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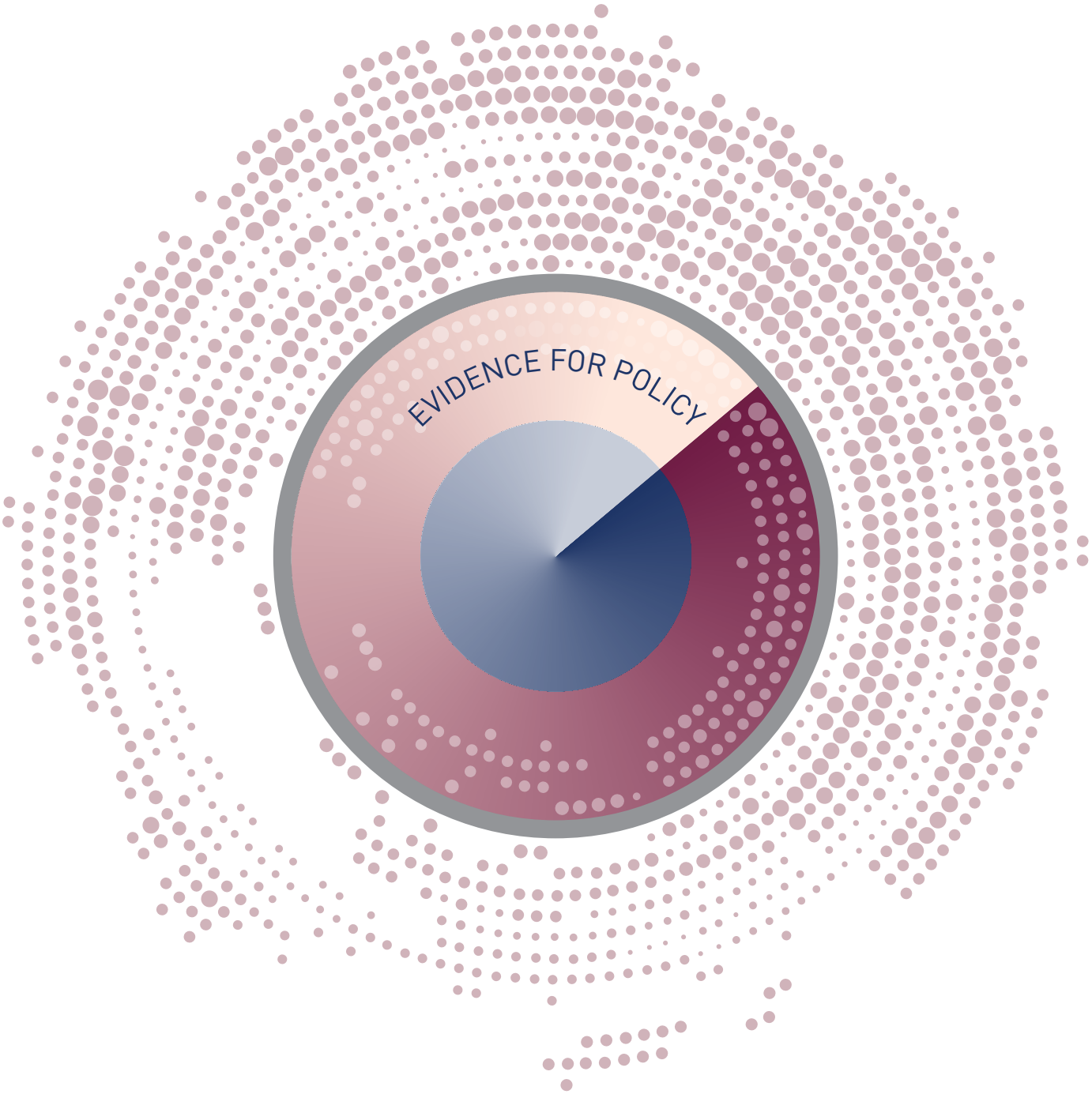
QUARTERLY ECONOMIC COMMENTARY

SUMMER 2022

KIERAN MCQUINN, CONOR O'TOOLE, WENDY DISCH, EVA SHIEL AND EOIN KENNY



ESRI ECONOMIC & SOCIAL RESEARCH INSTITUTE

QUARTERLY ECONOMIC COMMENTARY

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THE AUTHORS

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	2021	2022	2023
Output (Real Annual Growth %)			
Private Consumer Expenditure	5.7	4.6	3.8
Public Net Current Expenditure	5.3	4.4	3.0
Investment	-37.6	-12.3	6.3
Of which: Modified investment	*9.7*	*3.9*	*4.4*
Exports	16.6	8.5	6.2
Imports	-3.7	4.7	6.4
Gross Domestic Product (GDP)	13.5	6.8	4.8
Gross National Product (GNP)	11.7	5.8	3.9
Domestic Demand (excl. Stocks)	-16.6	-1.9	4.5
Of which: Modified Domestic Demand	*6.5*	*4.4*	*3.7*
Labour Market			
Employment Levels ('000)	2,178	2,514	2,568
Unemployment Levels ('000)	402	133	106
Unemployment Rate (as % of Labour Force)	16.1	5.0	4.0
Public Finances			
General Government Balance (€bn)	-8.1	1.6	3.2
General Government Balance (% of GDP)	-1.9	0.3	0.6
Price Developments			
Inflation (CPI)	2.4	7.1	4.0

Notes: The employment level for 2021 is based on the COVID-adjusted level of employment at the end of each quarter published by the CSO along with the quarterly LFS. As a result, it represents a lower bound estimate for employment in 2021. The unemployment rate and level through March 2021 are based on the monthly unemployment and the COVID-adjusted monthly unemployment series published by the CSO.

Import forecasts for 2022 and 2023 refer to underlying activity. However, if National Accounts data reveal a significant impact of distortionary activity on import levels later in the year, modified and headline forecasts will be provided in future *Commentaries.*

Modified Domestic Demand refers to Modified Final Domestic Demand, which excludes large transactions of foreign corporations that do not have a large impact on the domestic economy. Definition available here: https://www.cso.ie/en/interactivezone/statisticsexplained/nationalaccountsexplained/totaldomesticdemandandmodifiedtotaldomesticdemand/#:~:text=Modified%20Total%20Domestic%20Demand%20goes%20further%20in%20trying,to%20exclude%20certain%20items%20that%20are%20in%20TDD. Modified investment excludes investment in aircraft for leasing and investment in R&D from abroad.

Inflation is measured by the annual percentage change in CPI.

The Irish Economy – Overview

- While the Irish economy is continuing to perform strongly in 2022, it is clear that the growth rate for the present year will be somewhat more subdued than the exceptional performance in 2021.
- We expect GDP to grow by 6.8 per cent this year, and 4.8 per cent in 2023, again driven by strong export growth. Modified domestic demand (MDD) is forecast to increase by 4.4 and 3.7 per cent for the same period, somewhat lower than our previous *Commentary*.
- The strong labour market performance, along with the continued increases in Exchequer receipts, means that the Irish public finances are in a relatively robust state, notwithstanding the recent challenges posed by the pandemic and the Ukrainian crisis.
- However, there are significant challenges confronting the domestic economy; inflation has increased significantly and is set to exceed 7 per cent in 2022, before growing at a lower rate of 4.0 per cent in 2023.
- Inflation in an international context, coupled with uncertainty surrounding the conflict in Ukraine, is also set to impact the global economic outlook in this year and the next.
- The European Central Bank (ECB) has signalled that monetary policy rates are set to increase over the coming quarters. This will likely dampen investment sentiment and consumer spending. In a Box to the *Commentary*, we quantify the impact of such an increase on Irish house price levels.
- Policymakers must be particularly attuned to the difficulties posed by high inflation rates; there is still some fiscal space to assist those most affected by higher costs of living, however this must be done in a targeted manner.
- More generally, fiscal policy must be cautionary, particularly in terms of any increases in current expenditure. Similarly, reducing the taxation burden in the economy at this point would only serve to fuel inflationary pressures.

Risk Analysis

Despite rebounding strongly from the COVID-19 pandemic, the domestic economy faces significant downside risks in the present year as a number of challenges threaten global economic growth. The military invasion of Ukraine by the Russian Federation has triggered a humanitarian disaster and amplified a number of pre-existing macroeconomic risks. The acceleration in food and energy prices brought on by the ongoing war has further elevated inflationary pressures, with the impact on basic foodstuffs and energy for low-income households and poor countries being particularly acute. To tackle higher rates of inflation, central banks are beginning to end the protracted period of extremely accommodative monetary policy by ending asset purchase programmes and beginning to raise policy rates. This naturally can increase financial risks by raising the cost of credit and has triggered concerns over sovereign debt management in some high debt economies. At the same time, the UK government continues to add uncertainty to ongoing Brexit negotiations through its unilateral legislative moves to alter the Northern Ireland Protocol.

The humanitarian cost of the Ukraine crisis

At present, over 7 million refugees have fled Ukraine, of which 4.8 million have arrived across Europe.[1] The decision by the European Council to activate the Temporary Protection Directive on 4 March 2022 in reaction to the invasion of Ukraine has enabled refugees to avail of temporary protection in all EU Member States.[2] The protection measures allow refugees fleeing Ukraine access to suitable accommodation, access to social welfare and medical care, access to education for children and the right to access employment. While essential from a humanitarian perspective, these measures will likely come with a significant cost to Member States. Estimates suggest that the total cost of the influx to the EU could exceed €40 billion in 2022.[3]

As of 7 June 2022, nearly 33,000 Ukrainian refugees have arrived in Ireland.[4] While the government has set aside up to €3.7 billion for the associated costs of hosting refugees, the extent of the war and the size of the influx could put further strain on the public finances as well as exacerbate existing service provision challenges such as in the housing market.

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1 See: Situation Ukraine Refugee Situation (unhcr.org).

2 Temporary Protection applies in all Member States, excluding Denmark. See more information here: https://www.citizensinformation.ie/en/moving_country/asylum_seekers_and_refugees/the_asylum_process_in_ireland/temporary_protection_directive.html.

3 Bold European Union action is needed to support Ukrainian refugees | Bruegel.

4 According to CSO data available here: https://data.cso.ie/table/UA05.

Food and energy driving cost-of-living concerns

Global food prices rose nearly 30 per cent in 2021[5] due to the disruption in agriculture caused by extreme weather events associated with climate change and disruptions to food supply chains during the pandemic. Exports from Russia and Ukraine account for 12 per cent of the world's traded calories, including 30 per cent of the global traded wheat supply.[6] Disruptions to food supply chains due to the war have already increased the costs of food products and fertilisers; price increases in food items since the start of the year have already made an additional 400 million people food insecure.[7]

In addition to food, the war has had a significant impact on an already vulnerable global energy market. In 2021, prices of energy products had already begun to accelerate as supplies were not prepared to meet the post-pandemic surge in demand. Sanctions imposed on Russian energy products have contributed to further price increases across the market. The euro area is particularly susceptible to price increases of Russian energy products, as Russia accounts for 20 per cent of oil and 35 per cent of gas supplied to the euro area.[8]

While direct trade between Ireland and Russia and Ukraine is limited, the price increases observed in global food items as well as surging costs of energy products are contributing additional pressure to domestic inflation. Any intensification of conflict or sanctions will contribute to further reductions in global demand and trade and upward revisions to inflation forecasts in the near-term. High energy prices weigh heavily on household purchasing power and continued increases in the cost of living are likely to negatively impact private consumption. The strain on low-income households in particular may exert further pressure on the public finances, as the Government may need to introduce targeted measures to assist with the increased cost of living. At present, we anticipate inflation to average 7.1 per cent for the year and 4.0 per cent in 2023. If global pressures contributing to price increases were to intensify, this is likely to pass-through to domestic inflation in a sustained manner.

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5 IMF forecast; Refers to growth in Commodity Food Price Index includes Cereal, Vegetable Oils, Meat, Seafood, Sugar, Bananas, and Oranges Price Indices from 2020 to 2021.

6 https://www.economist.com/leaders/2022/05/19/the-coming-food-catastrophe.

7 Lack of Grain Exports Driving Global Hunger to Famine Levels, as War in Ukraine Continues, Speakers Warn Security Council | Meetings Coverage and Press Releases.

