid-2022. Lower energy prices could ultimately result in lower food prices.

However, the pass-through of past price increases in inputs and capacity constraints in the domestic economy could lead inflation to remain higher than expected. For low-import-content items that reflect domestic developments more closely (Figure 1.4D), price inflation has been quite fast in recent months. As noted in the November 2022 FAR, over half of the low-import-content basket is explained by two components: restaurants, cafés and the like, and actual rentals for housing.

However, past input price increases and capacity constraints could keep inflation higher than expected

Figure 1.4: Headline inflation recedes amid signs of domestic pressures



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High domestic inflation for rents and restaurants reflect an economy that is growing rapidly. Domestic economic activity in Ireland is boosted by foreignowned multinational firms, paying employee wages and corporation taxes, although their after-tax profits mainly belong to owners abroad.³ As sectors in which the foreign-owned multinational firms operate have grown, high wages and tax receipts have significantly added to Ireland's national income. These factors also encourage workers abroad to move to Ireland, which further adds to demand, while also increasing the supply of labour.

Domestic inflation pressures can reflect an economy that is running into capacity constraints, as discussed by Conroy, Casey, and Jordan-Doak (2021). As higher wages are spent, and the population rises, it is plausible that domestic price pressures would materialise in a small open economy like Ireland — even if many goods can be sourced internationally. Rent is an important example of this, since dwellings are significantly undersupplied.⁴ If domestic inflation for rents remains high as a result of insufficient dwellings construction, Ireland's attractiveness as a location for inward migration by workers abroad is likely to be diminished. At the same time, the shortage of rental accommodation could lead to an increase in emigration.⁵ These related challenges are discussed further regarding the medium-term outlook for the Irish economy (Section 1.2).

The labour market is exceptionally tight at present. At 3.8%, unemployment in May 2023 reached a record low, while wage growth remains relatively contained. The employment-to-population ratio continues to trend upwards, and is now at a record high (Figure 1.5A). Job vacancy levels are high (Figure 1.5B), and firms report difficulty in hiring sufficient labour (S&P Global, 2023). A number of factors could explain the increase in participation since the pandemic. For example, added flexibility due to remote working could be facilitating more people to seek employment. Higher participation has reduced the female unemployment rate to a record low of 3.4%, and net migration has strengthened after a dip during the pandemic. The high cost of living, especially with respect to rents, could also be resulting in more people entering the labour force.

Employment growth is forecast to slow to 1.6% this year, and to 1.4% in 2024. However, there are upside risks to this year's forecast, given a strong Q1 2023 implies a growth carry-over of 3% — that is, if employment does not change for the remainder of 2023.

Domestic price pressures are evident and signal rapid growth and capacity constraints

The labour market is exceptionally tight

³ FitzGerald (2021) estimates that for 2013–2019, 22% of Ireland's net national product (adjusted for re-domiciled PLCs) is attributable to foreign multinationals operating in the Irish economy — whereas the same firms account for over 50% of Ireland's gross value added.

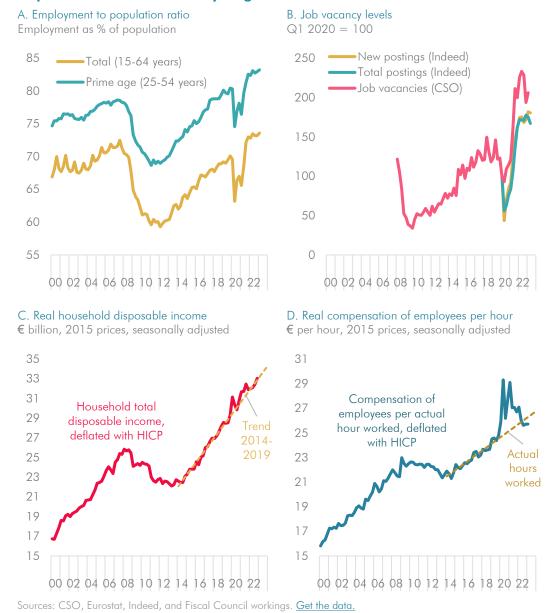
⁴ Lyons (2023) recently estimated that Ireland is short as many as 200,000 rental units.

⁵ Although there was no indication that a fall in net inward migration had taken place during the year to April 2022, the Covid-19 pandemic continued to have a major impact on international travel during the period.

Despite higher inflation since 2021, aggregate real household disposable income remains close to its pre-pandemic trend (Figure 1.5C). This reflects the fact that real aggregate compensation of employees per hour is close to trend, and well above its end-2019 level (Figure 1.5D), reflecting strong nominal growth in aggregate incomes. These indicators help to assess real income developments in the Irish economy at an aggregate level. However, it is always important to recognise that many households have experienced a decline in real incomes due to higher prices for energy, food, and rents — particularly for workers that have stayed in the same job and experienced only moderate wage growth. As such, contrasting experiences for different cohorts can be masked by aggregates or averages.

