



Macro Assessment

**Capacity constraints and
overheating risks**

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MACRO ASSESSMENT

Capacity constraints and overheating risks

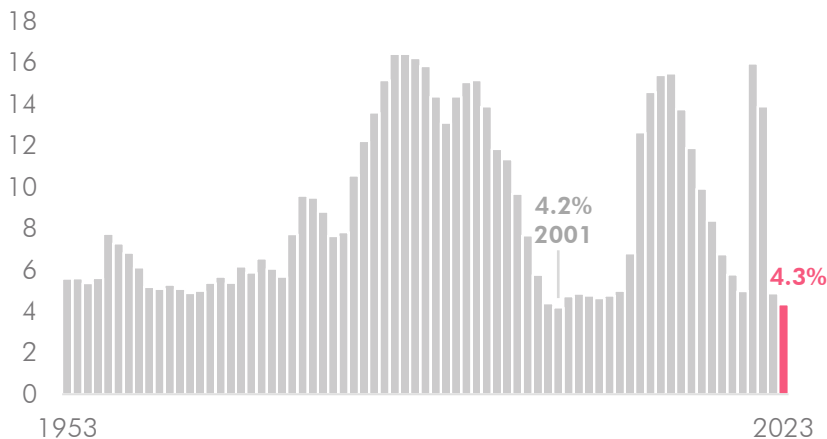
The Irish economy continues to be resilient. The jobs market remains exceptionally strong, and economic activity has recovered. This is despite numerous pressures, including inflation, increasing interest rates, and international risks.

The labour market is tight

The number of unemployed people in Ireland relative to the size of the total labour force is low (N^o1). Rapid inward migration, and significant demand for labour in high-skill activities, have supported Ireland's economic growth through a turbulent period for the global economy in recent years.

N^o1 Unemployment is close to record lows

% unemployed in labour force, ages 15-74



Sources: CSO, AMECO, ESRI, and Fiscal Council workings. [Get the data.](#)

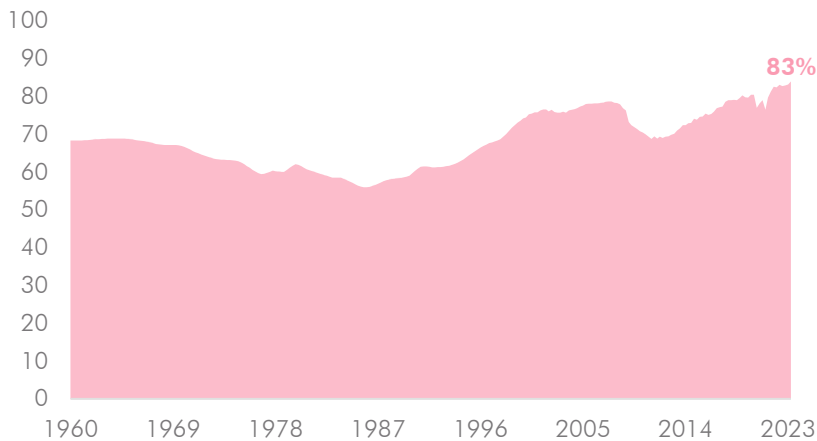
Notes: 2020–2022 annual data are adjusted for Covid-19 pandemic unemployment payment recipients. Data are extended back from 1997 using ILO-compatible AMECO and ESRI datasets. 2023 reflects the average seasonally adjusted monthly unemployment rate for January to October.

The tightness of the jobs market is also visible when we look the share of the prime-aged population at work (N^o2). High participation and low unemployment rates have become a recent feature of developed economies.¹

¹ See <https://www.oecd.org/sdd/labour-stats/labour-market-situation-oecd-updated-october-2023.htm>

Nº2 Record high employment

% of population at “prime” age (25-54 years old) employed



Sources: CSO, AMECO, ESRI, and Fiscal Council workings. [Get the data.](#)

One explanation for this could be the improved work–life flexibility provided by a more widespread ability to work from home. It is plausible that such a change could mean a structurally higher participation rate. Continuing high levels of job vacancies indicate that labour demand is unusually strong, and this may be a “pull factor” encouraging more people to seek work. At the same time, an important “push factor” is that inflation has squeezed household income, while rents and mortgage interest costs have also increased. High labour force participation could therefore reflect cyclical as well as structural factors.

The economy remains resilient

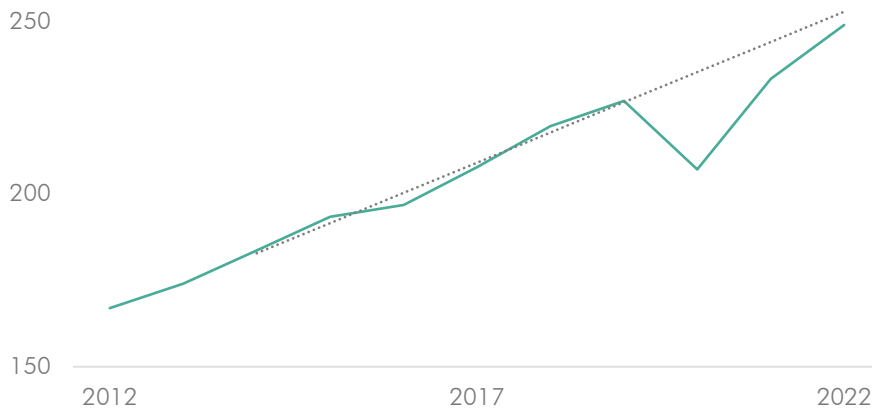
The level of overall activity has recovered close to levels that would have been expected to be in place, without the pandemic-induced economic downturn. This is visible in measures of real domestic activity such as modified domestic demand and modified gross national income (GNI*) (Nº3).

Growth has slowed somewhat in recent months, reflecting the impact of higher prices and interest rates. Nonetheless, momentum from rapid growth in 2022 has carried through, and a strong annual expansion in 2023 appears likely.

Hours worked in the Irish economy — an important input to real economic growth — increased by 2.4% for Q1 to Q3 2023, boosted by high participation and net inward migration. Capital spending has also grown rapidly, with new dwelling completions up by 8.8% for the first nine months of the year. These volume-based growth figures augur well for 2023 growth in real GNI*.

Nº3 National income has rebounded from the pandemic

€ billion, 2021 prices



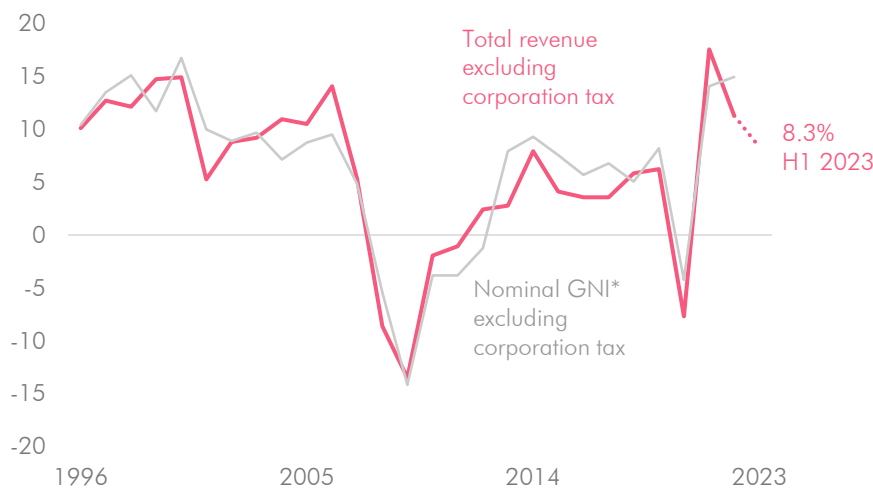
Source: Timoney (2023). [Get the data.](#)

Notes: Economic activity shown above is a bottom-up estimate of real GNI*. It is based on the income approach described in Timoney (2023). It includes all of Ireland's national income, except for gross operating surplus for three sectors whose profit flows in Irish GDP accrue predominantly to owners abroad: foreign-owned manufacturing, information/communication technology, and renting/leasing. This is shown due to the concerns regarding the deflators applied to top-down estimates of real GNI* (FitzGerald, 2023). Net exports of foreign-owned multinationals are included in real GDP with specific trade deflators, but subsequently removed from GNI* with different deflators for net factor income and depreciation. This results in a volatile and occasionally misleading real GNI* series — for example, the official growth rate for real GNI* growth is negative in 2015, despite other indicators showing robust growth that year.

