



An Roinn Airgeadais
Department of Finance

Stability Programme Update

Incorporating the Department of Finance's Spring Forecasts

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Stability Programme

April 2022 Update

(Incorporating the Department of Finance's Spring Forecasts)

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Procedural, technical and other relevant issues

1. Legal basis

EU Regulation 1175/11 (part of the so-called 'six pack' of legislative reforms adopted in 2011) requires all Member States to submit an annual update of their Stability Programme (Convergence Programme in the case of non-euro area Member States) to the European Commission by end-April each year.

This document is Ireland's annual update, and it constitutes Ireland's national medium-term fiscal plan. It has been prepared in line with the May 2017 guidelines on the format and content of Stability and Convergence Programmes – the 'Code of Conduct'. This document should be read in conjunction with Ireland's *National Reform Programme 2022*.

2. Endorsement

The Department produces, and publishes, two sets of macroeconomic projections each year – its spring forecasts (set out in the annual *Stability Programme*) and its autumn forecasts (set out in the *Economic and Fiscal Outlook* that accompanies the annual budget).

Under European Union law (set out in the so-called 'two-pack'), both sets of forecasts are subject to independent endorsement, a function that, in an Irish context and under the *Fiscal Responsibility Act 2012*, is assigned to the *Irish Fiscal Advisory Council* (the Council). A Memorandum of Understanding between the two institutions codifies the process, and is available at: <https://www.gov.ie/en/publication/caca92-memorandum-of-understanding-between-the-irish-fiscal-advisory-council/>

For comparison purposes, the main macroeconomic variables from each set of forecasts that has been subject to the endorsement process (which began in 2013) is set out on the Department's website, and available at: <https://www.gov.ie/en/publication/0441b-database-of-past-forecasts/>

The macroeconomic forecasts were endorsed by the Council on 4th April 2022 (**annex 1**). To operationalise this, staff in the Economics Division of the Department provided an initial set of projections to the Council on 24th March. Following an iterative process, a formal presentation was made by Departmental staff to the Council on 1st April.

The presentation provided to the Council is available on the Department's website at: <https://www.gov.ie/en/publication/f3b43-spu-2022-presentation-to-ifac-1-april-2022/>

3. Draft and final versions

The Government publishes each annual update of the Stability Programme in draft form, before submitting the final version to the European authorities at end-April.

4. Date stamp

The macroeconomic analysis and forecasts contained in this document are based on data available to end-March 2022.

5. Availability of chart data

In line with the Government's *Open Data Initiative*, the data underpinning charts in this document are available on the Department's website, available at: <https://www.gov.ie/en/publication/eda27-spu-2022-chartpack/>

6. Rounding

Rounding can affect totals in all tables in this document.

7. Boxes

The document contains several boxes. These are short, self-contained pieces of analysis, the objective of which is to delve a little deeper into some topical economic and fiscal issues.

8. Corrections policy

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

9. Presentation before parliament

The document was laid before (formally presented to) the Oireachtas on 13th April 2022.

Chapter 1

Overview and General Policy Strategy

1.1 Policy strategy

The Irish economy is grappling with its third severe economic shock in as many years.

The first shock relates to the economic disruption which arose from multiple waves of the Covid-19 pandemic since March 2020. That said, the Irish economy has come a long way since the *Omicron* variant of the SARS-CoV-2 virus took hold last November, quickly becoming the dominant variant. Scientific evidence concluded that, notwithstanding higher transmissibility,¹ *Omicron* was much less virulent than earlier waves. Combined with the protection provided by very high levels of vaccination, and taking into account the advice of the *National Public Health Emergency Team*, the Government began dismantling the pandemic-related infrastructure at end-January. An important milestone was reached a month later, with the elimination of all remaining legal requirements at the end of February.

After two difficult years, therefore, the tide had finally turned on the pandemic and, accordingly, the economy looked set to bounce back strongly, with an economic tailwind from the removal of Covid-related restrictions. But just as the economy was beginning the normalisation phase of the pandemic, a second shock took hold, namely the economic headwinds associated with the Russian invasion of Ukraine.

The fall-out from this aggression is, first and foremost, humanitarian in nature. As well as considerable loss of life, an estimated 4½ million people² have fled Ukraine, with European Union Member States absorbing the vast majority of these.

As well as the humanitarian fallout, the war – and, in particular, the economic, financial and other sanctions – represents a large supply-side shock to the global economy, with European countries at the coal-face. The sanctions, imposed by a broad range of countries including those in the European Union, the United States and some others, have been calibrated to incentivise a de-escalation of the conflict. Ireland's overall policy response is being crafted within the wider European Union response, with the Government's position being that the various economic and financial sanctions should be as onerous as possible.

From an economic perspective, these sanctions add to existing demand-supply imbalances in the global economy with, in particular, a ratcheting-up of energy and other commodity prices. While the primary impact will be on the Russian economy, they will also impose economic and financial costs on all of the countries involved. The Irish economy cannot be immune from the fall-out, but the Government sees these costs as necessary in order to limit the humanitarian fall-out from the aggression.

At this point, it remains unclear how the conflict will play out, or what the longer-term geopolitical and economic impacts will be. While the Russian footprint on the global economy is relatively small – accounting for less than 2 per cent of world economic output – its footprint on world energy and various

¹ It is estimated that around one-in-five of the population was infected by the *Omicron* variant over the December-February period. While a second *Omicron* wave (the BA.2 sub-variant) emerged in the second half of March, the economic projections set out in this document are calibrated on the assumption that, while additional waves are possible, restrictions on mobility and activity are not required.

² Figure as per early-April. An estimated 11 million Ukrainians have been displaced, with almost 4½ million of these fleeing the country. Source: United Nations, 2022. Available at: <https://data2.unhcr.org/en/documents/details/91900>

commodities markets is considerably larger. The associated disruption in these markets is compounding and extending pre-existing supply chain difficulties.

Longer-term, conflict may result in a re-configuration of the global economy while, for energy security reasons, reducing reliance on Russian fossil fuels within a relatively short timeframe has now become a key strategic goal for the European Union. In a similar vein, the risk-reward calculus that has been behind the offshoring of production in recent years will likely shift. In particular, the rewards (lower input costs) associated with 'just-in-time' supply chains will be, in some cases, outweighed by heightened risks (supply disruption); accordingly, multinational corporates will likely place a higher premium on 'just-in-case' supply chains, in turn possibly triggering a re-shoring, or near-shoring, of production.

The short-term economic fallout from the sanctions is, needless to say, very difficult to predict with any degree of precision. From a domestic macroeconomic perspective, first-round effects, i.e. direct impacts via trade and investment, will be contained. This is because, at least at the aggregate level, Ireland's bilateral trade with Russia is relatively minor; exports to Russia account for around 1 per cent of total exports, with the import share even lower. Direct financial links are mainly via special purpose vehicles (SPVs) within the international financial services industry, with these SPVs having limited spillovers to the domestic economy. One important exposure within financial services is the aircraft leasing sector, which is exposed to expropriation of that part of its fleet physically based in Russia.

Second-round effects, on the other hand, are likely to be significant, with higher commodity prices the main near-term transmission channel from war to the Irish economy.³ Supply disruptions have resulted in a more than five-fold increase in wholesale gas prices, while the wholesale price of oil has more than doubled over the past year. The pass-through from wholesale costs to retail prices of petrol, diesel, home-heating oil, and domestic gas supply is already evident. Additionally, Russia (and Ukraine in some cases) is a leading global supplier of many key inputs into production (grains, fertiliser, metals, etc.); higher upstream costs are giving rise to higher prices for many downstream products.

This so-called 'terms-of-trade' shock – whereby a country's import bill rises because of higher prices – will squeeze real household incomes and, hence, dampen consumer spending.

The third economic shock relates to the UK's exit from the European Union, with the UK formally leaving just over two years ago.⁴ The disruption to the domestic economy from this is playing out more slowly than the faster-moving Covid and geopolitical shocks; nevertheless, it is clear that the UK's exit will have a detrimental impact on the Irish economy.⁵ Indeed, there is evidence that structural change triggered by the UK's exit is already underway.⁶ While the *Trade and Co-operation Agreement* provides for tariff-free trade between the European Union and United Kingdom, non-tariff barriers – such as regulatory checks – can weigh on cross-border trade. At this point, the UK authorities have deferred the imposition of these checks on bilateral Irish-UK trade, with no clear timeline as to when the various checks will be applied.⁷

³ Ireland is not directly dependent on Russian gas as an energy source – about one-third of Ireland's gas requirement is sourced domestically, with the remainder via the inter-connector to Scotland. The UK, in turn, sources around one-third of its gas supply domestically, with a further one-third via inter-connection with Norway and the final third from imported LNG (with a small fraction of the latter being imported from Russia).

⁴ Article 50 of the Treaty on the Functioning of the European Union (the legal mechanism for exiting the European Union) was triggered by the UK Government on 29th March 2017. Following several extensions, the UK formally exited on 31st January 2020.

⁵ See *Ireland and Brexit: modelling the impact of deal and no-deal scenarios*, Department of Finance and ESRI (2019), available at: <https://www.gov.ie/en/publication/ca41b6-r/>

⁶ See *Initial Impact of Brexit on Ireland-UK trade flows*, Department of Finance and ESRI (2021), available at: <https://www.gov.ie/en/publication/f57a5-initial-impact-of-brex-it-on-ireland-uk-trade-flows/>

⁷ Non-tariff barriers may already be impacting on Irish-EU trade that is conducted via the UK 'land-bridge'.

Against this macroeconomic backdrop – three adverse economic shocks since the turn of the decade – public indebtedness has increased by €32 billion since end-2019. The bulk of the increase reflects the mobilisation of the Government’s balance sheet to help navigate the economy through the pandemic, with discretionary policies to soften the Covid blow amounting to an estimated 16 per cent of national income. The economic bounce-back that was underway prior to the outbreak of war in Ukraine suggests that the Government’s approach was largely successful: Modified Domestic Demand (MDD) is now back at its pre-pandemic level (though still below its pre-pandemic trend), while the level of employment is now higher than it was pre-pandemic.

In addition, the evidence at this point suggests that the ‘scarring’ from the pandemic – or permanent damage to the supply-side of the economy – has been limited, further justifying the Government’s budgetary approach. Importantly, the overall policy mix – counter-cyclical fiscal policy supported by accommodative monetary policy – helped to limit spill-overs to the financial sector, with the result that there was no adverse feedback between the financial sector and the real economy.

While necessary, Government support during the pandemic has come at considerable cost. Public debt increased by €32 billion over the two-year period of the pandemic and Ireland is now amongst the most indebted countries in the world.⁸ Accordingly, Government is now phasing out its pandemic-related support to the private sector; the *Pandemic Unemployment Payment* ended at end-March, with the *Employment Wage Subsidy Scheme* ending at end-April.⁹

A key policy issue relates to addressing the relatively high rate of consumer price inflation. In terms of its source, part of the inflation surprise relates to aftershocks from the pandemic, namely the disruption to supply chains that exacerbated the imbalance between global demand and supply. By raising input prices for energy and other commodities, war in Ukraine has exacerbated these imbalances. Another reason for the pick-up in inflation is the rapid rebound in the economy, with the strength of demand running up against capacity constraints. This highlights the importance of counter-cyclical budgetary policy and, in particular, the need to avoid over-stimulation of the economy.

Government has responded to limit the fall-out from higher inflation, *inter alia* via an electricity rebate, a reduction in excise duty on motor fuels and reduced VAT rates on electricity and gas. Under the central scenario set out in this document, inflation is likely to peak at around 6¾ per cent in the second quarter of this year, and to slow gradually thereafter. In the near-term, the exact trajectory for inflation will be determined by how households and firms respond to the price shock; in this regard, it is worth noting that the institutional framework – central bank independence with price stability mandates, for instance – is very different from, say, the 1970s.

In this regard, economic history highlights the appropriate response to an energy price shock. In its simplest form, higher energy prices imply a transfer of income from energy-consuming countries to energy-producing countries. As Ireland is a net importer of oil and most of its gas, higher prices for these products means that the nation as a whole will be worse off. The question then arises as to who – or, more appropriately, which sector of the economy – absorbs the shock. In response to the oil-price shocks of the 1970s, many governments in Europe, including in Ireland, tried to insulate the private sector from these supply shocks, sending public debt to very high levels in many advanced economies.

⁸ See *Annual Report on Public Debt in Ireland 2021*, Department of Finance (2022), available at: <https://www.gov.ie/en/publication/c9954-annual-report-on-public-debt-in-ireland-2021/>

⁹ At end-May for businesses directly impacted by the public health restrictions introduced in December 2021.

On this occasion, the priority is to minimise the impact on those who are most impacted; the Government can help, but cannot fully insulate all from the burden of higher energy prices.

On the policy front, a key innovation was the setting of a medium-term framework for the public finances in the *Summer Economic Statement* last July.¹⁰ Core expenditure ceilings are fixed, with annual increases in line with the estimated trend growth rate of the economy. This approach is calibrated in order to minimise the possibility that windfall revenues are used to finance permanent increases in expenditure; it also allows Government to maintain very high levels of public capital spending – at an annual average rate of 5 per cent of national income over 2021-2030 – as set out in the *National Development Plan*. The objective is to boost the economy’s stock of public infrastructure and, in doing so, to support private investment. Elimination of supply bottlenecks, including in the housing market, will lay the foundations for future improvements in living standards.

The Government’s approach also recognises the need to build buffers so that the public finances can absorb the expected reduction in corporation tax revenues in the years ahead. Current estimates of the revenue-at-risk from this amount to around 1 per cent of national income, although there is considerable uncertainty surrounding this estimate.

The Government is also planning for a post-pandemic economy. The pandemic has been, in many ways, a catalyst for change, with some of these likely to be long-lasting. More e-commerce transactions, a greater incidence of remote working, some ‘re-shoring’ of production and shifting consumer preferences are just some of the changes that are likely to persist. These changes will necessitate a reallocation of resources – workers and firms – from declining to expanding sectors. Government cannot hinder this process and, instead, its role is to smooth the transition to the new normal, *inter alia* by ensuring that workers have the necessary skills to move between sectors.

One notable feature during the pandemic was the decline – relative to previous norms – in corporate insolvency rates. This was a feature of other jurisdictions also, with budgetary supports artificially depressing the rate of insolvency. As fiscal support is phased out, the insolvency rate may begin to normalise.

To sum up, the Government’s balance sheet has proven to be remarkably resilient over the past few years. The Government has taken on additional debt to help the private sector navigate a global pandemic, and the evidence is compelling that this was the appropriate approach. However, as the pandemic passes, there is a limit to how much more debt the Government can take on to its balance sheet.

Serious fiscal challenges lie ahead: an ageing population, an almost-certain fall in corporation tax revenues; climate and digital transitions and, in the near-term, the need to finance humanitarian assistance to refugees fleeing war in Ukraine. Public debt is already very high and the cost of borrowing is now rising. All of this means that choices will have to be made; the public sector balance sheet cannot continually be deployed to address every challenge.

¹⁰ See *Summer Economic Statement*, Department of Finance (July 2021), available at: <https://www.gov.ie/en/publication/4d84e-summer-economic-statement-2021/>

1.2 Short-term economic and budgetary outlook

Geopolitical factors cast a cloud over the economic outlook and, against the backdrop of heightened levels of uncertainty, constructing a set of macroeconomic projections is a challenging exercise. With no clarity regarding the duration of the war, the scope of sanctions against Russia, the scale of spillovers, etc., the projections set out in this document should be seen more as a scenario rather than a forecast *per se*.

The Department's central scenario set out in this document is calibrated on the assumption that the fallout from the conflict in Ukraine slows, rather than de-rails, the economic recovery triggered by the full-elimination of pandemic-related restriction. In relation to the latter, a key building block of the projections is the assumption that the pandemic remains in check.

Table 1: summary – main economic and fiscal variables

	2021	2022	2023	2024	2025
Economic activity					
	<i>per cent change</i>				
Real GDP	13.5	6.4	4.4	4.0	3.8
Real GNP	11.5	5.9	4.0	3.5	3.3
Modified domestic demand	6.5	4.2	3.9	3.6	3.6
Modified GNI [^]	5.5	3.7	3.1	3.2	3.3
Prices					
	<i>per cent change</i>				
HICP	2.5	6.2	3.0	2.2	2.1
Core HICP ^{^^}	1.7	3.9	3.3	2.3	2.1
GDP deflator	-0.4	4.1	2.2	1.9	1.7
External trade					
	<i>per cent GNI*</i>				
Modified current account	9.8	8.4	7.2	6.6	6.1
Labour market					
	<i>per cent change (unless stated)</i>				
Total employment ('000)	2,140	2,459	2,510	2,552	2,595
Employment	11.0	14.9	2.1	1.7	1.7
Unemployment rate (per cent)	15.9	6.2	5.4	5.2	4.9
Public finances					
	<i>per cent of GNI* (unless stated)</i>				
General government balance (€ million)	-8,110	-1,880	1,230	6,460	7,655
General government balance	-3.6	-0.8	0.5	2.4	2.7
Structural budget balance*	1.2	1.4	0.9	1.2	1.2
General government debt (€ billion)	235.9	233.8	230.8	231.4	227.0
Net debt position (year-end, € billion)~	192.6	196.9	200.1	198.0	195.8
Debt ratio	105.6	96.5	89.9	85.4	79.4
Net debt ratio	86.2	81.2	77.9	73.0	68.5

Notes:

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

^{^^} excluding energy and unprocessed foods.

* per cent of GDP; estimates of the structural budget balance are subject to even greater uncertainty than normal.

~ net debt figures from 2022 estimated by mechanical extrapolation of assets.

Source: CSO for 2021 and Department of Finance 2022-2025. 2021 GNI* also estimated by Department of Finance.

In order to construct the projection, a number of conditioning assumptions regarding the war in Ukraine are necessary. Firstly, irrespective of the duration of the war, it is assumed that economic, financial and other sanctions remain in place over the full forecast horizon. Secondly, the carve-out for energy products from the EU-imposed sanctions is assumed to remain in place; an extension of sanctions to gas and oil is a serious downside risk to the projections. Thirdly, supply chain disruption arising from the war is assumed to persist in the near-term, but to ease over the course of the year.

Ireland relies heavily on gas and oil to meet its energy needs and so the key transmission channel from financial and other sanctions is commodity-induced higher consumer price inflation. This will weigh on the purchasing power of household incomes. Partly offsetting this is the improvement in household balance sheets over the past two years, with many (but not all) households now having substantial holdings of liquid assets (cash and deposits) arising from 'forced' savings during the pandemic. Confronted with higher prices, some of these households may try to smooth their spending by running down these savings at a faster rate. On the corporate side, heightened uncertainty on foot of the conflict will probably hold back some business investment.

Against this backdrop, Modified Domestic Demand (MDD) is projected at 4.2 per cent this year (**table 1**), a somewhat softer pathway for the economy than foreseen in the Department's autumn 2021 forecasts (published alongside *Budget 2022*). For next year, MDD growth of 3.9 per cent is currently anticipated. Average annual MDD growth of 3.6 per cent is projected for the later years of the forecast, in line with the Department's previous forecast exercise.

Incoming data confirm the resilience of the labour market, where the level of employment is already above its pre-pandemic high watermark. Hours worked rather than headcount is the more meaningful metric at the current juncture; data show that hours worked at the tail-end of last year had recovered to marginally above their pre-pandemic level. For this year, employment is projected at 14.9 per cent, with labour supply – rather than the demand for labour – increasingly becoming a constraint on employment expansion.

On the prices side, a triple whammy – higher commodity prices, base effects and imbalances between demand and supply – is behind the inflation surprise in recent quarters. In the first quarter of this year, the annual inflation rate was 5.9 per cent, and is likely to peak in the second quarter. That said, the pace at which annual inflation tails-off over the remainder of the year is likely to be slower than previously assumed, given recent energy and other commodity price dynamics.

A general government deficit of just under €2 billion is projected for this year, the equivalent of 0.8 per cent of GNI*. This is calibrated on the assumption of tax revenue amounting to almost €76 billion, a growth rate of almost 11 per cent. For next year, the expenditure ceiling set out in *Budget 2022* was €85.6 billion, providing for a 'core' (or non-Covid) increase in voted expenditure of 5 per cent. An additional contingency of €3.0 billion has also been included to support Ukrainian refugees arriving to Ireland. With tax revenue growth projected at 6 per cent, this would equate to a modest surplus of 0.5 per cent of GNI* next year.

Public indebtedness this year is projected at €233.8 billion, the equivalent of 96.5 per cent of GNI*. For next year, public indebtedness is projected at €230.8 billion, 89.9 per cent of GNI*.

Overall, therefore, the baseline projection is conditioned on the assumption that the war in Ukraine slows the pace of economic expansion in Ireland, rather than reverses it. That said, the very high level

of uncertainty warrants the construction of an additional, more severe, scenario – for instance, one in which *inter alia* European Union sanctions are extended to cover Russian energy products.

This document contains a set of two model simulations. The first is an attempt to quantify the impact on the economy of the war in Ukraine. Broadly speaking, the impact of the war is to reduce MDD growth this year by 0.4 percentage points, with the level of domestic activity next year around 1.5 per cent below what it would otherwise have been.