8 Based on 2020 figures. See: ECB staff macroeconomic projections for the euro area, March 2022 (europa.eu).

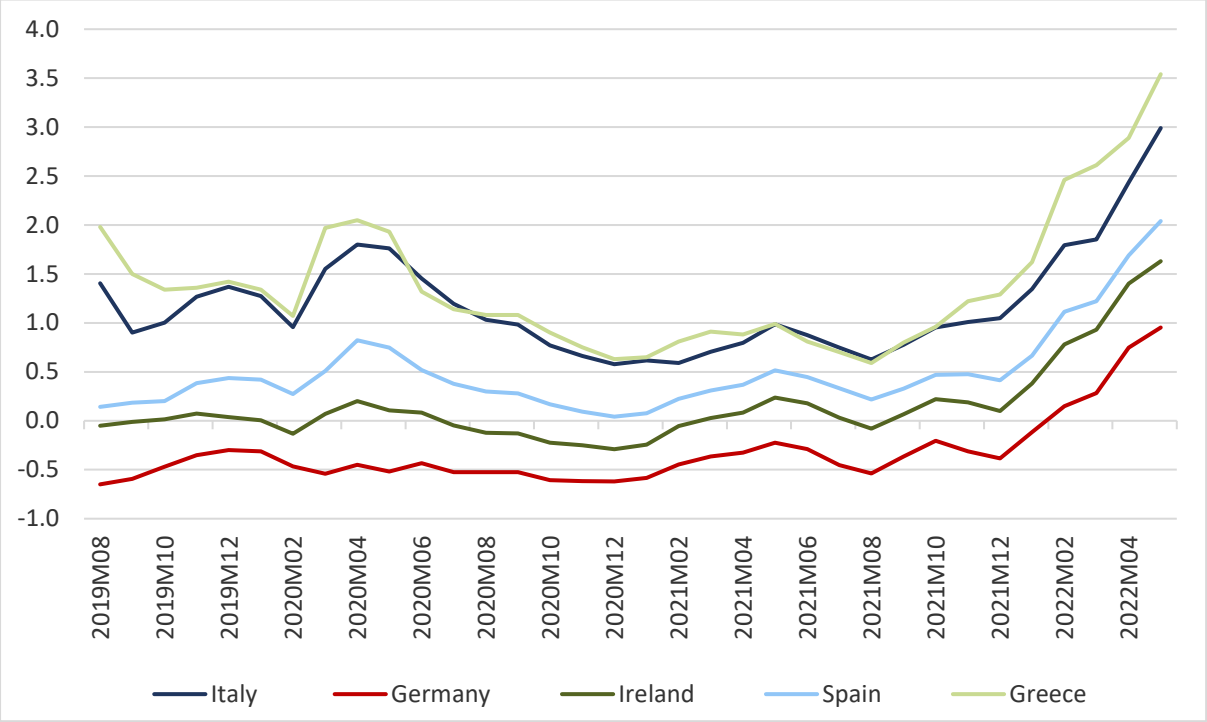
Central Bank reaction to inflation and impacts on sovereign debt

As of May 2022, inflation in the euro area reached 8.1 per cent. While the surging costs are largely a result of soaring energy costs, price increases are being observed more broadly in the economy. In an attempt to cool the pace of inflation, the European Central Bank will end its Asset Purchase Programme and will likely increase the policy rate, which currently stands at -0.5 per cent, by a minimum of 50 basis points.[9] The rise in rates will likely weigh on investment and consumption decisions with the actual impact being dependent on the scale of the rate rises, as well as the broader context. Domestically, rising interest rates are likely to increase the servicing cost of debt in the Irish economy and lower credit demand. This may act to offset some of the recent demand-side pressures, in particular in the housing market, as discussed in Box C of the *Commentary*.

Member States across the euro area issued significant amounts of new debt in response to the pandemic. A risk of a period of monetary policy rebalancing with higher interest rates has led to the re-emergence of concerns over the management of sovereign debt; high-debt countries such as Italy and Greece could face a higher debt burden and vulnerabilities as the ECB tightens monetary policy. Monitoring the spread between government bond yields can help assess the perceived risks facing vulnerable members. Italian and Greek spreads from the German Bund increased by 58 and 85 basis points, respectively, between 1 May and 1 January 2022. However, all Member States are experiencing increasing bond yields in reaction to inflationary pressures (Figure 1). In Germany, the ten-year Bund yield peaked in May 2022 at its highest rate since August 2014.

9 See: ECB's Lagarde sees rate at zero or slightly above by September | Reuters.

FIGURE 1 EUROZONE TEN-YEAR GOVERNMENT BOND YIELDS



Source: Eurostat.

Downward revisions in global output

The strength of the headwinds facing the global economy and the likelihood of the aforementioned risks materialising has led to considerable downward revisions in global output and an expectation for slowed growth in 2022. The IMF now projects growth of 3.6 per cent in both 2022 and 2023, 0.8 and 0.2 per cent lower than expected in January 2022.[10] Shocks from Brexit, COVID-19 and high inflation have led to a downward revision of GDP in the UK as well. Activity is expected to decline in Q3 and Q4 2022 and forecasts for GDP growth in 2023 and 2025 remain below 1 per cent.[11] In the US, forecasts for growth in 2022 have been revised down considerably since October (from 4.6 to 3.0 per cent)[12] and inflation is now expected to remain above 2 per cent for the next two years. Due to the small, open nature of the Irish economy, any slowdown in global output is likely to have some impact on domestic activity. Should global conditions weaken further, this could be expected to spill over into the Irish economy.

10 See IMF forecast here: https://www.imf.org/en/Publications/WEO/Issues/2022/04/19/world-economic-outlook-april-2022.

11 See NIESR forecast here: https://www.niesr.ac.uk/wp-content/uploads/2022/05/UK-Economic-Outlook-Spring-2022.pdf.

12 PIIE economic outlook: see: https://www.piie.com/research/piie-charts/growth-slows-across-global-economy-after-year-recovery).

Brexit fallout

As further delays have been issued regarding the implementation of the Trade and Cooperation Agreement between the European Union and the United Kingdom, assessing the future of trade between the EU and the UK remains uncertain. Recent suggestions by the UK government to remove elements of the Northern Ireland protocol are escalating fears of further disruptions in trade. Any escalation of trade tensions, including the prospect of a trade war, between the EU and the UK would have an impact on the Irish economy. Businesses may prefer to hold off on investment activity until negotiations return to a stable path and increased costs of trade may weaken export and import activity and reduce consumption.

The Domestic Economy

OUTPUT

Key Points

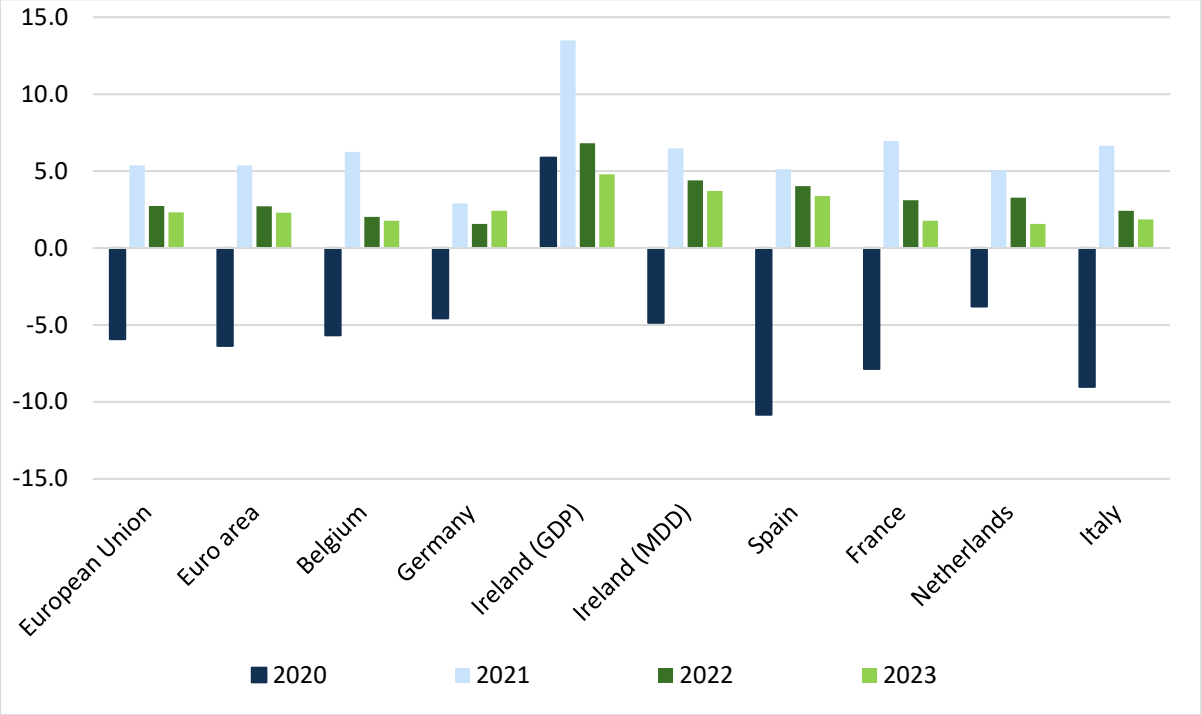
- *Growth outlook lower for 2022 and 2023 than in 2021 but exports holding strong in first quarter.*
- *Persistent increase in inflation and uncertainty due to the war in Ukraine will adversely impact the performance of the domestic economy.*
- *Modified total domestic demand in forecast to increase by 4.4 and 3.7 per cent in 2022 and 2023 respectively.*

While the Irish economy is still set to register positive growth in 2022 and 2023, the expected performance is somewhat more subdued than in 2021. This reflects a number of factors; 2021 saw a very strong rebound in the domestic economy as both consumption and exports rallied with the easing of public health restrictions. As 2021 progressed, global inflationary pressures mounted and the upward trend in both energy and basic foodstuffs has been exacerbated by the conflict in the Ukraine. Increased inflationary pressures have a negative impact on consumption as households are wary of the impact of increased prices, while the uncertainty around inflation and the possibility of a tightening of monetary policy adversely impacts investment decisions by firms. Additionally, the increase in global uncertainty may have negative impact on international trade, with a small open economy such as Ireland's particularly impacted.

Notwithstanding the significant headwinds confronting the global and Irish economies, GDP is set to increase by 6.8 per cent this year and 4.8 per cent in 2023. In the present year, Modified Domestic Demand (MDD) is set to increase by 4.4 per cent in 2022, and 3.7 per cent in 2023. This is somewhat lower than our previous MDD forecasts in the Spring *Commentary* of 5 and 4.5 per cent for 2022 and 2023, respectively.

The latest forecasts by the EU Commission highlights the expected slowdown this year in light of the continued uncertainty around the war in the Ukraine and the related issue of increased inflation. Both the euro area and the European Union are expected to increase by 2.7 per cent in 2022 and 2.3 per cent in 2023. Figure 2 plots the latest set of Commission GDP forecasts for a select set of European countries along with the latest *Commentary* forecasts for the domestic economy for both GDP and modified domestic demand (MDD).

FIGURE 2 IRISH AND SELECT EUROPEAN COUNTRIES GDP AND MODIFIED DOMESTIC DEMAND ACTUAL AND FORECAST ANNUAL RATES OF GROWTH (%): 2020 - 2023



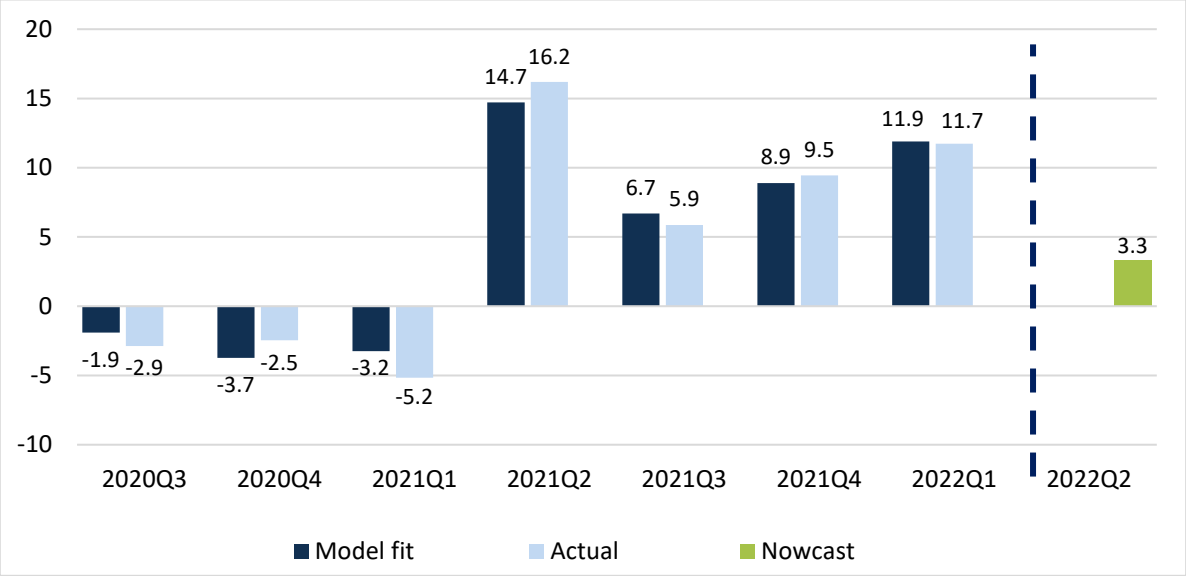
Source: AMECO and *QEC* estimates.