On average, incomes, when adjusted for inflation, remain near their pre-pandemic trend

Figure 1.5: The labour market remains very tight, and real household disposable income and hourly wages remain resilient



While an expected recession in advanced economies in early 2023 has not yet materialised, recent International Monetary Fund and European Commission forecasts remain largely downbeat about prospects for Ireland's main trading partners. Amid fragilities in the financial sector in particular, the risks of recession in the United States have increased. This increases the risk of a slowdown elsewhere, in the context of the recent tightening in global monetary conditions and sharp increases in interest rates worldwide.

External demand is a crucial factor for exporting sectors of the Irish economy—especially for tourism and food in a regional sense. Two sectors that performed particularly well despite weaker overall external demand during the Covid-19 pandemic were information and communication technology (ICT) services and pharmaceuticals manufacturing. Since mid-2022, however, thousands of ICT job losses have been announced. Box A investigates recent developments for these sectors, which broadly appear to be more benign than feared.

Forecasts remain largely downbeat about prospects for Ireland's main trading partners

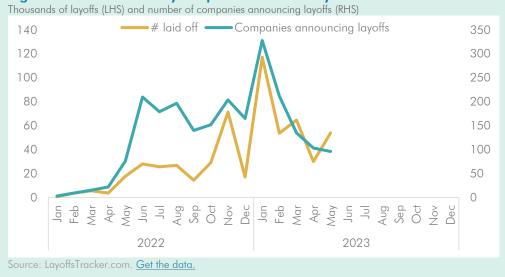
Box A: Recent developments in the ICT and pharmaceuticals sectors

This box examines recent developments for two key high-skill sectors in the Irish economy: information and communication technology (ICT) services, and pharmaceuticals manufacturing.

The Irish economy recovered faster and more strongly than expected from the Covid-19 pandemic, and some of this resilience is down to relatively strong performances globally by ICT and pharmaceuticals. Demand for these sectors' products increased during the pandemic, helped by a shift towards remote working and rapid vaccine development. Ireland was well-positioned to benefit from this global demand, and many foreign-owned multinationals continued to invest significantly in Ireland despite the pandemic.⁶

One concern is that a partial reversal of the strong performance in these sectors could occur. This is especially possible for ICT, as tens of thousands of job losses have been announced globally by a broad range of companies, many with a presence in Ireland (Figure A1). For pharmaceuticals, demand for Covid-19 vaccines is much reduced and the World Health Organisation recently declared that Covid-19 no longer constitutes an international public health emergency.

Figure A1: Global ICT layoffs peaked in January



⁶ For example, Pfizer invested €300 million and 300 new jobs in November 2020: https://www.pfizer.ie/media/pfizer-announces-300-million-investment-in-irish-operations

Yet indicators show employment levels in Ireland for ICT and pharmaceuticals achieved during the pandemic have been maintained into early 2023 — for both the *Labour Force Survey*, and employees data (Figure A2). Some workers in Ireland have lost their jobs, but a high level of job vacancies (Figure A3) has provided some opportunities for a return to employment, or perhaps for a substitution of others into these sectors. In net terms, this has so far meant no significant reduction in employment levels.

Conefrey et al. (2023) estimated that over 2,300 layoffs had affected Ireland's ICT sector for the year to February 2023. However, CSO data show just over 2,000 job vacancies in ICT on average across Q1–Q4 2022, implying a reasonable capacity for the sector to absorb the announced job losses. Despite this, a less sanguine scenario would depend on the extent to which there is a mismatch between skillsets for job vacancies and those laid off.

Figure A2: Employment levels in ICT and pharmaceuticals remain high

Thousands, not seasonally adjusted

A. ICT employment

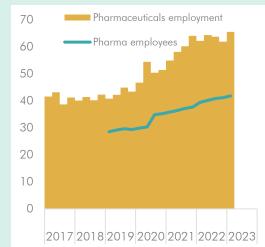
60

40

20

180 Other ICT Telecommunications 160 Computer programming ICT employment 140 ICT employees 120 100 80

B. Pharmaceuticals employment



Sources: CSO, and Fiscal Council workings. Get the data.

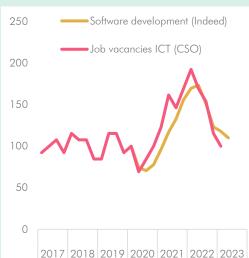
2017 2018 2019 2020 2021 2022 2023

Notes: We thank the CSO for providing the employees in pharmaceuticals series on request.