Tax data also signal strong nominal growth. Government revenues excluding corporation tax grew 8.3% in the first half of 2023 (Nº4). Similarly, household and government gross national income grew by 8.1% for the same period.

Nº4 Government revenues signal rapid nominal growth in 2023

% change, year on year



Sources: CSO, and Fiscal Council workings.

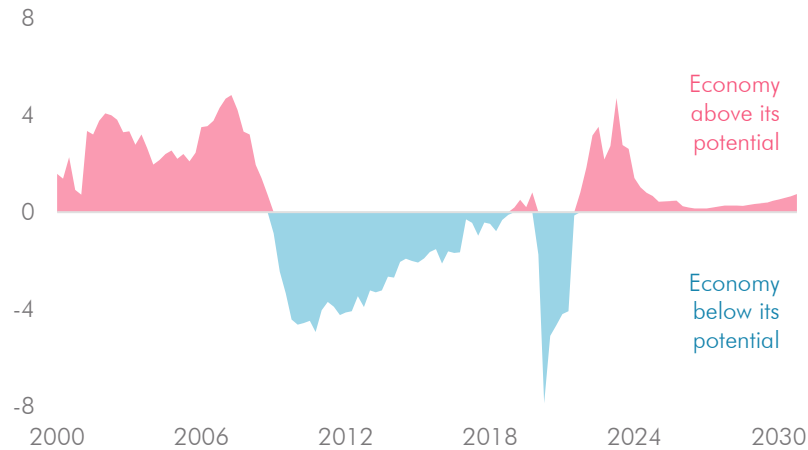
Output gap estimates point to overheating

When we apply the Council's models (Casey, 2019) to the Department's economic forecasts, we can see some evidence of overheating. In the second

quarter of 2023, actual levels of economic activity are estimated to be nearly 5% above the mid-range of the economy’s potential (N⁵). This is the same as levels estimated by the same models for the first half of 2007.

N⁵ The economy is showing signs of overheating

% gap between actual and potential economic activity



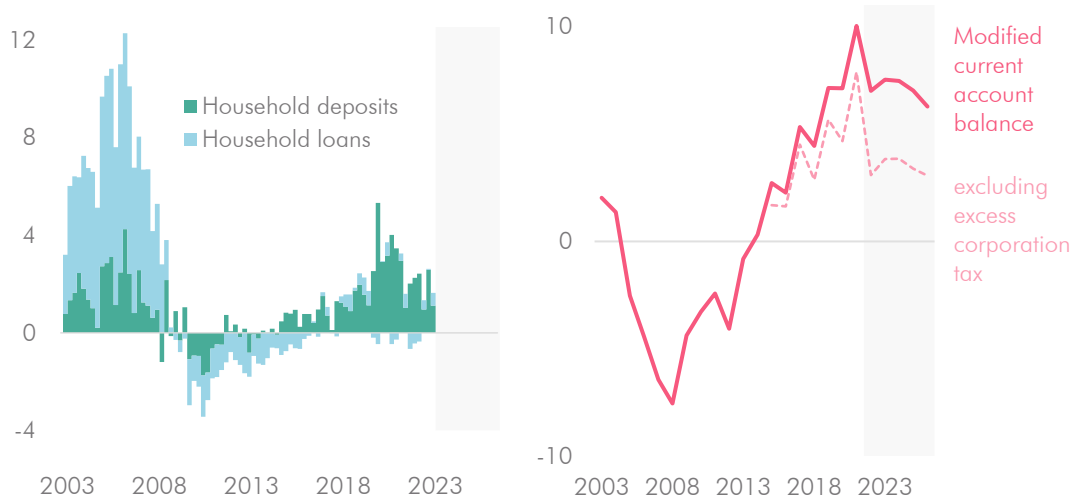
Sources: Department of Finance, and Fiscal Council workings.

But other measures are less clearcut

Other measures that we typically assess to understand imbalances in the economy are less clearcut. The levels of debt taken on by households remain low, and savings have reverted to pre-pandemic levels (N⁶). Similarly, the current account is in surplus, even when adjusted for various distortions, and excess corporation tax receipts.

N⁶ Activity is not fuelled by credit, and savings are high

€ billion quarterly net transactions (LHS), % of GNI* (RHS)



Sources: Central Bank of Ireland, Department of Finance, and Fiscal Council workings. [Get the data.](#)

This suggests that the economy is competitive — running a trade surplus and generating savings — rather than signalling a shift towards much greater

domestic consumption and a rundown of savings.² Furthermore, higher investment levels, which would also increase imports, could increase potential output. This could be funded by a high stock of national savings and a capacity within the private sector to sustainably increase borrowing levels.

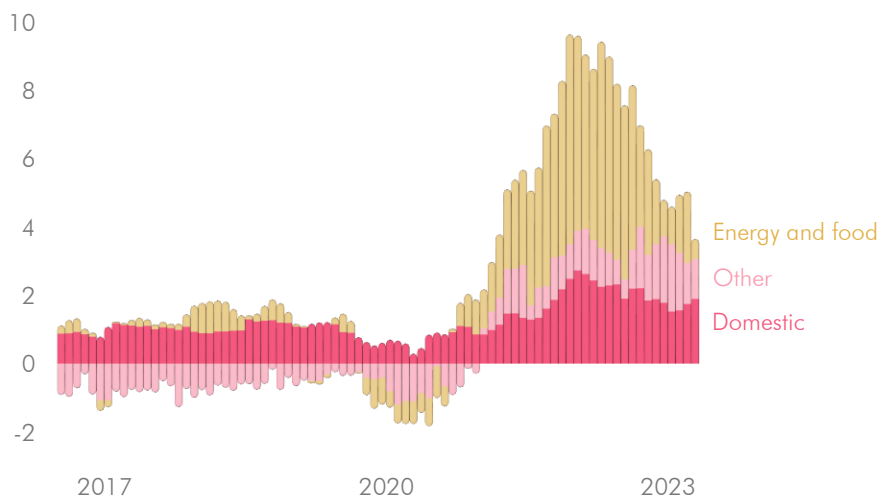
While the current account surplus suggests that the economy is not overheating, other cyclical indicators in the Council’s supply-side models (including net inward migration) signal activity that is well above potential.

Nevertheless, price pressures have been high

Inflation has been elevated since mid-2021, and the war in Ukraine sparked faster increases in energy and food prices (N^o7). These pressures have since partly abated, though in recent months, inflation has been increasingly accounted for by domestic services such as restaurants/cafés and rents.

N^o7 Domestic price pressures have persisted

% change in harmonised index of consumer prices inflation, year on year



Sources: CSO data, and Fiscal Council workings. [Get the data.](#)

Given prevailing concerns that the economy is at risk of overheating, the likely effects of fiscal policy on inflation are especially important this year. To this end, Box A employs the “Narrative approach” to investigate how tax cuts in *Budget 2024* are likely to affect inflation over the coming two years. These estimates show that *Budget 2024* tax measures alone — which do not account for higher expenditure — are estimated to raise prices by a further 0.5 to 1.8% over two years.

² Conroy and Casey (2019) showed that revisions to the current account across the OECD are over 1% of GDP in absolute terms, and larger for open economies. They also showed that Ireland’s current account can be an unreliable indicator of imbalances in real time. This analysis was based on the headline current account included in GNP. The above discussion considers the modified current account included in GNI*, and the situation for household loans and deposits.

Box A: The inflationary impact of Budget 2024 tax cuts

Estimating the macroeconomic effect of a change in policy is difficult. The key problem in estimating an effect of a policy change is that everything in the economy affects everything else. For instance, tax changes affect GDP, and GDP affects tax revenue. They are simultaneously determined. Isolating the impact of tax changes on GDP is therefore difficult.

Often, in order to estimate the macroeconomic effects of a policy change, a policy shock—a policy change that is exogenous, uncorrelated, and uncontaminated by other macroeconomic variables—is needed. This box uses tax policy shocks to estimate the inflationary impact of tax cuts in Ireland.

The Narrative approach

One approach to estimating the macroeconomic effects of tax policy is the Narrative approach. This approach, pioneered by Romer & Romer (2010), seeks to identify tax policy shocks by analysing the motivation for each tax change, and separating out tax policy changes that are motivated with the macroeconomic effects in mind.

The Narrative approach has been used to identify tax policy changes that are exogenous to macroeconomic factors. For the US, Romer & Romer (2010), estimated the macroeconomic effects of tax changes, while Cloyne (2013) did similarly for the UK.