From the graph, it is evident that Irish GDP growth rates in 2021 were significantly greater than other European countries. While the increase in MDD is less significant, it is also one of the largest amongst the growth rates across Europe for 2022 and 2023. This highlights the relatively strong performance of the Irish economy in a European context.

The Nowcasting model (Egan, 2021),[13] currently employed to support the regular forecasting exercise in the *Commentary*, indicates that MDD is expected to grow by 3.3 per cent in Q2 2022 on an annual basis. Given the upward pressure in inflation and downward revision in our consumption forecast, we now anticipate the rate of growth in modified domestic demand to decline over the course of the year and average 4.4 per cent in 2022 relative to 2021. Figure 3 shows the performance of the Nowcasting model compared to actual growth in MDD since Q3 2020.

13 Egan P. (2021). 'Nowcasting Modified Domestic Demand using Monthly Indicators'. Economic and Social Research Institute Working Paper, No. 716.

FIGURE 3 NOWCAST OF MODIFIED DOMESTIC DEMAND FROM Q3 2020 TO Q3 2022



Source: CSO and authors' calculations.
Note: Nowcast figures for Q2 2022 include data available through 9 June 2022.

DEMAND

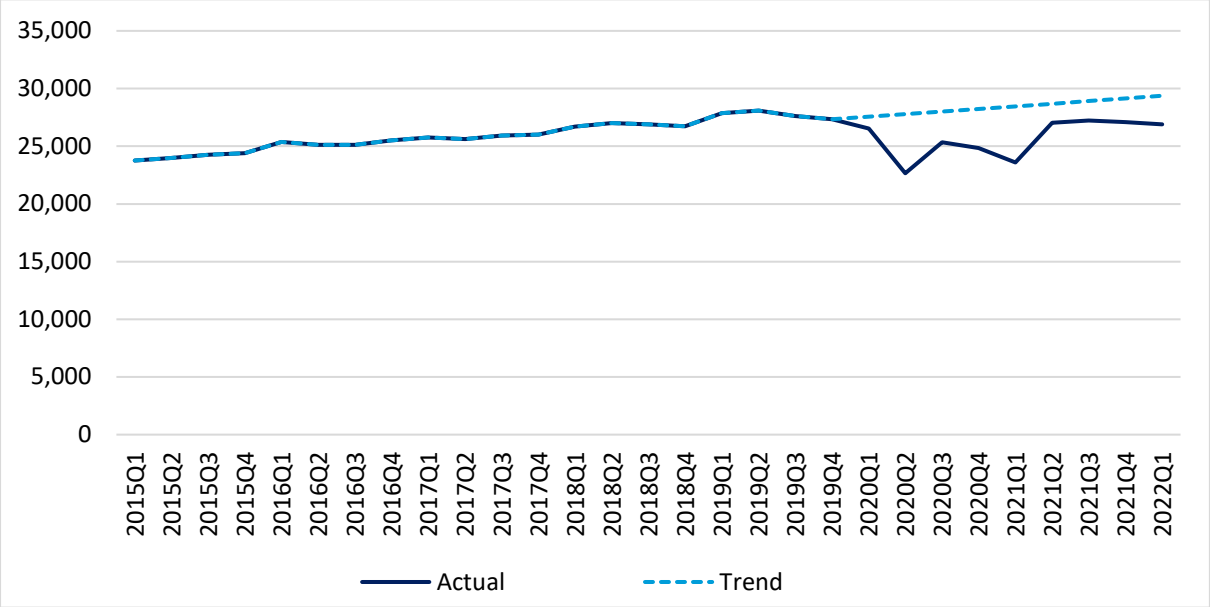
Key Points

- *Household consumption increased in the first quarter of 2022 relative to that of Q1 2021. However, this reflects the low spending in Q1 2021 due to public health measures.*
- *Consumer sentiment is declining due to higher levels of inflation and the uncertainty caused by the ongoing war in Ukraine.*
- *Greater uncertainty is likely to slow spending growth through 2022 and increase precautionary savings amongst certain households.*
- *Despite the headwinds, we expect consumption to grow at 4.6 per cent for 2022 as the economy normalises from the pandemic period.*

Figure 4 presents the quarterly level of personal expenditure on consumer goods and services for the period Q1 2015 to Q1 2022. To contextualise the impact of the pandemic on the overall level of household spending, included in Figure 4 is a linear trend which extrapolates the Q4 2019 level of consumption using the average quarter-on-quarter growth rate over the period 2015-2019 (approximately 0.8 per cent).

Despite the robust recovery in 2021, the level of household expenditure remains below what may have been expected had the economy continued to grow in line with pre-pandemic trends. Although personal expenditure on consumer goods and services was down 0.7 per cent on a quarterly basis, the year-on-year growth rate in Q1 2022 was 14 per cent. However, consumption levels in Q1 2021 were adversely impacted by ongoing public health restrictions during this period.

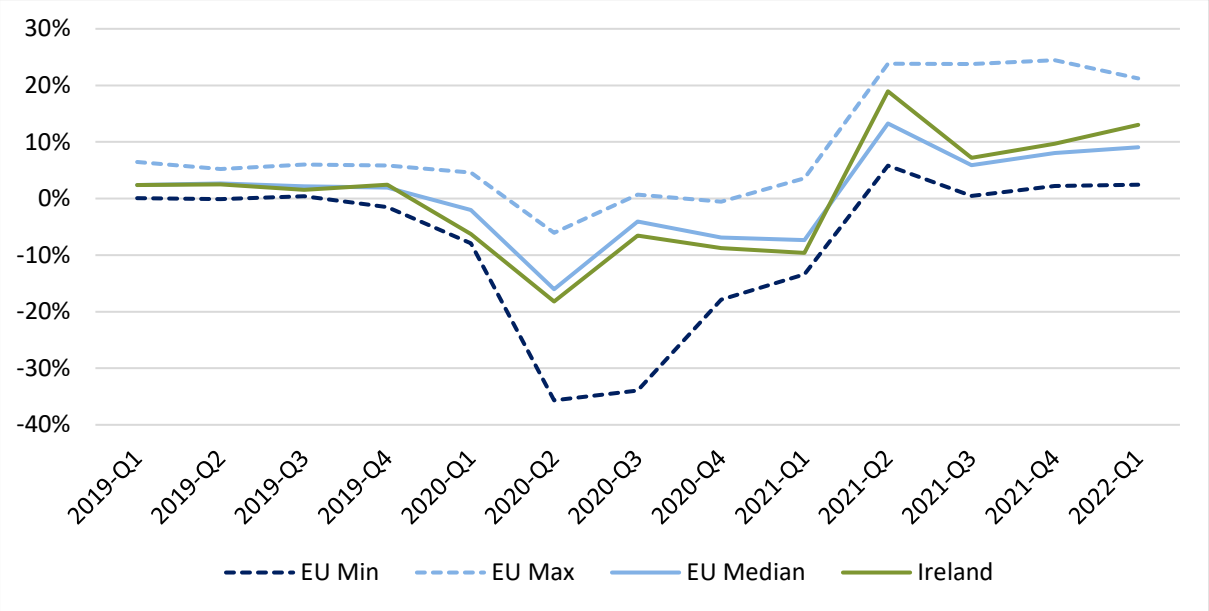
FIGURE 4 QUARTERLY PERSONAL EXPENDITURE ON CONSUMER GOODS AND SERVICES – CONSTANT MARKET PRICES AND SEASONALLY ADJUSTED – LEVELS (€)



Source: CSO and authors' calculations.

The annual change in the volume of final consumption expenditure of households (index 2015 = 100) in Ireland in a comparative European context is presented in Figure 5. For the present year, in Q1 2022, Ireland's annual growth rate was 13 per cent, while the median for European countries was 9 per cent. This likely reflects the relative difference in public health restrictions applying across the different jurisdictions throughout 2021.

FIGURE 5 **QUARTERLY FINAL CONSUMPTION EXPENDITURE OF HOUSEHOLDS – GROWTH RATES – YEAR-ON-YEAR EUROPEAN COMPARISON (SEASONALLY AND CALENDAR ADJUSTED)**



Source: Authors' calculations using Eurostat data.

A further lens into the drivers of household expenditure in April 2022 in Ireland can be gleaned from the volume of retail sales data. The volume of total retail sales, which is highlighted in the monthly overall retail sales data (Panel A Figure 6), was up 6 per cent annually in April 2022. In the same month, the volume of sales in bars increased 24 per cent since March 2022. On an annual basis, the volume of bar sales was up a significant 532 per cent, although this is due to low base effects in 2021. Despite this growth, the volume of bar sales remains below pre-COVID levels, down 24 per cent when compared with February 2020.

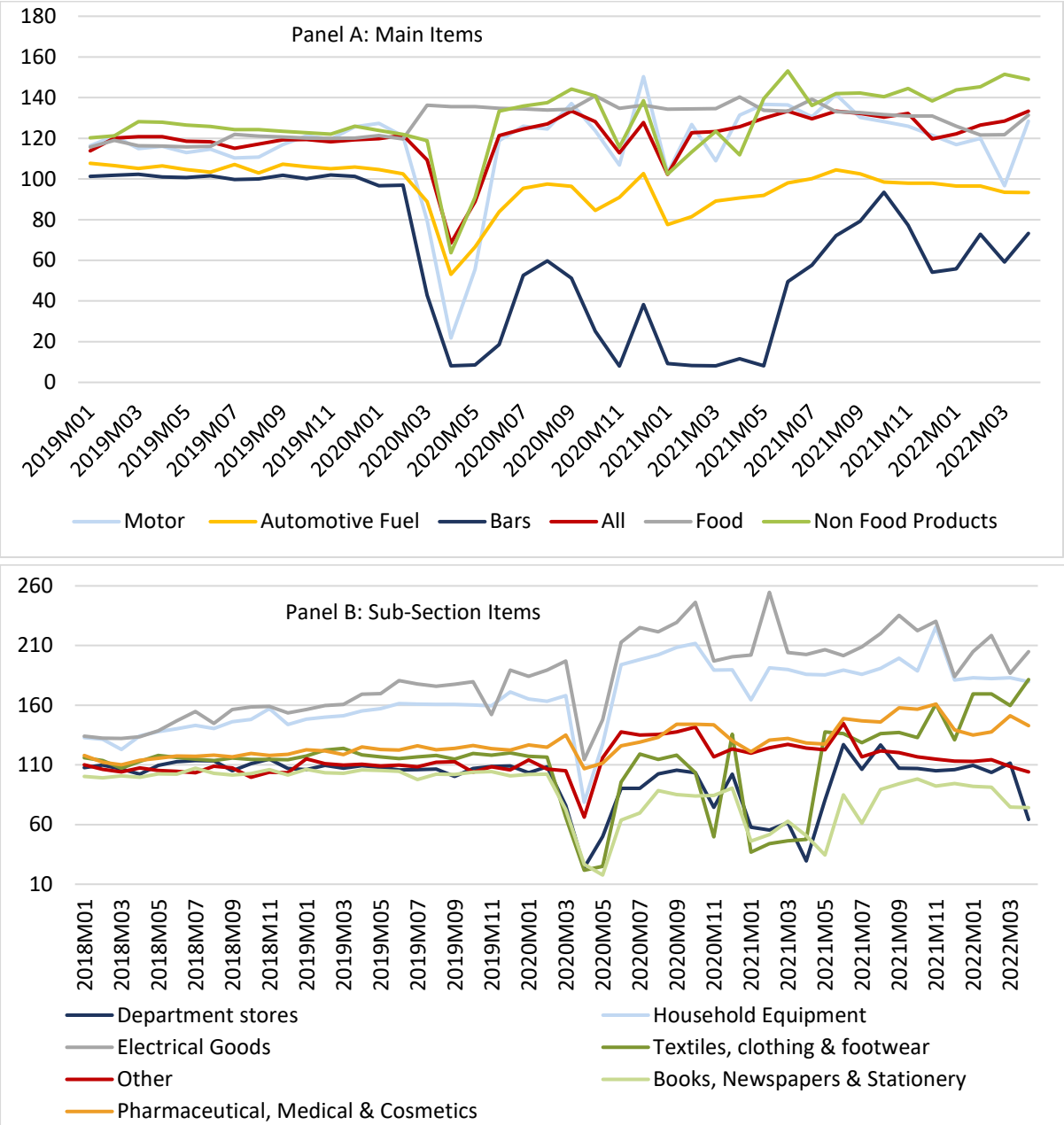
While there was a sharp drop in the volume of motor sales in March 2022, the volume of sales in April 2022 was up 33 per cent monthly. A gradual decrease in the volume of automotive fuel sales can be seen from August 2021 in Panel A Figure 6; this slowdown in spending is likely due to higher energy prices, as well as increased prices in other commodities. For example, the value of sales of automotive fuel is up 30 per cent annually since April 2021, as seen in Figure 7, which visualises the value of automotive fuel and food sales. A further acceleration of energy price inflation is likely, given the invasion of Ukraine by the Russian Federation.