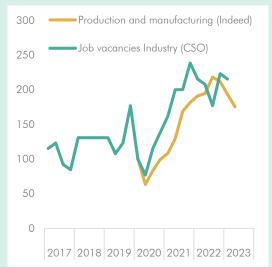
Figure A3: Elevated job vacancies have helped maintain employment levels

Q1 2020 = 100, not seasonally adjusted (CSO) and seasonally adjusted (Indeed)

A. ICT job vacancies



B. Pharmaceuticals job vacancies

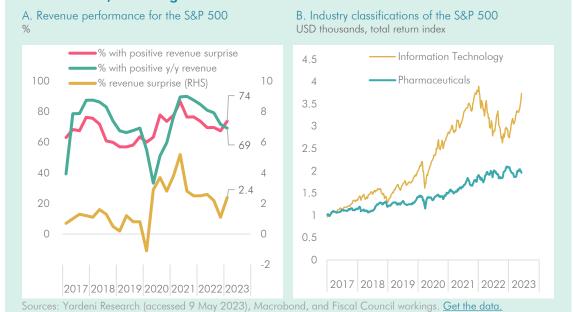


Sources: CSO, Indeed, and Fiscal Council workings. Get the data.

Notes: We again thank Indeed for providing the job vacancies in ICT and production/manufacturing series on request. The closest available matches for job vacancies data in pharmaceuticals are for production and manufacturing on Indeed, and for Industry (sectors B to E) for the CSO's earnings, hours, and employment costs (EHECS) data. As January 2020 data are not available, February and March 2020 Indeed data are used in place of the full Q1 data.

Turning to equity markets, revenue generation for firms in the S&P 500 picked up in Q1 2023 relative to a weaker Q4 2022. This was helped by a strong rebound for ICT, and a continuing upward trend for pharmaceuticals. Figure A4.A shows that revenue was ahead of expectations in nearly three-quarters of firms, whereas 69% of firms saw positive revenue growth in Q1 2023. Relative to expectations, revenues overall were 2.4% higher, up from 1.1% in Q4 2022. The more positive performance by ICT firms is reflected in the total return index for information technology (Figure A4.B), which by mid-2023 had recovered much of the losses seen in 2022. Overall, this suggests a more positive outlook for ICT and pharmaceuticals as key sectors behind Ireland's economic growth.

Figure A4: ICT and pharmaceuticals have helped the S&P 500 to a stronger start to 2023, following a weak end to 2022



1.2 The medium-term economic outlook (2025 to 2030)

Capacity constraints have become a central issue regarding Ireland's mediumterm economic prospects. This has broad implications for the economic outlook, especially in terms of the effects on the construction sector, migration, rents, and the sustainability of economic growth.

A fundamental challenge for the economy is the significant shortfall in the stock of residential dwellings. Forecasts for new dwellings construction are only sufficient to keep pace with a rising population, rather than addressing the stock's shortfall. This context is important for understanding the main causes of Ireland's capacity constraints, and their effect on the sustainability of economic growth over the medium term.

Capacity constraints are impacting the economic outlook

Table 1.1 presents key *SPU 2023* macroeconomic forecasts for the Irish economy out to 2030. The Irish economy is expected to grow by around 2–2.5% in the coming years. This reflects an expected slowdown in population growth and productivity. Inflation is forecast to fall this year and next before remaining at 2% from 2025 onwards, while unemployment is projected to remain only slight above the current level. The modified current account is set to narrow as higher consumption and investment leads to an increase in imports, but it is still forecast to remain in surplus. The Department of Finance and the Council both assess that there will be a positive output gap in the years ahead, consistent with demand being above capacity.

Table 1.1: SPU 2023 key macroeconomic forecasts

Year-on-year percentage change in volumes, unless otherwise stated

	2022	2023	2024	2025	2026	2027	2028	2029	2030
GNI*	9.3	1.6	2.1	2.5	2.3	2.2	2.1	2.1	2.1
Modified domestic demand	7.5	1.8	2.2	3.0	3.2	2.9	2.9	2.6	2.5
Personal consumption	6.6	3.9	3.8	3.4	3.4	3.1	2.9	2.7	2.5
Modified investment	19.8	-0.6	1.2	3.7	4.9	5.0	4.7	4.2	4.2
Compensation of employees (nominal)	11.3	8.3	7.4	6.8	6.3	5.5	4.5	4.0	4.3
Employment ^a	6.6	1.6	1.4	1.5	1.6	1.0	0.6	0.6	0.6
Unemployment rate ^a (% of labour force)	4.5	4.4	4.5	4.5	4.5	4.6	4.7	4.7	4.7
Inflation (HICP)	8.1	4.9	2.5	2.0	2.0	2.0	2.0	2.0	2.0
Savings ratio (% of disposable income)	20.5	18.0	15.8	14.1	13.0	12.7	12.0	11.2	10.9
Modified current account (% of GNI*)	9.7	9.1	8.7	8.0	7.2	6.2	5.4	4.7	4.1
Output gap (% of potential domestic GVA)	1.6	1.4	1.1	1.2	1.3	1.1	0.9	0.6	0.1

Sources: Department of Finance, and Fiscal Council workings.