Exogenous changes are those policies that are taken without a short-term macroeconomic goal in mind. For instance, tax changes that are motivated by ideological reasons, such as certain changes to carbon tax could be classified as exogenous to macroeconomic conditions. Likewise, changes that are made to comply with court rulings or EU VAT directives, could be classified as exogenous, as they are not motivated by current or prospective economic conditions, but are instead imposed externally. Endogenous changes would be those that are taken to stimulate the economy, address a contemporaneous budget deficit, fund increased government spending, or respond to inflationary pressures.

Data

Using data from every budget speech in Ireland between 1947 and 2019, the key motivation for each policy change is identified. These policy changes are classified into changes that are exogenous to macroeconomic factors, and that are endogenous to macroeconomic factors using the classification approach of Cloyne (2013).

A first exogenous “baseline” series is constructed based on the motivation for each individual measure. But given that tax measures are often not taken in isolation, a second “alternative” series using the overall budget motivation is also considered.

Estimation

Using these exogenous series, together with quarterly data for the Irish macroeconomy, we can estimate the macroeconomic effects of tax changes. This is done using a Vector Autoregression framework:

$$\mathbf{Z}_t = \mathbf{A}_0 + \mathbf{B}(L)\mathbf{Z}_{t-1} + \mathbf{C}(L)\mathbf{x}_t + \mathbf{e}_t$$

where \mathbf{Z}_t is a vector of macroeconomic variables (GNI*, consumption, modified investment, government consumption, and consumer price inflation) and \mathbf{x}_t is the exogenous tax series. As is standard in the literature, 4 lags of the endogenous variables are used, while 12 lags of the exogenous series are used.

Results

Figure 0 shows the response of consumer prices to a 1% of GNI* cut in taxes using the baseline exogenous tax policy series and the alternative exogenous tax policy series.

For the baseline series, following a 1% of GNI* cut in taxes, prices are 1% higher after eight quarters. However, the confidence intervals are wide and also include the possibility that the point estimates are zero or negative.

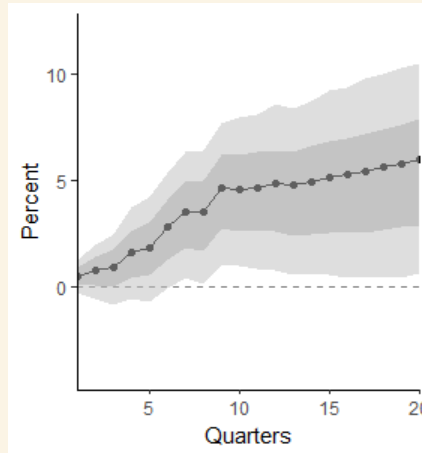
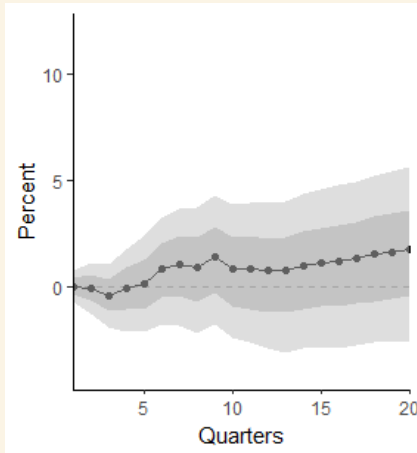
For the alternative series, following a 1% of GNI* cut in taxes, prices are 3.6% higher after eight quarters. In this case, no change in prices is outside of the 95% confidence intervals.

Nº8 Tax cuts raise prices over the medium term

Response of consumer prices to 1% of GNI* cut in taxes

A. Baseline (based on individual measures)

B. Alternative (based on overall budget packages)



Sources: Fiscal Council workings.

Notes: Based on a vector autoregression (VAR) model of GNI*, consumption, modified investment, government consumption and the consumer price index, with 4 lags for endogenous variables, and 12 for the exogenous tax series. The 66 and 95% confidence intervals are based on bootstrapped standard errors.

A separate question is whether the impacts of different tax instruments have different macroeconomic impacts. For instance, do consumption tax cuts have a negative impact on prices? Or do income tax cuts have a positive impact on prices?

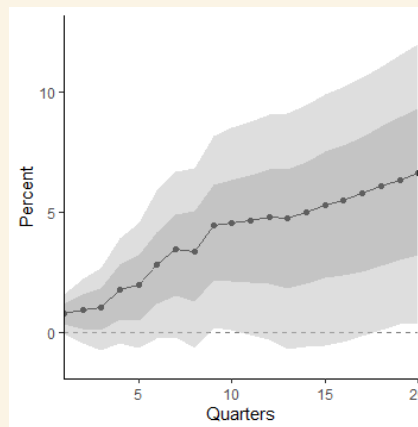
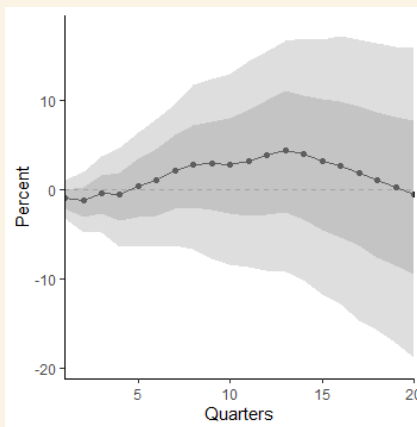
Figure Nº9 uses the alternative series and splits tax changes into those that apply to consumption (e.g., VAT and excise) and those that apply to income (e.g. income tax, USC). In this case, while most of the point estimates for consumption are positive, the impact is smaller and not statistically significant. However, for income taxes, there is a clear positive impact of income tax cuts on consumer prices.

Nº9 Income tax cuts are more inflationary than consumption tax cuts

Response of consumer prices to 1% of GNI* cut in consumption taxes

A. Consumption taxes

B. Income tax



Sources: Fiscal Council workings.

Notes: Based on the same VAR specification as used for overall tax cuts.

What do the budget tax cuts mean for consumer prices?

This box illustrates that tax cuts have an inflationary impact. Using the estimates presented in this box, we can give a sense of how inflationary *Budget 2024* tax cuts were. *Budget 2024* announced net tax cuts of 0.5% of GNI*.³ Using the above estimates, this would raise consumer prices by 0.5 to 1.8% after eight quarters, relative to a baseline in which no new tax measures were introduced in *Budget 2024*.

³ This is based on the full-year estimates of tax and PRSI measures.

1.1 Official short-term economic forecasts 2023 to 2024

The Council is required to assess the official forecasts produced by the Department of Finance for *Budget 2024*. Here we look at the short-term forecasts underpinning the Budget, covering the period 2023 to 2024. The goal is not to give the Council’s assessment of the economy, but to highlight key aspects of the Department’s forecasts.

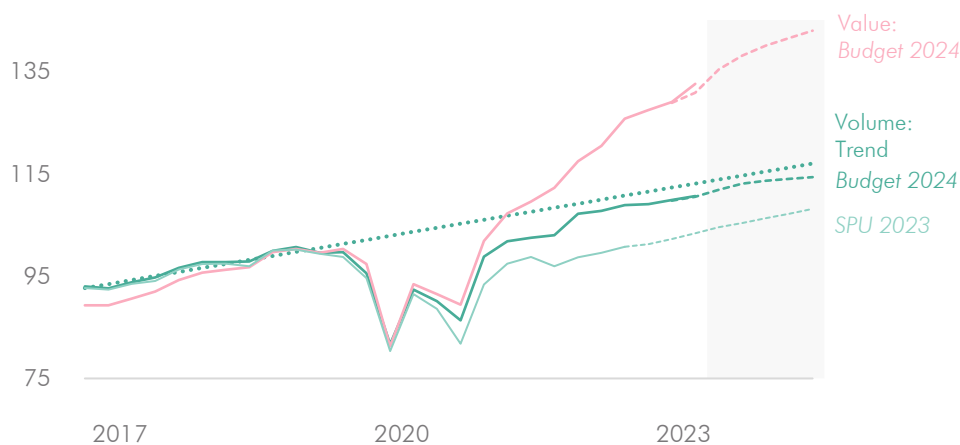
The Department forecasts growth in real GNI* of around 2% in the coming years. This reflects an expectation of no growth in labour productivity for 2022–2024, as well as a moderation in population growth. It projects that unemployment will rise slightly as excess demand unwinds, and that inflation will moderate. Higher consumer spending and investment are projected to lead to more imports and a slight fall in the still-large current account surplus.