As mentioned in Box B of this *Commentary*, global food prices are forecast to continue to experience high inflation, particularly as the war in Ukraine continues. From January to May, food prices in Ireland have increased 2.8 per cent on an annual basis. The volume of food sales, which remained steady throughout 2021,

declined 6 per cent April 2022 compared to April 2021 (Figure 6, Panel A). Meanwhile, the value of food sales increased 8 per cent from March 2022 (Figure 7).

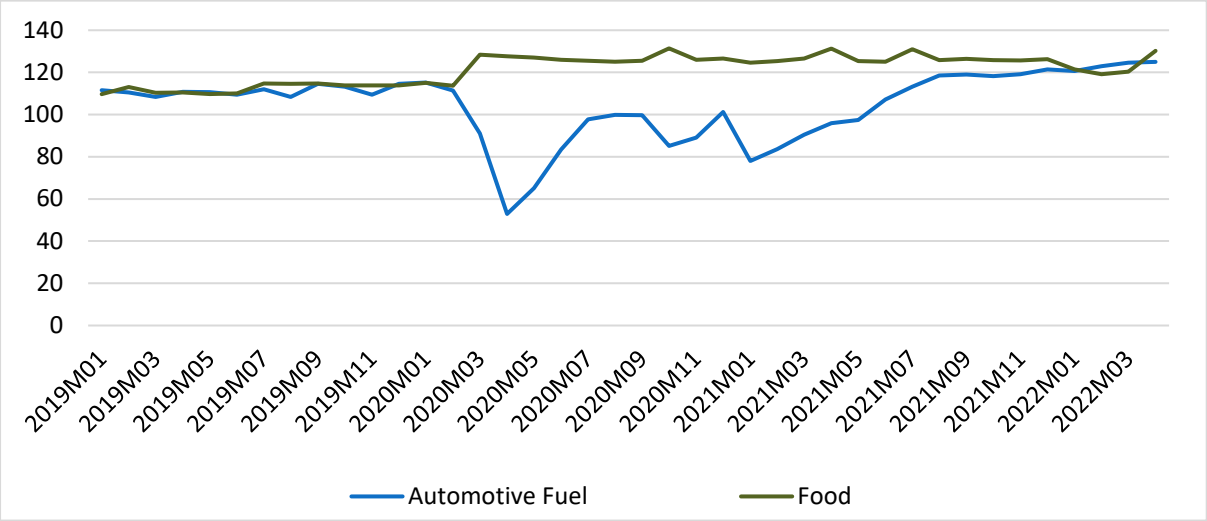
Despite its decline of 42 per cent in the volume of monthly sales, department store expenditure was up 117 per cent annually, which is visualised in Panel B Figure 6. Similarly, the volume of retail sales on items like textiles, clothing and footwear was up 281 per cent annually. In the same period, the volume of retail sales of books, newspapers, and stationery expenditure increased 46 per cent.

FIGURE 6 RETAIL SALES INDEX: VOLUME ADJUSTED (BASE 2015 = 100)



Source: Central Statistics Office.
Note: Retail Sales Index Volume Adjusted data (based 2015 = 100).

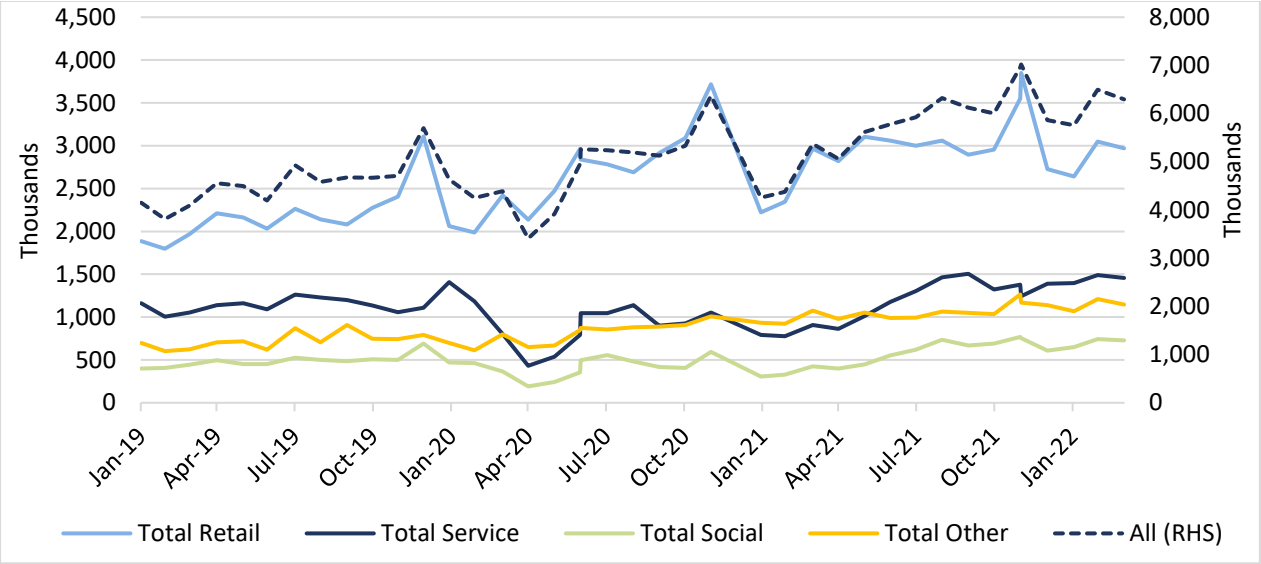
FIGURE 7 RETAIL SALES INDEX: VALUE ADJUSTED (BASE 2015 = 100)



Source: Central Statistics Office.

Total expenditure on personal credit and debit cards,[14] as shown in Figure 8, has continued to grow throughout 2022, with the year-on-year growth rate at 24 per cent. Service and social credit card expenditures are up 69 and 82 per cent on an annual basis, respectively.

FIGURE 8 TOTAL EXPENDITURE FROM PERSONAL CREDIT CARD + DEBIT CARD DATA (NOMINAL €, NON-SEASONALLY ADJUSTED)



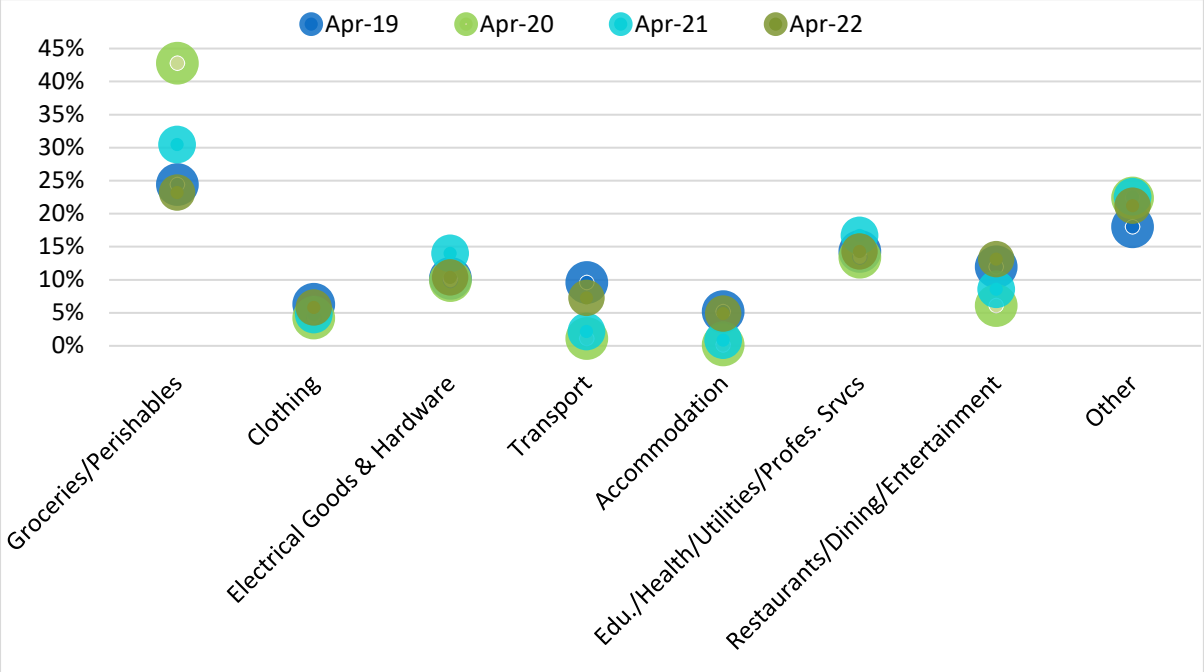
Source: Central Bank of Ireland.

[14] Note that credit card and debit card expenditure does not include cash expenditure, and therefore is not reflective of the overall expenditure in the economy, just a part of it.

Given that credit and debit card data are nominal and non-seasonally adjusted, some expenditure patterns may be attributed to changing price levels and seasonality.

One important aspect of the recovery in household expenditure is the degree to which spending patterns have changed through the pandemic. To gain a more granular insight into the recovery trends, Figure 9 presents the share of expenditure in different categories for April 2019, 2020, 2021, and 2022. The share of expenditure from debit and credit cards on groceries was lowest in April 2022 and was at its highest rate in April 2020. The share of card expenditure on electrical goods and hardware was highest in April 2021 and has since returned to its pre-pandemic levels. In addition, the share of card expenditure on transport and accommodation in April 2022 appears to be returning to its 2019 level. This highlights the degree to which consumption patterns have begun to normalise after the pandemic.

FIGURE 9 SHARE OF EXPENDITURE FROM CREDIT CARD (PERSONAL) + DEBIT CARD DATA IN 2019, 2020, 2021, 2022 (NOMINAL, NON-SEASONALLY ADJUSTED)

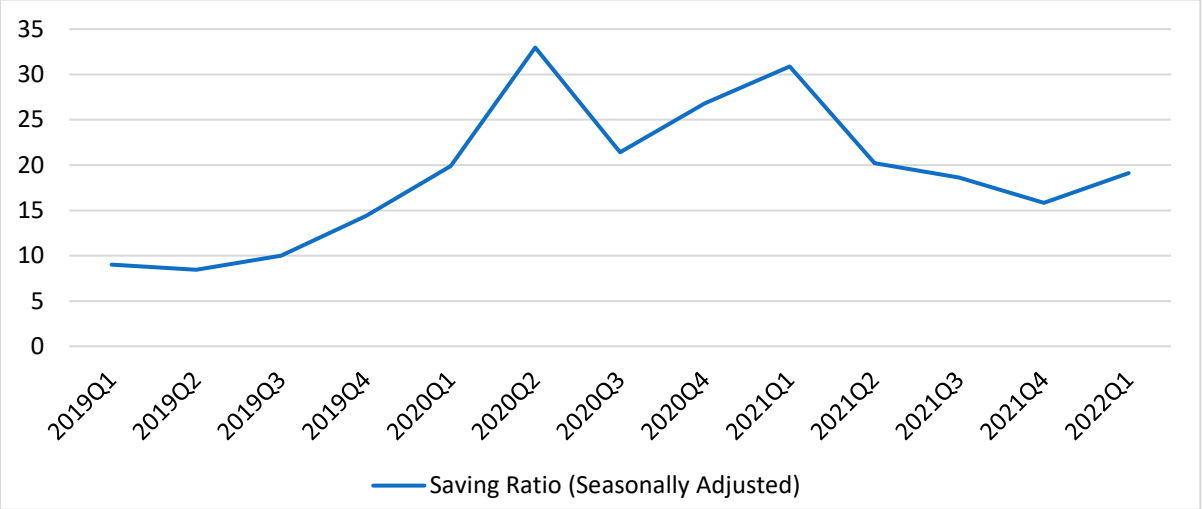


Source: Central Bank of Ireland.