Note: ^a The unemployment rate and employment growth shown for 2022 are not adjusted for the effect of Covid-19 pandemic unemployment payments.

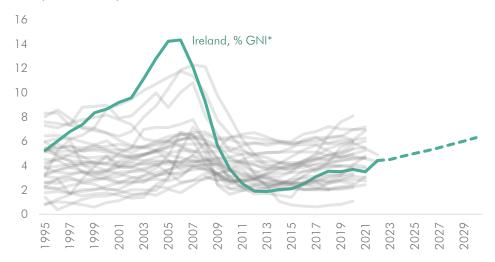
Ireland's spending on the capital formation of dwellings has been low relative to other European countries for more than a decade. This has followed a period in which it was relatively high, from 1996–2008. However, the higher investment from 1996 entailed a catch-up period relative to EU15 countries in terms of the stock of dwellings per person. Figure 1.6 shows Ireland's gross fixed capital

formation spending on dwellings as a share of GNI*, compared to other European countries as a share of GDP. Figure 1.7 then shows the stock of dwellings per person for the same period, where data are available. Since 2009, Ireland's level of investment in dwellings has been lower than the mid-point of the European range, by 3.2% of GNI* on average. As Ireland's population has increased continuously since 1991, weak investment in dwellings has worsened the trajectory for dwellings per capita, which is likely to remain low by 2030.

Investment in dwellings has been low in Ireland for more than a decade, and the dwellings stock per capita is low relative to the EU15

Figure 1.6: Ireland's investment in dwellings has been low relative to other European countries since 2009

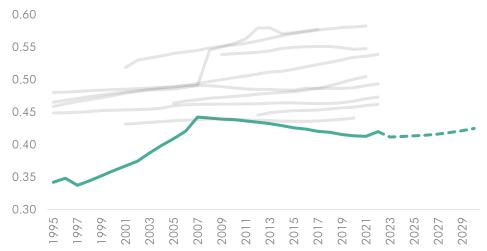
% GDP (GNI* for Ireland)



Sources: Eurostat, CSO, Department of Finance, and Fiscal Council workings. Get the data.

Figure 1.7: Ireland's stock of dwellings per person is forecast to remain well below the recent range for other EU15 countries

Dwellings stock per person



Sources: Eurostat, Statistik Austria, StatBel, Danmarks Statistik, Tilastokeskus Suomi, INSEE, DeStatis, European Central Bank, Centraal Bureau voor de Statistiek, Instituto National de Estatística, Moody's, Statistikmyndigheten, Office for National Statistics, Department of Finance, CSO and Fiscal Council workings. Notes: For Ireland, Census data for 1991, 1996, 2002, 2006, 2011, 2016, and 2022 are used for the dwellings stock. The interim years are approximated using ESB connections (1992–2010) and new dwelling completions (2011–2022) data, and the average annual implied depreciation rate of 0.31% for 1992–2022. The forecast shown is based on *SPU 2023* forecasts for new dwellings completions, population growth, and the same assumed annual depreciation rate of 0.31%. **Get the data**.

Higher dwellings output would likely require additional construction employment, but the number employed in construction of buildings has been quite flat since 2016 (Figure 1.8). It is possible that construction employment could increase as a result of re-allocation of employment from other sectors, for example manufacturing. However, there could be limited desire for employees to switch into construction work, as part of a multitude of scarring effects from the sector's collapse in the late 2000s. Furthermore, unemployment among previously employed construction workers is at a record low — Conefrey and McIndoe-Calder (2018) find that this is likely due to high emigration from 2008–2012 of this cohort.

More dwellings would likely require more construction workers, but few are unemployed in the sector

Figure 1.8: Construction employment has increased, but unemployment among previously employed construction workers is exceptionally low

Thousands, not seasonally adjusted

300

Construction of buildings

Civil engineering

Specialised construction activities

Construction unemployment

Construction employment

Construction employment

Sources: CSO and Fiscal Council workings. Get the data.