The second simulation is an attempt to quantify the impact of an escalation of sanctions, for instance if Russian fossil fuels were immediately removed from the European Union's energy mix. This simulation is calibrated on the assumption that energy prices returned to levels that prevailed in the immediate aftermath of the invasion, and remain considerably above the central scenario assumptions throughout this year and next. This would add around 2 percentage points to inflation (and the annual rate could reach around 9 per cent in the third quarter). The fallout from price increases of this magnitude would tip many European economies into recession and, in the face of weaker external demand and the transfer of domestic income abroad (via even higher energy prices), the impact would be to reduce MDD in Ireland.

Importantly, an extension of sanctions to Russian energy would have major implications for the public finances. In particular, the modest surplus currently in prospect for next year would be eliminated, and this would occur at a time when borrowing costs would be rising.

Chapter 2 Economic Outlook

2.1 Summary

Two key developments, operating in opposing directions, shape the near-term economic outlook. The first is the fading impact of the pandemic, an important tailwind for consumer spending, for business investment and for external demand. On the other hand, the geopolitical fall-out from the Russian invasion of Ukraine is a major headwind for the economy. The impact of the war, and the associated sanctions, is being transmitted to the Irish economy via elevated energy and other commodity prices, with heightened levels of uncertainty also holding back activity.

The impulse to demand from the fading impact of the pandemic is, therefore, being partly offset by commodity-induced higher inflation, which is squeezing the purchasing power of household incomes and raising input costs for firms. Consumer price inflation is now projected to peak at almost 6¾ per cent in the second quarter, before moderating somewhat over the remainder of the year. An annual average inflation rate of 6¼ per cent is projected for this year, easing to 3 per cent next year.

Reflecting this real income shock, near-term prospects for consumer spending have been revised downwards, though the normalisation of household savings, from exceptionally high rates during the pandemic, will support an annual increase in spending this year.

Against this backdrop, Modified Domestic Demand (MDD, the preferred measure of economic activity) is now projected to increase by 4¼ per cent this year, a figure which incorporates a 2¼ percentage point downward revision from the Department's previous set of forecasts, published alongside *Budget 2022*. For next year, MDD growth of just under 4 per cent is currently assumed.

One positive surprise since the Department's previous set of forecasts has been the rapid recovery in the labour market, with the number in employment reaching its highest level ever at the end of last year. Within-year employment gains are expected to be more modest this year, in keeping with the outlook for economic activity. An annual average unemployment rate of 6¼ per cent is expected, falling to just under 5½ next year and approaching full-employment thereafter.

2.2 Macroeconomic developments in 2021

The sharp rise in case numbers (**figure 2A**) arising from the *alpha* wave of the SARS-CoV-2 virus triggered the imposition of stringent ('level-5') restrictions at the beginning of last year (**figure 2B**), which weighed on economic activity in the first quarter of 2021. Consumer spending contracted sharply and new house-building ground to a near-halt; the resulting decline in employment in labour-intensive sectors prompted a spike in the numbers in receipt of the *Pandemic Unemployment Payment* (PUP), which reached almost half a million. Notwithstanding the comparatively stringent restrictions, however, data confirm that households and firms continued to adapt to mobility restrictions, with a much smaller aggregate economic impact relative to the first wave of the virus a year earlier.

With the mass mobilisation of vaccines during last spring, restrictions were gradually eased from the second quarter, triggering a rebound in economic activity. Consumer spending increased by over 15 per cent, the strongest quarterly increase on record, with the result that the level of spending was just 1 per cent below its pre-pandemic level by the end of the second quarter. Thereafter, spending increased only marginally over the summer, a somewhat surprising outcome given the widespread re-

Box 1: real-time indicators during the pandemic

In order to assess economic activity in real-time, the Department of Finance monitors a number of different high-frequency indicators covering a range of activities across various sectors of the economy.

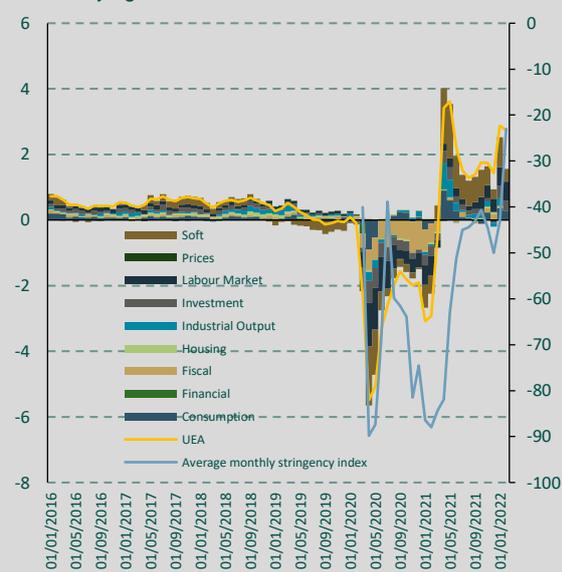
An important tool in this regard is the Department's Underlying Economic Indicator (UEA). This provides a single indicator that summarises a number of data, including monthly changes in the labour market, prices and soft indicators such as consumer sentiment (**figure 1A**). The question arises as to how this tool performed as an indicator during the pandemic.

The UEA captures changes in economic fortunes pre, during and post-pandemic, and the correlation between the UEA and the stringency index is relatively strong.

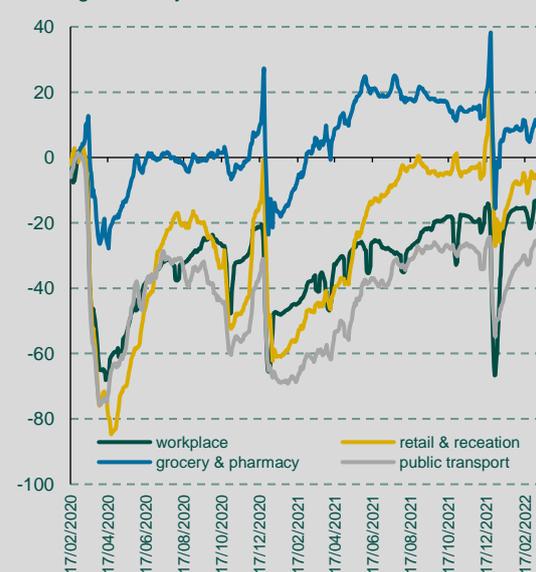
For example, the UEA hit a peak negative value in April 2020, when restrictions were at their highest point. The decomposition of the UEA over this period shows that this was mainly driven by negative developments in the labour market, investment and the fiscal impact. The UEA has been positive since April 2021 as the economy has recovered, although fluctuations due to reintroduced restrictions (e.g. December 2021 because of the *Omicron* wave) are evident.

Figure 1: UEA and mobility during the pandemic

A: underlying economic indicator 2016-2022



B: Google mobility data 2020-2022



The use of higher frequency data has become more widespread during the pandemic, given the pace at which mobility restrictions were introduced and the need to understand – in real-time – the implications of public health measures. Although less comprehensive than official data, such indicators can provide an indication of trends or turning points in real-time. Again, the question arises as to how these data captured the economic fall-out from the pandemic.

Focussing on mobility data (**figure 1B**), these show for instance how visits to areas such as workplaces and shops, have changed across the Irish economy during the pandemic. In the early stages of the pandemic, mobility patterns peaked at an all-time low; retail and recreation mobility fell by -84 per cent compared to baseline figures (early Jan 2020 to early Feb 2020), as 'stay-at-home' advice and restrictions on distance were introduced.

Although mobility patterns have since recovered, public transport and workplace mobility remain below pre-pandemic levels; in part due to an increased prevalence of hybrid-working. As a result, even though the pandemic has largely receded, mobility remains below the levels prior to the outbreak.

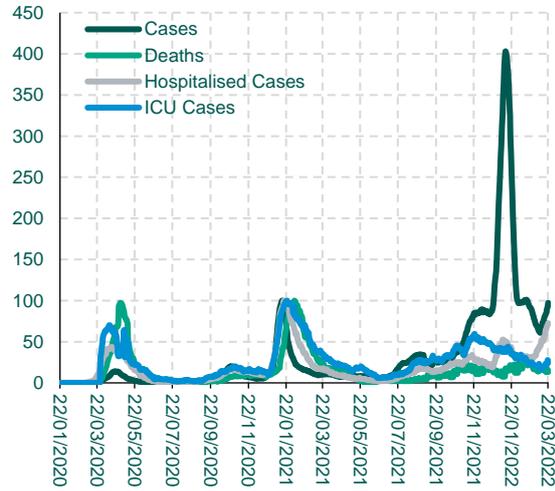
Mobility related to grocery and pharmacy purchases was, unsurprisingly, less affected by restrictions. This, of course, reflects the fact that these purchases are necessities.

In summary, high frequency indicators and data have been useful during the pandemic, as they provide real-time insights as to how the economy and different sectors are performing.

opening of contact-intensive services at this time. A modest decline in consumer spending was recorded in the fourth quarter, as households eased back on spending in the face of new restrictions in December (arising from the *delta* and *omicron* waves), as well as rising energy costs.

Figure 2: pandemic indicators

A: case numbers and health outcomes



Notes: data expressed as per cent of second wave peak.
Source: Department of Health

B: stringency index

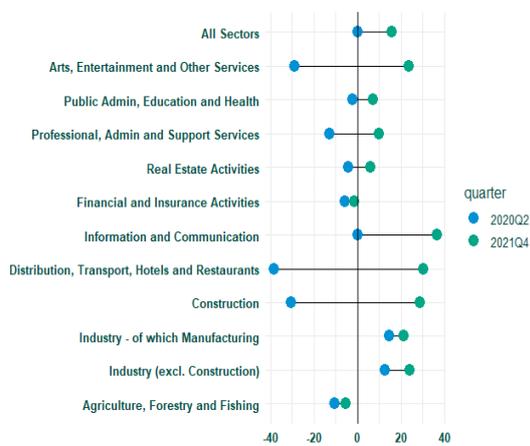


Notes: 0 = no restrictions; 100 = most stringent.
Source: Oxford Blavatnik School of Government

Despite the softening of consumer spending in the second half of last year, MDD expanded at a solid pace, with other components of demand taking on the mantle. Government spending on goods and services increased by over 5 per cent, in part due to Covid-related outlays (e.g. testing, vaccinations, etc.). On the investment side, mobility restrictions in the first quarter weighed on construction activity, though new house building was broadly unchanged for the year as a whole. Very strong growth was recorded in (non-aircraft) machinery and equipment investment, up 40 per cent for the full-year, *inter alia* as firms ramped-up spending on computer equipment to support remote working and digitisation. Additionally, parts of the multinational sector expanded capacity in response to the strength of international demand in some areas.

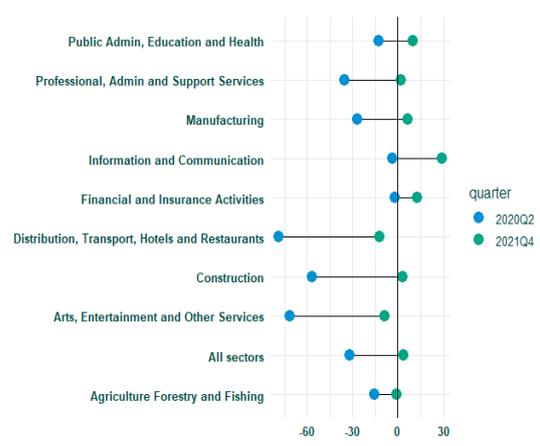
Figure 3: sectoral developments, per cent change since Q4 2019

A: gross value added by sector



Source: CSO

B: employment by sector



Source: CSO

Box 2: calibrating a forecast in uncertain times

A standard short-term economic forecast is typically constructed using empirically-estimated, steady-state behavioural relationships between the key economic agents and sectors. This is more challenging in the current circumstances, given the scale of the energy price shock and the myriad of possible outcomes regarding the major war taking place on European soil.

Accordingly, the central scenario set out in this document is conditioned on a number of key assumptions. Calibrating this scenario also requires more expert judgement than would normally be the case.

To construct the forecast, the following assumptions are made (with the impact of alternative assumptions set out in [chapter 6](#)):

Epidemiology

While the virus appears to be petering out, the pathway remains uncertain. In particular, a more virulent and transmissible variant remains a possibility.

The economic projection assumes that no ‘economically relevant’ restrictions are needed in future. However, it is also clear that the pandemic continues to indirectly impact on the Irish economy – for instance, the ‘zero-Covid’ strategy currently being implemented in parts of China is continuing to have an adverse impact on global supply chains, disrupting production and adding to prices.

War in Ukraine

Under the central scenario, the war is assumed to remain a direct bilateral conflict, and does not spread to other countries.

In addition, irrespective of the duration of the conflict, sanctions imposed on Russia (and Belarus) are assumed to remain in place for the forecast horizon.

Importantly, the forecasts are built on the assumption that the carve-out from sanctions continues to apply to EU imports of Russian energy exports.

On the migration front, it is assumed that something in the region of 80,000 – 100,000 Ukrainian citizens come to Ireland. While this will have fiscal implications – in the form of increased expenditure – there are also economic implications. For instance, over time (and certainly not immediately), some of these will enter the domestic labour force, boosting labour supply and adding to the potential growth rate of the economy.

The forecasts are calibrated on the assumption that the impact of war is to reduce demand in Ireland’s major trading partners by around 1 percentage point in the first year.

On the external front, exports of goods and services increased substantially last year. On the goods side, while pharma exports declined in 2021 – albeit off a very high pandemic-related base in 2020 – this was more than offset by increases in exports of semi-conductors and medical devices.¹¹ At the same time, goods exports from outside of the multinational sector also performed solidly, reflecting *inter alia* the rebound in external demand and the delayed implementation of full customs checks by the UK authorities. There was also a very strong expansion in exports related to ‘contract manufacturing’ and other globalisation-related factors. Double-digit export growth was recorded on the services side, largely on foot of a robust performance of ICT exports. In overall terms, export growth of around 16 per cent was recorded for the year.

Against this backdrop, GDP grew by 13½ per cent, although the sectoral recovery in activity was far from homogenous ([figure 3A](#)). In particular, employment in sectors reliant on face-to-face interactions for the delivery of goods and services bore the brunt of the pandemic ([figure 3B](#)). GNI* increased by an estimated 5½ per cent last year.

¹¹ See *Economic Insights – Spring 2022*, Department of Finance. Available at: <https://www.gov.ie/en/publication/daaa2-economic-insights-spring-2022/>

2.3 Macroeconomic projections for 2022

The projections set out in this document incorporate the estimated economic impact of several key developments since the publication of the Department's autumn projections.¹² First is the continuing increase in energy prices throughout the winter which, along with other pandemic-related factors (disrupted supply chains, pent-up demand, etc.), resulted in higher-than-expected price inflation. Second is the set of restrictions associated with the extended *delta*, and subsequent *omicron*, waves of the virus, which led to softer-than-expected activity in the final quarter of last year and in the early part of this year. Third, and most important, is the Russian invasion of Ukraine and the resulting war. While the humanitarian consequences are more important, the sanctions imposed by many advanced economies are nonetheless having a severe impact on short-term economic prospects. Finally, the deferral by the UK authorities from full application of the *Trade and Cooperation Agreement* on east-west trade shifts any impact on Irish exports to at least mid-year.¹³

First round – or direct – implications of the war are relatively minor, given that Ireland's direct trade links with Russia and Ukraine are very limited.¹⁴ Second round effects, however, are very significant, with higher costs of energy and other commodities the main transmission channel from the war to the Irish economy. Cascading through the economy, these higher input costs will erode real incomes of households and dent the profit margins of firms (unless passed on to consumers by way of higher prices). In this manner, higher inflation will act as a headwind on output growth. Heightened uncertainty will also cause firms to delay, or even postpone, investment decisions.

2.3.1 External assumptions

The forces shaping the economic outlook in Ireland's key export markets are similar to those domestically, namely the fading impact of the pandemic offset by the economic consequences of war and sanctions. In relation to the latter, the impact varies across countries, with geographical proximity to Ukraine,¹⁵ the relative importance of manufacturing in overall activity, and reliance on Russian energy being the key determinants of the economic impact. Among Ireland's main trading partners, continental European countries are most exposed, with a majority of these being net oil and gas importers. While most countries will aim to decouple from Russian fossil fuel imports over the medium-term, substitutes are less readily available in the short-term, and so higher prices will weigh on activity. Accordingly, projections for most of Ireland's key export markets are revised downwards relative to expectations in the autumn (**table 2**).

Ireland sources very little of its energy imports from Russia but, nonetheless, pays world prices for energy products. The forecasts in this document are conditioned upon a moderation in energy prices over the next two years or so, as currently signalled by the futures curve (the price market participants are willing to pay for energy to be delivered at some point in the future). That said, prices are assumed to remain relatively high: the futures curve points to oil prices of nearly €80 per barrel at the end of next year (**figure 4A**), with gas prices of £1.50 per therm at the same time (**figure 4B**).

The ratcheting-up of energy prices is one factor behind the acceleration in consumer price inflation in advanced countries. In the euro area, for instance, consumer price inflation reached 7½ per cent in

¹² Published in *Economic and Fiscal Outlook*, Department of Finance (October 2022), available at: <https://www.gov.ie/en/publication/7599a-budget-publications/>

¹³ The expected date of implementation for further sanitary and phytosanitary controls on Irish exports to the UK is 1st July 2022. However, this date may yet be subject to change. The Department's autumn forecasts had assumed the application of non-tariff barriers from the beginning of this year.

¹⁴ For more detail, see *Economic and Financial Impacts of War in Ukraine*, Department of Finance (April 2022), available at: <https://www.gov.ie/en/publication/b148c-economic-and-financial-impacts-of-war-in-ukraine-april-2022-update/>

¹⁵ The vast majority of refugees from the war have settled – at least initially – in countries neighbouring Ukraine.

March, its highest rate ever; very high single-digit inflation is also a feature of the UK and US economies. Other factors are also at work, including the post-pandemic recovery in demand running up against supply-side constraints. The 'zero-Covid' strategy in parts of China is adding to existing supply-chain disruptions, with bottlenecks in many sectors having downstream impacts on prices of many goods.

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

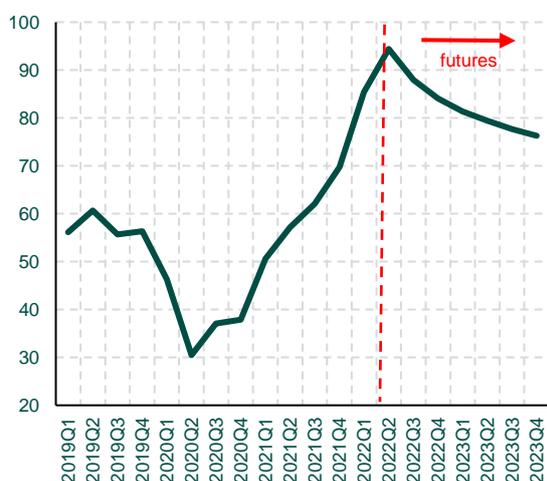
	2021	2022	2023	2024	2025
External GDP growth					
United States	5.7	3.7	2.3	-	-
Euro area	5.3	2.8	2.3	-	-
United Kingdom	7.5	3.7	1.2	-	-
Technical assumptions					
Euro-sterling exchange rate (€1=)	0.86	0.84	0.84	0.84	0.84
Euro-dollar exchange rate (€1=)	1.18	1.11	1.10	1.10	1.10
Brent crude (dollars per barrel)	70.7	97.3	86.6	80.7	80.7

Source: Macrobond, IMF World Economic Outlook, NIESR, Department of Finance calculations.

The policy landscape in many jurisdictions is now one involving a sharper trade-off between output and inflation than has been the case in recent years. During the pandemic, for instance, economic activity and consumer price inflation both moved downwards, allowing monetary and fiscal policies to work *in tandem* in most regions. On the other hand, the fallout from sanctions is weighing on activity in many regions while simultaneously increasing prices, meaning that the output-inflation trade-off is now more severe across most advanced economies.

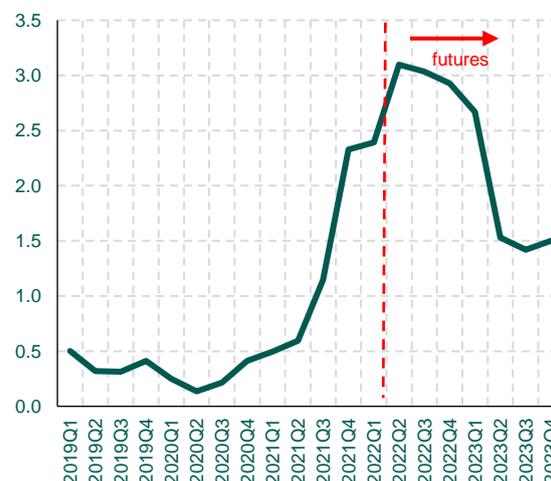
Figure 4: global energy prices (at end-March)

A: crude oil (Brent), € per barrel



Source: Macrobond

B: wholesale gas prices, £stg per therm



Source: Macrobond

Market expectations regarding this trade-off – and, in particular, the pathway for monetary policy – have implications for exchange rates, the latter being a key input into the construction of an economic projection. The euro-sterling bilateral rate averaged around €1 = £0.84 in the second half of March. On the basis of the purely technical assumption of no further change over the remainder of the forecast horizon, this would imply a 2¼ per cent euro-sterling depreciation this year relative to last. A similar,

purely technical approach results in a modest implied euro-dollar depreciation of around 6 per cent this year relative to last year.