Consumption and savings outlook

Household consumption growth has slowed in 2023, according to the latest CSO data up to Q3 2023 (N°10). The latest real spending data have softened, although nominal spending has continued to grow. Taken together, this suggests rather than a reduction in nominal spending, that inflation explains the slowdown in real consumer spending.

N°10 Consumption growth has slowed, reflecting higher prices

2019 = 100, seasonally adjusted



Sources: CSO, Department of Finance, and Fiscal Council workings. [Get the data.](#)

Notes: *Budget 2024* and *SPU 2023* quarterly projections are shown in the dashed lines.

Reflecting the timing of *Budget 2024* supports, the Department forecasts that consumption will recover somewhat over the winter months. However, the Department’s expected fall in inflation does not result in any further catch-up of household consumption with its pre-pandemic trend. As inflation is the most likely

explanation for the slowdown in consumption, a fall in inflation could boost consumption.

In the latest *Annual National Accounts for 2022*, the CSO revised recent historical household consumption considerably higher. Given the importance of consumer spending data in assessing macroeconomic conditions, Box B analyses the performance of Irish consumption data relative to other OECD countries. The findings include that Ireland's consumption revisions over five-year periods are double those of the EU15.

Box B: Revisions to Irish consumption data

Irish macroeconomic data has tended to be among the most volatile and heavily revised macroeconomic data in the developed world (Casey and Smyth, 2015). Much of this is due to distortions created by the presence of a few large multinational enterprises. Yet the scale of revisions for parts of the economy that should be less affected by multinational distortions are also unusually large.

Because of the distortions to Irish macroeconomic data, a lot of the focus is on indicators of underlying economic activity that are not distorted by multinational activity. These indicators include modified domestic demand, modified gross national income and personal consumption expenditure. As a result, having accurate and timely estimates of these indicators is vital for informing and framing policy.

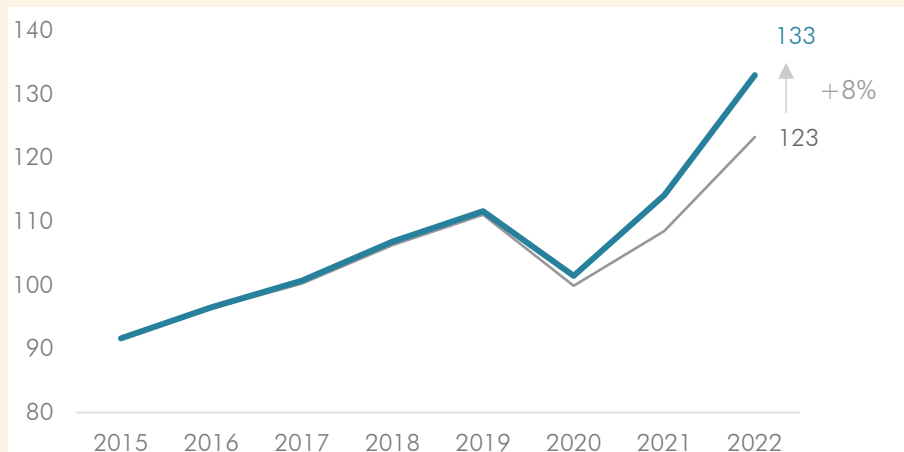
However, even these indicators of the underlying Irish macroeconomy are among the most heavily revised in the developed world. This box looks at revisions to Irish private consumption data and how this compares to international norms.

Recent revisions to consumption data

In the latest *Annual National Accounts* release, Irish consumption data was heavily revised upwards (Nº11). The level of nominal consumption in 2022 was revised upwards by almost €10 billion, or 7.9%. This was somewhat predictable given that several indicators showed higher levels of consumption since the Covid-19 pandemic began, compared to official estimates (Timoney, 2022).

Nº11 Consumption data were revised up significantly for recent years

€ billion, current prices



Sources: CSO; and Fiscal Council workings.

Notes: The pre-revision data is taken from the *Quarterly National Accounts, Quarter 1 2023* provisional release. Revised data is from the *Annual National Accounts 2022* release. [Get the data.](#)

To see how these revisions to consumption compare internationally, we follow the approach of Casey and Smyth (2015). For all OECD countries, we compare how year-on-year growth rates of quarterly real private consumption get revised from the first estimate to the latest available estimate.^{4, 5}

To gauge how large the revisions are we estimate the root mean squared revision (RMSR):

$$RMSR = \sqrt{\frac{1}{n} \sum_{t=1}^n (l_t - p_t)^2}$$

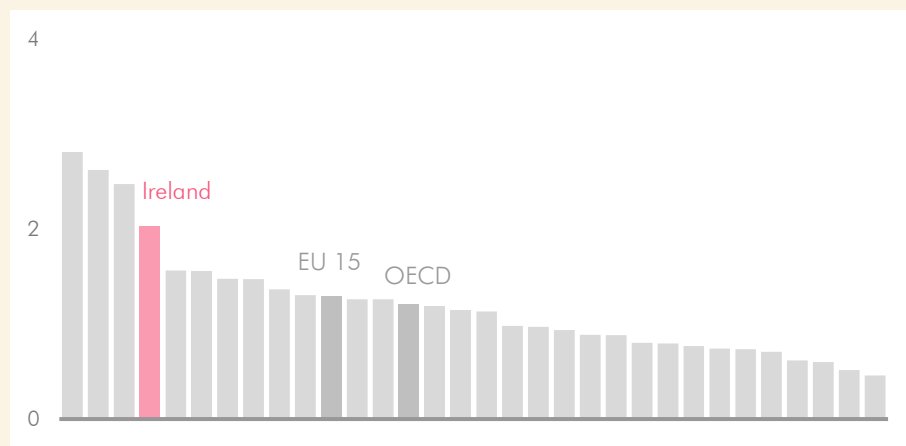
where l_t is the latest estimate for the growth rates in reference period t , and p_t is the preliminary estimate for that reference period.

International comparisons

Figure N°12 shows the root mean squared revision to the year-on-year growth rates for OECD countries since the year 2000.⁶ The revision to Irish consumption data is the fourth largest in the OECD at just over 2 percentage points.⁷ This is almost double the average revision in the OECD and the EU15.

N°12 Irish consumption revisions among highest in the OECD

Root Mean Squared Revision, real private consumption, year-on-year growth rates



Sources: OECD; and Fiscal Council workings.

Notes: Data are from the OECD's Revision Analysis Dataset. [Get the data.](#)

However, as can be seen from N°12, revisions can also occur to data from several years previous. The cumulative result of this series of revisions can be a large level shift in the data. This may not be as apparent from focusing on year-on-year growth rate revisions. For example, while the level of nominal consumption in Ireland in 2022 was revised up by 7.9%, the year-on-year growth rate for 2022 was revised up by only 2.9 percentage points, from 13.6% to 16.5%.

To try to take account of this fact, instead of looking at revisions to year-on-year growth rates, we also look at revisions to the five-year growth rates.^{8,9} On this basis, Ireland's

⁴ We focus on growth rates because the reference period from which prices are held constant changes across data vintages. This results in level shifts in the data between different vintages even without any revisions to the underlying data occurring. Using growth rates abstracts from this.

⁵ These data are only available on a seasonally adjusted basis. As a result, part of the revision may be down to changes in seasonal adjustment models, rather than revisions to the underlying data. However, the revisions to seasonal adjustment are likely to be greatly outweighed by the revisions to the underlying data.

⁶ Only countries that have data available prior to 2010 are included. This means that eight OECD members are excluded: Costa Rica, Columbia, Lithuania, Latvia, Estonia, Israel, Slovenia, and Chile.

⁷ The countries with a larger revision are Turkey, Luxembourg, and Greece.

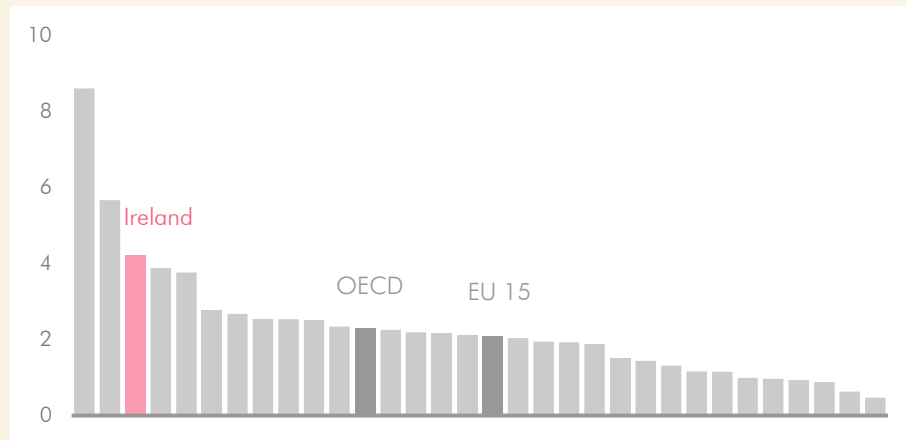
⁸ That is, we look at the revisions to the growth of consumption from year $t - 5$ instead of $t - 1$.