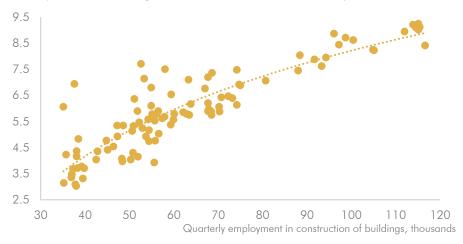
Figure 1.9 provides an update to analysis by Conroy, Casey, and Jordan-Doak (2021), who noted that Ireland's productivity in the construction sector in 2019 was 44% below the average of the top five European countries. Similarly, their analysis showed that research and development spending in construction was the second-lowest for Ireland, ahead of Greece. While more workers in construction of buildings imply higher output levels, the data may imply diminishing marginal increases for additional workers.

In 2022, there were just over 63,500 workers engaged in the construction of buildings, compared to a peak of 115,550 for 2007 — which also coincided with peak inward migration of 151,100. This suggests that without significant immigration of building workers over coming years, or a switching of workers into construction from other sectors, it is unlikely that the shortage of dwellings in Ireland will be meaningfully addressed. However, it is important to note that some of the observed shortfall in new dwelling completions could reflect a "crowding out" effect by investment activities elsewhere in the economy — for example,

But there is evidence that the gains from having additional workers diminishes construction of offices, hotels, factories, data centres, schools, hospitals, and other non-residential building projects.

Figure 1.9: More work in construction of buildings allows for higher investment, but historically with a diminishing marginal impact

Quarterly investment in building and construction, € billion, 2020 constant prices



Sources: CSO and Fiscal Council workings. <u>Get the data.</u> Note: The sample period is Q1 1998 – Q1 2023.

The current account is also an important indicator for understanding the sustainability of economic growth. While CA* is a more appropriate measure for Ireland, CA* analysis can be further refined by examining the contributions of households, general government, and corporate institutional sectors. Dwellings capital formation, dwellings stock per person, and capacity constraints in the economy also provide important context for understanding Ireland's CA* position.

Timoney (2023, forthcoming) shows that CA* reflects an excess of modified gross savings over modified gross capital formation. Figure 1.10A shows this breakdown of the modified current account (CA*) as a share of GNI*, and Figure 1.10B shows the changing composition of modified gross capital formation in terms of investment spending by institutional sectors of the economy.

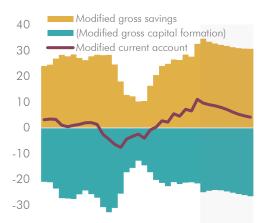
The share of modified gross capital formation by domestic sectors is only about three-fifths for 2013–2021, with foreign-owned multinational firms explaining 42% of this amount. The muted flows of investment spending on dwellings as shown in Figure 1.7 are evident in the weak level of gross capital formation by households (and non-profit institutions serving households). By 2026, SPU 2023 forecasts that household gross capital formation will reach just 4.3% of GNI*, less than half of its share from the earlier Celtic Tiger period of 1995–2000.

The modified current account surplus reflects high modified savings and low modified gross capital formation, especially by households

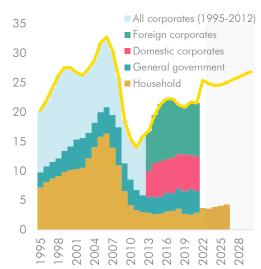
⁷ See Coffey (2022) for further exploration. While the private (construction) sector typically builds new dwellings in Ireland, which represents gross capital formation spending by this sector, the investment is later attributable to households or general government when the dwelling is purchased by these sectors.

Figure 1.10: Ireland's modified current account reflects weak level of investment by domestic institutional sectors, especially households % GNI*

A. Modified gross savings, gross capital formation, and current account



2001 2007 2007 2010 2013 2016 2019 2022 2022 2028 B. Modified gross capital formation by institutional sector



Sources: Timoney (2023, forthcoming), CSO, Department of Finance, and Fiscal Council workings. Notes: See Box in Timoney (forthcoming). Modified gross savings equal modified gross disposable income (that is, GNI* before net current transfers), less consumption. Modified gross capital formation adds up gross capital formation for all domestic sectors, but removes aircraft for leasing, and research and development service imports and trade in intellectual property, from gross capital formation by the foreign sectors (foreign non-financial corporates, foreign financial corporates, and re-domiciled PLCs). Get the data.