2.3.2 Domestic prospects

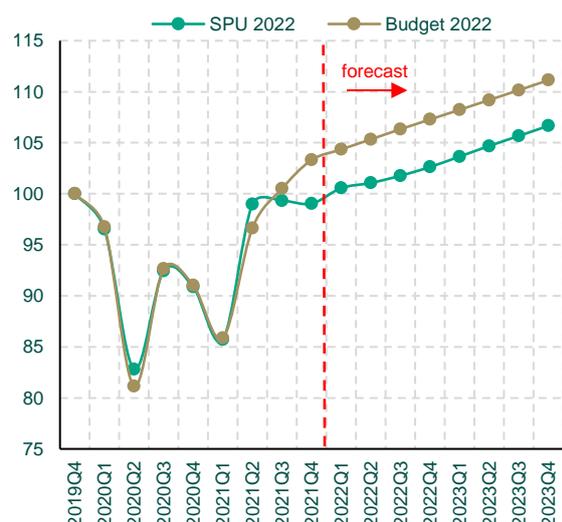
The key driver of near-term economic prospects is the impact of higher inflation on real incomes and consumer spending. Household incomes – in nominal terms – will benefit from increases in the wage bill (employment and earnings per capita) this year. Operating in the other direction, net transfers to the government sector will be a drag on household income, mainly due to the discontinuation of the PUP. In aggregate terms, disposable income is set to rise by around 4½ per cent; once higher inflation is taken into account, however, a fall in real incomes is anticipated. In terms of the allocation of their incomes, households are expected to normalise the spending-savings rates – from the exceptionally high ‘forced savings’ rates evident during the pandemic – with spending on contact-intensive services likely to benefit most of all.

In terms of the quarterly profile for consumption (**figure 5A**), higher frequency data (retail sales, payment cards, etc.) show a pick-up in consumption in the early part of the year. Some of this probably reflects expenditure-switching, with consumers shifting their spending from goods to services following re-opening of hospitality and other contact-intensive services which began at end-January. Thereafter, the quarterly projection assumes that higher prices, alongside elevated levels of uncertainty, weigh on consumer spending in the second and third quarters, before a modest pick-up later in the year.

Uncertainty tends to hold back capital spending, given its cost and irreversibility. On this basis, modified machinery and equipment investment – which excludes investment in aircraft leasing and imported intellectual property – is projected to ease over the course of this year. On the construction side, Government spending under the *National Development Plan* will continue to support demand while housing starts (a leading indicator of completions 6-12 months down-the-line), reached 33,000 in the year to February, suggesting robust growth in new housing construction.

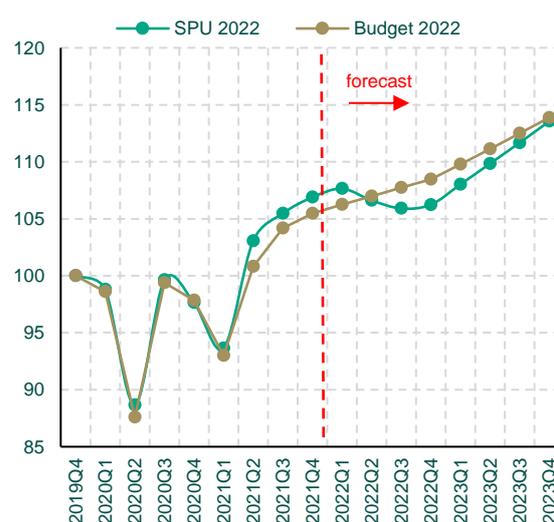
Figure 5: quarterly projections for key domestic indicators

A: quarterly profile for consumer spending, 2019q4 = 100



Source: CSO, Department of Finance

B: quarterly profile for MDD, 2019q4 = 100



Source: CSO, Department of Finance

Against this backdrop, MDD growth of 4¼ per cent is projected for this year (**table 3**), a figure that assumes very little intra-year growth (**figure 5B**) which, in turn, reflects the headwinds associated with war in Ukraine. The most significant contribution to the annual figure comes from consumer spending.

Table 3: macroeconomic prospects, per cent change (unless stated)					
	2021	2022	2023	2024	2025
Economic activity <i>per cent change</i>					
Real GDP	13.5	6.4	4.4	4.0	3.8
Nominal GDP	13.1	10.8	6.7	5.9	5.6
Real GNI*	5.5	3.7	3.1	3.2	3.3
Nominal GNI*	7.3	8.5	6.0	5.6	5.4
Real modified domestic demand	6.5	4.2	3.9	3.6	3.6
Components of GDP <i>per cent change</i>					
Personal consumption	5.7	6.0	3.6	3.5	3.4
Government consumption	5.3	-1.3	2.0	2.0	2.1
Modified investment [^]	9.7	5.4	6.5	5.1	5.5
Stock changes ^{^^}	-0.4	0.0	0.0	0.0	0.0
Exports	16.6	7.5	5.1	4.6	4.4
Modified imports	13.7	7.1	5.2	4.8	4.7
Contributions to GDP growth <i>percentage points</i>					
Modified domestic demand	3.0	2.1	1.9	1.8	1.8
Modified net exports	10.0	4.4	2.5	2.3	2.1
Stock changes	-0.3	0.0	0.0	0.0	0.0
Statistical discrepancy	0.8	0.0	0.0	0.0	0.0
Nominal amounts <i>€ millions, current</i>					
GDP (nearest €25m)	421,525	467,075	498,475	528,125	557,600
GNI* (nearest €25m)~	223,350	242,375	256,800	271,075	285,775

Notes: [^] modified investment is a measure of investment that excludes investment in aircraft for leasing and investment in R&D from abroad, likewise for modified imports.

^{^^} contribution to GDP growth.

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

Source: 2021 = CSO; 2022-25 = Department of Finance. 2021 GNI* also estimated by Department of Finance.

A solid exports performance is expected again this year, partly reflecting the sectoral composition of Ireland's exports, with service exports likely to be the key driver. Reflecting the relaxation of the international travel restrictions, tourism and travel exports are also expected to rebound strongly, albeit from a low base of activity during the pandemic years. On the other hand, goods export growth is expect to decelerate sharply; this is based on the purely technical assumption¹⁶ that exports related to 'contract manufacturing' do not make a significant contribution. The delay in the introduction of full customs procedures by the UK authorities under the *Trade and Cooperation Agreement* is a boost to indigenous exports this year but will be a significant headwind, whenever they are fully implemented. In aggregate terms, an annual increase of 7½ per cent for exports of goods and services is pencilled in for the year.

¹⁶ A technical assumption rather than a variable that can be explicitly modelled.

Box 3: Ireland's macroeconomic exposure to the war in Ukraine

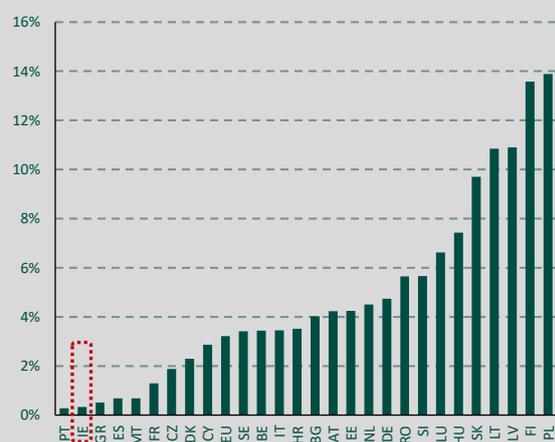
The Russian invasion of Ukraine, and the associated imposition of economic and financial sanctions, will have significant consequences for the Irish economy. However, given Ireland's limited trade links with both Russia and Ukraine, disruptions to trade are likely to have a very limited direct macroeconomic impact, with the impacts mostly felt through other channels, in particular the price channel.

Direct trade flows between Russia and Ireland are relatively small (**figure 6A**). In 2020, Irish exports to Russia amounted to just €3.7 billion, the equivalent of just 1 per cent of total exports. At a sectoral level, these exports are concentrated in just a handful of industries, with exports of aircraft leasing and computer services accounting for ¾ of total exports to Russia (**figure 6B**). Despite the concentrated nature of these exports, Russia still represents a comparatively small export market for these sectors, accounting for just 5 per cent of aircraft leasing exports and just less than 1½ per cent of computer service exports.

In terms of trade flowing from Russia, imports are relatively limited, amounting to just €652 million in 2020, the equivalent of just 0.2 per cent of total imports into Ireland. Whilst small in a macroeconomic context, the dependence on Russian imports is much greater at the sectoral level. The agricultural sector is highly dependent on certain imported commodities as inputs into the production process. For instance, over 20 per cent of Ireland's imported fertiliser comes directly from Russia and fertilizer represents a significant input cost for farms throughout the country. If fertiliser availability becomes an issue this will have knock on implications for production within the sector.

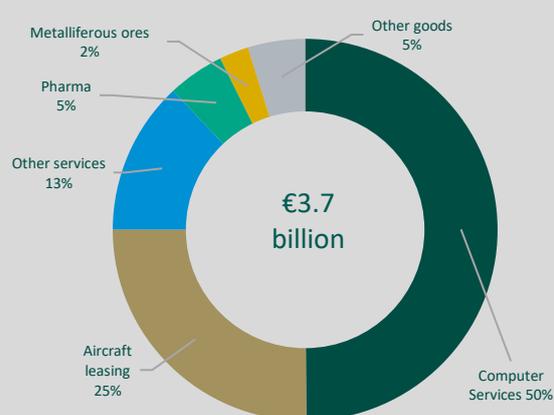
Figure 6: Ireland's direct trade links with Russia

A: share of goods exports to Russia, 2021



Source: Eurostat, Department of Finance

B: composition of exports to Russia, 2020



Source: CSO, Department of Finance

Beyond any direct trade implications, the Irish economy remains exposed to the indirect effects arising from the conflict. A number of Ireland's key trading partners in Europe are highly dependent on commodities imported from both Russia and Ukraine. With the disruption to these key supply chains, commodity prices have increased sharply since the beginning of the year, with particularly strong growth in oil (+25 per cent), gas (+50 per cent), wheat (+32 per cent), corn (+23 per cent) and aluminium (+16 per cent) prices since January. If this disruption to trade was to persist, it could weigh on demand in several of Ireland's key export markets, with knock-on implications for Irish exports.

The immediate channel through which the conflict is already having an apparent negative impact on the Irish economy is through inflation. The pass through effect of the soaring energy prices is being reflected in rising costs for both businesses and households. Rising costs ultimately undermine the profitability of business and reduce the purchasing power of households.

Beyond the short-term, the invasion is likely to result in greater polarisation of the global economy. As a small and open economy, Ireland has benefited greatly from the globalisation waves in recent decades. This effectively stalled after the *Global Financial Crisis* just over a decade ago. The global pandemic, which triggered at least some economic nationalism, also highlighted some of the fragilities of global supply chains. The Russian invasion of Ukraine has further exposed over-reliance of supply chains on some regions and products.

In summary, multinational firms are likely to re-evaluate their strategies following several global shocks, and this could trigger more regionalisation or localisation, at the expense of globalisation. The Irish economy would not be immune if this proved to be the case.

Table 4: quarterly profiles of macroeconomic prospects, 2019Q4 = 100 (unless stated)

	2021		2022				2023			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Consumer spending	99.0	100.6	101.1	101.8	102.6	103.6	104.7	105.7	106.7	
MDD	106.9	107.6	106.6	105.9	106.2	108.0	109.8	111.7	113.5	
Inflation (per cent)	5.4	5.9	6.7	6.5	5.6	4.6	2.9	2.3	2.1	
Une rate (per cent)	7.4	7.1	6.3	5.7	5.6	5.5	5.4	5.4	5.3	

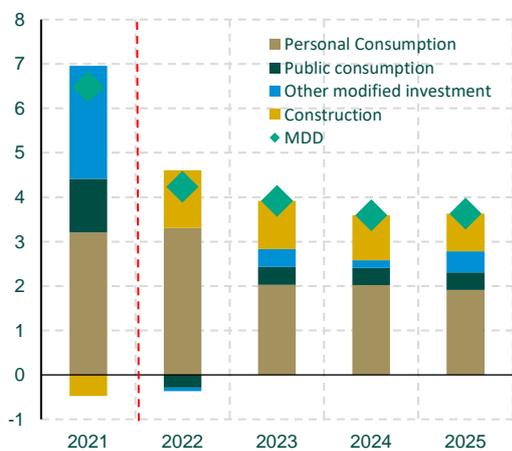
Inflation = HICP; une = unemployment

Source: 2019-2021 = CSO; 2022-23 = Department of Finance.

With modified import growth of 7 per cent – broadly in line with final demand – GDP is projected to increase by 6½ per cent this year (**figure 7B**). GNI* is expected to increase by 3¼ per cent, largely reflecting the strong growth in MDD.

Figure 7: contributions to modified domestic demand and to GDP, percentage points

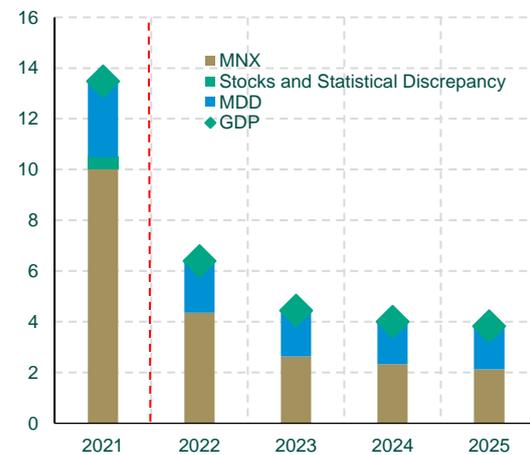
A: contributions to change in MDD



Notes: Other modified investment is machinery and equipment excluding investments in aircraft by the leasing sector, plus domestic R&D.

Source: CSO, Department of Finance

B: contributions to change in GDP



Notes: MNX = Modified net exports is net exports (exports less imports) excluding investments in aircraft by the leasing sector and net R&D imports.

Source: CSO, Department of Finance

2.4 Balance of payments and flow-of-funds

Interpreting balance of payments trends in Ireland is challenging, *inter alia* due to large current (and sometimes capital) account transactions. Perhaps the most notable cross-border transactions relate to intellectual property, with several examples of these assets being on-shored – and classified as an imported service – in recent years.

The so-called modified current account was developed to provide a more accurate reflection of transactions between Irish residents and non-residents, as it removes many of the globalisation-related distortions. Even on this basis, however, double-digit surpluses (as a share of modified national income), have been recorded in recent years (**table 5**); last year, the estimated surplus was just shy of 10 per cent.

Differences between domestic savings and investment are the counter-part to the external position: a current account surplus implies that domestic savings are in excess of domestic investment in physical (and intangible) assets, and *vice versa*. In turn, domestic savings and investment positions are the sum

of the savings-investment balances of the different institutional sectors – the household, government and corporate (financial and non-financial) sectors. Given the difficulties in interpreting the overall modified balance, analysing the sectoral composition, in particular focusing on the household and government sectors, both of which are unaffected by statistical distortions, can provide greater insight into underlying trends.

A large flow of funds from the government to the household sector occurred during the pandemic (directly via PUP, indirectly via wage subsidy schemes, etc.). These supports have led to net borrowing by the government sector (closely related to, though not exactly the same as, the general government deficit). On the other hand, the financial surplus of the household sector – a net lender – has increased by a broadly similar magnitude. In other words, the financial deficit of the general government sector was largely offset by the financial surplus of the household sector.

These financial positions are expected to unwind this year and into next year, as the pandemic recedes. Increased consumer spending and housing investment will reduce the financial surplus of the household sector, while the tapering of fiscal supports will reduce the financial deficit of the government sector. Over the medium-term, the modified current account surplus is projected to narrow further as these trends continue.

Table 5: Savings, investment and the balance of payments, per cent of GDP (unless stated)					
	2021	2022	2023	2024	2025
Gross savings	37.4	37.7	37.7	37.6	37.4
Modified gross savings (per cent GNI*)	29.4	28.8	28.5	28.4	28.5
<i>of which:</i>					
- households	11.3	7.4	6.3	5.9	5.8
- modified corporate	17.7	16.4	15.9	14.4	14.4
- government	0.4	4.9	6.3	8.1	8.4
Investment [^]	23.4	19.6	20.4	21.1	21.5
Modified investment (per cent GNI*)	19.7	20.4	21.2	21.8	22.4
<i>of which:</i>					
- households	2.8	3.3	3.7	4.0	4.3
- modified corporate ^{^^}	12.7	12.3	12.4	12.5	12.8
- government	4.3	4.7	5.2	5.3	5.3
Current account	13.9	18.1	17.3	16.5	15.9
<i>of which:</i>					
- trade balance	40.3	44.5	43.8	43.2	42.9
- income balance	-26.3	-26.3	-26.5	-26.7	-26.9
Modified current account (per cent GNI*)	9.8	8.4	7.2	6.6	6.1

Notes:

[^] gross capital formation (the sum of gross domestic fixed capital formation, investment in stocks and the statistical discrepancy).

^{^^} statistical discrepancy is included in the modified corporate sector.

Source: 2021 = CSO; 2022-25 = Department of Finance.

2.5 Labour market developments

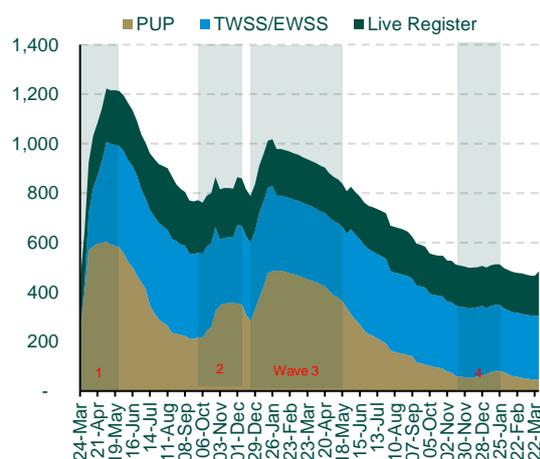
The Government's labour market response to the pandemic was to maintain the employer-employee link, in order to prevent 'drift' from the labour market. This approach was grounded in empirical evidence, which shows that longer spells of unemployment reduce the probability of re-engagement with the labour market.

Strong employment growth and falling levels of unemployment since the second quarter of last year confirm the Government's policy response has paid dividends in the labour market. The number in employment rose above pre-pandemic levels of employment in the fourth quarter of last year, and is now at its highest level since records began, at just over 2.4 million people.

Incoming data point to continued momentum in the first quarter of this year, especially since the full resumption of face-to-face service sector activity. The number of people in receipt of the PUP has continued to fall (**figure 8A**), and is now 90 per cent below its level in early-2021; moreover, data suggest that the bulk of those exiting the PUP are transitioning to employment. Real-time data show that – notwithstanding some softening in response to recent geopolitical developments – new and total job postings on employment website *Indeed.com* remain around 70 and 60 per cent above their pre-pandemic levels respectively (**figure 8B**).¹⁷

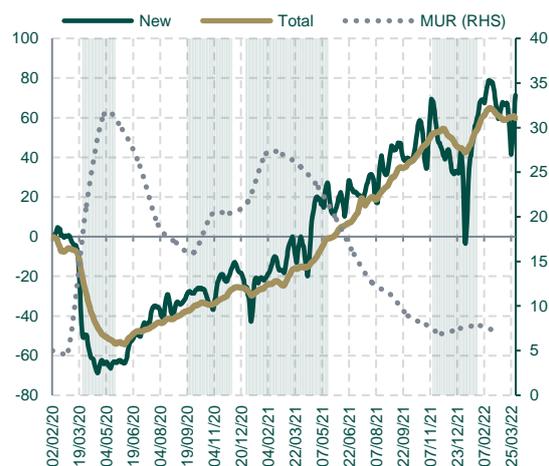
Figure 8: labour market developments

A: Covid-19 income support, 000's



Source: CSO, Revenue

B: Indeed job postings, per cent change from 1st Feb 2020



Source: Indeed, CSO

Evidence is mounting that the availability of labour supply, rather than demand for labour, has become the main constraint to employment creation, a feature that is increasingly common in other advanced economies. And while the labour market is a complex one, with a myriad of sub-sectors and firms, it would appear that shortages of labour – both skilled and unskilled – may be holding back production in some areas.