⁹ As mentioned above, it would not be possible to look at revisions to the levels of consumption given that the base period from which prices are measured changes over time.

consumption data are the third most heavily revised in the OECD and double the revision of the EU15 countries (N°13).¹⁰

N°13 Ireland's revision is double the EU15 average

Root Mean Squared Revision, constant prices private consumption, five-year growth rates



Sources: OECD; and Fiscal Council workings.

Notes: Data are from the OECD's Revision Analysis Dataset. [Get the data.](#)

Given the lack of distortions from multinational activity, consumption is one of the key macroeconomic indicators on the health of the Irish economy.¹¹ It is also an essential component in the estimation of the household savings ratio, which is an important variable for understanding sustainability of economic activity. For these reasons, timely and accurate estimation of consumption is vital for informing policymaker decisions.

Some revisions to data are expected—and indeed, welcome—as more granular and better-quality data sources become available. However, the accuracy of initial estimates of consumption is poor relative to international peers, and in recent years some of these revisions were somewhat predictable given the performance of other high-frequency indicators like VAT and bank card statistics.

Given the importance of consumption as an indicator, more resources should be dedicated to the compilation of timely and accurate consumption estimates. To that end, timelier and more frequent *Household Budget Surveys* should help. In addition, more resources should be dedicated to the potential use of administrative datasets like VAT data and Central Bank debit and credit card statistics in the compilation of consumption estimates. This could also facilitate a more granular quarterly breakdown of consumption of goods and services into categories such as durable, semi-durable, non-durable, and services, which has become the norm for published consumption statistics in other EU countries.

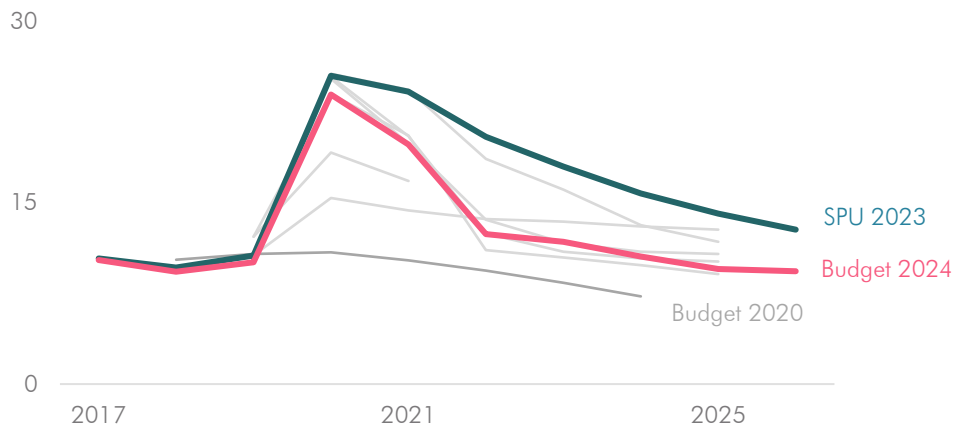
As a result of the revisions noted in Box B, household savings were revised considerably lower. Savings represent a key indicator of the sustainability of economic activity, but recent historical estimates have been too high because of underestimated consumption. At 10.5%, the Department's projected savings ratio in 2024 remains above its pre-pandemic forecast of 7.3% in *Budget 2020* (N°14). However, *Budget 2020* was based on an assumed disorderly Brexit, and this may limit the comparability of this projection with recent forecasts.

¹⁰ Turkey and Mexico are the countries with a larger revision to consumption.

¹¹ Consumption is also the main building block for another key indicator of the underlying economy – modified domestic demand.

N°14 **Budget 2024 forecasts show the savings ratio staying near 10%**

% of disposable income



Source: Department of Finance.

In *Budget 2024*, the Department forecasts a gradual return of the savings ratio to 2018 levels. This assumes that high savings built up during the pandemic will not be used to boost consumption over the medium term. Instead, the Department expects that higher deposits will be retained in household bank accounts or used for investment — including for the purchase of dwellings.¹²

However, these investments would also suggest that many households with excess savings have become wealthier. Wealth effects could therefore contribute to higher spending, even if this is not funded by higher income. While recent forecasts of the savings ratio have often shown a smooth trajectory, a more volatile path could also take place over coming years (which the Department has recognised as an upside risk). A volatile savings ratio that dips to low levels can increase the risks of overheating, especially if either lower savings or higher borrowing become persistent trends. However, household balance sheets, both before and since the pandemic, so far remain strong and mitigate against overheating risks via this channel to some extent.

Short-term outlook for investment

Modified investment fell significantly during the pandemic. It briefly recovered to its pre-pandemic trend in Q2 2022, because of extraordinary levels of investment in semiconductor-related equipment, as analysed by Casey (2023). Since then, it has fallen back considerably, and *Budget 2024* forecasts indicate limited short-term growth in modified investment overall (N°15).

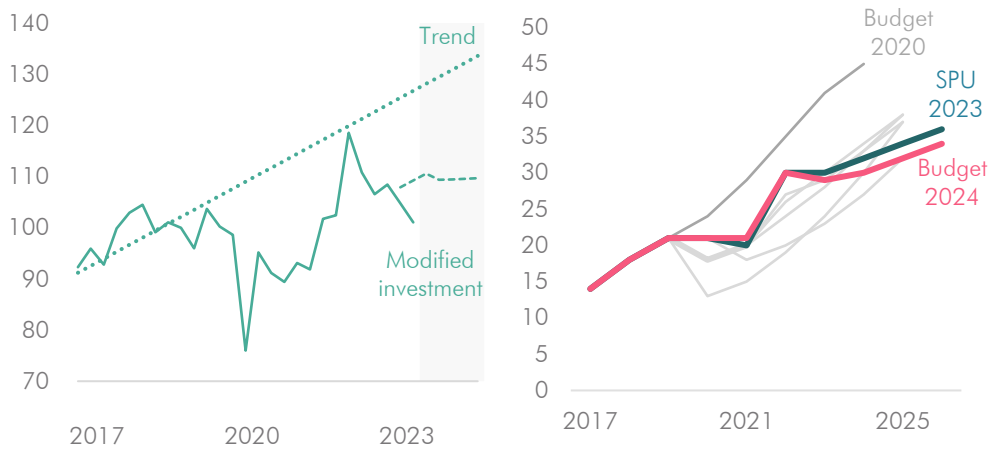
This projection includes a weaker profile for new dwelling completions relative to forecasts in *Stability Programme Update (SPU) 2023*. The Department now

¹² This is in line with recent analysis of excess savings in the euro area by Battistini and Gareis (2023), who note that holders of the excess pandemic savings are concentrated in the richest income quintile, whose marginal propensity to consume is lowest.

expects 29,000 completions this year and 30,000 in 2024, which is well below its pre-pandemic forecast in *Budget 2020* of over 40,000 units in each year.

Nº15 Flat investment and a limited increase in new dwellings

2019 = 100, seasonally adjusted volumes (LHS) and thousands of new dwellings (RHS)



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

Note: Other Department forecasts for dwellings from SPU 2020 to Budget 2023 are shown in grey.

Labour is widely acknowledged as an important constraint affecting dwellings construction. Despite this, in Q2 2023, employment in construction reached its highest level since end-2008. This includes specifically employment related to the construction of buildings, which comprised 70,000 workers in Q2 — close to double the 2012 figure.

Since *Budget 2024* forecasts were finalised, data for new dwelling completion forecasts were surprisingly strong in Q3 of this year — increasing by 1,064 (14%) units compared to the same quarter in 2022. This suggests upside risk to the Department’s 2023 forecast for both dwelling completions and modified investment. The annual increase in Q3 was explained by a rise of 1,083 (47%) new apartments, the construction of which are likely to be less labour intensive compared to the construction of houses. Despite a tight labour market for construction workers, a shift in the composition of new dwelling completions towards apartments could result in a larger increase in dwellings than could be expected if the share of apartments in new dwellings remained unchanged.