A notable feature of the pandemic has been a marked increase in the savings ratio (the share of disposable income diverted into savings). Figure 10 depicts the savings ratio for households in Ireland (seasonally adjusted) from 2019 to 2022. It is clear Irish households increased their savings ratio dramatically over the pandemic. Since Q1 2021, the savings ratio has declined as the initial pandemic effects have waned. However, in Q1 2022, the savings ratio increased by 21 per

cent in one quarter. This is likely in response to the growing uncertainty around the war in Ukraine, and the effect it will have on prices, which could lead households to reduce their consumption and increase their savings.

FIGURE 10 SAVINGS RATIO – IRELAND

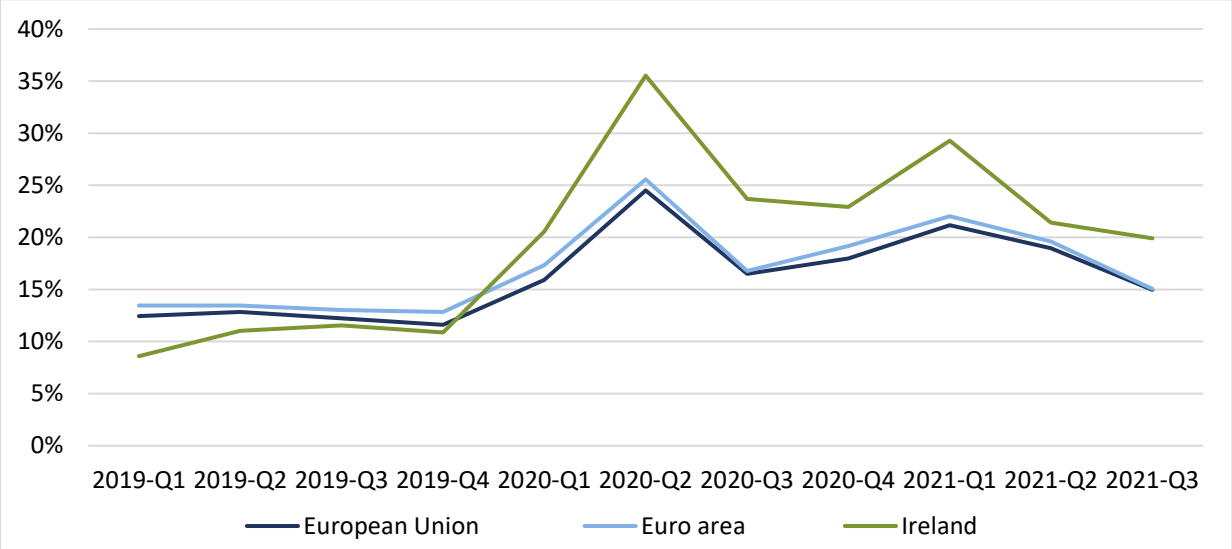


Source: Central Statistics Office.

Figure 11 shows the savings ratio for Ireland, the European Union[15] and the euro area[16] up to Q3 2021.[17] Since the onset of the pandemic, Ireland has had a higher savings ratio than both the EU and the euro area. In Q3 2021, Ireland's savings ratio was 83 per cent higher relative to its pre-pandemic level in Q4 2019.

15 27 countries (from 2020).
16 19 countries (from 2015).
17 Data only available up until Q3 2021 for Ireland with Eurostat.

FIGURE 11 SAVINGS RATIO – IRELAND AND THE EU (%, SEASONALLY AND CALENDAR ADJUSTED)



Source: Authors' calculations using Eurostat.

How households use these higher savings is going to significantly influence the pace of economic growth in the short- to medium-term. For households who are saving, the following choices are available: a) continue saving; b) increase expenditure on non-durable goods and services (such as holidays and recreation); c) purchase durables (such as cars); or d) invest these funds for example into financial assets or housing (either through improvements or new purchases) or clearing debt.

To gain some insight into the preferences of Irish households in this regard, we can draw on the European Commission Consumer Sentiment Survey which provides information on expectations of the propensity to make large purchases on a) cars and other motor vehicles; b) house purchase; and c) home improvements, over the next 12 months. The figures in index form (Q1 2020 = 100) are presented for Ireland and the EU for each item in Figure 12. Households' intentions to buy a home peaked in Q1 2021 and has fluctuated since, reflecting the challenging nature of house purchasing in Ireland. In the recent quarter, intentions of purchasing a home in Ireland increased 8 per cent quarter-on-quarter, while intentions in the EU fell by 9 per cent. In contrast, households' intentions to carry out home improvements have fallen in recent months (down 11 per cent since last quarter). Households' intentions of buying a car have gradually fallen since the onset of the pandemic.

FIGURE 12 EXPENDITURE EXPECTATIONS

Source: European Commission.

Given the heightened degree of uncertainty and increased cost of living associated with the war in Ukraine, households could attempt to save rather than spend (i.e. engage in precautionary savings). However, in this case, essential items, such as fuel and other inelastic products, are experiencing large inflationary pressures. Thus, notwithstanding the price increases, households are likely to continue to purchase such items. More likely, considering the tighter financial situation Irish households might find themselves in, households may wish to use their savings to smooth consumption over time. Indeed, these inflationary pressures are likely to disproportionately affect lower income households who spend a higher share of their budget on food and energy items, both in Ireland and globally (IMF, 2022).[18]

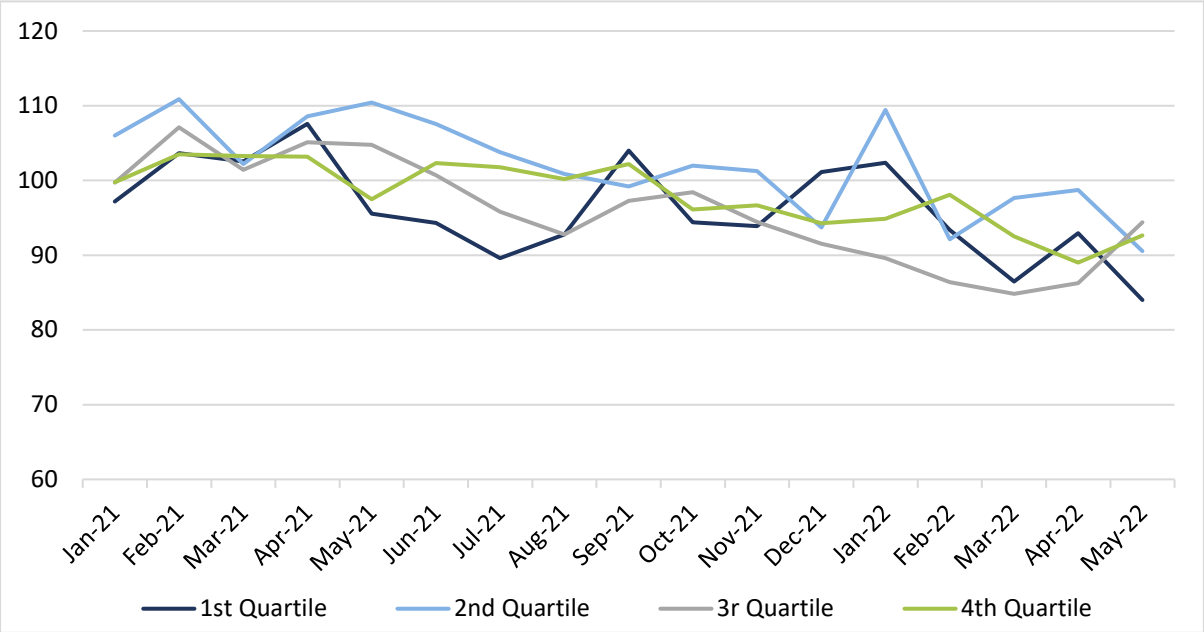
To look at the expected savings activity over the next 12 months for households in different quartiles of the income distribution, Figure 13 uses monthly data on

[18] https://www.imf.org/en/News/Articles/2022/03/05/pr2261-imf-staff-statement-on-the-economic-impact-of-war-in-ukraine.

different income quantiles in Ireland from January 2021 to May 2022. In May 2022, the first quantile (lowest income) of Irish households expected to save 10 per cent less in the next 12 months than they expected a month previously. In addition, since the start of the year, their expectations have dropped 18 per cent. The second quantile follows close behind, with a drop of 8 per cent in their savings expectations since April 2022 and 17 per cent since the start of the year. In contrast, the third and fourth quantile's expectations has increased by 9 per cent and 4 per cent, respectively, since last month (April 2022).

Recent movements in savings may reflect the impact of the higher cost of living and uncertainty following the Ukrainian crisis; higher income households may be increasing their savings due to the precautionary motive, while lower income households may be reducing savings due to greater expenditure on basic food stuff and energy.

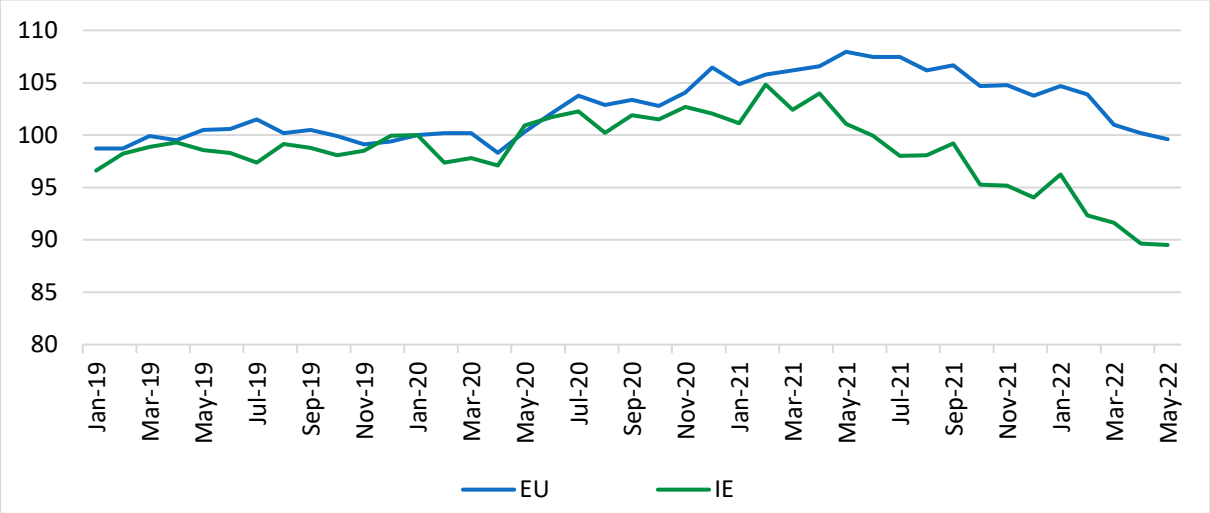
FIGURE 13 SAVINGS OVER THE NEXT 12 MONTHS BY INCOME GROUPS (INDEX JAN 2020 = 100)



Source: European Commission.

Figure 14 shows the overall saving expectations of the EU and Ireland. In general, Irish households have worse expectations about how much they will be saving in the coming year compared to the EU. This possibly highlights Ireland's particular vulnerability, as a small open economy, to growing uncertainty in international economic conditions.