Employment growth is set to slow over the course of this year, in line with the evolution of MDD. Relative to end-2021, employment at the end of this year is projected rise by 2¼ per cent. Nevertheless, average

¹⁷ For further detail on the Department of Finance's use of high frequency data to monitor developments in the labour market, see *Covid-19 and the Irish Labour Market – Insights from High Frequency Data*, Department of Finance (2021), available at: <https://www.gov.ie/en/publication/3751e-economic-insights-summer-2021/>

employment growth for the year is projected at 15 per cent (c.320,000 jobs), mainly because the annual comparison is boosted by the year-on-year comparison with the first quarter last year. The unemployment rate, which stood at 7 per cent in February,¹⁸ is expected to be around 5½ per cent by year-end.

Table 6: labour market developments, per cent change (unless stated)

	2021	2022	2023	2024	2025
Employment [^]	11.0	14.9	2.1	1.7	1.7
Unemployment (per cent)	15.9	6.2	5.4	5.2	4.9
Labour productivity ^{^^}	6.5	-3.3	2.3	2.2	2.1
Compensation of employees ^{^^^}	8.2	9.8	7.5	6.8	6.6

Notes:

[^] data based on Covid-adjusted series which treats all PUP recipients as unemployed.

^{^^} per worker

^{^^^} non-agricultural sector.

Imports refers to modified imports.

Source: 2021 = CSO; 2022-25 = Department of Finance.

For next year, employment growth of just over 2 per cent (c.50,000 jobs) is projected, with strong growth in both part-time and full-time employment assumed. On this basis, the number at work is expected to rise to just over 2.5 million by mid-2023, with the unemployment rate expected to fall to 5.3 per cent by the end of next year.

Compensation of employees (the economy-wide pay-bill) increased by over 8 per cent last year. This increase in compensation was supported by both the rapid rebound in employment growth evident since the second quarter of last year, along with underlying wage growth. For this year, on foot of the continued strong recovery in employment and strong growth in earnings per capita in some sectors, compensation of employees is projected to increase by over 9 per cent this year, and by a further 7½ per cent next year.

¹⁸ The CSO discontinued the publication of monthly COVID-adjusted unemployment rate data in March 2022.

Box 4: pay developments

The rapid rebound in employment from the start of the second quarter of 2021 contributed to a significant recovery in earnings, with compensation of employees (CoE, the sum of employment and earnings per capita) across the economy increasing by over 8 per cent last year. CoE has recovered across all sectors (figure 9A), supported by a rebound in employment, income subsidisation by the Government, and strong per-capita pay growth in some sectors.

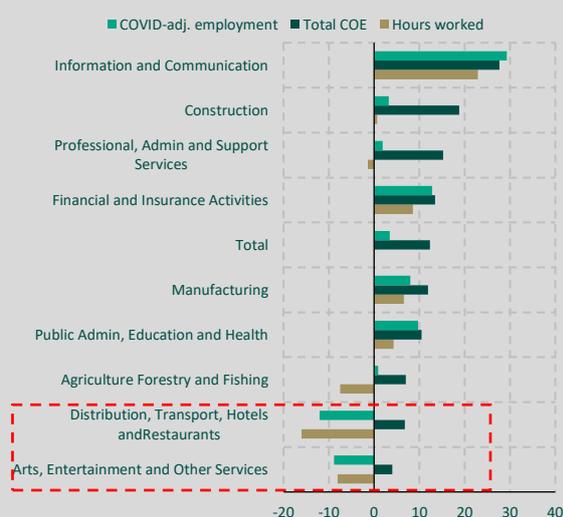
Significantly, CoE also recovered in sectors where employment and hours worked are yet to recover to pre-pandemic levels, such as hospitality, transport, and personal services. Although employment in these sectors has lagged the recovery in overall employment, job postings data from *Indeed* show that demand for labour in these sectors has been robust (c.1½ – 2 times higher than the pre-pandemic baseline in February 2020). This suggests some mismatch between labour demand and supply.

The relationship between job vacancies and the unemployment rate (i.e. the ‘Beveridge curve’) is set out below (figure 9B); it is a measure of both the ‘tightness’ of the labour market and the efficiency of ‘job-matching’ in the economy. To put it simply, an outward shift of the Beveridge curve implies the co-existence of vacancies and unemployment and, accordingly, suggests a mismatch in the labour market

The evidence from Ireland’s Beveridge curve over the pre-pandemic decade implied a generally well-functioning labour market, with constraints appearing to emerge at end-2019 as the unemployment rate fell to just below 5 per cent (i.e. full employment).

Figure 9: compensation of employees dynamics

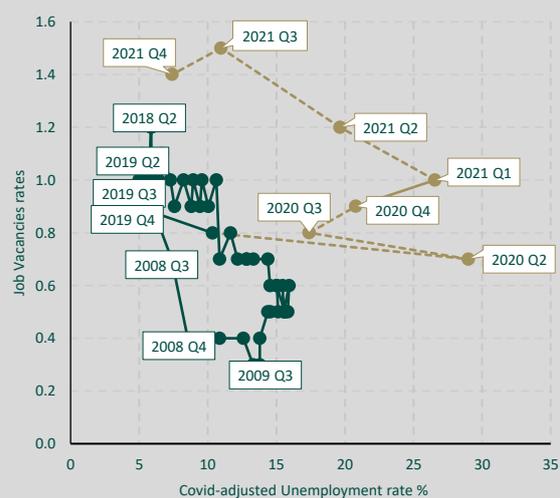
A: Growth in earnings, employment and hours worked



Notes: per cent change 2021q4 vs 2019q4

Source: CSO data, Dept. of Finance analysis.

B: Beveridge Curve



Source: CSO data, Dept. of Finance analysis.

However, it is clear that the pandemic had an unprecedented and significant impact on the relationship, with a clear outward shift in the Beveridge curve as unemployment soared and vacancy rates fell in Q2 2020. Since then, unemployment rates have fallen but labour market conditions have become progressively tighter; with vacancy rates peaking in Q3 last year. Overall demand for labour (*Indeed* total job postings) is now 60 per cent ahead of the pre-pandemic baseline, but a number of factors have contributed to a subdued supply side response, including Covid concerns, changing work preferences and caring responsibilities.

While some of those factors will unwind in the coming months, persisting mismatches and a scarcity of labour supply (relative to demand) in some sectors is a significant risk factor in terms of increasing price pressures.

Generally, the curve tends to slope downward, meaning that when the unemployment rate is high there are generally few vacancies (which workers compete for) and wage pressures tend to be low (i.e. a recession). When the unemployment rate is low vacancies increase as companies compete for workers and wage pressures tend to increase (i.e. an expansion). If the rates of unemployment and vacancies are both high, this implies a reduction in the efficiency of ‘job-matching’, where labour demand is high but many people remain out of employment due to the existence of structural mismatches in skills, geography, or incentives. The closer the curve moves to the origin on the graph, the more efficient the labour market is (i.e. better matches between unemployed workers and vacancies).

2.6 Price developments

Headline consumer price inflation has accelerated sharply across advanced economies since last summer driven, in large part, by increases in wholesale energy prices, which had been on a rising trajectory even before the war in Ukraine. Core inflation – which excludes energy prices – has also picked up in most regions, as the rapid rebound in global demand has run up against supply bottlenecks, including the availability of inputs and transport bottlenecks. The demand-supply imbalance has been most acute for goods, although the re-opening of contact-intensive sectors has revealed shortages of labour, with the resulting wage inflation also putting upward pressure on prices.

In Ireland, the key driver of inflation over the past six months or so has been higher energy prices, which are currently adding almost 4 percentage points to the annual inflation rate (**box 5**). At the same time, demand has rebounded strongly following the phasing out of mobility restrictions; the rebound in the economy's supply capacity has proceeded at a slower pace, *inter alia* due to labour shortages in some sectors.

The ratcheting up of wholesale energy prices as a result of the war in Ukraine is having a major impact on consumer price (HICP) inflation, which reached 6.9 per cent in March of this year, the highest reading since the series began in 1997. Second round effects are increasingly evident – higher input costs for some goods and services are pushing up production costs and, at least in some cases, being passed on to consumers.

Inflation is expected to continue to peak in the second quarter of this year, and to decelerate slowly thereafter (**figure 10A**) as energy prices ease and supply chain disruptions unwind. For the year as a whole, headline inflation is projected to average 6.2 per cent, with an annual rate of 3 per cent expected for next year. Core inflation is expected to peak in the final quarter of this year, and moderate thereafter (**figure 10B**).

Table 7: price developments, per cent change

	2021	2022	2023	2024	2025
GDP deflator	-0.4	4.1	2.2	1.9	1.7
Personal consumption deflator [^]	3.4	6.8	3.6	2.6	2.3
Harmonised index of consumer prices	2.5	6.2	3.0	2.2	2.1
Core HICP inflation ^{^^}	1.7	3.9	3.3	2.3	2.1
Export price deflator	-0.3	2.9	1.3	1.3	1.3
Import price deflator	2.0	2.7	1.3	1.3	1.3
Terms-of-trade	-2.2	-0.2	0.0	0.0	0.0

Notes:

[^] The personal consumption deflator has been above headline HICP in recent years. The gap is largely explained by the fact that imputed rents are included in the consumption basket but do not appear in the HICP basket. It is assumed however that the gap between the two narrows over the forecast horizon in line with a moderation of rental inflation.

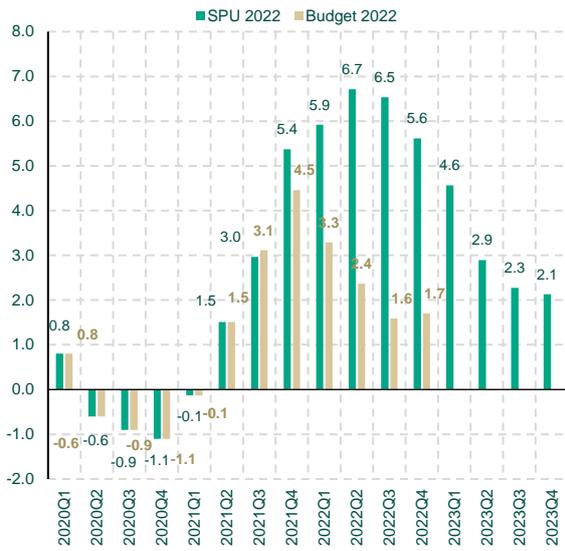
^{^^} core inflation is HICP inflation excluding the most volatile components, namely energy and unprocessed food.

Source: 2021 = CSO; 2022-25 = Department of Finance.

The GDP deflator, a wider measure of price changes in the economy, is forecast to grow by 4.1 per cent this year and 2.2 per cent next year. The personal consumption deflator is forecast to grow by 6.8 per cent this year and 3.6 per cent next year.

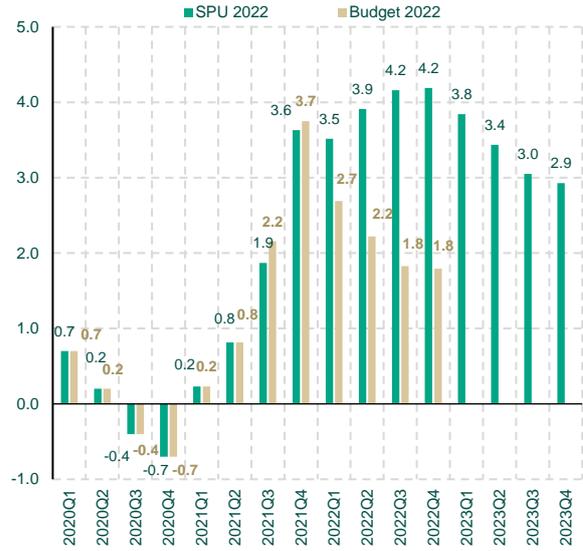
Figure 10: quarterly inflation projections, annual per cent change

A: headline HICP



Source: Department of Finance

B: core HICP



Source: Department of Finance

Box 5: energy prices – wholesale and retail price dynamics

Energy prices have been the key driver of consumer price inflation, both in Ireland and across advanced economies since the beginning of this decade (**figure 11A**).

In spring 2020, the collapse of global demand following the outbreak of the pandemic led to a collapse of wholesale oil prices, putting downward pressure on consumer price inflation as a result.

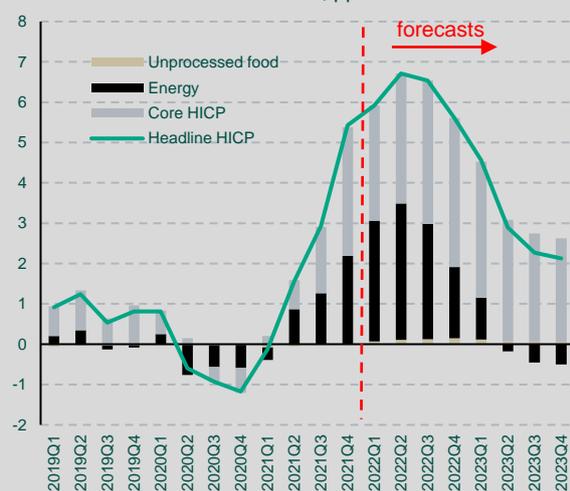
While energy prices still exerted a disinflationary impulse at the start of 2021, the easing of restrictions in many advanced economies from the second quarter of that year triggered economic recovery and a subsequent increase in the demand for oil. Oil prices rebounded accordingly, quickly passing through to consumer prices. Imbalances between demand and supply meant that, even in advance of war in Ukraine, oil prices were moving upwards.

Between April 2021 and March 2022 energy prices contributed around 1¾ percentage points, on average, to the annual rate of inflation in Ireland, with similar trends observed in the euro area. More recently, HICP inflation rose to 6.9 per cent in March – the highest reading since the series began in 1997 – driven by a 44 per cent increase in energy prices.

Both oil and particularly gas prices have seen exceptional price rises due to Russia's invasion of Ukraine and the resulting threat to global energy supply (**figure 11B**). Wholesale gas prices currently stand at around £2.5 per therm, compared with an average of around £0.50 per therm over the past decade (an unprecedented five-fold increase), while oil prices are up around 20 per cent on their average January price.

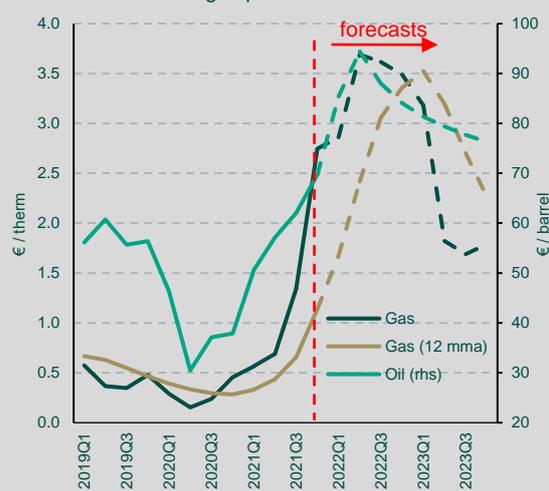
Figure 11: impact of energy prices on inflation

A: Contributions to HICP inflation, pp



Source: Eurostat, Department of Finance

B: Wholesale oil and gas prices



Source: Macrobond

Although gas and electricity account for around 40 per cent of the energy basket in the HICP, the contribution of these components to energy price changes has historically been small, as retail gas and electricity prices are driven by developments in wholesale gas prices, which have been relatively stable in recent years. In the second half of last year, however, wholesale gas prices in Europe rose sharply, due to supply (low European gas reserves, reduced supply from Russia) and demand (rebound in the European economy, reduced supply of renewables – boosting the demand for gas) mismatches.

In the case of oil prices, pass-through from wholesale spot prices to consumer prices tends to be immediate. Similarly, retail electricity prices are driven largely by the spot price of gas. Pass through from wholesale to retail gas however, tends to occur at a lag due to forward purchasing (i.e. hedging) strategies by suppliers. Energy price inflation is expected to peak in the second quarter of this year. While energy inflation will remain elevated over the rest of 2022, a significant easing is expected next year as base effects drop out of the annual rate.

Looking ahead, recent increases in wholesale oil and gas prices will feed into higher consumer price inflation over the coming months (**Section 2.6**). Indirect effects are also expected – higher energy prices putting upward pressure on other goods and services prices, with 'core' inflation set to move higher.

2.7 Medium-term economic prospects

Medium-term prospects are determined by the availability of capital and labour, together with the efficiency (productivity) with which these are combined to produce output. Beyond the short-term, the difference between aggregate demand and the economy's supply capacity – the output gap – is assumed to close with the economy evolving in line with its trend thereafter.

The relatively short duration of the pandemic-induced recession – compared with, for instance, the previous recession a decade ago – and relatively fast recovery, lends support to the view that 'scarring' effects may be somewhat contained. However, the uncertain course of the invasion of Ukraine and international sanctions brings with it the prospect that energy prices could rise further than currently assumed. A more sustained increase in whole economy input costs could do lasting damage to potential output in a net energy importing economy like Ireland.

The UK's exit from the European Union will also impact on the supply potential of the economy. This arises *inter alia* through the productivity channel, given that international trade is a key driver of productivity. For the same reasons, further de-globalisation would pose a threat to the trend growth rate while, on the flip side, faster-than-expected digitalisation could boost productivity.

Taking these supply-side effects together, medium-term projections for the economy assume a slightly positive output gap in later years of the forecast horizon, i.e. economic growth slightly above trend. This is consistent with the view that, in the medium-term, inflation will return to rates marginally above 2 per cent, while the unemployment rate lands slightly below a pre-pandemic level of 5 per cent in 2025. The medium-term projections assume some mismatches in the labour market: the skills needed by firms in expanding sectors of the economy being different to the skills of those in firms in declining sectors.

Real GNI* is tentatively projected at around 3¼ per cent per annum over the medium-term.

Box 6: economic consequence of war in Ukraine: a first estimate

While Ireland's direct economic links with Russia (**box 3**) are relatively limited, indirect effects mean the economic impacts of the conflict are likely to be substantial. The main channels through which the war will impact on economic activity in Ireland include *inter alia* increased commodity prices and lower demand for Irish exports.

This box draws on work by the OECD, which has generated model-based estimates of the economic impact of the war on the global economy using the global NiGEM model[^] (using a number of conditioning assumptions). These estimates are then used to calibrate the impact on the Irish economy using the COSMO macroeconomic model.^{^^}

The economic effects of the war for Ireland are calibrated using a combination of external and domestic shocks. On the external front, the crisis has resulted in a simultaneous economic hit across most advanced economies. This shock is modelled as a reduction in world demand for Irish exports, weighted by the output loss in major trading partners reported by the OECD.^{^^^} Other shocks, such as oil prices, equity prices and exchange rates are taken directly from the OECD's NiGEM outputs and applied to the COSMO model.

Some of the key assumptions in the OECD NiGEM modelling exercise include:

- > 33 per cent increase in world oil prices and an 85 per cent rise in European gas prices;
- > 6 per cent rise in the weighted average of world food prices;
- > 30 per cent increase in fertiliser prices;
- > 50 per cent depreciation of the rouble against the US dollar;
- > 0.5 per cent of GDP increase in government spending in other OECD economies.

The scenario results in a decline in non-traded output – a proxy for MDD – relative to baseline of 0.4 per cent in 2022 and 1.5 per cent in 2023. This arises, in part, from the abrupt fall in consumer spending due to the increased price of goods and services linked to the rise in world oil prices, with the resulting decline in output primarily impacting the domestic-oriented economy.

Table 8: modelling results

	2022	2023
Non-Traded Output (~MDD)	-0.4	-1.5
GDP	-0.4	-1.0
Inflation (pp)	0.9	0.3
Unemployment (pp)	0.1	0.5
Consumption	-0.7	-2.2

Source: Department of Finance calculations

The traded sector suffers as a result of lower demand for Irish exports, although this impact is smaller, cushioning the total impact on GDP. Inflation is close to 1 per cent higher in 2022 and 0.3 per cent higher in 2023, driven primarily by the rise in world oil prices.

The reported results should be interpreted as indicative, particularly when compared to the Department's central forecasts as they only capture the effects of assumptions regarding the conflict. The Department's central forecasts will also include other factors such as the higher than expected commodity prices that pre-date the invasion and the delay in the full implementation of the *Trade and Cooperation Agreement*.

Other potential upsides that may cushion the economic impact of this scenario include the uncertain effects that arriving Ukrainian refugees and associated supports may have on the labour market and government spending. However, the results can be taken as an indicative direct economic impact of the war under a set of plausible assumptions.

Notes:

[^] National Institute Global Econometric Model.

^{^^} Bergin, A., Conroy, N., Rodriguez, A.G., Holland, D., McInerney, N., Morgenroth, E.L. and Smith, D., 2017. COSMO: A new COre Structural MOdel for Ireland (No. 553). ESRI Working Paper.

^{^^^} see: OECD (2022), OECD Economic Outlook, Interim Report March 2022: Economic and Social Impacts and Policy Implications of the War in Ukraine, OECD Publishing, Paris. Available at: <https://doi.org/10.1787/4181d61b-en>.