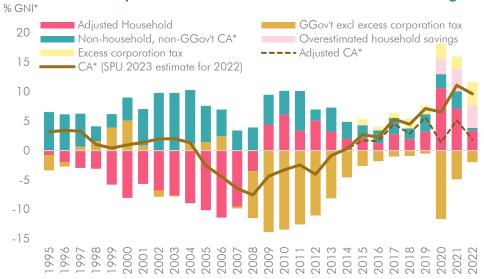
As for modified gross savings, Timoney (2022) found that household consumption since the Covid-19 pandemic could be underestimated, and that savings could be overestimated. Furthermore, gross savings of the general government sector are boosted by excess corporation tax receipts. Without these amounts as in Figure 1.11, an "adjusted CA*" measure remains in surplus, albeit considerably lower for 2022 at 1.9% of GNI* (or 2% of GNI* adjusted for excess corporation tax), compared to 9.7% of GNI* as estimated in SPU 2023.

A significant increase in residential construction activity is required to address the shortage in Ireland's stock of dwellings. In the absence of rebalancing between non-residential and residential construction, this would require an increase in modified gross capital formation, which could result in a deficit for the adjusted CA* measure shown above.

An adjusted current account balance would appear to be in surplus in 2022, excluding excess corporation tax and possibly overestimated household savings

-40

Figure 1.11: Ireland's modified current account remains in surplus without excess corporation tax and overestimated household savings



Sources: Timoney (2022), CSO, Department of Finance, and Fiscal Council workings.

1.3 Risks to the outlook

Macroeconomic risks in April's SPU 2023 are described as being "two-sided though tilted to the downside", while for inflation, "upside risks dominate". The Council's view was broadly similar in March when finalising the Benchmark projections, but given strong labour market signals since, and a slowdown in domestic inflation, risks to the outlook now appear more balanced.⁸

Risks to the outlook now appear more balanced

Global risks remain central to the challenges that could cause a sudden reversal of fortunes in the Irish economy. Russia's invasion of Ukraine continues, and the potential for new energy price shocks remains as a result. Energy shortages were an acute concern for last winter, and while outages did not come to pass, risks remain that a reliance on gas will again prove expensive for Europe towards the end of 2023. Bank failures in the US economy have been increasingly frequent as a result of the sudden rise in interest rates in recent years. Some fear that this could be a sign of the start of a more widespread financial crisis, although the likelihood of this taking place remains contained for now. Risks of a global recession have increased as indicated by the significantly inverted US yield curve — which is also an important signal in estimating the probability of a recession in Ireland, as shown by Casey and Conroy (2023).

Global risks remain

Domestic capacity constraints have become increasingly challenging for the Irish economy. An expansion in construction activity is necessary to address a long-running shortage of housing, but it will require careful monitoring as Ireland's construction activity is especially cyclical and prone to booms and busts. However, notwithstanding numerous domestic challenges, Ireland continues to attract strong levels of inward migration. Remote working could partly reduce excess demand for housing in urban areas, although it is important to note that housing shortages affect rural as well as urban parts of the country.

Domestic capacity constraints are increasingly important

Following a sustained period of rising price pressures, a tentative slowdown in inflation has been evident to date in 2023. In particular, food and energy prices could fall faster than forecast in SPU 2023, and given the strength of the labour market alluded to above, this would likely translate into stronger real economic growth. The strong labour market — along with the Government's income supports — have combined such that by end-2022, aggregate real household disposable income had not fallen below its pre-pandemic trend, although many households have experienced a fall in living standard. Fears of a slowdown in key growth sectors, such as ICT and pharmaceuticals, have not yet translated into a net reduction in employment for these activities, as shown in Box A. The presence of high-skill jobs in many of the sectors most likely to drive economic growth would provide significant benefits to the Irish economy over the medium term.

Food and energy prices could fall faster than forecast, and the labour market remains strong

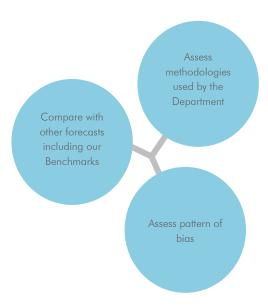
⁸ Employment was 1.8% stronger than SPU 2023 forecast for Q1 2023, and the Department's forecast for full-year employment growth of 1.6% looks likely to be exceeded with a carry-over of 3%.

1.4 Endorsement of the Department of Finance's macroeconomic projections

The Council's most recent endorsement exercise of the Department of Finance's macroeconomic forecasts was undertaken in March 2023.

Background

The Department's provisional macroeconomic forecasts were completed on 23 March 2023 (for details of the endorsement timeline, see table \$1a in the Supporting Information section). The Council and Secretariat discussed the forecasts with Department staff on 27 March.



The Council assessed that the Department's macroeconomic forecasts were within an endorsable range, taking into account the methodology and plausibility of the judgements made. The Council's assessment of the Department's macroeconomic forecasts was favourable regarding the processes and methodologies used.