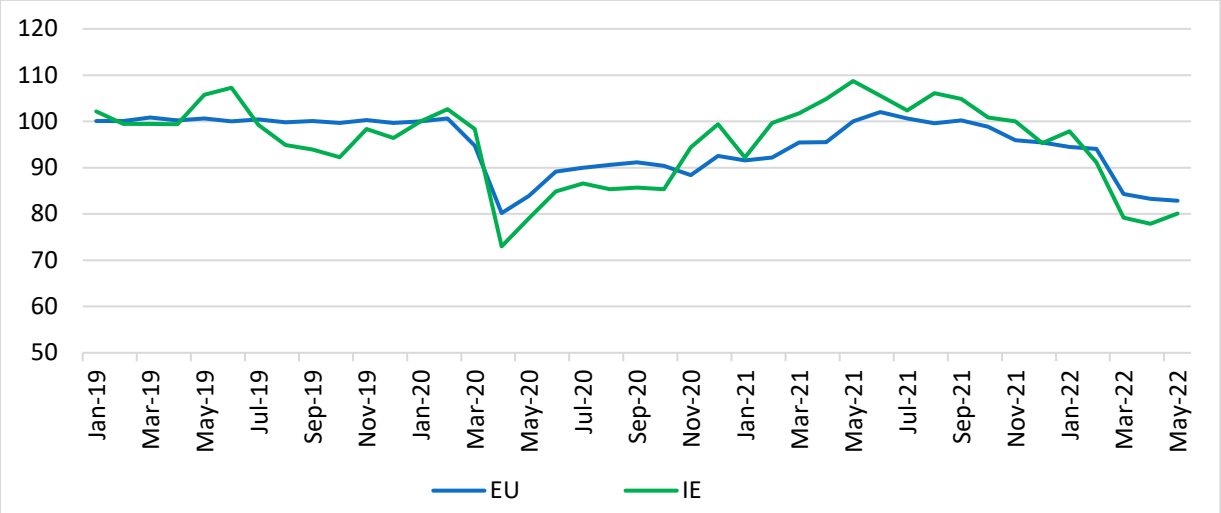
FIGURE 14 SAVINGS OVER THE NEXT 12 MONTHS



Source: European Commission.

A major conflict such as that now ongoing in the Ukraine leads to a substantial escalation in global uncertainty levels, which will likely dampen consumer confidence. Looking at the Consumer Confidence Indicator (January 2020 = 100) in Figure 15 we can compare the consumer confidence in Ireland and the EU. Irish consumer confidence has fallen 26 per cent in May 2022 year-on-year, although it saw a small upturn of 3 per cent when compared to April 2022. Since the beginning of the year, Ireland's consumer confidence is down 18 per cent. Explanations for this large drop in sentiment is likely stemming from the war in the Ukraine, which began in February 2022, as well as the fact that inflationary pressures are somewhat larger in Ireland than they are in the rest of the euro area, due to the relatively strong pace of Irish economic growth.

FIGURE 15 CONSUMER CONFIDENCE INDICATOR



Source: European Commission.

Consumption forecasts

While the first quarter of 2022 showed increases in consumption relative to Q1 2021, this growth is softening due to lower consumer sentiment. This drop in sentiment is caused by the geopolitical conflict in Ukraine, as consumption decisions are adversely impacted by the greater levels of uncertainty associated with the conflict and the expected increase in inflation which is already occurring. In particular, energy and food prices are set to increase above what was previously expected.

We expect consumption to grow by 4.6 per cent in 2022 and by 3.8 per cent in 2023. The reason for the positive growth in the face of such uncertainty is twofold; first increases in consumption will continue to rebound after the pandemic as expenditure levels normalise in the absence of public health measures. Secondly, we are assuming that household savings, which have been accumulated by households during the last two years, will help households to smooth their consumption. However, if both inflationary pressures and uncertainty persist, then households will be more likely to engage in precautionary savings and hence consume less than was previously expected.

TRADED SECTOR

Key Points

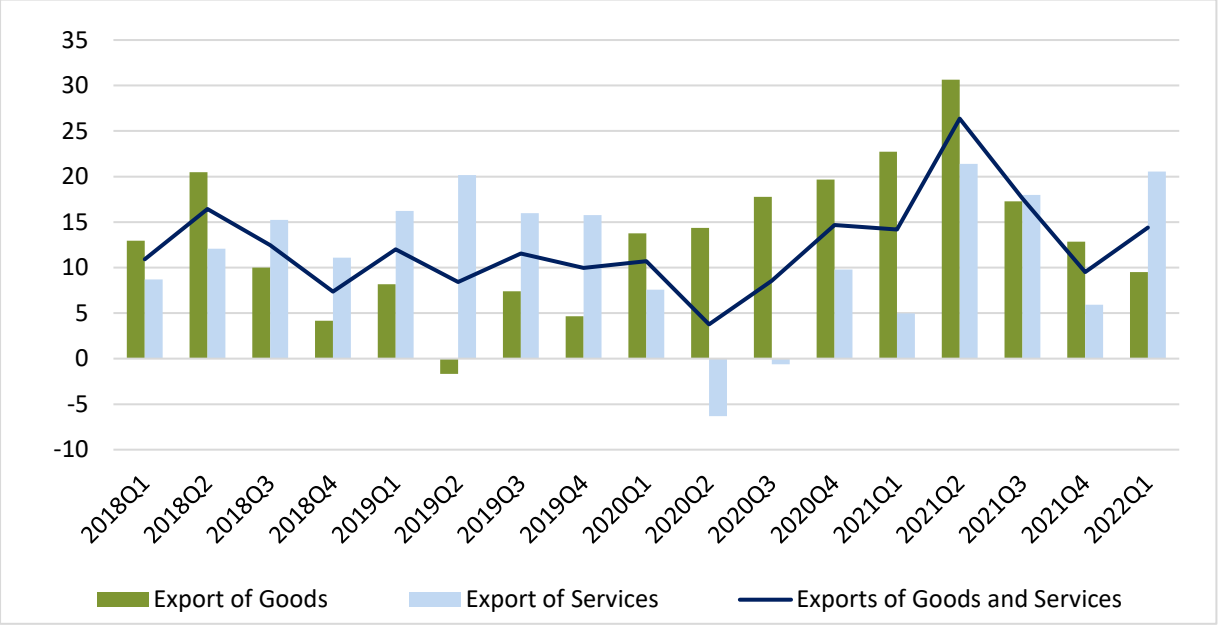
- *Irish net exports were €53.3 billion in Q1 2022.*
- *Exports grew by 5.2 per cent in Q1 2022 compared to Q4 2021 on a seasonally adjusted basis and increased by 14.4 per cent year-on-year.*
- *Seasonally adjusted imports declined 12.3 per cent on a quarterly basis in Q1 2022 as a consequence of a decline in service imports. On an annual basis, imports increased 19.5 per cent.*

Import and Export Activity

The robust performance of the export sector was the main contributory factor to economic growth throughout the pandemic. In 2021, exports experienced growth of 16.6 per cent relative to 2020 while imports declined by 3.6 per cent. Export growth has continued in the first quarter of 2022 (+14.4 per cent year-on-year and 5.2 per cent quarter-on quarter) while imports have rebounded considerably from Q1 2021. The joint impact of these changes was to increase Irish net exports to €53.3 billion in Q1 2022.

Figure 16 shows the annual growth rate in Irish exports by quarter. In Q1 2022, export growth was driven primarily by a surge in services exports, which grew 20.6 per cent compared to Q1 2021. Meanwhile, goods exports experienced continued growth of 9.5 per cent over the same period.

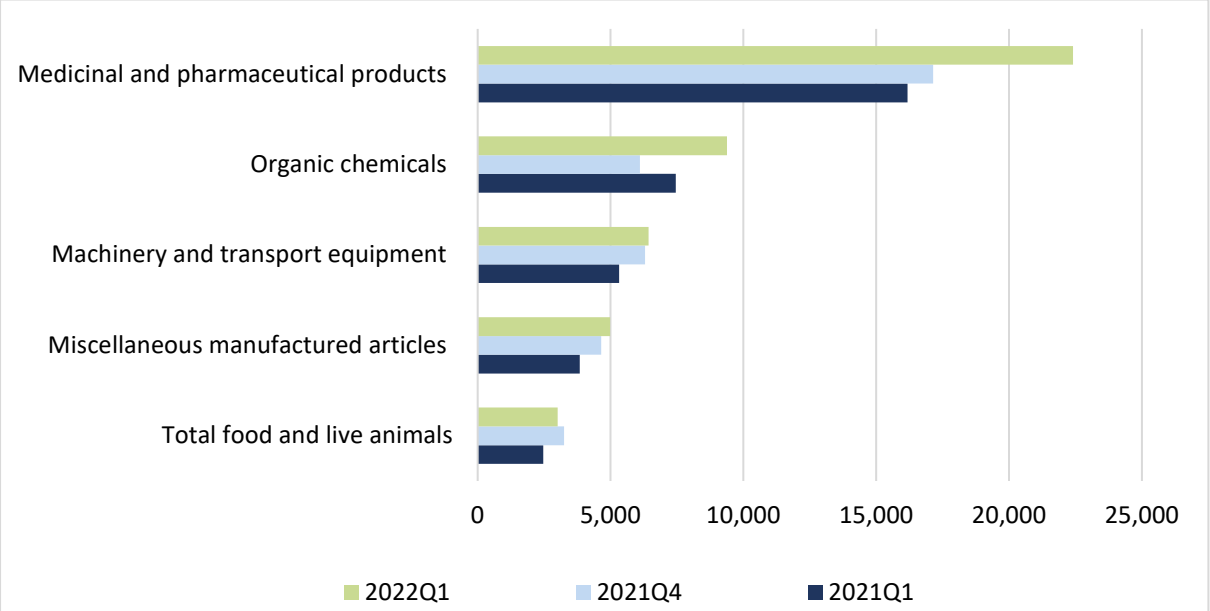
FIGURE 16 SEASONALLY-ADJUSTED EXPORTS (VOLUME, YEAR-ON-YEAR %)



Source: Central Statistics Office, Quarterly National Accounts.

Goods exports in Q1 2022 grew on an annual basis across all major commodity groups. The 'chemicals and related products' commodity group is the largest contributor to the value of goods exports, accounting for 61.8 per cent (€35.2 billion) of total exports. The two most significant commodities in this group, medicinal/pharmaceutical products and organic chemicals, grew on both a quarterly and annual basis in Q1 2022 (Figure 17). Machinery and transport equipment also grew 20.8 per cent per annum and 2.2 per cent per quarter. Exports of miscellaneous manufactured articles also increased on both an annual and quarterly basis (+29.7 per cent and +7.4 per cent), while total food and live animal exports increased annually but declined on a quarterly basis (+22.0 per cent and -7.4 per cent). The continued growth in exports across a variety of commodity groups in the first quarter of 2022 reflects the strong global demand for Irish export products, in particular those in the multinational-dominated areas.

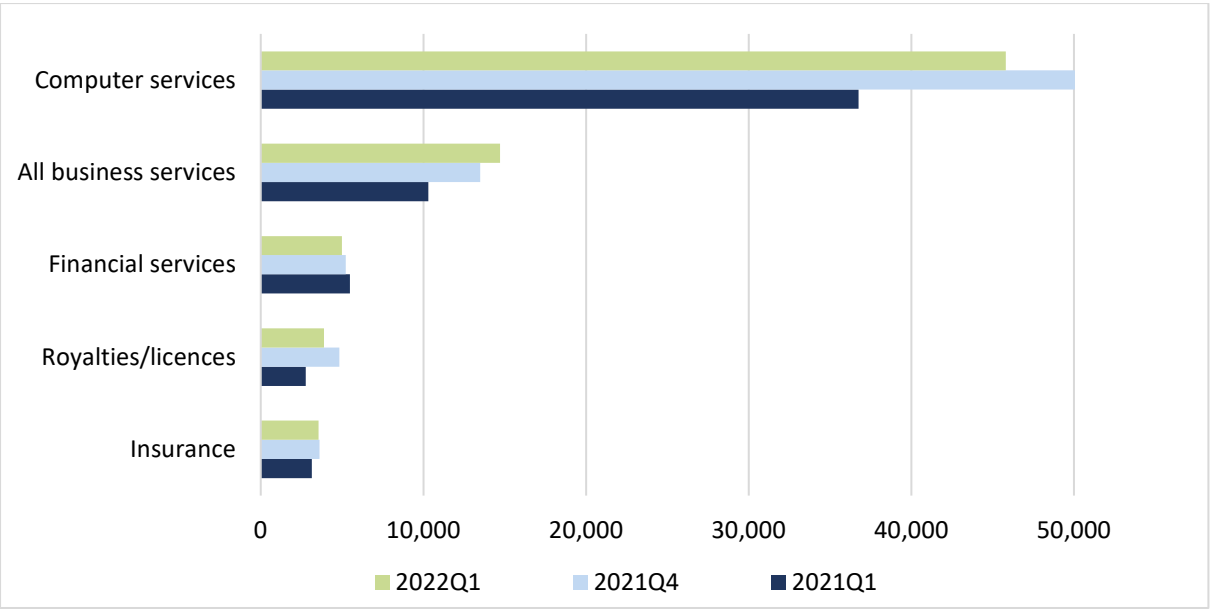
FIGURE 17 GOODS EXPORTS BY COMMODITY GROUP (VALUE, € MILLION)



Source: Central Statistics Office.