Chapter 3

Exchequer Developments and Outlook

3.1 Summary

Last year was one in which the Government continued to deploy its balance sheet to counteract the impact of the pandemic. While this counter-cyclical approach was both appropriate and necessary, the cost was significant, with an Exchequer deficit of €7.4 billion recorded in 2021. In light of the economic shock associated with the invasion of Ukraine, the Exchequer accounts are projected to remain in deficit this year. With the core expenditure ceiling fixed – as set out by Government last July – the Exchequer account is projected to move into surplus next year, although any escalation of sanctions in response to the war in Ukraine could wipe out any surplus.

3.2 Exchequer Outturn 2021

Tax receipts amounted to €68.4 billion in 2021. This was €11.2 billion (almost 20 per cent) higher than a year earlier. This was due to the strong recovery in economic activity – with nominal GDP increasing by 13 per cent – as public health restrictions were gradually relaxed over the course of last year. While annual growth in tax receipts in 2021 was flattered by ‘base effects’, receipts were over €9 billion ahead of the pre-pandemic position in 2019 (**box 7**).

Non-tax revenue in 2021 was €2.5 billion, down €2.1 billion (almost 50 per cent) from a year earlier. The annual decline was primarily attributable to a decrease in the amount received in 2021 from both the *National Asset Management Agency* (NAMA) and the *Central Bank of Ireland* (CBI). Capital receipts, which include EU funding under the *Brexit Adjustment Reserve* (BAR) and the *European Regional Development Fund* (ERDF), amounted to €11.3 billion.¹⁹

Gross voted expenditure of €87.5 billion for 2021 was €2.3 billion, or 2½ per cent higher than a year earlier; current spending rose by almost €2 billion, or 2½ per cent while capital spending rose by €0.3 billion, or 3 per cent. This included significant funding allocated to support people and businesses impacted by the Covid-19 pandemic and to provide the necessary funding to our key public services to allow them to respond effectively to the crisis, with some €13½ billion made available during 2021. Compared to the allocations provided to Departments there was an underspend of €1.4 billion, or 1.5 per cent reflecting underspends across a number of Departments on current and capital expenditure programmes arising from the impact of the significant public health restrictions, in particular over the first half of last year.

Non-voted current expenditure amounted to €7.6 billion for 2021, broadly unchanged from a year earlier. While debt servicing costs fell by €0.9 billion (20 per cent), this was offset by an increase of the same amount in the EU Budget contribution. Non-voted capital expenditure was €10.4 billion; however, the bulk of this (€9.4 billion) was composed of intra-month loans to the *Social Insurance Fund*, which has no impact on the Exchequer deficit.

In aggregate terms, therefore, an Exchequer deficit of €7.4 billion was recorded last year; while this was an improvement of almost €5 billion on the deficit of €12.3 billion recorded in 2020, it means that the cumulative deficit for the two years of the pandemic amounted to just under €20 billion.

¹⁹ The large increase in non-voted capital expenditure and capital resources in 2021 is due to a monthly Exchequer cash flow loan to the SIF. This transaction has no impact on the Exchequer deficit.

Box 7: the 2021 tax 'over-performance'

The tax revenue outturn for last year was stronger than would be suggested by first estimates of the evolution of the tax bases. In other words, for most tax headings, the implied elasticity of the tax yield to the macroeconomic drivers was somewhat higher than the long-run average. At an aggregate level, for instance, total tax revenue increased by 20 per cent, while the increase in nominal GDP was lower at 'just' 13 per cent.

An important question relates to what drove this performance.

Part of the answer lies in the initial policy response to the pandemic (e.g. warehousing, CRSS), which lowered the 2020 base and, accordingly, inflated the growth rate in 2021. When these factors are accounted for, the 'big four' tax heads – income tax, VAT, corporation tax and excise duties – which are most closely linked to macroeconomic flows, increased by 17½ per cent (figure 12A).

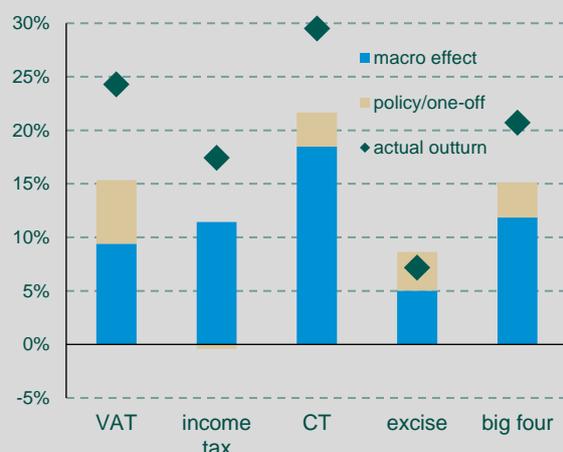
In the case of income tax, the macroeconomic driver – the national wage bill – increased by 8 per cent, whereas income tax receipts increased by 17 per cent. While policy factors and one-offs significantly affected the level of receipts throughout the pandemic, they had a modest impact on last year's growth rate (figure 12A). Instead, one of the main drivers of the divergence appears to be the composition of growth in the wage bill, which was once again driven by high wage sectors, i.e. ICT, finance and professional services (figure 12B).[^] Combined with the progressivity of the income tax system, this should result in an increase in receipts that is larger than would be expected purely from the standard macro effect.

The macroeconomic variable most closely related to VAT – personal consumption expenditure – increased by 9½ per cent in 2021, whereas VAT receipts increased by 24 per cent. Even accounting for policy factors (e.g. warehousing), and one-offs, VAT grew by 15 per cent on an underlying basis, well in excess of what the macro drivers would suggest. In contrast, excise receipts actually underperformed (slightly) relative to its base.

Corporation tax receipts increased by almost 30 per cent last year (26 per cent after removal of one-offs and the CRSS) compared with increases in gross operating surplus (GOS) – a measure of corporate profitability – of 14 per cent. The divergence is significant but may reflect the fact that GOS is an imperfect proxy for profitability. Furthermore, the relationship between GOS and corporation tax has been very volatile in recent years.

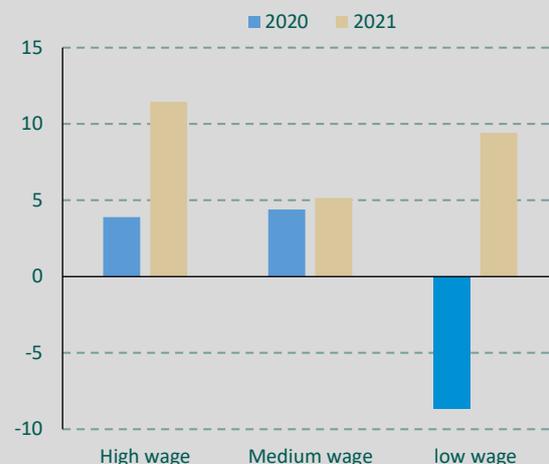
Figure 12: drivers of tax over-performance

A: Drivers of 'big four' tax head over-performance



Notes: Macro effect= growth in macro driver * elasticity
One-offs in corporation tax consist of tax settlements
Source: Department of Finance calculations.

B: Compensation of employees, annual growth



Notes: High-wage= NACE sectors J, K, M and N. Medium-wage= B-E and O-Q. Low-wage= NACE sectors A, F, G-I, L and R-T.
Source: CSO, Department of Finance calculations.

The relationship between macroeconomic indicators and tax revenue is based on long-run estimates, and there will be a divergence in any given year. With the unprecedented nature of the Covid shock – and the corresponding difficulty in accurately recording official statistics – it is possible that revisions to the economic data may narrow the gap, particularly as relates to VAT.

[^] Growth in high-wage/low-wage sectors is understated/overstated in 2021 due to the inclusion of (low-wage) administrative and support service activities in the (high wage) professional, administration and support services category. Furthermore, alternative data sources (EHECS) suggest even stronger growth in 'tax rich' sectors.

3.3 Exchequer outlook for 2022

3.3.1 Tax forecast

At end-March, taxation receipts were up over €4 billion (32 per cent) on an annual basis, driven by strong income tax, corporate tax and VAT receipts. This very strong performance reflects the continued momentum in the domestic economy, as well as a number of positive 'base effects' (e.g. the introduction of stringent public health restrictions in late 2020/early 2021 and the reduction in the standard rate of VAT over the same period). Relative to 2021, tax revenue growth is expected to slow over the rest of the year, as 'base effects' fade and spill-over effects from the Russian invasion of Ukraine begin to impact on economic activity. Overall tax revenue is projected at almost €76 billion this year, an increase of €7½ billion (almost 11 per cent) relative to last year.

At a disaggregated level, indirect tax receipts will benefit from the projected increase in consumer spending, with VAT receipts forecast to increase by 15 per cent. Receipts will also benefit from the repayment of previously warehoused VAT liabilities. To-date, almost €1.5 billion of VAT has been warehoused, and these funds are set to flow into the Exchequer, on an accelerated basis, from May this year.²⁰

Excise receipts are projected to decline this year reflecting *inter alia* the temporary reduction in excise duties on fuel.

Turning to direct taxes, income tax is projected to continue to grow at a robust rate, reflecting further wage bill increases (with both employment and earnings per capita gains). Some of these gains are assumed in high-wage, 'tax rich' sectors, which will boost the yield. Receipts are projected to rise by 10½ per cent. As with VAT, receipts will also be boosted by repayments of warehoused liabilities.

Corporation tax growth is expected to moderate after two turbo-charged years of profitability gains, including in the ICT and pharmaceutical sectors. This year, corporation tax receipts are projected to grow by 10 per cent, a more muted although still strong performance.

3.3.2 Other revenue

Non-tax revenue will continue to benefit from dividend payments to the Exchequer. The Exchequer will also benefit from the continued distribution of the Central Bank surplus income and the NAMA surplus, with a further €1 billion and €0.5 billion respectively expected to be paid to the Exchequer in 2022.²¹ These payments are dependent upon market conditions.

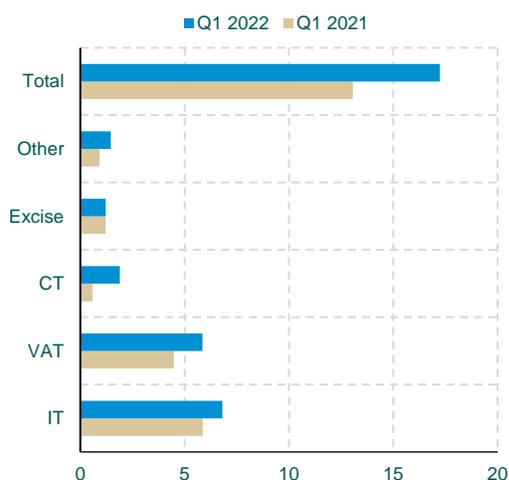
On the capital side, the continued sale of the State's shareholding in *Allied Irish Banks* and *Bank of Ireland* is set to contribute positively to the Exchequer this year. The second instalment of the BAR will be received in May 2022, which will bring the total received so far to almost €640 million.

²⁰ It should be noted, however, that these cash payments will have no impact on the general government deficit, which is calculated on an accruals basis.

²¹ As purely financial transactions, these transfers do not benefit the general government balance.

Figure 13: exchequer developments

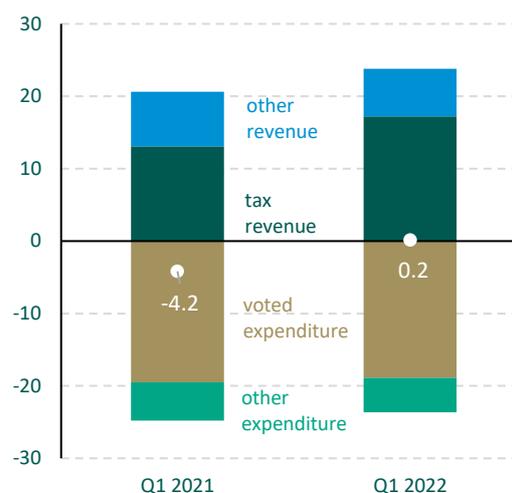
A: tax receipts, € billions



Notes: IT = income tax; CT = corporation tax.

Source: Department of Finance

B: composition of Exchequer deficit, € billions



Source: Department of Finance

3.3.3 Expenditure

Budget 2022 set an expenditure ceiling of €87.6 billion for this year. This includes significant resources to respond to the pandemic and Brexit, as well as providing for increased levels of core public services. Significant capital investment under the *National Development Plan* is also provided for.

€80.1 billion is to be provided for 'core' public spending this year. 'Core' current expenditure is set at €69.2 billion, an annual increase of €3.1 billion (4½ per cent); 'core' capital expenditure is set at just over €10.9 billion, an annual increase of €1.1 billion (11½ per cent), as set out in the *National Development Plan*.

Of the funding Ireland has been allocated under the *Brexit Adjustment Reserve (BAR)*,²² *Budget 2022* set out that €500 million of the overall BAR allocation will be made available this year as a first tranche of funding for Brexit measures, with the remainder available in 2023.

Covid-related budgetary support has continued in 2022, with up to €7 billion (inclusive of expenditure under the *National Recovery and Resilience Plan (NRRP)*), being made available to provide for necessary response measures. €3.1 billion of this was allocated at Departmental level in the *Revised Estimates Volume*, while €3.9 billion remained held in reserve.

Taking into account measures agreed resulting from the re-introduction of restrictions in December, in addition to the expenditure package agreed to support households and firms with higher energy costs, approximately €1½ billion of this reserve is, in effect, committed. While there is potential for some of these costs to be met from underspends in other areas, if the full amounts are met from the reserve this would leave a remaining balance of some €2½ billion.

Work to better understand the expenditure impact of refugees arriving from Ukraine is ongoing. At this point, it is difficult to provide exact costings, as the range of potential arrivals is quite large and the demographic profile of refugees can only be estimated at this point. Costs are, however, expected to be significant. Where funding requirements to meet the costs of the humanitarian provision cannot be met through re-prioritisation of existing resources, they would in the first instance be met from the

²² An EU fund to help counter the adverse economic and social consequences of Brexit.

remaining €2½ billion reserve, without requiring an increase in the *Government Expenditure Ceiling* above that set out in *Budget 2022*. This is a technical assumption and will be considered further in the context of the *Summer Economic Statement* when there may be greater clarity in relation to the scale of the funding required for the humanitarian effort.

For the first quarter of 2022, gross voted expenditure of €18.9 billion was €0.6 billion (over 3 per cent) below the same period in 2021, largely reflecting the reduced spending on key Covid-19 related income and employment support schemes due to restrictions in early-2021. Gross voted current expenditure of €17.7 billion was €0.8 billion (4.4 per cent) below the same period in 2021. Gross voted capital expenditure of €1.2 billion is €0.2 billion (almost 23 per cent) ahead on the same period in 2021, reflecting the payments made in March by the *Department of Environment, Climate and Communications* to *ESB Networks* for the €200 inclusive of VAT per domestic account Energy Credit.

Table 9: technical assumptions on expenditure, € billion

	2021	2022	2023	2024	2025
Voted Expenditure	87.5	87.6	88.6	89.0	93.2
: 'Core' expenditure	74.1	80.1	84.1	88.3	92.8
: Covid-related	13.5	7.0	1.0	0.7	0.4
: of which <i>National Recovery and Resilience Plan</i>		0.2	0.2	0.2	0.2
: Brexit Adjustment Reserve		0.5	0.6		
: Ukraine humanitarian contingency			3.0		
Memo: Core Expenditure					
core – year-on-year increase		6.0	4.0	4.2	4.4
core – year-on-year increase, per cent		8.1	5.0	5.0	5.0

Notes:

The percentage increase in core expenditure in 2022 refers to the outturn in 2021, this differs from the growth rate shown as per the Medium Term Expenditure Strategy due to the lower than allocated outturn in 2021.

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

3.3.4 Summary

Taking all of these together, an improvement in the Exchequer position is in prospect for this year, with a deficit of almost €1.1 billion currently projected (compared with a deficit of €7.4 billion last year).

Box 8: cost of living measures

Following a fall in prices in 2020 as a result of the pandemic, consumer price inflation picked up sharply over the second half of 2021 and, by the end of the year, was running at its highest rate in two decades. Similar trends were seen across the euro area and other advanced economies.

The rise in inflation was partly due to temporary factors, including the normalisation of oil prices following their collapse in the spring of 2020 and the mismatch between demand and supply that emerged following the reopening of the economy. Acute supply chain pressures as well as rising energy prices presented further challenges.

To address this rise in prices, *Budget 2022* contained an income tax package to the value of €520 million. The standard rate band was increased by €1,500 and each of the personal tax credit, employee tax credit and earned income credit increased by €50. On the expenditure side, a social welfare package worth €558 million was introduced, including, among other measures, a general €5 rate increase for working age and pension age recipients, and a €5 increase in the fuel allowance. Furthermore, measures were introduced in other Departments, including health and childcare supports, which also aimed to mitigate the cost of living.

A further economic shock occurred in late February with the Russian invasion of Ukraine. The economic and fiscal implications from this conflict are both wide-ranging and difficult to predict with any degree of certainty. However, it is clear that by raising input prices for energy and other commodities, war in Ukraine has significantly exacerbated inflationary pressures with consumer prices increasing by almost 7 per cent in March on an annual basis.

The Government has shown throughout the pandemic that it is prepared to mobilise the public sector balance sheet to protect households and businesses. However, while the Government will be pro-active in limiting the fallout from higher rates of inflation, as many of the drivers of current inflationary pressures are global in nature, they are beyond the reach of Government policy to address directly. It is also vital that policy measures avoid generating second round effects that could lead to an inflationary spiral.

Therefore, Government policy will focus on temporary and targeted measures, aimed at those most in need. This is the appropriate response to a 'terms-of-trade' shock - whereby a country's import bill rises because of higher prices – as the Government cannot fully absorb the costs of this shock.

In this regard, a suite of measures amounting to €505 million was announced on 10 February 2022. Measures included an energy credit of €200 (inclusive of VAT) to every household in the country, a once-off lump sum payment in respect of the fuel allowance, and a 20 per cent reduction in public transport fares.

On 9 March, Government agreed to VAT-inclusive reductions in excise duty of 20 cent per litre in respect of petrol, 15 cent per litre in respect of diesel and 2 cent per litre in respect of Marked Gas Oil (MGO). These reductions took effect on 10 March and were initially scheduled to continue until 31 August 2022. This was followed the same week by a temporary support scheme for hauliers.

On 13 April, the Government announced a further set of measures amounting to €180 million. Measures include a reduction in the VAT rate for electricity and gas to 9 per cent from 1 May until end-October, an additional once-off lump sum payment in respect of the fuel allowance and a reduction of the Public Service Obligation (PSO) levy on electricity bills to zero by October. It also included a further reduction of 3 cent per litre on MGO from 1 May and an extension of the reduction in excise duties on MGO, auto diesel and petrol to mid-October. This brings the total package of measures to €2.1 billion.

Table 10: Cost of living measures

Date	Measure	€ million
Budget 2022	Income tax and social welfare packages	1,078
10 February	- energy credit of €200 (inclusive of VAT) - 20 per cent reduction in public transport fares - €125 lump sum fuel allowance payment - reduction in Drug Payment Scheme threshold to €80 - increase in income threshold on working family payment brought forward to 1 April - reduced caps on school transport fees	505 [^]
9 March	- excise duty reduction	320
11 March	- €100 per week haulier support scheme	18
13 April	- VAT reduction on electricity and gas - €100 lump sum fuel allowance payment - Extension of excise duty reduction - Reduction of public service obligation (PSO) levy	180
Total measures		2,101

[^]excluding VAT foregone of c. €50m

3.4 Medium-term outlook for the Exchequer

This document sets out the projected fiscal position up to the mid-part of this decade. Medium-term fiscal projections are typically grounded in two key inputs: firstly, the outlook for the economy which, by-and-large, drives the revenue side of the equation and, secondly, Government spending decisions that largely determine the expenditure side of the equation.

The economic outlook is consistent with further increases in taxation revenue over the medium-term of around 5½ per cent on average, broadly in line with the assumption for nominal GDP growth over the same period.

Constructing medium-term tax projections requires an assumption regarding the impact of the OECD *Base Erosion and Profit Shifting* (BEPS) process on corporation tax revenue. For the purpose of calibrating this medium-term forecast, the impact of international tax reform is very tentatively estimated – in terms of revenue foregone – at €2 billion relative to a hypothetical no-policy change scenario by 2025; the revenue impact is phased in from 2023. These figures will be revised once there is more clarity on the impact of the agreement, both in terms of timing and magnitude.

The 2021 *Summer Economic Statement* set out the Government's medium-term fiscal strategy, including the expenditure ceilings to 2025. This strategy outlined the Government's commitment to return the public finances to a more sustainable position while addressing key priority areas, including housing and climate action.

The strategy in relation to core expenditure is to grow overall expenditure each year by c. 5 per cent on average over the period to 2025. This annual growth rate is broadly in line with the estimated trend growth rate of the economy. This strategy is the basis for the core expenditure amounts in this document.

For core current expenditure, the average annual growth rate is just under 4¾ per cent with total capital spending, including that funded under the NRRP, growing by an annual average of over 8½ per cent, and reaching over €13½ billion in 2025, its highest level ever.