In a welcome development, the Department has expanded its macroeconomic forecast horizon to seven years ahead, addressing the Council's concern that macroeconomic forecasts should always be made to at least five years ahead. This section describes the key issues that arose in the endorsement discussions. The main queries related to modified domestic demand (MDD), the savings ratio, and how capacity constraints were addressed in the forecasts.

Modified domestic demand in 2023 and 2024

In SPU 2023, the Department of Finance projects continued growth in MDD. In this round, the composition of MDD growth required scrutiny as a result of unusual base effects. MDD grew by 8.2% in 2022, and this was driven mainly by a rapid 38% increase in non-aircraft machinery and equipment, following an even faster rise of 51% in 2021.

Large investments in machinery and equipment often relate to the activities of foreign-owned multinational firms. Examples include equipment for manufacturing of specialised pharmaceuticals, computer parts, and data centres. In 2022, there was a large increase in imports of machinery and equipment used to develop semiconductors (Casey, 2023). This investment drove MDD up in the first half of 2022, but it then declined in the second half of the year. It is expected to be a short-lived investment, lasting into 2023 but ending thereafter.

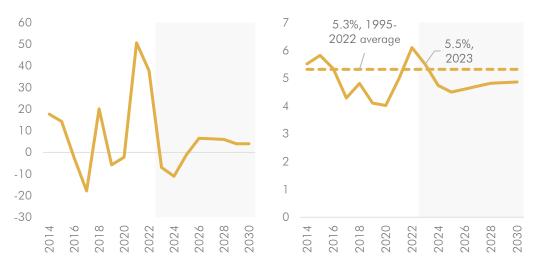
The Council's endorsement focused on the importance of interpreting these developments carefully. The link to imports was crucial from a forecasting perspective and the Council assessed that modified investment could remain at exceptionally high levels in 2023 but would likely fall back to more normal amounts from 2024 onwards.

In SPU 2023, the Department projects a decline in non-aircraft machinery and equipment of –7% in 2023 and –11% in 2024 (Figure 1.12A). Despite a year-on-year decline, the Department expects that this investment will continue at an elevated level in 2023 (5.5%, as shown in Figure 1.12B), before reverting below its long-run 5.3% share of GNI*.

Figure 1.12: Investment in non-aircraft machinery and equipment was exceptionally high in 2022

A. Non-aircraft machinery and equipment growth % change in volumes, year on year

B. Non-aircraft machinery and equipment level % of GNI*



Sources: Department of Finance, CSO and Fiscal Council workings. Get the data.

Given such a rapid increase in 2021 and 2022, if a faster decline takes place in 2023 or 2024 than assumed by the Department, MDD growth could potentially turn negative. However, as discussed by Casey (2023), negative MDD growth in this scenario is mechanical in nature, and would be offset if using measures such as GNI* which capture the offsetting role of imports. That is, lower imports would likely negate the impact of the fall in investment. As such, the data for 2022

highlight the need to interpret MDD carefully as an indicator of the Irish economy when used in isolation.

Savings ratio

According to official CSO estimates, Ireland's household savings ratio remained very high in 2022 at 21% of total disposable income. As noted above, this likely to be overestimated, as official statistics appear to under-report household consumption (Timoney, 2022). The Department of Finance recognises this issue, but beginning from the official data in 2022 makes it challenging to interpret how the economy is forecast to evolve over coming years. Lower household savings reduces Ireland's CA* surplus, and the scope for catch-up consumption growth.

SPU 2023 forecasts incorporate the planned introduction of an auto-enrolment pension scheme. As shown in Box B, assuming the introduction of such a scheme would increase the savings ratio relative to a no-policy-change counterfactual. The introduction of the scheme increases measured household income, due to contributions made by employers and the Government. By contrast, consumption may fall as employees have lower take-home pay and if households increase their saving rather than switching between different savings vehicles. Both factors lead to a higher measured savings rate. Box B estimates that by 2030 this impact could be around 1.2 percentage points.

Box B: Auto-enrolment and the savings ratio

The Government plans to introduce an auto-enrolment pension scheme in 2024. A box in a previous *FAR* outlined many of the proposed details of the scheme.¹⁰ This box outlines how consumption and the savings rate could be impacted by the introduction of this scheme.

For illustrative purposes, it is assumed that there are 750,000 eligible employees and that 95% remain opted in (in line with international evidence). It is assumed that these employees have an average salary of €35,000 and that they grow at around 2% per year. From these assumptions, the following contributions to the pension scheme are implied. The rates of contribution increase in 2027 and 2030.¹¹

From a national accounting perspective, household income would increase due to the scheme. This is because the employer's contributions (likely to be classified as compensation of employees) and the state contributions (likely to be classified as social transfers) are both adding to income. 12,13

Those who remain in the scheme will see a reduction in take-home pay as they make contributions to their pension. As a result, consumption may decline relative to a counterfactual where the scheme is not introduced.¹⁴ By 2030, consumption could be €1.1 billion lower.¹⁵

¹¹ A final increase in the rates of contribution is planned for year 10 of the scheme (2033)

⁹ The increase in income due to employer contributions could be offset by employers reducing wages and salaries paid to employees.