Service exports increased considerably from Q1 2021. Computer services, which account for nearly 60 per cent of total service exports, increased 24.7 per cent from Q1 2021 but declined 8.5 per cent from Q4 2021. Business services increased on a quarterly and annual basis (+9.1 per cent and +42.9 per cent, respectively). Exports of financial services, which had grown considerably in 2021, declined 4.9 per cent from Q4 2021 and 9.3 per cent from Q1 2021.

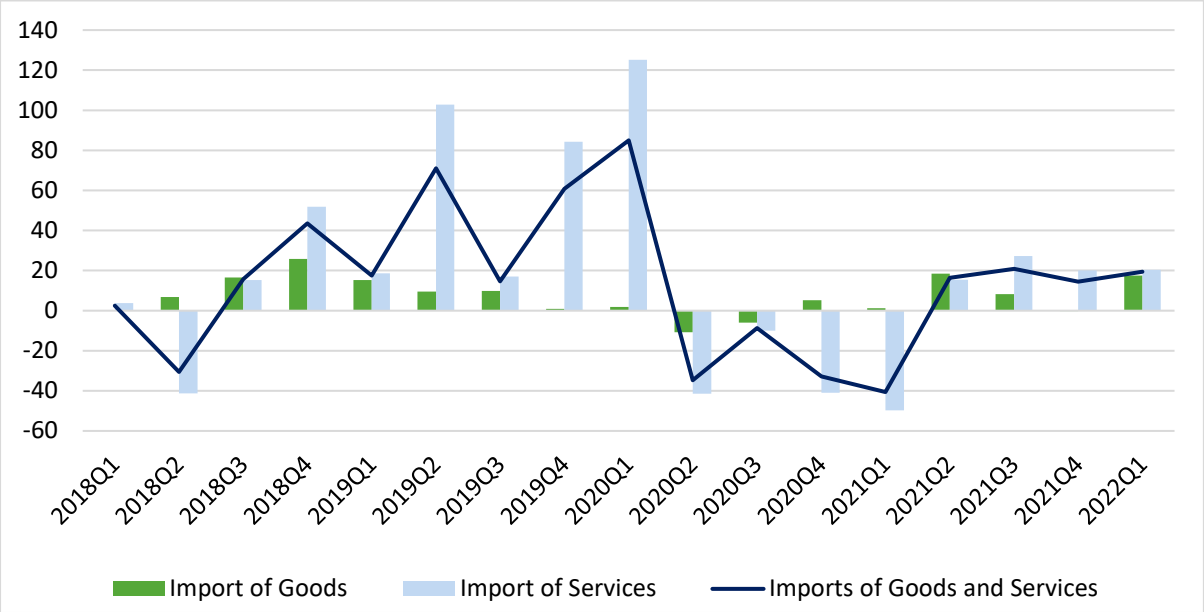
FIGURE 18 SERVICE EXPORTS BY COMPONENT (VALUE, € MILLION)



Source: Central Statistics Office, Current Account: Merchandise and Services.

The value of imports rebounded strongly from 2021, as the end of public health restrictions contributed to increased demand for goods and services. Imports of goods and services increased 19.5 per cent from Q1 2021 to Q1 2022, with imports of goods up 17.5 per cent and imports of services up 20.4 per cent over this period. This increase largely reflects the impact of base effects, as imports in Q1 2021 were down 40.6 per cent on an annual basis because of COVID-related restrictions.

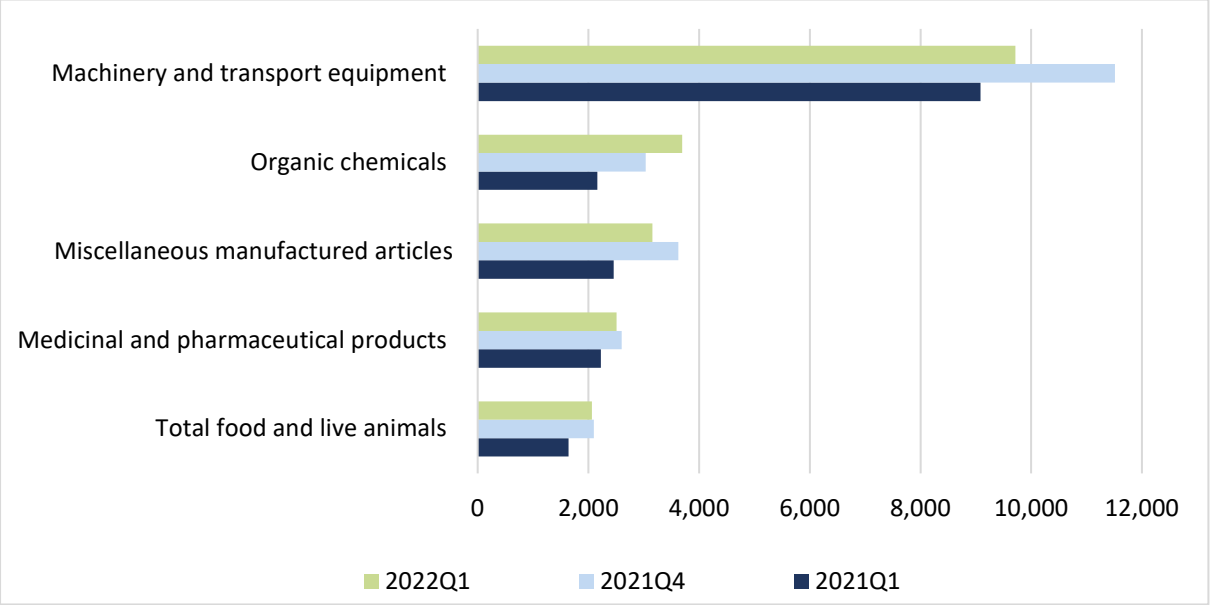
FIGURE 19 SEASONALLY-ADJUSTED IMPORTS (VOLUME, YEAR-ON-YEAR %)



Source: Central Statistics Office.

On an annual basis, goods imports increased across all major commodity groups in Q1 2022. Machinery and transport equipment, which accounts for the largest share of goods imports (33.3 per cent), increased 6.9 per cent over this period (Figure 20). On a quarterly basis, however, several commodity groups experienced significant declines. Machinery and equipment declined 15.6 per cent while miscellaneous manufactured articles declined 12.9 per cent. The drop in imports of large manufacturing items mirrors the significant decline in investment activity experienced in the first quarter of 2022 (for example R&D investment dropped 65 per cent between Q4 2021 and Q1 2022).

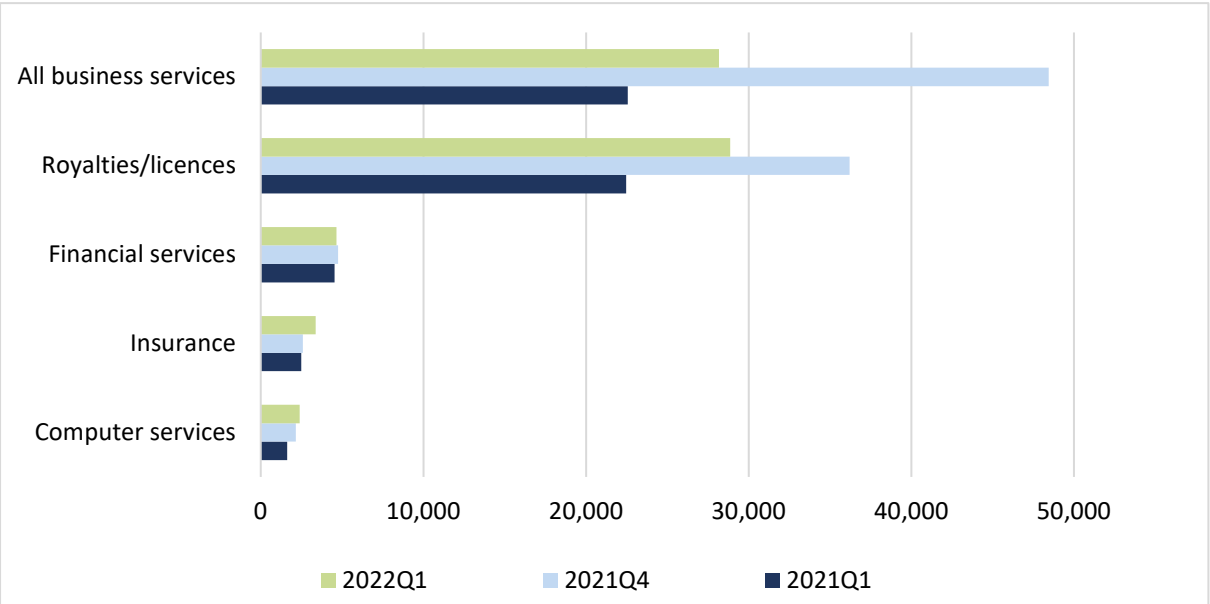
FIGURE 20 GOODS IMPORTS BY COMMODITY GROUP (VALUE, € MILLION)



Source: Central Statistics Office.

Similar to goods imports, service imports increased across all commodity groups on an annual basis in Q1 2022 (Figure 21). Imports of computer services and insurance increased considerably over this period (47.1 per cent and 35.1 per cent, respectively).

FIGURE 21 SERVICE IMPORTS BY COMMODITY GROUP (VALUE, € MILLION)



Source: Central Statistics Office.

Components of Export Growth

In order to quantify export activity in which the supplier of a good or service is located within Ireland and the recipient is located abroad, a number of globalisation and financial activities must be removed. Activities such as merchanting, contract manufacturing, and other adjustments involve a change of ownership or purchases abroad.[19] These activities, along with research and development (R&D), leasing, and royalties and licensing are strongly tied to financial activities of multinational firms and therefore should be assessed separately from other trade activities. In order to more clearly understand trends in Irish exports, we separate exports into two main categories: 'Globalisation and financial activities' which accounts for the aforementioned accounts as well as 'adjusted export activity'[20] in which these accounts are removed from all other export activity.

Figure 22 shows the share of 'Adjusted' exports compared with that of 'Globalisation and financial' exports (Globalisation activities and adjustments; R&D and leasing; and Royalties and licensing). Since Q1 2019, Globalisation and financial activities have accounted for roughly one-quarter of total exports. The corresponding annual growth rates in Figure 22 highlight the volatility associated with the financial activities of multinationals as opposed to the relatively more predictable performance of the adjusted export sector. While the latter declined notably at the onset of the pandemic in Q2 2020, it has experienced steady growth since, increasing 26.9 per cent in Q1 2022. The steady growth of adjusted exports mirrors the real activities of the Irish economy but in particular the strength of exports from the multinational sector such as computer services, pharmaceuticals and chemical products.

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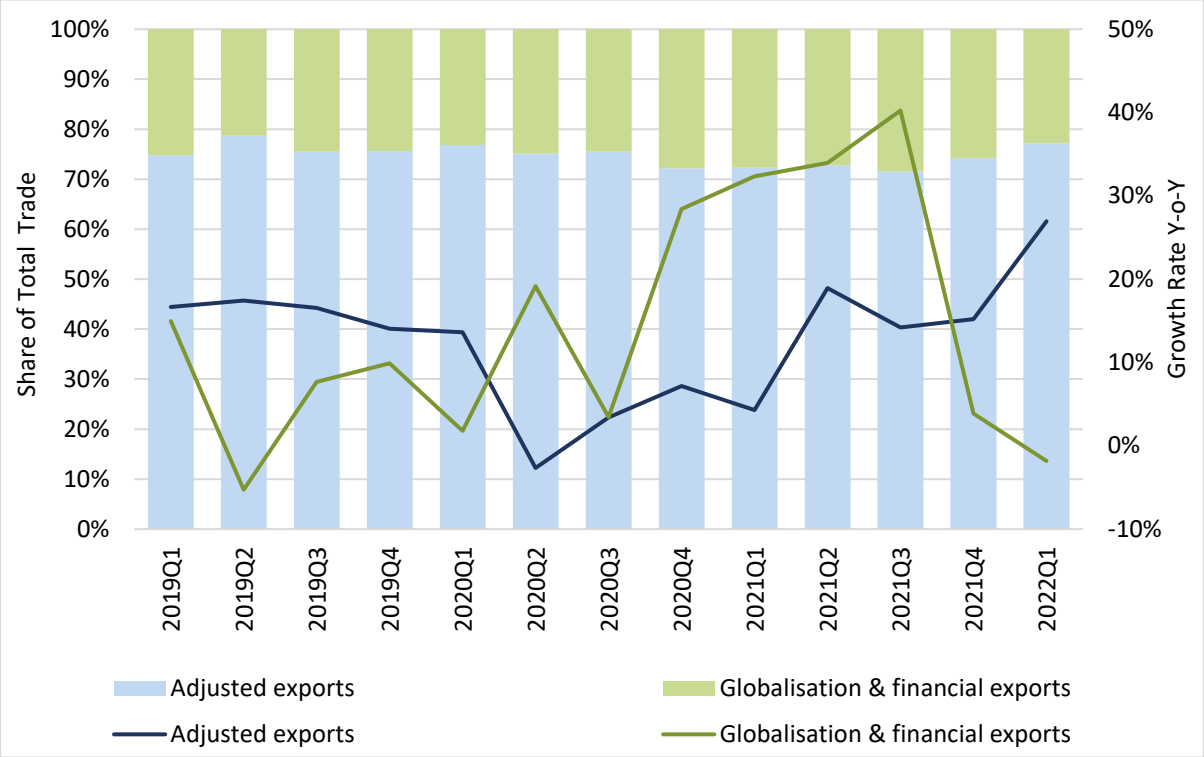
19 Details provided by the CSO can be found here: *Explaining Goods Exports and Imports 2012-2016* - CSO - Central Statistics Office.