Extensive public expenditure supports have been provided since the onset of the pandemic, with allocations for key income and employment schemes, business supports and other measures totalling some €37 billion. The careful phased withdrawal of these Covid-19 supports is essential both to support society and the economy to recover from the impact of Covid-19 and to maintain the public finances on a sustainable path. From 2023 onwards, spending under Covid-19 is set to be fully unwound, apart from certain additional expenditure related to the operation of the automatic stabilisers and for projects under the NRRP.

Given the expected level of supports required for arrivals to Ireland fleeing Ukraine, provision has been included for 2023 to meet these costs. This exceptional provision is included as temporary spending as it is expected that many may wish to return to Ukraine when safe to do so or, if choosing to remain in Ireland, will move to employment or migrate to mainstream public services. At this point it is too early to estimate the time horizon for, and level at, which supports will be required, as such a contingency of €3 billion is included for 2023, while future years will be revised as more information becomes available.

Putting all this together, the Exchequer is forecast to record a small surplus next year of €1.5 billion.

Table 11: budgetary projections 2021-2025, € million

	2021	2022	2023	2024	2025
CURRENT BUDGET					
Expenditure					
Gross voted current expenditure	77,595	75,650	76,185	76,200	79,580
Non-voted current expenditure*	7,615	8,080	8,105	8,000	8,120
Gross current expenditure	85,210	83,730	84,290	84,200	87,700
less expenditure receipts and balances	15,905	15,100	15,010	15,270	15,580
Net current expenditure	69,305	68,630	69,280	68,930	72,120
Receipts					
Tax revenue	68,410	75,815	80,380	84,805	89,135
: income tax	26,665	29,490	31,660	33,625	35,650
: VAT	15,440	17,760	19,320	20,420	21,385
: corporation tax	15,325	16,865	16,945	17,690	18,410
: excise duties	5,840	5,700	6,180	6,445	6,725
: stamp duties	1,485	1,940	2,015	2,170	2,330
: motor tax	905	910	910	915	920
: customs	525	600	630	660	685
: capital gains tax	1,640	1,935	2,070	2,185	2,300
: capital acquisitions tax	580	615	655	695	730
Non-tax revenue	2,530	2,595	2,060	2,045	1,655
Net current revenue	70,940	78,410	82,440	86,850	90,790
CURRENT BUDGET BALANCE	1,635	9,780	13,160	17,920	18,670
CAPITAL BUDGET					
Expenditure					
Gross voted capital expenditure	9,945	11,945	12,420	12,825	13,600
Non-voted capital expenditure*	10,420	7,485	1,185	1,195	990
Gross capital expenditure	20,365	19,430	13,605	14,020	14,590
Less capital receipts	60	50	50	50	50
Net capital expenditure	20,305	19,380	13,555	13,970	14,540
Capital resources	11,300	8,535	1,900	1,680	1,475
CAPITAL BUDGET BALANCE	-9,005	-10,845	-11,655	-12,290	-13,065
Exchequer Balance	-7,370	-1,065	1,505	5,630	5,605

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

Fiscal numbers are presented on an *ex-post* basis.

Gross voted current expenditure includes €3 billion contingency in 2023 to support Ukrainian refugees.

*Central Fund.

Source: Department of Finance.

Chapter 4

General Government Developments and Outlook

4.1 Summary

General government expenditure amounted to just over €105 billion last year; when combined with general government revenue of €97 billion, this resulted in a deficit of slightly above €8 billion, or 3.6 per cent of GNI*.

A general government deficit of just under €2 billion, 0.8 per cent of GNI*, is projected for this year, a figure which assumes the contingency provision is fully drawn-down *inter alia* to finance the re-settlement of Ukrainian refugees. With the voted expenditure of €88.6 billion for next year, the general government surplus is expected to be €1.2 billion in 2023. This figure includes the provision of €3 billion for the re-settlement of Ukrainian refugees.

Borrowing costs are now rising. The Government's fiscal strategy involves slowing the pace at which debt is accumulated, so that interest expenditure does not become a burden on economic growth and living standards.

4.2 General government balance: 2021

A general government deficit of €8.1 billion, 3.6 per cent of GNI*, was recorded last year. General government revenue amounted to €97.0 billion, an annual increase of 17 per cent, largely driven by the performance in tax revenue. On the other side of the accounts, general government expenditure was €105.1 billion last year; this was €18.7 billion higher than in 2019, the year immediately before the pandemic. This very large increase in public spending was mainly driven by employment subsidy payments to firms, income payments to households, and a ramping-up of publically provided healthcare services (PCR testing, hospital capacity, etc.)

4.3 General government balance: outlook for 2022

General government revenue is projected at €105.8 billion this year, the equivalent of 43.6 per cent of GNI*. Taxes on income and wealth – mainly income and corporation taxes – are projected at €50 billion, an increase of 9.5 per cent relative to last year, reflecting the assumed recovery in the labour market as well as further profitability gains. Taxes on production and imports (mainly indirect taxes such as VAT, excise and customs duties) are projected at around €31 billion, an annual increase of 7.4 per cent which mainly reflects the assumed recovery in consumer spending following the easing of mobility restrictions. Social security receipts are projected at €17.2 billion, an annual increase of 7.2 per cent and broadly in line with labour market trends. Other general government receipts are projected at €7.7 billion.

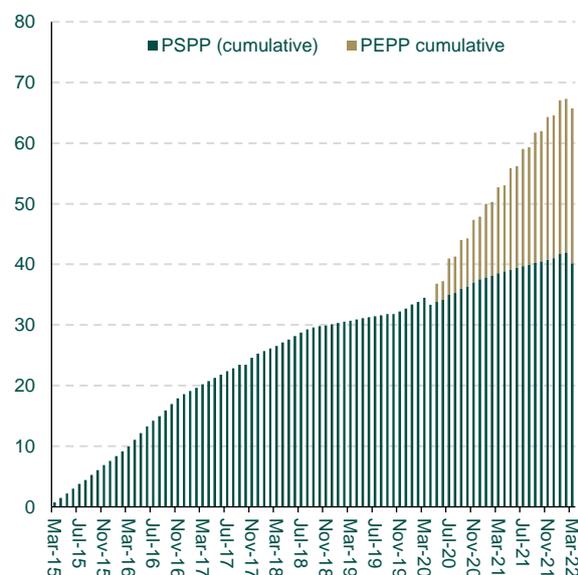
General government expenditure is estimated at €107.7 billion this year, or 44.4 per cent of GNI*. This includes the €4 billion Covid contingency; this was provided for in *Budget 2022* and was to be used in the event that additional waves of the virus caused disruption to the economy. This contingency was partly triggered in mid-November of last year when the *Omicron* wave necessitated additional restrictions being imposed. With the pandemic now running out of road, part of the contingency will be used to finance the additional expenditure associated with re-settling the large number of refugees from Ukraine.

Primary expenditure – total expenditure excluding debt interest payments – is estimated at €104.3 billion. Interest expenditure is estimated at €3.3 billion this year. The interest bill has benefited in recent from the decline in borrowing costs, as central banks across most advanced economies (including in the euro area) ramped-up their purchases of sovereign (and other) bonds (**figure 14A**). The pace of this asset acquisition is being slowed in the euro area (and has gone into reverse in the US); as a result, borrowing costs are now on a rising trajectory (**figure 14B**).

Figure 14: borrowing costs, 2015-2022

A: purchases of Irish sovereign debt under QE, € billions

B: Irish sovereign 10-year borrowing costs, per cent



Notes: QE = quantitative easing
 PSPP = public sector purchase programme
 PEPP = pandemic emergency purchase programme
 Source: ECB



Source: macrobond

As a result of these developments, the general government deficit for this year is estimated at just under €2 billion, or 0.8 per cent of GNI*.

4.4 General government balance: outlook for 2023

For next year, taxes on income and wealth are projected at €52.4 billion, in line with the projections for the employment and profitability. If realised, this would constitute an increase of 4.7 per cent. Taxes on production and imports are projected at €32.9 billion; this would be an increase of 6.5 per cent and reflects the ongoing rebound in consumer spending. Other general government revenue, including social security receipts, is projected at €25.7 billion, so that overall general government revenue is projected at €110.9 billion next year; this would result in a revenue-GNI* ratio of 43.2 per cent.

On the expenditure side of the equation, the largest components relate to the public sector pay-bill (compensation of employees) and current transfers from the general government sector (social payments). The former is projected at €28.3 billion for next year, while the latter is projected at €36.8 billion. Government investment is projected at €11.8 billion, representing an increase of 11 per cent on 2022 levels. This takes into account the increased funding for capital projects as part of the revised *National Development Plan* and the *Next Generation EU's Recovery and Resilience Facility*. Other expenditure is projected at €32.8 billion so that, in aggregate terms, general government spending is projected at €109.8 billion. This would result in an expenditure-GNI* ratio of 42.7 per cent.

On this basis, a general government surplus of €1.2 billion, or 0.5 per cent of GNI* is currently in prospect for 2023.

Table 12: exchequer balance to GGB 2021-2025, € million (unless stated)					
	2021	2022	2023	2024	2025
Exchequer balance	-7,370	-1,065	1,505	5,630	5,605
Walk	-740	-820	-280	835	2,055
General government balance	-8,110	-1,880	1,230	6,460	7,655
of which:					
General government revenue	96,960	105,775	110,940	115,995	120,635
Taxes on production and imports	28,740	30,865	32,885	34,465	35,775
Current taxes on income, wealth	45,640	49,980	52,350	55,265	58,280
Capital taxes	580	615	655	695	730
Social contributions	16,050	17,210	18,210	18,975	19,480
Property Income	480	715	590	955	805
Other	5,465	6,390	6,255	5,640	5,565
General government expenditure	105,070	107,655	109,715	109,530	112,975
Compensation of employees	25,950	27,235	28,345	29,500	30,610
Intermediate consumption	16,245	16,525	16,910	17,310	17,540
Social payments	37,445	36,445	36,785	37,120	38,220
Interest expenditure	3,290	3,315	3,565	3,360	2,930
Subsidies	6,935	2,340	1,650	1,675	1,705
Gross fixed capital formation	8,500	10,630	11,820	12,695	13,815
Capital transfers	1,845	2,170	2,290	2,380	2,395
Other	4,860	5,320	5,350	5,485	5,760
Resources not allocated	-	3,665	3,000	-	-
memo items					
GGB per cent GNI*	-3.6	-0.8	0.5	2.4	2.7
Total revenue, per cent GNI*	43.4	43.6	43.2	42.8	42.2
Total expenditure, per cent GNI*	47.0	44.4	42.7	40.4	39.5

Notes: the 'walk' from the Exchequer balance to the general government balance is set out in the appendix.

Source: Department of Finance, Department of Public Expenditure and Reform, CSO.

4.5 Medium-term outlook for the general government sector

On the basis of the economic scenario set out earlier, general government revenue is projected to increase further in the coming years (**table 12**). The phasing out of Covid-related expenditure from end-2022 temporarily affects the aggregate expenditure figure. Thereafter, general government expenditure is projected to increase at an annual average rate of 1.5 per cent over 2024-2025. On this basis, the general government balance should continue to improve in the coming years.

4.6 Structural budget balance

The fiscal balance, adjusted for the impact of the economic cycle and for temporary factors, is known as the structural (or cyclically-adjusted) budget balance. In principle, it is the key macro-fiscal indicator as it shows the underlying fiscal situation and, for this reason, it is an anchor for the European Union's fiscal rules. In practice, however, this metric is besieged by measurement challenges, most notably the difficulty in obtaining real-time estimates of the economic cycle, even in 'normal' times. Estimates of the structural balance are more complicated than ever, with the shock from the once-in-a-century pandemic and the impact of the conflict-driven cost of living increases affecting both the demand and supply sides of the economy. Notwithstanding these caveats, estimates of the structural fiscal position are presented below for completeness (**table 13**).

Table 13: structural budget balance, per cent of GDP (unless stated)					
	2021	2022	2023	2024	2025
Headline fiscal developments					
General government balance	-1.9	-0.4	0.2	1.2	1.4
One-off / temporary measures	-2.6	-1.6	-0.6	0.0	0.0
Interest expenditure	0.8	0.7	0.7	0.6	0.5
General government primary balance	-1.1	0.3	1.0	1.9	1.9
Economic cycle					
GDP growth rate	13.5	6.4	4.4	4.0	3.8
Potential GDP growth rate	13.9	6.1	3.4	3.5	3.5
Output gap	-1.0	-0.5	-0.1	0.0	0.2
Structural fiscal developments					
Cyclical budgetary component	-0.5	-0.2	-0.1	0.0	0.1
Cyclically adjusted balance	-1.4	-0.2	0.3	1.2	1.2
Structural budget balance	1.2	1.4	0.9	1.2	1.2
Structural primary balance	2.0	2.1	1.6	1.8	1.8

Notes: Estimates of output gap based on the Department's preferred methodology for calculating the potential output.

Source: Department of Finance

Chapter 5 General Government Debt

5.1 Summary

Public indebtedness has increased significantly over the last two years, as the Government has taken on additional debt to assist households and businesses to navigate the global pandemic. At the end of 2021, gross public debt is estimated at €236 billion, equivalent to €47,140 per capita. The level of debt is forecast to decrease marginally to €233.8 billion this year or 96.5 per cent of GNI*.

Notwithstanding its relatively high level of debt, several structural factors have helped to limit the burden of this debt. These include a relatively low (average) interest rate and an elongated maturity profile (which limits rollover needs). Additionally, the State also holds significant liquid assets so that net debt is considerably lower.

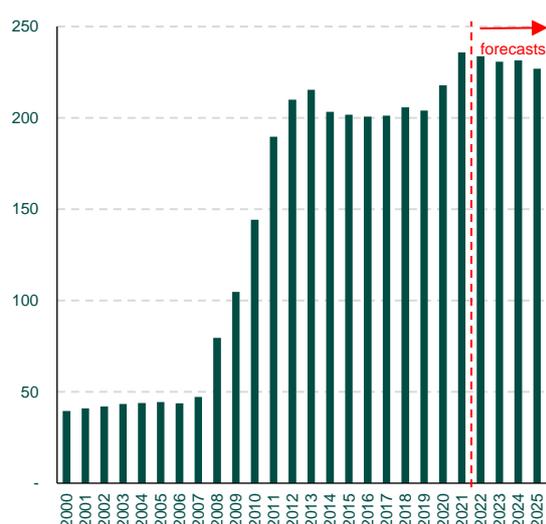
5.2 Debt developments

The mobilisation of large fiscal support to limit the economic disruption from the pandemic has resulted in an increase in public indebtedness. At end-2021, Ireland's outstanding general government gross financial liabilities stood at €235.9 billion, the equivalent of 105.6 per cent of GNI* (**table 14**).

On the basis of current expectations for the headline deficit, the stock of outstanding public indebtedness is projected to be €233.8 billion by the end of this year; this would result in a debt-GNI* ratio of just under 96.5 per cent. By the mid-part of this decade, the economic and fiscal projections outlined earlier imply gross public debt amounting to around €227 billion by end-2025 (**figure 15A**), the equivalent of 79.4 per cent of GNI*, and €23 billion higher than at end-2019, i.e. immediately before the pandemic.

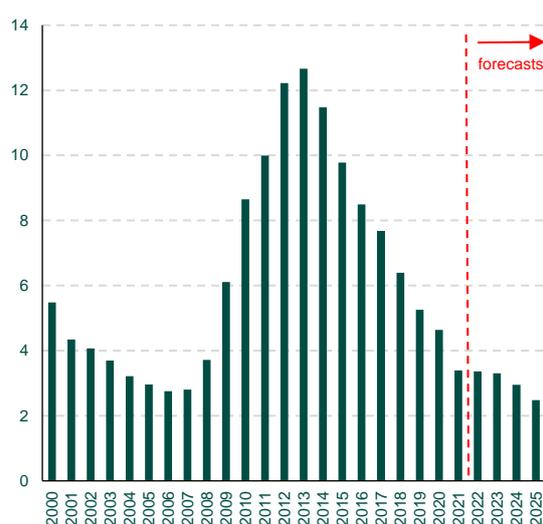
Figure 15: general government debt developments

A: public debt, € billion 2000-2025



Source: CSO, Department of Finance

B: debt interest payments to revenue ratio, per cent



Source: CSO, Department of Finance, NTMA

Debt interest payments as a percentage of total revenue – an important indicator of repayment capacity as it sets out the share of revenue absorbed by debt interest payments – is set out above (**figure 15B**).

The data show that, because of lower borrowing costs during the pandemic, the burden of servicing public debt has not deteriorated on foot of increased liabilities. However, the exceptional monetary policy support is now gradually being withdrawn. This means that the cost of financing both deficits and rollover needs (i.e. issuing new debt to finance maturing debt) is rising.

Table 14: general government debt developments, per cent of GNI* (unless stated)

	2021	2022	2023	2024	2025
Gross debt (€ billions)	235.9	233.8	230.8	231.4	227.0
Gross debt ratio	105.6	96.5	89.9	85.4	79.4
Change in gross debt ratio(=1+2+3)	0.9	-9.1	-6.6	-4.5	-5.9
Contributions to change in debt ratio [^] :					
General Government deficit (1=1a+1b)	3.6	0.8	-0.5	-2.4	-2.7
: interest expenditure (1a)	1.5	1.4	1.4	1.2	1.0
: primary deficit (1b)	2.2	-0.6	-1.9	-3.6	-3.7
SFA (2=2a+2b+2c+2d+2e+2f+2g)	4.4	-1.6	-0.7	2.6	1.1
: change in liquid assets (2a)	4.4	-2.3	-2.1	1.3	-0.5
: interest adjustments (2b)	0.1	0.1	0.1	0.1	0.2
: equity transactions (2c)	-0.3	-0.6	-0.2	-0.3	-0.2
: accrual adjustments (2d)	0.7	0.4	-0.1	0.0	-0.1
: impact of ISIF (2e)	0.0	0.0	0.0	0.0	0.0
: collateral held (2f)	0.0	0.0	0.0	0.0	0.0
: other (2g)	-0.6	0.8	1.6	1.4	1.6
Nominal GNI* contribution (3)	-7.1	-8.3	-5.4	-4.7	-4.4
Memorandum items:					
: average interest rate	1.5	1.4	1.5	1.5	1.3

Notes:

[^] A positive sign indicates that a component is increasing the debt ratio and *vice versa*.

SFA = stock-flow adjustment.

Source: CSO, Department of Finance and NTMA.

5.3 Structural aspects of Irish public debt²³

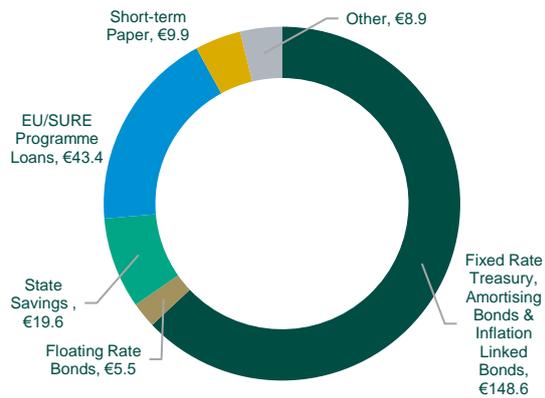
5.3.1 Composition of debt

The composition of public debt is an important structural dimension that must be considered in any assessment. At end-2021, total outstanding liabilities amounted to €235.9 billion (**figure 16A**). Almost 60 per cent of these were fixed rate treasury, amortising and inflation linked bonds. Obligations to the official sector – the *European Financial Stability Mechanism* (EFSM) and *European Financial Stability Facility* (EFSF) – were the next most important, accounting for just under a fifth of liabilities. Of particular note has been the steady decline in recent years of the Floating Rate Notes (FRNs) issued in 2013 (to replace the IBRC promissory notes held by the Central Bank). In 2021, the NTMA purchased from the Central Bank, and subsequently cancelled, a further €2 billion of FRNs, replacing them with medium- to long-term fixed rate market funding. This brought the outstanding FRN balance to €5.5 billion at end-2021.

²³ More detail on the structural aspects of Irish public debt is set out in the *Annual Report on Public Debt 2021*, op cit.

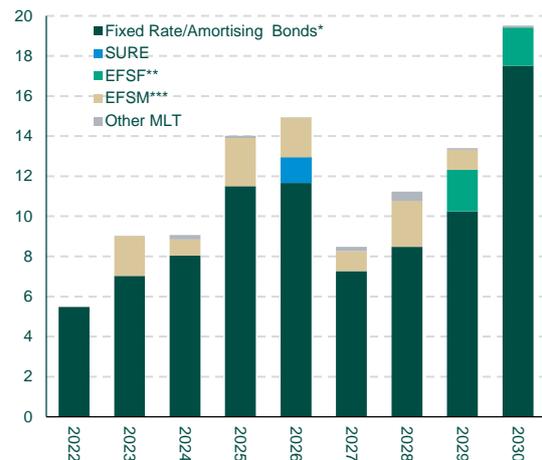
Figure 16: structural aspects of Irish general government debt

A: composition of debt at end-2021, € billion



Note: the “other” category includes consolidation adjustments in respect of debt, including government bonds held by general government entities

B: debt maturity profile 2022-2030, € billions^



Note: ^ as at end-March 2022.
 *Includes NTMA repo activity.
 **EFSF loans reflect the maturity extensions agreed in June 2013.
 ***EFSM loans are also subject to extension, such that their original aggregated weighted average maturity will be a maximum of 19.5 years. Graph reflects both original and revised maturity dates of individual EFSM loans.
 Source: NTMA.