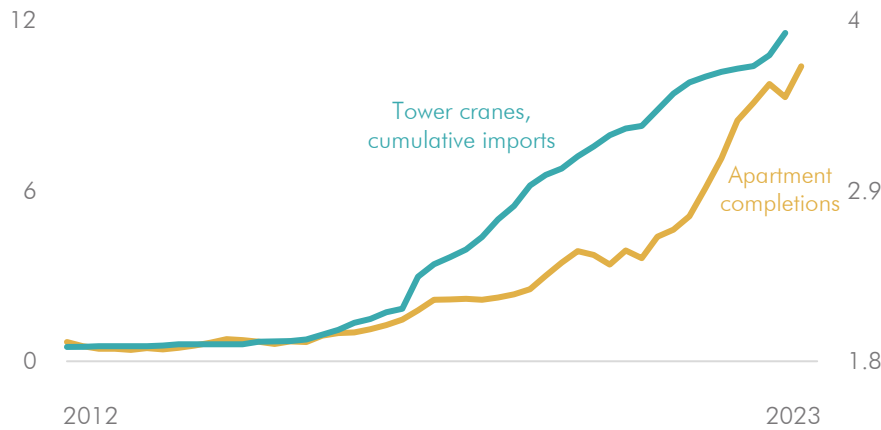
Given widespread work-from-home adoption has likely reduced demand for offices, a re-allocation of labour and capital away from commercial real estate and the construction of offices could benefit apartment construction. As noted by Lyons (2023), a leading indicator for construction of offices and apartments (four storeys or more in height) is imports of tower cranes.

Cumulative imports of tower cranes provide an indication of how many cranes are available for use in the construction of tall buildings. The more cranes that have been imported, the more apartment blocks and other types of tall buildings

have been built (N°16). Given the potential for re-allocation within construction in favour of apartment building, a recent acceleration of tower crane imports could encourage a higher number of apartment completions over coming years.

N°16 Tower crane imports could signal more apartment completions

Thousands of new apartments (four-quarter moving sum, LHS), and cumulative imports of tower cranes in hundreds of metric tonnes (RHS)



Sources: CSO, Eurostat, and Fiscal Council workings.

How should we think about risks to the economy now?

The Department’s risk analysis in *Budget 2024* identified that there were two-sided risks but that they were tilted to the downside. Risks to inflation were characterised as two-sided and broadly balanced around the baseline.

Numerous downside risks identified by the Department include weaker external demand, further energy/geopolitical shocks, higher inflation and interest rates, renewed Brexit disruption, loss of competitiveness, and sector-specific shocks. Just two upside risks were anticipated, including higher wages/investment paid for by multinationals, and higher domestic demand via an unwinding of excess savings.

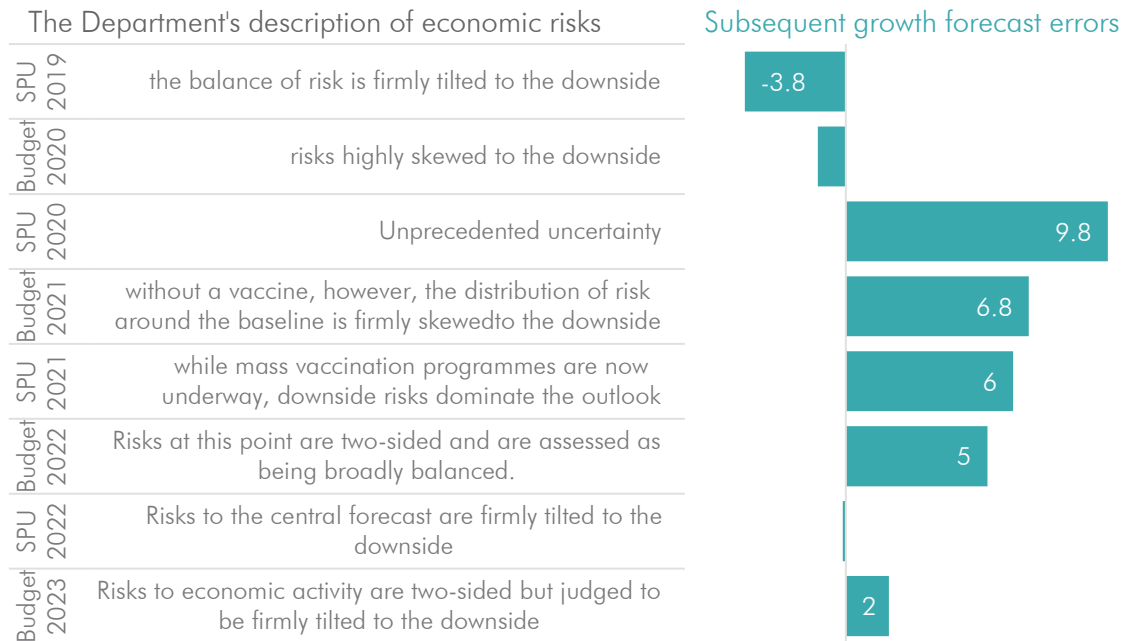
The Council assesses that an additional downside risk is the potential for weaker foreign direct investment by multinationals, which could be adversely affected by higher interest rates. Further upside risks could include higher net inward migration, and higher investment among domestic sectors (other than projects paid for by multinational firms). Higher domestic investment could be driven by a faster increase in new dwelling completions, alongside larger multiplier effects due to a planned ramp-up in public investment levels.

In each Stability Programme Update and Budget, the Department tries to anticipate risks to the macroeconomic outlook. Its assessment in recent years has generally been that risks to the central projections are tilted to the downside, and some of the downside risks identified have come to pass. Despite this, the economy has recently performed more strongly than expected over the short term, across in-year and year-ahead forecasts (N°17). This is especially the case in the

recovery from the slowdown associated with Covid-19 which turned out faster than feared at the height of the Pandemic.

N°17 Despite many downside risks, growth has exceeded recent forecasts

% , average two-year-ahead real GNI* growth forecast error, annualised

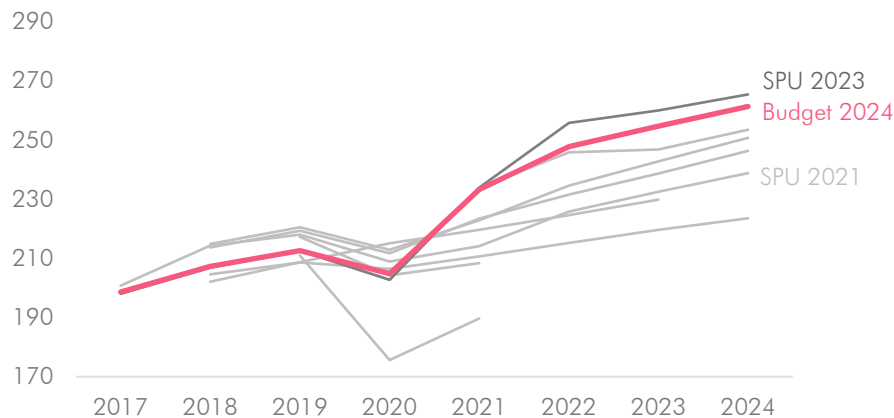


Note: Nominal GNI* adjusted for the GNP deflator is used until real GNI* forecasts begin in 2021. Budget 2024 estimates of 2023 real GNI* are used to inform SPU 2022 and Budget 2023 errors.

As noted above, the performance of the economy in recent years has been stronger than expected by the Department (N°18). Some of this outperformance is explained by wages and corporation taxes paid by foreign-owned multinationals, together comprising 23% of GNI* in 2022, up from 20% in 2019. Higher corporation tax contributes to economic performance as only the after-tax profits of foreign firms flow out of the economy's national income.

N°18 Real GNI* in 2024 is forecast to be 9% larger than in SPU 2021

€ billion, 2021 constant prices



Sources: Department of Finance, and Fiscal Council workings.

Note: All forecast levels reflected in the previous figure (N°17) are shown in this chart, and nominal GNI* adjusted for the GNP deflator is again used until real GNI* forecasts begin in 2021.

Real GNI* this year is expected to be considerably higher now compared to recent years. In 2024, the level of real GNI* is projected to be 9.4% higher than forecast in *SPU 2021*. This is a larger revision than the Council's latest Benchmark projection, which is 3.7% above the March 2021 forecast.

Comparing forecast errors with risk assessments is difficult and does not allow clear conclusions on the cause of differences. Better-than-feared outturns could signal that the forecasts were too pessimistic. They could equally mean that downside risks were realised but smaller in magnitude than anticipated, or that upside risks materialised.