¹⁰ See Box H, May 2022 FAR.

¹² The employer's contributions to the scheme would likely be treated like employer's PRSI, which is classified as compensation of employees.

¹³ A final decision on the statistical classification of the state contribution would not be made until the scheme is finalised and operational.

¹⁴ This relies on the assumption that employee contributions to this pension scheme are not just displacing other forms of saving. While some saving may be redirected to the pension scheme, it is safe to assume that total saving increases as a result of the scheme.

¹⁵ The €1.3 billion reduction in take-home pay results in a €1.1 billion reduction in consumption, implying a marginal propensity to consume of 0.85.

Table B1: Assumed contributions to auto-enrolment pension scheme

€ million

	Employee contributions	Employer contributions	Government contributions
2024	374	374	125
2025	382	382	127
2026	389	389	130
2027	794	794	265
2028	810	810	270
2029	826	826	275
2030	1,264	1,264	421

Sources: Fiscal Council calculations.

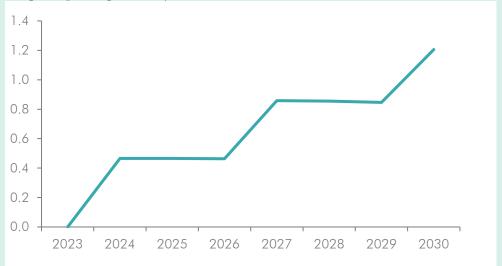
Notes: Rates of contribution assumed are 1.5% for employers and employees for 2024–2026, rising to 3% for 2027–2029 and then 4.5% in 2030. Government contributions are assumed to be 0.5% (2024–2026), 1% (2027–2029) and 1.5% (2030).

As shown in Table B1, contributions in the first three years of the scheme (2024, 2025, and 2026) are relatively modest from a macroeconomic perspective. However, as the rate of contributions increases in 2027 and again in 2030, the impacts could be much larger.

For this illustrative exercise on the savings rate, we assume that household income rises by the quantity of contributions by employers and the State. From Table B1, we can see an estimate of €1.7 billion in 2030 (contributions from employers and from the State).¹⁴ At the same time, consumption is falling. Both higher income and lower consumption are contributing to a higher savings rate.

Figure B1: Savings ratio is increased by the introduction of the auto-enrolment pension scheme

Savings ratio (percentage of income) relative to a "no auto-enrolment" counterfactual



Sources: Fiscal Council calculations.

Notes: The difference between the savings rate with auto-enrolment and without auto-enrolment is what is shown.

Figure B1 shows an illustrative example of the impact of the scheme on the savings rate. By 2030, the savings rate is more than one percentage point higher than would have been the case without the scheme. The impact on the savings rate increases each time the rate of contributions increases (2024, 2027, and 2030). This estimate of the impact may be an upper bound. This is because it assumes that household contributions to the scheme are increasing household savings, rather than just displacing other forms of saving that households made before the scheme was introduced.

¹⁶ This estimate of the impact on income can be considered as an upper bound. It is likely that employers may moderate pay growth to offset the cost of the scheme (relative to a counterfactual where the scheme is not introduced).

New dwelling completions, rents, and migration

Housing and construction labour shortages are acute, rent inflation remains elevated, and net inward migration has been rapid. The Council and the Department covered housing, rents, and migration in detail in the endorsement discussions, as they are crucial to understanding the medium-term path for the economy.

Figure 1.13A shows that new dwelling completions have been subdued compared to the pre-pandemic forecast in *Budget 2020*. While the 2022 outturn was above what had been expected in forecasts since the start of the pandemic, this is likely to reflect a backlog of construction projects that would have been completed sooner had it not been for the pandemic. *SPU 2023* forecasts show that an increase to 43,000 completions is now expected by 2030, although prior to the pandemic, *Budget 2020* had forecast 45,000 completions would be achieved six years sooner (by 2024).

This weakness for dwelling completions has coincided with rapid growth in rents since Q4 2020, and rent inflation is projected to remain similarly fast compared to its current annualised rate of 6.5% (Figure 1.13B). High rents negatively affect the ability to attract inward migration, on which the construction sector heavily relied in order to meet the demand for labour during the 2000s.

Figure 1.13: Housing completions have been subdued, and rents have grown rapidly since end-2020



Sources: Department of Finance, CSO and Fiscal Council workings. Get the data.