Source: NTMA, CSO.

5.3.2 Funding and maturity profile

In December last year, the NTMA set a funding range of €10-14 billion for this year. By end-March, €4.5 billion of Government bonds had been issued, with a weighted average yield of 0.5 per cent and a weighted average maturity of over 11 years. This issuance included a new 10-year benchmark bond (due to mature in October 2032); €3.5bn was issued at a yield of 0.39 per cent by way of a syndicated transaction in January. In addition, there was a dual bond auction in March, with €400 million of the new 10-year bond sold at a yield of 0.78 per cent, alongside €600 million of the 1.7 per cent 2037 bond sold at a yield of 0.98 per cent.

The NTMA also purchased from the Central Bank, and subsequently cancelled, a further €1 billion of FRNs in the first quarter of the year. Accordingly, there is just one FRN – the 2053 maturity – outstanding, with a balance of €4.5 billion.

On the redemptions front, the outstanding €6.8 billion 0.8 per cent 2022 bond was redeemed in the first quarter. This was the first bond maturing since October 2020; the next bond maturing will be €5 billion of the 0 per cent 2022 bond in October this year. Next year (**figure 16B**), there is one bond maturing in March – the 3.9 per cent 2023 bond – which has an outstanding balance of just over €7 billion.

Cash balances were €27.5 billion at the start of the year. These are expected to decline, but to remain in a healthy position, by year-end.

5.3.3 Net debt

General government debt, as defined under the Excessive Deficit Procedure (EDP) regulation, is a gross measure of government liabilities. In Ireland, financial assets corresponding to the categories of financial liabilities which comprise gross debt, include liquid assets held by the Exchequer, *Ireland Strategic Investment Fund* cash and non-equity investments and other cash and liquid assets held by the general government sector.

	2021	2022	2023	2024	2025
General government debt (gross)	105.6	96.5	89.9	85.4	79.4
EDP debt instrument assets	19.3	15.2	12.0	12.3	10.9
Net debt position	86.2	81.2	77.9	73.0	68.5

Source: CSO, Department of Finance and NTMA.

Net debt is gross government liabilities excluding these liquid financial assets of government (**table 15**). At end-2021, net public indebtedness was 86.2 per cent of GNI* and is projected at 81.2 per cent of GNI* for the end of this year.

5.3.4 Credit rating

Ireland's long-term credit rating is now firmly in the "A" category with all the main rating agencies (**table 16**).

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

Notes: as per April 2022

Source: NTMA

Chapter 6 Risks and Sensitivity Analysis

6.1 Summary

Uncertainty surrounding the central scenario set out in this document is very high. The purpose of the analysis set out below is to consider alternative pathways for the economy in the event of changes to the assumptions that are the building blocks of the central scenario.

The Department’s assessment of the main short- and medium-term macroeconomic and fiscal risks (the ‘risk matrix’) is set out. In relation to economic activity, the balance of risk is firmly tilted to the downside, while the risk of higher-than-expected inflation, relative to the Department’s baseline projection, is very much tilted to the upside.

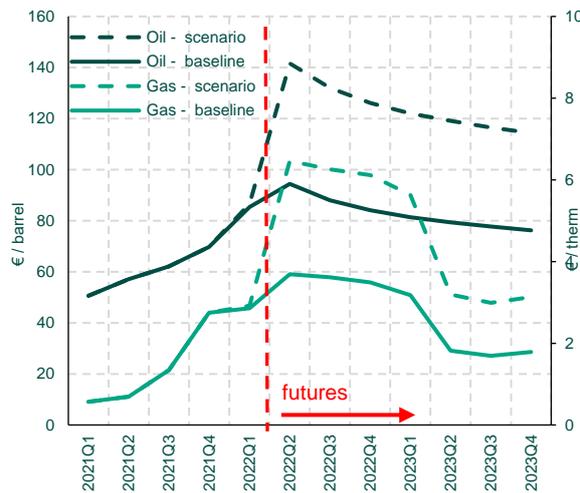
6.2 Scenario analysis

The inflation projection set out in this document is based on energy prices as per the futures curve (wholesale oil and gas prices futures) in the second half of March. Clearly, however, commodity prices remain volatile, against an extremely difficult geopolitical backdrop. It is not inconceivable, for instance, that energy prices move significantly higher, particularly if one of the key building blocks of the central scenario (namely that the sanctions carve-out for Russian energy products) proves to be incorrect.

To highlight the sensitivity of consumer price inflation to movements in wholesale energy prices, a scenario is modelled (figure 17) in which wholesale oil and gas futures increase by 50 and 75 per cent, respectively in 2022 and 2023 (the increases are relative to the baseline prices that underpin the central forecasts).

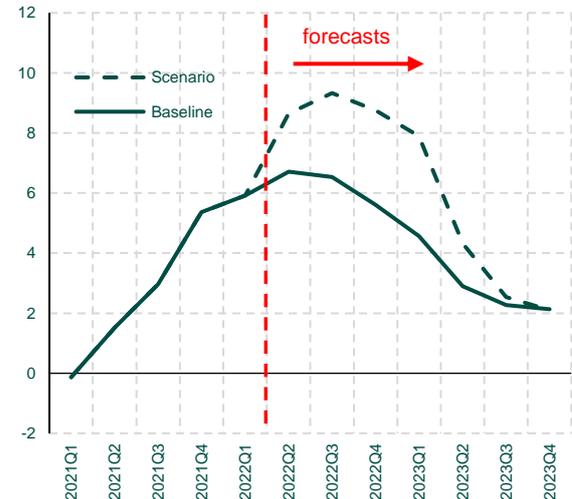
Figure 17: scenario analysis for inflation

A: energy price assumptions



Source: Department of Finance

B: headline HICP



Source: Department of Finance

In these circumstances, the increase in energy prices would add around 2 percentage points to headline inflation this year, and around 1¼ percentage points next year.²⁴ In terms of the quarterly profile, inflation would increase sharply in the second quarter of this year and peak at around 9¼ per cent in

²⁴ The timing of the impact would depend on when the additional energy price shock was to happen.

the third quarter, as spill-over effects in other sectors pass through to consumer prices. Inflation would remain elevated over the rest of the year, with a significant easing expected from the second quarter of next year as energy price base effects drop out of the annual rate.

As a result, headline inflation would average around 8¼ per cent in 2022 and 4¼ per cent in 2023. About three-quarters of the additional impact reflects the direct impacts on consumer energy prices, with the remainder accounted for by spill-over effects from higher energy prices to other sectors, such as food (e.g. via higher fertiliser and fuel costs), consumer goods and services (both via higher energy inputs).

This scenario is best thought of as a form of ‘partial equilibrium’ – it shows the impact of the shock on one variable only, namely inflation. Of course, the impact of higher oil and gas prices would not only affect inflation, but would instead have broader macroeconomic implications, for instance consumption and production would be expected to be lower. To better understand the wider economic implications (a ‘general equilibrium’ / whole-of-economy approach) involves using the COSMO structural model of the Irish economy.²⁵ To undertake this, the economic impact of an increase in world oil prices consistent with the above scenario resulting in a c. 2 pp increase in inflation in the year of the shock (i.e. year T) is calibrated.

Table 17: impact of a further energy price shock on selected economic aggregates

	T	T+1	T+2	T+3	T+4	T+5
Inflation	1.9	0.7	0.7	0.6	0.6	0.5
Non-traded output	-0.3	-0.7	-1.0	-1.4	-1.7	-1.9
Consumer spending	-0.7	-1.4	-2.0	-2.5	-2.8	-3.1
Unemployment, per cent	0.1	0.2	0.3	0.4	0.5	0.5
GGB, per cent GDP*	-0.1	-0.2	-0.3	-0.4	-0.4	-0.5

Notes: Figures are expressed in percentage deviation from baseline for non-traded output and consumption; percentage point changes from baseline for inflation, unemployment and fiscal measures.

Source: Department of Finance calculations.

The results of this exercise are set out above (**table 17**). This energy price shock transmits throughout the economy via the real income shock to households, with consumer spending and production lower. Consumer spending and output in the non-traded sector (a proxy for MDD) both fall, with the deviation from baseline levels rising to around 3 and 2 per cent respectively over the medium term. Because of this, the demand for labour falls, and this is reflected in a higher level of unemployment (0.2 percentage points higher in the year following the shock). These factors *inter alia* lead to a deterioration in the general government balance, with the annual balance worse by around 0.2 per cent of GDP (around €1 billion) in the year following the shock.

The results outlined above could be considered a minimum rather than a maximum, with several reasons to suspect the impact could be more severe. This is because of other channels that are not directly accounted for in this simulation: these include a decrease in world demand for Irish exports (decreasing output in Ireland’s traded sector in the near-term) and higher prices for other energy intensive inputs (such as fertiliser) which would indirectly impact on production. It is also possible for non-linear macroeconomic responses to a commodity price shock of this scale.²⁶

²⁵ Bergin, A. *et al.* COSMO: A new COre Structural MOdel for Ireland ESRI Working Paper No. 553.

²⁶ See also: Byrne, S. *et al.*, 2022. Box 2: *Benchmarking the Uncertainty Around the Central Forecast*. Central Bank of Ireland, Quarterly Bulletin, Quarter 2 2022, pp.20-23.

Table 18: risk assessment matrix – economic

Risk	Likelihood	Origin	Impact and main transmission channel
Downside			
War in Ukraine escalates	Not quantifiable	External	High – a further escalation, or broadening to other countries, of the war would result in lower levels of economic activity.
Main trading partner growth	High	External	High – weaker-than-assumed economic activity in key export markets (including the possibility of ‘stagflation’) would be an additional headwind for the economy.
Supply chain disruption	Medium	External	Medium – prolonged Covid-related supply chain disruptions would add to price inflation and hold back global production.
Premature ‘normalisation’ of monetary policy	Medium	External	Medium – premature tightening of monetary policy in any of the world’s major economies could have spill-overs to the global economy (and, by extension, to the Irish economy).
Brexit	Low	Domestic/ External	Medium – the full introduction of customs checks by the UK could have a more significant than anticipated adverse impact on Irish exports, in particular for firms in the domestically-owned SME sector.
Corporate insolvencies	Medium	Domestic	Medium – as fiscal supports are withdrawn, corporate insolvency rates could rise, potentially slowing growth.
Disorderly adjustment to the Chinese economy	Medium	External	Medium – imbalances in the Chinese economy have built up in recent years and a potential disorderly adjustment would have significant negative spillovers effects on the global economy.
Public health restrictions	Low	Domestic	High – the emergence of a new vaccine-resistant variant could require the re-imposition of ‘lockdown’ measures.
Loss of competitiveness	Medium	Domestic	Medium – a wage-price spiral would damage cost competitiveness and hamper the economy’s ability to compete in the global marketplace.
Further energy price shock	High	External	High – Further instability in global oil and gas supplies from Eastern Europe could lead to a larger than expected energy price shock which, in turn, would lead to higher levels of inflation and lower domestic demand.
Upside			
Stronger output from MNCs	High	External	Medium – stronger value-added from MNCs (ICT, pharma, contract manufacturing, etc.) would boost corporate sector output and increase GDP.
Unwinding of ‘excess’ savings	Medium	Domestic	High – greater than assumed use of ‘excess’ savings by consumers would boost spending and increase domestic demand.
Net inward migration	Medium	Domestic	High – Higher than expected inward migration would boost the overall level of output in the economy and help address labour market mismatches.

Source: Department of Finance

Table 19: risk assessment matrix – fiscal

Risk	Likelihood	Impact and main transmission channel
Domestic		
Escalation of war in Ukraine	Not quantifiable	High – disruptions to energy supply (not just price) could impact on industrial production, with implications <i>inter alia</i> for corporation tax receipts.
Refugee-related measures	Not quantifiable	High – Higher than anticipated number of refugees would significantly increase public expenditure.
Cost of living measures	High	Medium – Additional measures to address the cost of living would negatively affect the public finances.
Pandemic-related budgetary measures	Low	High – another set of restrictions that weigh on economic growth would have significant fiscal cost.
Ageing population	High	Medium – delaying or reversing the retirement age would adversely affect the public finances.
Corporation tax: policy change	High	High – revenue from this source is expected to be affected as international tax policy changes take effect; the actual cost could be higher than the €2 billion by 2025 currently assumed.
Corporation tax: concentration risk	Low	Medium – around 50 per cent of corporation tax revenue arises from the 10 largest payers; a shock to this revenue stream would have negative implications for the public finances.
Dividend payments	Low	Medium – lower-than-expected dividend payments arising from the State’s shareholdings in banks or commercial semi-state companies.
EU Budget contributions	Medium	Low – stronger-than-assumed growth in national income could increase EU Budget contributions .
Contingent liabilities	Low	Medium – government guarantees increased in 2020 as a result of counter guarantees for the European Commission to provide financial support during the pandemic.
External		
Borrowing costs	Medium	Medium – government financing has benefitted from supportive bond market conditions and any change could result in higher debt service costs.
Climate change and renewable energy targets	High	High – climate policy and the corresponding actions needed to reduce emissions by 50 per cent by 2030 and transition to net-zero by 2050 will have macroeconomic and fiscal implications.
Litigation or one-off measures	Medium	Medium – an adverse or unexpected outcome of litigation against the State or other one-off fiscal costs which resulted in additional expenditure could pose a risk to the achievement of budgetary targets.

Source: Department of Finance

Chapter 7

Long-Term Sustainability of the Public Finances

7.1 Summary

The demographic structure of the Irish population is set to shift significantly in the in the coming decades. This will have significant implications for the economy and the evolution of the public finances. Foremost amongst these is a projected significant rise in age-related public expenditure, as a larger share of the population moves into age brackets requiring such spending.

A range of reforms has been implemented in recent years but, in the absence of structural reforms, the public finances do not have the capacity to absorb these increases while maintaining existing levels of service elsewhere.

7.2 Background

Ireland currently has a favourable demographic profile compared with many other EU Member States. At 38½ years of age, Ireland has the second youngest median age of population in the EU, with only Cyprus recording a younger median age. In addition, Ireland currently has with the highest share of the population aged less than 20 years (26 per cent) and the lowest share of the population aged 65 years or over (15 per cent).²⁷

Nevertheless, despite the current favourable picture, a significant shift in the demographic structure of the Irish population is expected over the coming decades. People are living longer, while fertility rates – defined as the number of children born per woman of childbearing age – are falling.

The European Union's *Economic Policy Committee* (EPC) undertakes tri-annual assessment of the fiscal implications of population ageing across the EU. The main results from the most recent report, the *2021 Ageing Report*, are summarised below (**table 20**). Further analysis in an Irish-specific context is set out in the Department of Finance's tri-annual assessment, *Population Ageing and the Public Finances in Ireland*, published in September 2021.²⁸ The Department of Finance also made a submission to the *Commission on Pensions* in March 2021,²⁹ highlighting the likely economic and budgetary impacts of demographic change in Ireland.³⁰ The *Commission on Pensions* published its final report in October 2021, setting out options and recommendations for the Government to consider.

²⁷ Eurostat population data.

²⁸ Available at:

<https://www.gov.ie/en/press-release/7908d-minister-donohoe-publishes-population-ageing-and-the-public-finances-in-ireland-report/>

²⁹ In November 2020, and consistent with the Programme for Government, the Government established the Commission on Pensions. The remit of the Commission is to examine sustainability and eligibility issues with the State Pension and the Social Insurance Fund. The Commission will also consider the issue of retirement ages in employment contracts and consider how the pension system can further accommodate carers.

³⁰ Available at:

<https://www.gov.ie/en/publication/c199e-department-of-finance-submission-to-the-commission-on-pensions/>

7.3 Long-term budgetary prospects

Ireland's demographic profile is set to change significantly over the coming decades.³¹ The population aged 65 and over is projected to grow significantly faster than the population aged 20 to 64, i.e. the working age population, over the projection period.³² Reflecting these changes, the old age dependency ratio - a proxy for the number of retirees as a fraction of the number of workers - is set to increase from approximately 24 per cent in 2019 to 47 per cent by 2050, and 53 per cent by 2070.³³ Put another way, while there are currently around 4 persons of working age for each person aged 65 and over, by 2050, the equivalent figure will be just over 2.

Table 20: long-term spending projections, per cent of GDP (unless otherwise stated)

	2019	2030	2040	2050
Total age-related expenditure	13.2	15.2	16.7	18.1
- Total pension expenditure	4.6	5.9	6.9	7.5
: State (Social Welfare) pension	3.5	4.4	5.2	6.1
: Public Sector pension	1.0	1.5	1.6	1.4
- Health care	4.1	4.4	4.8	5.1
- Long-term care	1.3	1.6	2.0	2.4
- Education	3.3	3.3	3.1	3.2
Main Demographic Developments				
Labour input (growth rate)	2.1	0.3	0.2	0.1
: Employment (growth rate) [^]	2.1	0.3	0.1	0.1
: Hours worked per employee (growth rate)	0.1	0.0	0.0	0.0
Labour productivity (growth rate)	3.4	1.2	1.5	1.5
: Total Factor Productivity (growth rate)	1.6	0.9	1.0	1.0
: Capital deepening (growth rate)	1.8	0.3	0.5	0.5
Potential GDP (growth rate)	5.6	1.4	1.7	1.6
Population aged >= 65 ('000s)	704	981	1,254	1,543
Population aged 20-64 ('000s)	2,904	3,241	3,353	3,315
Old-age dependency ratio (per cent)	24.2	30.3	37.4	46.5

[^] 15-74 basis.

Source: Ageing Report 2021 and Department of Finance calculations.

As a result of the expected demographic developments, total age-related public expenditure is projected to increase by 5 percentage points of GDP by 2050, reaching 18.1 per cent of GDP (included in this is an increase of 2 percentage points of GDP by 2030).³⁴

As set out in the Department of Finance's *Ageing Report (2021, op cit)*, the metrics scaled by GNI* present a more realistic indicator of the underlying repayment capacity of the Irish economy (**table 21**), Total age-related expenditure is expected to increase by 8.1 percentage points of GNI* by 2050 (3.4 pp by 2030).

³¹ Projection period 2019-2070.

³² While the State Pension Age in Ireland is currently 66 years of age, the working age population is defined here as 20-64 to allow for cross-country comparison.

³³ The Old-Age Dependency Ratio (OADR), a key metric in demographic analysis, is defined here as the population aged 65 and above divided by the population aged 20-64. The OADR is often used internationally as a proxy indicator of the ratio of the non-working to the working population.

³⁴ Expenditure developments are in reference to the base year, 2019. The exercise to project age-related expenditure is carried out on a 3-year cycle. The 2021 Ageing Report was published in September 2021. The projection period is 2019-2070.

While the results set out above can be considered a central scenario, a sensitivity analysis set out in the Departments ageing report stress tests the results to different scenarios, summarised below (**figure 18B**). It is important to note that detailed analysis of the impact of the Covid-19 pandemic is not included in the baseline projections. The demographic projections underpinning the analysis, published in early 2020, do not take account of the impact of the pandemic on demographic indicators, while the macroeconomic projections assume a 'V-shaped' recovery entailing a sharp decline in output in 2020 followed by a return to strong economic growth in 2021, with no long-term structural impact.

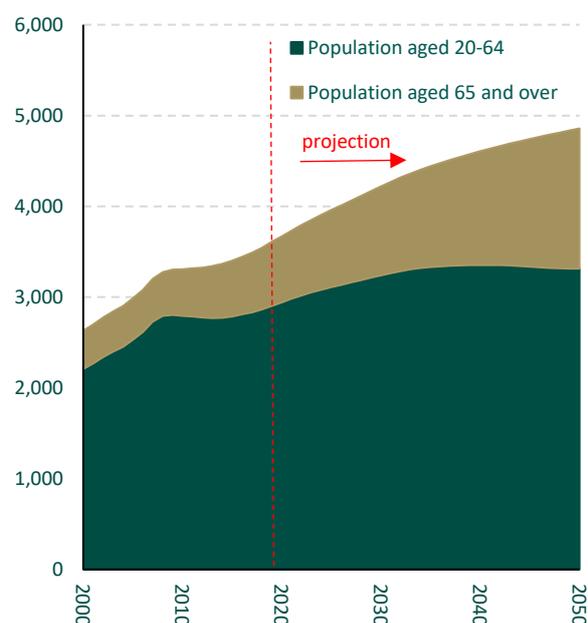
Table 21: long-term spending projections, per cent GNI* (unless otherwise stated)

	2019	2030	2040	2050
Total age-related expenditure	21.4	24.7	27.2	29.5
- Total pension expenditure	7.4	9.6	11.2	12.1
: State (Social Welfare) pension	5.8	7.2	8.5	9.9
: Public sector pension	1.6	2.4	2.7	2.3
- Health care	6.6	7.2	7.8	8.3
- Long-term care	2.0	2.7	3.2	3.9
- Education	5.3	5.3	5.0	5.2

Source: Ageing Report 2021 and Dept. of Finance calculations.