Risk analysis often gravitates towards downside risks, but a full assessment of risks should include a range of upside considerations. Opportunity costs can arise when an economy performs considerably better than forecast. For example, in such a scenario, investment plans for both the government and private sector could prove insufficient, leading to higher costs and capacity constraints that could have been alleviated with more accurate macroeconomic projections.

1.2 Council's assessment of official medium-term economic forecasts 2025 to 2030

The *Budget 2024* medium-term forecasts are assessed below. In line with their short-term outlook, the Department forecasts growth in real GNI* of around 2% a year until 2030. These medium-term growth forecasts are assessed for the two main components of GNI*, namely modified domestic demand and the modified current account. The interaction of the current account with gross capital formation, and its implications for capacity constraints, is also assessed.

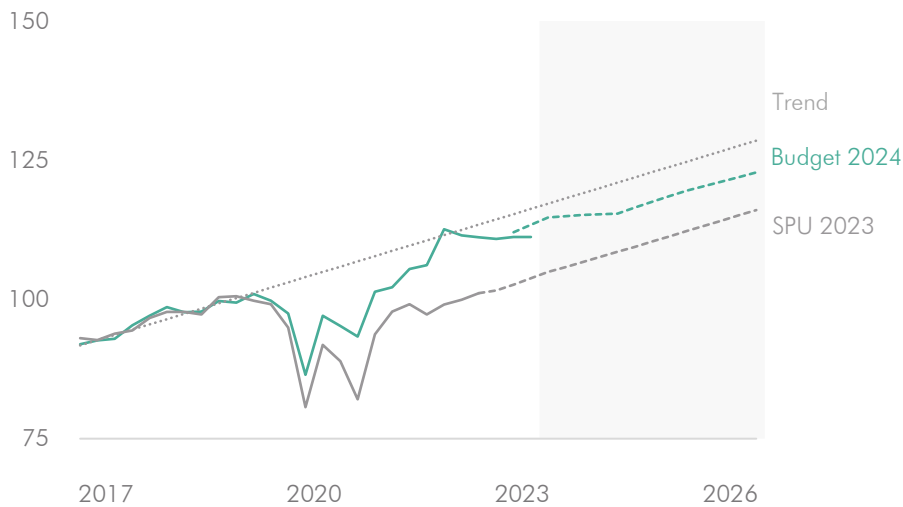
Budget 2024 forecasts domestic demand below trend levels

The Council assesses that national income has broadly recovered from the pandemic (N°3), though other indicators such as modified domestic demand remain weaker than their pre-pandemic trend (2014–2019). *Budget 2024* projects a continuation of this gap, which amounts to 4.5% in 2026 (N°19).

Lower modified investment is the main reason behind forecast weaker domestic demand over the medium term (see N°15). In line with the Department's medium-term expectations, it is possible that potential growth will be slower by 2026. This would imply that a shallower path for domestic demand and potential output would be consistent. Alternatively, if housing output increases significantly over the medium term, and if cost pressures continue to moderate, this could push real activity closer to its pre-pandemic trend.

Nº19 **Budget 2024 forecasts domestic demand below trend levels**

€ billion, 2021 prices



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

Slower GNI* growth is projected in Budget 2024

The Department of Finance forecasts GNI* based on a bottom-up framework out to 2026, while the forecasts for subsequent years are based on a production function approach.¹³

For the production function approach, an important assumption underpinning the Department's projection for economic growth is a sustained slowdown in employment growth over the medium term. Aligned to this assumption, as noted in the Council's discussion of the endorsement of the *Budget 2024* macroeconomic forecasts (Fiscal Council, 2023c), the Department assumes a fall in net inward migration. However, if higher net inward migration instead occurs, it could add to employment and economic growth.

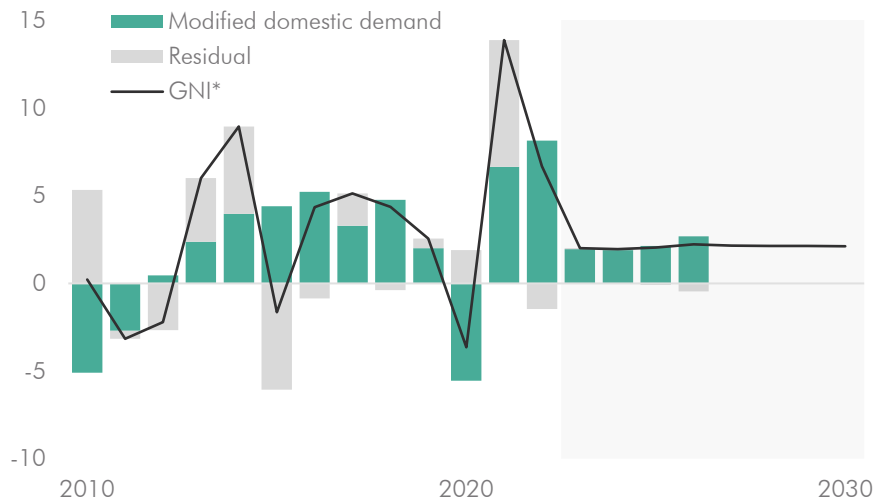
For the bottom-up framework, growth in modified (total) domestic demand is supplemented with expectations for a residual term, which mainly comprises the modified current account (CA*). To forecast CA*, many outsized categories of exports and imports are disregarded. This is because they are assumed to mainly represent multinationals' sales, and profits arising from these sales should not be reflected in GNI*, since the multinationals are owned abroad.

¹³ The bottom-up estimation closely follows the approach of the Council (Box E in the May 2020 Fiscal Assessment Report), and the Department's methodology is detailed by Lennon and Power (2021). For the production-function approach, Hogan *et al.* (2023) recently described the Department's methodology, which is similar to the Council's in the *Long-term Sustainability Report*.

A shortcoming of the approach is that forecasts of the residual term tend to generate very little growth contributions.¹⁴ However, in absolute terms, the residual term has been a considerably larger factor in recent history (N°20). This mainly reflects a strong domestic net exports performance, aside from multinationals' sales.

N°20 National income growth of 2% a year is forecast until 2030

% change y/y and contributions



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

The current account can also be viewed from the savings-less-investment perspective.¹⁵ This framework indicates that high levels of savings generated across the domestic economy have not been subsequently invested. As discussed below, Ireland's capital stock appears to be low in various parts of the economy. In this context, low levels of domestic investment in recent years have likely contributed to capacity constraints.

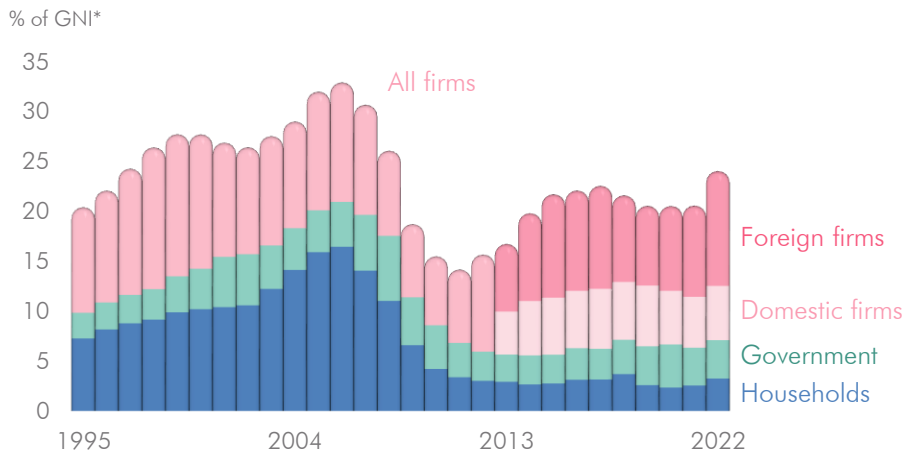
Capacity constraints

As a share of national income, gross capital formation in the Irish economy remains lower than levels seen in the early 2000s. The primary difference across institutional sectors is that households are investing considerably less now (N°21). This is largely a reflection of the low availability for household purchases of new dwellings. Other important factors include greater caution on the part of borrowers since the collapse of the property bubble in the late 2000s, and the Central Bank's macroprudential lending limits.

¹⁴ The methodology forecasts the change in the residual term based on international forecasts of external demand for domestic exports, and an assumed import content of final demand in GNI* (modified total domestic demand plus domestic exports). With a large residual term reflecting a large modified current account surplus, forecast changes are typically minor by comparison, implying a small growth contribution to GNI*. However, the Department also uses judgement to estimate the current year's modified current account balance from a savings-less-investment perspective.