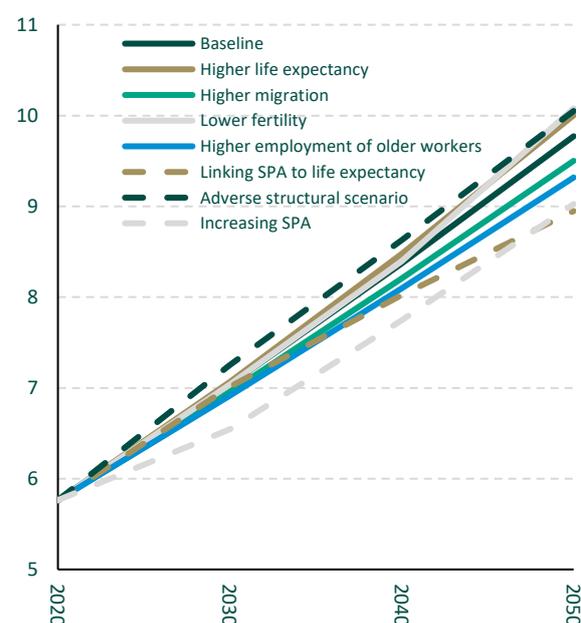
Figure 18: impact of demographic developments

A: Population aged 20 and over by age group, (000's)



Note: 2000-2013 population data from the CSO. Population estimates from 2014 onwards are based on Eurostat estimates/projections
Source: CSO, Eurostat.

B: Social welfare pension expenditure, per cent of GNI*



Note: Showing scenarios as applied to social welfare pension expenditure only.

Source: Department of Finance calculations.

7.4 State pension age³⁵

Under legislation, introduced in 2011, the State Pension Age (SPA) was to increase to 67 in 2021 and 68 in 2028. The *Programme for Government*, agreed in June 2020, committed to deferring the legislated increase in the SPA in 2021, keeping the SPA at 66, pending a review on sustainability and eligibility issues by a newly established Commission on Pensions. The *Social Welfare Act 2020*, enacted in December 2020, removed the previously planned increases in the SPA from legislation. The *Commission on Pensions* final report sets out a number of reform recommendations for the Government to consider including a gradual incremental increase in the SPA starting from 2028. The Commission's report has been referred to Government for consideration, with a view to bringing a recommended response and implementation plan to Government within the first half of 2022.

7.5 Conclusion

While favourable at present, the demographic profile of the Irish population is set to change significantly in the coming decades. Ireland faces a number of challenges arising from this development. Both the revenue and expenditure side of the fiscal accounts will be adversely affected, as labour supply becomes scarcer while expenditure pressures increase. In summary, ageing costs are expected to increase by 8.1 per cent of GNI* by 2050.

Significant structural reforms will therefore, be required to meet the fiscal costs associated with population ageing. Without such reforms, a large deficit will emerge and the debt ratio will move onto an unsustainable path.

Analysis by the Department of Finance suggests that maintaining the State Pension Age at 66 will add significantly to the cost burden. Policy reforms such as linking the State Pension Age to life expectancy could reduce this burden. However, in order to safeguard the public finances, additional policy responses - including fiscal restraint in non-age related spending – will be necessary. While the longer-term outcome of the public health crisis remains uncertain, the policy challenges associated with population ageing are only likely to have been heightened by the additional demand placed on the public finances in tackling the Covid-19 pandemic.

³⁵ For a list of other reforms, see previous updates of the *Stability Programme*.

Annexes

4 April 2022

Dear Secretary General Hogan,

The Council has a statutory obligation to endorse, as appropriate, the macroeconomic forecasts prepared by the Department of Finance on which the Stability Programme Update (SPU) 2022 will be based.¹

The Council received the Department's forecasts on 24 March 2022 and discussed these forecasts with Department of Finance staff on 1 April 2022, ahead of the Council's endorsement meeting.

The Council's endorsement approach has three elements:

- 1) comparing the Department's macroeconomic forecasts with the Council's Benchmark projections and with forecasts from other bodies;
- 2) considering the methodologies used to produce the forecasts; and
- 3) reviewing the Department's past forecast errors for evidence of systematic bias.

The Irish Fiscal Advisory Council endorses as within the range of appropriate forecasts the set of macroeconomic projections prepared by the Department of Finance for SPU 2022 covering the years 2022 to 2025.

The Council is satisfied that the forecasts are within an endorsable range, taking into account the methodologies used and the plausibility of the judgements made. The Department's forecasts were conditioned on policies as of 24 March 2022. This endorsement comes amid very high uncertainty about the path of output and inflation related to the consequences of Russia's war on Ukraine, with significant downside risks to activity.

The Department's forecasts only cover a three-year-ahead forecast horizon (to 2025). This is shorter than the five-year-ahead forecast horizon adopted by the Department in past years. It would be preferable for informing policy decisions with a medium-term orientation and for ensuring the consistency of short-term forecasts that a longer, five-year, forecast horizon be used for all forecast exercises in line with past commitments.

The Council will discuss the endorsement process and assess the macroeconomic projections in its forthcoming Fiscal Assessment Report, due in May 2022.

Yours sincerely,



Sebastian Barnes, Chairperson.

¹ The Fiscal Responsibility Act 2012, as amended by the Ministers and Secretaries (Amendment) Act 2013, states that: "The Fiscal Council shall— (a) endorse, as it considers appropriate, the macroeconomic forecasts prepared by the Department of Finance on which the Budget and stability programme will be based".

Annex 2 Comparison of forecasts

Table A1: comparison of 2022 forecasts with other public sector institutions

	GDP	employment	inflation	gg balance	gg debt
Department of Finance	6.4	14.9	6.2	-0.4	50.1
Central Bank of Ireland	6.1	3.7	6.5	-0.4	49.4
ESRI	6.2	13.7	6.7	0.2	46.6
IMF	n.a.	n.a.	n.a.	n.a.	n.a.
European Commission	5.5	n.a.	4.6	n.a.	n.a.

Notes:

Economic variables in per cent change; fiscal variables as a per cent of GDP.

The ESRI and the Department of Finance use Covid adjusted employment figures, the Central Bank does not.

Source: latest forecasts from the institutions cited.

Table A2: comparison of 2023 forecasts with other public sector institutions

	GDP	employment	inflation	gg balance	gg debt
Department of Finance	4.4	2.1	3.0	0.2	46.3
Central Bank of Ireland	5.5	2.2	2.8	0.5	46.6
ESRI	4.3	2.6	5.0	0.6	43.8
IMF	n.a.	n.a.	n.a.	n.a.	n.a.
European Commission	4.5	n.a.	2.5	n.a.	n.a.

Notes:

Economic variables in per cent change; fiscal variables as a per cent of GDP.

The ESRI and the Department of Finance use Covid adjusted employment figures, the Central Bank does not.

Source: latest forecasts from the institutions cited.

Table A3: comparison of spring vs autumn economic forecast, per cent

	2022 forecast			Δ pp	2023 forecast		
	Spring 2022	Autumn 2021			Spring 2022	Autumn 2021	Δ pp
Economic activity							
Real GDP	6.4	5.0	1.4	4.4	4.1	0.4	
Real GNP	5.9	4.5	1.4	4.0	3.6	0.3	
MDD	4.2	6.5	-2.3	3.9	4.2	-0.3	
Prices							
HICP	6.2	2.2	4.0	3.0	1.9	1.1	
Core HICP	3.9	2.1	1.8	3.3	1.9	1.4	
GDP deflator	4.1	2.2	1.9	2.2	1.8	0.4	
Labour market							
Employment (per cent)	14.9	13.2	1.7	2.1	2.7	-0.6	
Unemployment rate (per cent)	6.2	7.2	-1.0	5.4	6.0	-0.6	

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

Table A4: comparison of spring fiscal forecast vs autumn fiscal forecast, per cent of GNI*

	2022 forecast			2023 forecast		
	Spring 2022	Autumn 2021	Δ pp	Spring 2022	Autumn 2021	Δ pp
General government balance	-0.8	-3.4	2.6	0.5	-0.4	0.9
<i>of which:</i>						
: General government revenue	43.6	40.2	3.4	43.2	40.1	3.1
Taxes on production and imports	12.7	12.1	0.6	12.8	12.3	0.5
Current taxes on income, wealth etc.	20.6	18.4	2.2	20.4	18.2	2.2
Capital taxes	0.3	0.2	0.1	0.3	0.2	0.1
Social contributions	7.1	7.0	0.1	7.1	6.9	0.2
Property Income	0.3	0.3	-0.0	0.2	0.4	-0.2
Other	2.6	2.2	0.4	2.4	2.1	0.3
Total revenue	43.6	40.2	3.4	43.2	40.1	3.1
: General government expenditure	44.4	43.6	0.8	42.7	40.6	2.1
Compensation of employees	11.2	11.1	0.1	11.0	10.9	0.1
Intermediate consumption	6.8	6.2	0.6	6.6	5.7	0.9
Social payments	15.0	13.9	1.1	14.3	12.8	1.5
Interest expenditure	1.4	1.4	0.0	1.4	1.4	0.0
Subsidies	1.0	1.2	-0.2	0.6	0.9	-0.3
Gross fixed capital formation	4.4	4.7	-0.3	4.6	5.2	-0.6
Capital Transfers	0.9	1.3	-0.4	0.9	1.4	-0.5
Other	2.2	2.2	-0.0	2.1	2.1	-0.0
Unallocated	1.5	1.7	-0.2	1.2	-	1.2
General government debt[^]	-9.1	-6.9	-2.2	-6.6	-2.5	4.1
<i>of which:</i>						
: headline balance	0.8	3.4	-2.6	-0.5	0.4	0.9
: SFA	-1.6	-2.6	0.9	-0.7	2.4	3.1
: other (including denominator effect)	-8.3	-7.8	-0.5	-5.4	-5.3	0.1

Note: [^]change in gross debt ratio

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

Annex 3 Additional fiscal data

Table A5: difference between exchequer balance and general government balance, € millions

	2021	2022	2023	2024	2025
Exchequer balance	-7,370	-1,065	1,505	5,630	5,605
Exclude equity and loan transactions	-655	-1,520	-615	-835	-560
Adjust for interest accrual	295	280	315	380	685
Adjust for tax accruals	1,890	130	-80	75	135
Adjust for other accruals	-355	765	-65	-120	-290
Net lending of NCSSBs [^]	-1,505	-1,115	-1,415	-1,035	-1,310
Impact of ISIF	55	80	80	85	85
Net lending of Social Insurance Fund	-560	1,380	2,380	3,020	3,595
Net lending of other EBFs [^]	450	135	70	50	45
Net lending of Local Government	-355	-955	-950	-785	-330
General government balance (GGB)	-8,110	-1,880	1,230	6,460	7,655
GGB, per cent of GNI [*]	-3.6	-0.8	0.5	2.4	2.7
Nominal GNI [*]	223,360	242,370	256,805	271,065	285,780

Notes:

In the case of 'net lending', a positive sign indicates a sector is a net lender, a negative sign a net borrower.

GDP rounded to nearest €25 million.

[^] NCSSB = non-commercial semi-state bodies, EBF = extra budgetary fund.

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

Table A6: general government balance, per cent of GNI*

	2021	2022	2023	2024	2025
Net lending by sub-sector					
General government balance	-3.6	-0.8	0.5	2.4	2.7
Central government	-3.5	-0.4	0.8	2.7	2.8
Local government	-0.2	-0.4	-0.4	-0.3	-0.1
General government					
Total Revenue	43.4	43.6	43.2	42.8	42.2
Total Expenditure	47.0	44.4	42.7	40.4	39.5
Net lending/borrowing	-3.6	-0.8	0.5	2.4	2.7
Interest expenditure	1.5	1.4	1.4	1.2	1.0
Primary balance	-2.2	0.6	1.9	3.6	3.7
One-off / other temporary measures	-4.9	-3.0	-1.2	0.0	0.0
Total revenue					
Total taxes	33.6	33.6	33.4	33.4	33.2
Taxes on production and imports	12.9	12.7	12.8	12.7	12.5
Current taxes on income, wealth etc.	20.4	20.6	20.4	20.4	20.4
Capital taxes	0.3	0.3	0.3	0.3	0.3
Social contributions	7.2	7.1	7.1	7.0	6.8
Property Income	0.2	0.3	0.2	0.4	0.3
Other	2.4	2.6	2.4	2.1	1.9
Total revenue	43.4	43.6	43.2	42.8	42.2
p.m.: Tax burden	41.1	41.1	40.9	40.7	40.4
Total expenditure					
Compensation of employees	11.6	11.2	11.0	10.9	10.7
Intermediate consumption	7.3	6.8	6.6	6.4	6.1
Social payments	16.8	15.0	14.3	13.7	13.4
Social transfers in kind via mkt producers	3.4	3.0	2.9	2.7	2.7
Social transfers other than in kind	13.4	12.0	11.5	11.0	10.7
Subsidies	3.1	1.0	0.6	0.6	0.6
Interest expenditure	1.5	1.4	1.4	1.2	1.0
Gross fixed capital formation	3.8	4.4	4.6	4.7	4.8
Capital Transfers	0.8	0.9	0.9	0.9	0.8
Other	2.2	2.2	2.1	2.0	2.0
Resources to be allocated	0.0	1.5	1.2	0.0	0.0
Total expenditure	47.0	44.4	42.7	40.4	39.5
p.m. : Government consumption	21.7	20.3	19.9	19.6	19.2
GNI* at current market prices	223,360	242,370	256,805	271,065	285,780

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

Table A7: general interest expenditure, € millions

	2021	2022	2023	2024	2025
National Debt Cash Interest	3,595	3,765	3,725	3,495	3,350
per cent tax revenue	5.3	5.0	4.6	4.1	3.8
per cent of GNI*	1.6	1.6	1.5	1.3	1.2
National Debt Cash Interest Accruals	-265	-275	-315	-380	-685
Consolidation and Grossing Adjustments	-75	-205	95	155	150
Accrued promissory note interest	-	-	-	-	-
Other	35	30	60	85	110
Total Interest on ESA2010 basis	3,290	3,315	3,565	3,355	2,925
per cent of total gg revenue	3.4	3.1	3.2	2.9	2.4
per cent of GNI*	1.5	1.4	1.4	1.2	1.0

Source: Department of Finance, CSO and NTMA.

Table A8: projected movement in general government debt, € billions

	2021	2022	2023	2024	2025
GG DEBT: OPENING POSITION	217.9	235.9	233.8	230.8	231.4
IN-YEAR FLOWS:					
Exchequer borrowing requirement	7.4	1.1	-1.5	-5.6	-5.6
Change in Exchequer deposits	9.9	-5.6	-5.4	3.6	-1.4
Net lending of NCSSBs	0.0	0.4	1.1	0.9	1.3
Net lending of local government	0.1	1.0	1.0	0.8	0.3
Other flows	0.5	1.2	1.9	1.0	1.0
GG DEBT: CLOSING POSITION	235.9	233.8	230.8	231.4	227.0

Notes:

NCSSBs = Non-commercial semi-state bodies

Source: Department of Finance, CSO and NTMA.

Annex 4

Summary: macroeconomic and fiscal aggregates

Table A9: summary – macroeconomic aggregates

	2021	2022	2023	2024	2025
Economic activity					
	<i>year-on-year per cent change (unless stated)</i>				
Real GNP	11.5	5.9	4.0	3.5	3.3
Real GDP	13.5	6.4	4.4	4.0	3.8
Nominal GDP (nearest €25m)	421,525	467,075	498,475	528,125	557,600
Nominal GNP (nearest €25m)	314,075	347,825	370,525	391,400	411,775
Nominal GNI* (nearest €25m)	223,350	242,375	256,800	271,075	285,775
Components of GDP					
	<i>year-on-year per cent change</i>				
Personal consumption	5.7	6.0	3.6	3.5	3.4
Government consumption	5.3	-1.3	2.0	2.0	2.1
Investment	-37.6	-10.9	8.1	7.1	5.6
Modified investment	9.7	5.4	6.5	5.1	5.5
Modified domestic demand	6.5	4.2	3.9	3.6	3.6
Exports	16.6	7.5	5.1	4.6	4.4
Contributions to real GDP growth					
	<i>percentage points</i>				
modified domestic demand	3.0	2.1	1.9	1.8	1.8
modified net exports	10.0	4.4	2.5	2.3	2.1
stock changes	-0.4	0.0	0.0	0.0	0.0
statistical discrepancy	0.9	0.0	0.0	0.0	0.0
Price developments					
	<i>year-on-year per cent change</i>				
HICP	2.5	6.2	3.0	2.2	2.1
GDP deflator	-0.4	4.1	2.2	1.9	1.7
Personal Consumption Deflator	3.4	6.8	3.6	2.6	2.3
Labour market					
	<i>year-on-year per cent change (unless stated)</i>				
Employment	11.0	14.9	2.1	1.7	1.7
Unemployment (per cent of labour force) [^]	15.9	6.2	5.4	5.2	4.9
Labour productivity	6.5	-3.3	2.3	2.2	2.1
Compensation of Employees ^{^^}	8.2	9.8	7.5	6.8	6.6
Compensation per Employee ^{^^^}	-3.0	-4.6	5.2	4.8	4.6
External					
	<i>per cent of GDP</i>				
Trade balance	40.3	44.5	43.8	43.2	42.9
Modified current account (per cent GNI*)	9.8	8.4	7.2	6.6	6.1
Cyclical Developments					
	<i>per cent of potential GDP</i>				
Output gap	-1.0	-0.5	-0.1	0.0	0.2

Notes: ^ data based on Covid-adjusted series which treats all PUP recipients as unemployed.

^{^^} non-agricultural sector

^{^^^} per worker, non-agricultural sector

Source: 2021 = CSO; 2022-25 = Department of Finance.

Table A10: summary – fiscal aggregates

	2021	2022	2023	2024	2025
Exchequer € millions					
Exchequer Balance	-7,370	-1,065	1,505	5,630	5,605
Tax Revenue	68,410	75,815	80,380	84,805	89,135
General government € millions					
Total Revenue	96,960	105,775	110,940	115,995	120,635
Total Expenditure	105,070	107,655	109,715	109,530	112,975
General government balance	-8,110	-1,880	1,230	6,460	7,655
General Government per cent GNI*					
Total Revenue	43.4	43.6	43.2	42.8	42.2
Total Expenditure	47.0	44.4	42.7	40.4	39.5
General government balance	-3.6	-0.8	0.5	2.4	2.7
Interest expenditure	1.5	1.4	1.4	1.2	1.0
Primary balance	-2.2	0.6	1.9	3.6	3.7
Gross fixed capital formation	3.8	4.4	4.6	4.7	4.8
Gross debt	105.6	96.5	89.9	85.4	79.4
Net debt	86.2	81.2	77.9	73.0	68.5

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

Annex 5

Ireland's National Recovery and Resilience Plan

Ireland submitted its draft *National Recovery and Resilience Plan* ('the Plan') to the European Commission on 28th May 2021. On 16th July 2021, the Commission issued its positive assessment of the Plan. The Plan was then considered by ECOFIN (Committee of EU Finance Ministers) on 6th September 2021, and a Council Implementing Decision was adopted by written procedure on 8th September 2021.

The Plan, which has a total value of €990 million, sets out the reforms and investments to be supported by the EU's *Recovery and Resilience Facility*. Its overall objective is to contribute to a sustainable, equitable, green and digital recovery, in a manner that complements and supports the Government's broader recovery effort.

Ireland's Plan is based on sixteen investment projects and nine reform measures covering the following priorities:

- > Priority 1: Advancing the Green Transition;
- > Priority 2: Accelerating and Expanding Digital Reforms and Transformation;
- > Priority 3: Social and Economic Recovery and Job Creation.

The Plan is aligned with domestic policies, such as those set out in the *Economic Recovery Plan* (ERP) and the *National Development Plan 2021 - 2030*. The ERP is focused on a jobs-rich recovery and supporting the transition towards a decarbonised and digital economy. It includes an overarching ambition of 2.5 million people in work by 2024, with an emphasis on more productive, innovative and resilient jobs, in new areas of opportunity. The priorities for the NDP include reform, sustainability, regional development, innovation and skills, and climate action.

Member States are required to complete periodic progress reports on the milestones and targets for the different investment projects and reform measures, including reporting on green and digital expenditure, and common indicators. Project implementation is underway and Ireland's next progress report is due at end-April 2022, and will align with the submission of Ireland's *National Reform Programme* to the European Commission.

Subject to the achievement of an agreed set of milestones and targets, Ireland will make its first payment claim to the Commission towards the end of 2022, and then in each subsequent year until 2026.



An Roinn Airgeadais
Department of Finance

Tithe an Rialtas. Sráid Mhuirfean Uacht,
Baile Átha Cliath 2, D02 R583, Éire
Government Buildings, Upper Merrion
Street, Dublin 2, D02 R583, Ireland

T:+353 1 676 7571
@IRLDeptFinance
www.gov.ie/finance