¹⁵ For example, see the Box on the modified current account in Timoney (2023).

Nº21 **Investment has been increasingly paid for by foreign firms**



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

Investment levels by foreign-owned firms accounted for half of the growth in modified gross capital formation in 2022. Recent data indicate that the composition of modified investment has become increasingly driven by foreign multinationals, rather than domestic sectors. Whereas investment from domestic sectors has remained at around 12% of GNI* since 2019, investment by foreign sectors has increased by 3.5% of GNI* over the same period.

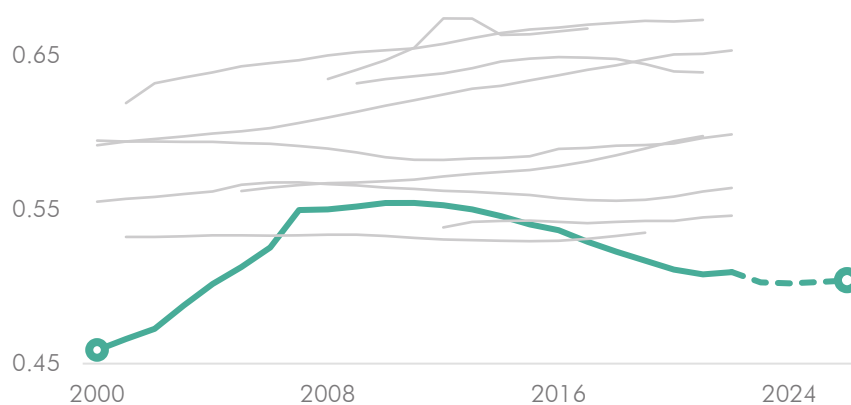
To an extent, this may reflect “crowding out” of domestic investment priorities, and it increases the risk that domestic firms stagnate. Of greater concern is the risk of “Dutch disease”, as foreign multinationals increasingly fund demand in the domestic economy through consumption (wages), government spending (corporation tax), and direct investment. In turn, the wages paid by multinational firms put upward pressure on domestic firms to increase pay, and this could harm international competitiveness as well as domestic investment capacity.

The low level of investment by households is also reflected in the relatively weak prospects for Ireland’s housing stock. Housing stock per person aged 15 or over is low relative to other EU15 countries (Nº22).¹⁶

¹⁶ Since Ireland has a relatively young population, children up to the age of 14 are excluded from the population across countries in this comparison.

Nº22 Ireland's housing stock is low relative to other EU15 countries

Housing stock per person aged 15 years and over



Sources: Eurostat, Statistik Austria, StatBel, Danmarks Statistik, Tilastokeskus Suomi, INSEE, DeStatis, European Central Bank, Centraal Bureau voor de Statistiek, Instituto Nacional de Estadística, Moody's, Statistikmyndigheten, Office for National Statistics, Department of Finance, CSO and Fiscal Council workings.

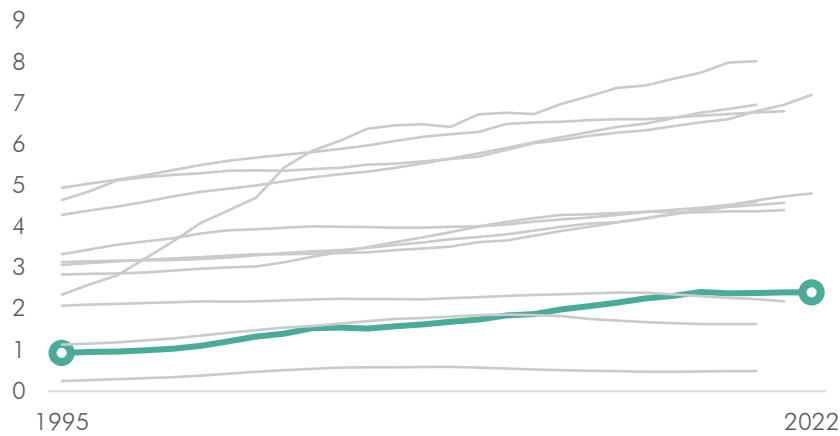
Notes: For Ireland, Census data for 1991, 1996, 2002, 2006, 2011, 2016, and 2022 are used for the dwellings stock. The interim years are approximated using a capital accumulation equation based on ESB connections (1992–2010) and new dwelling completions (2011–2022) data, and an average annual implied depreciation rate of 0.31% for 1992–2022. The forecast shown is based on *Budget 2024* forecasts for new dwelling completions, population growth, and the same assumed annual depreciation rate of 0.31%.

By this measure, high levels of completions in the mid-2000s led to Ireland's housing stock briefly exceeding levels in the UK and the Netherlands. However, Ireland's housing stock has been in relative decline since 2010. If *Budget 2024* projections are achieved, this would only maintain the relatively low level of the housing stock until 2026. To achieve the sample average across countries (for the most recently available year), Ireland would need an additional 170,000 dwellings, equivalent to nearly six years of the level of completions achieved in 2022.

Elsewhere, Ireland's infrastructure in health is also low compared to other EU14 countries (EU15 but excluding the UK) when scaled by the number of adults in the population (Nº23). The same applies to transport infrastructure (Nº24) scaled by total population. For education infrastructure scaled by the population aged 5 to 22 (Nº25), Ireland's capital stock is close to the median of the sample. Across the economy, for both public and private sectors, there is evidently scope for investment in infrastructure over the medium term, which could bring Ireland's capital stock more in line with similarly high-income EU14 countries.

Nº23 Health infrastructure is low compared to EU14 countries

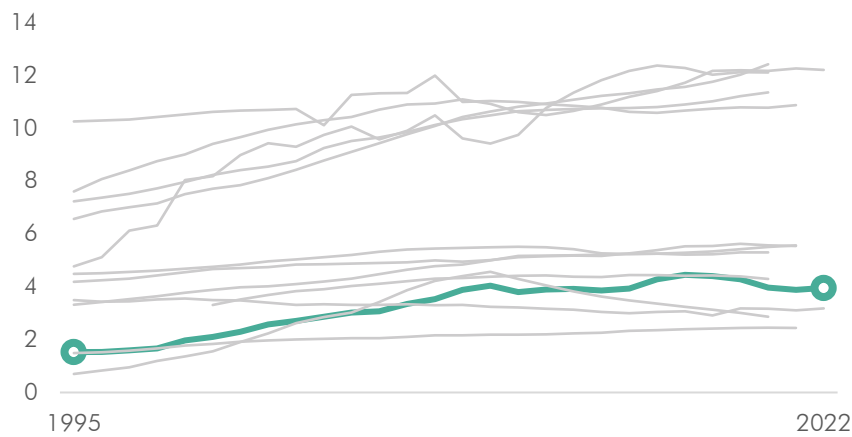
Health net capital stock (€ million, 2015 constant prices) per person aged 15 years and over



Sources: Eurostat, CSO and Fiscal Council workings.

Nº24 Transport infrastructure is low compared to EU14 countries

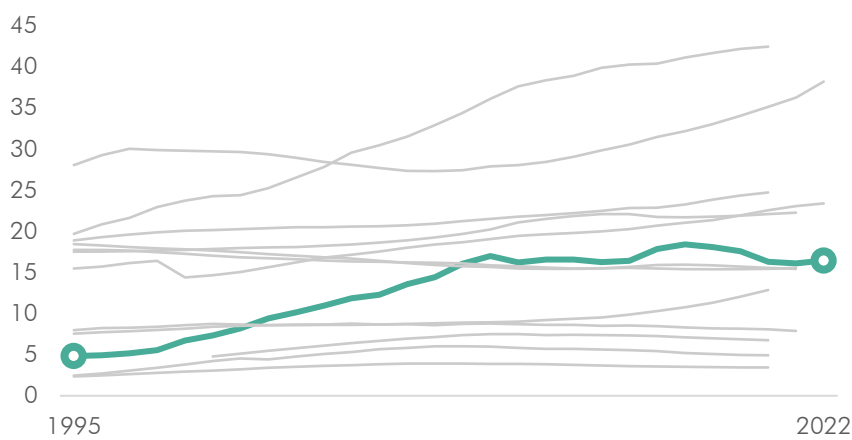
Transport net capital stock (€ million, 2015 constant prices) per person



Sources: Eurostat, CSO and Fiscal Council workings.

Nº25 Education infrastructure is middling compared to EU14 countries

Education net capital stock (€ million, 2015 constant prices) per person aged 5 to 22



Sources: Eurostat, CSO and Fiscal Council workings.