20 Current account exports included in our measure of adjusted activity include: International trade, Repairs and processing, Transport, Tourism and travel, Communications, Insurance, Financial services, Computer services, Other services not elsewhere stated, and Business services other than research and development.

FIGURE 22 EXPORT GROWTH BY COMPONENT (YEAR-ON-YEAR %)

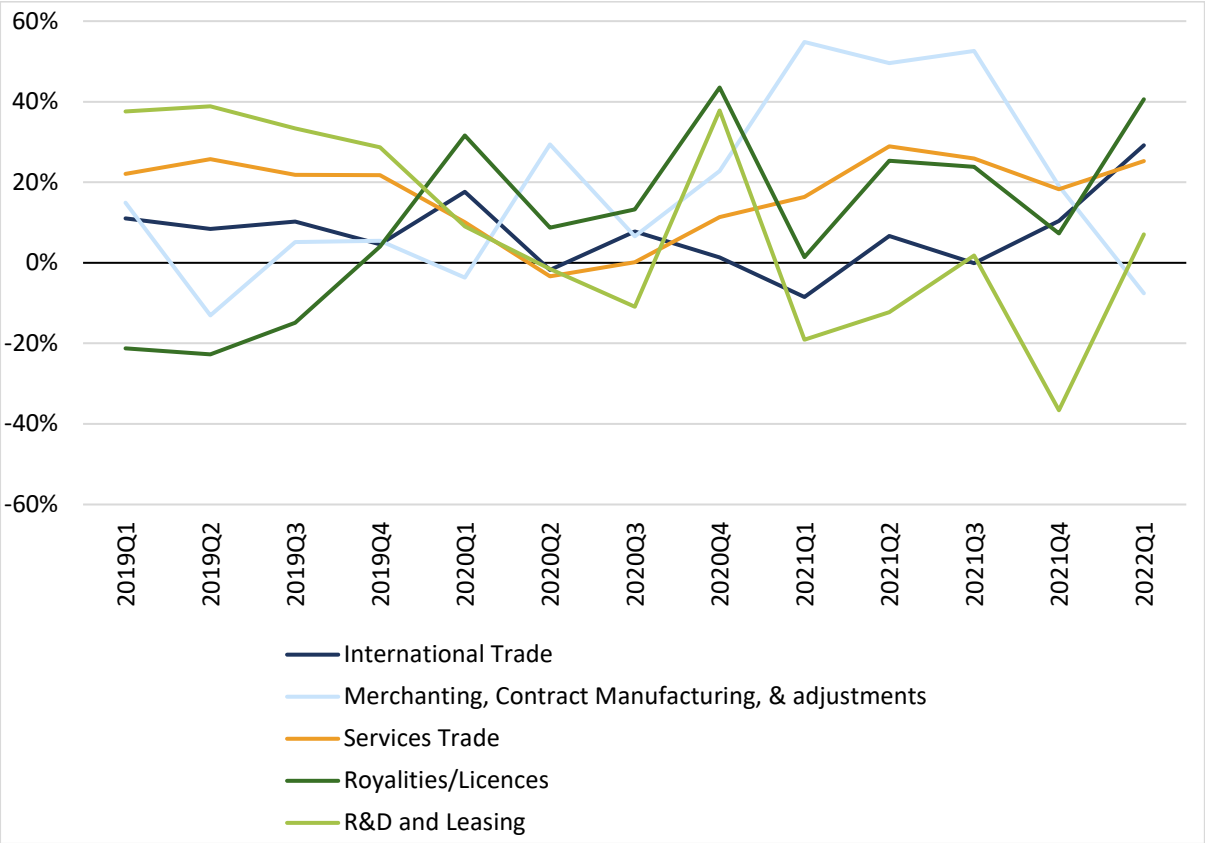


Source: *QEC* calculations using data from the Central Statistics Office.

It is useful to see the main components driving the changes in adjusted and globalisation and finance-related exports. Both Services and International trade, the main components of 'adjusted' export activities, increased in the first quarter of 2022 (Figure 23).

The decline in exports related to Merchanting, contract manufacturing and adjustments contributed to the decline experienced overall in financial activities in Q1 2022. Exports in this account declined 7.6 per cent, while those related to Royalties and licenses increased over 40 per cent in the same period. Exports related to R&D and leasing also increased in Q1 2022 (+7.0 per cent).

FIGURE 23 EXPORT GROWTH BY COMPONENT (YEAR-ON-YEAR %)



Source: *QEC* calculations using data from the Central Statistics Office.

Brexit and Trade

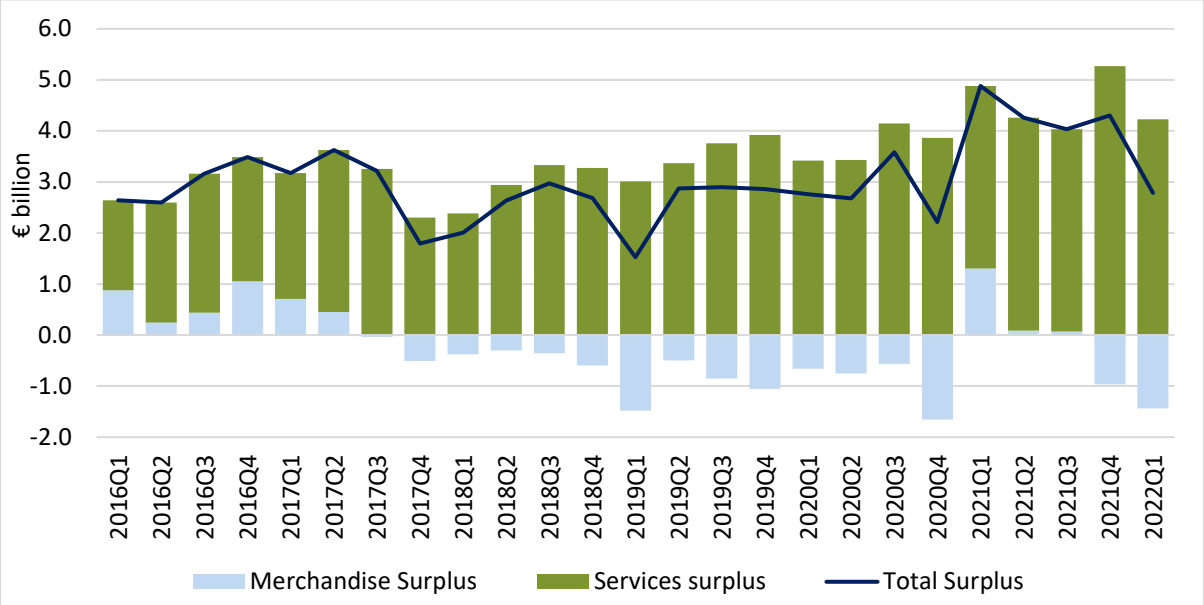
Irish trade has been strongly affected by the ongoing negotiations and implementation of the Trade and Cooperation Agreement between the UK and the EU. Non-tariff barriers such as licensing, labelling and rules related to health and food safety have been implemented although asymmetries in Customs checks in cross-border trade is reflected in the trade data presented in this *Commentary.* Since January 2020, goods from the UK to the EU have been required to comply with new procedures and import requirements of EU Member States. Meanwhile, imports from the EU to the UK have not been met with the same stringency, as full Customs checks in the UK were not implemented in 2021.[21]

Mainly as a result of the asymmetries in Customs checks, the overall trade surplus with the UK peaked considerably in 2021, reaching €17.5 billion for the year. In comparison, the trade surplus from 2016 to 2020 ranged from €11.9 to €11.2 billion. However, as both countries adapt to the ongoing regulations on trade between the UK and the EU, the boost to Irish trade appears to be relatively short

[21] For more information see: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1041528/2021_December_BordersOPModel.pdf.

lived. From Q4 2021 to Q1 2022, the overall trade surplus with the UK declined from €4.3 billion to €2.8 billion. Figure 24 depicts the trade surplus with the UK from Q1 2017 to Q1 2022.

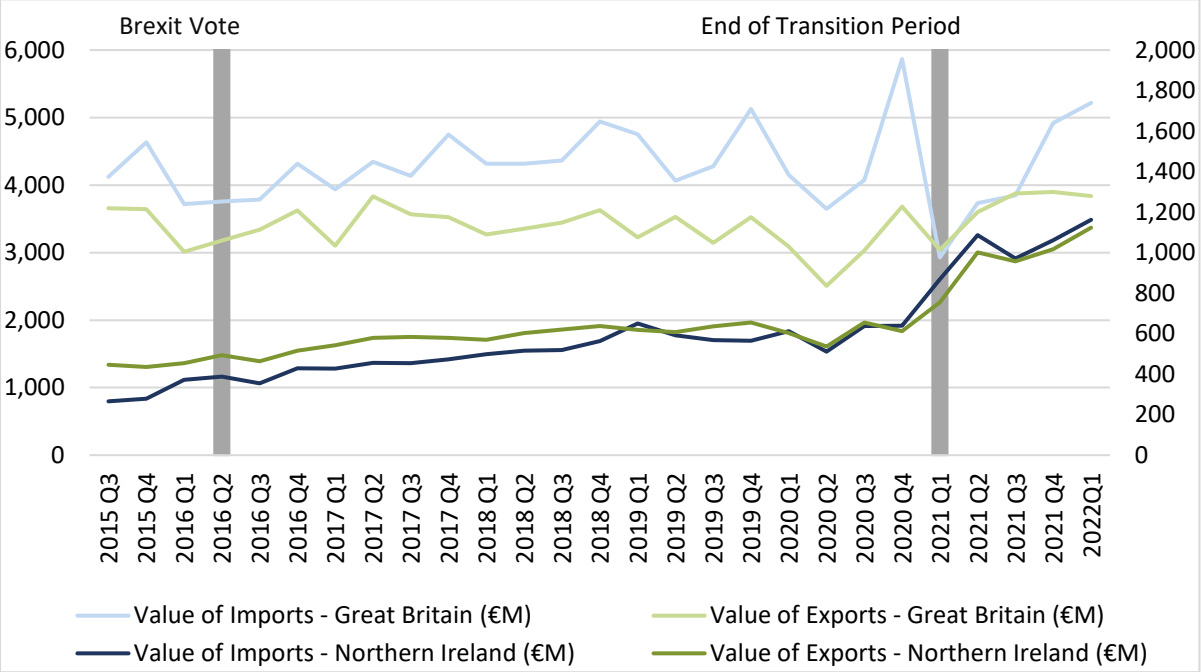
FIGURE 24 TRADE SURPLUS WITH THE UK, Q1 2017- Q1 2022



Source: Central Statistics Office.

Monthly goods trade data offer an insight into the effect of the Trade and Cooperation Agreements on Irish and UK trade. As the transition period came to a close, Q1 2021 marked a major shift in trade with the UK as the value of imports from Great Britain fell roughly 50 per cent from Q4 2020 to Q1 2021, while imports from Northern Ireland increased by over one-third in the same period (Figure 25). Trade with Northern Ireland increased dramatically from 2020 to 2021; the value of imports increased by 66.1 per cent while the value of exports increased by 55.0 per cent. Both imports from and exports to Northern Ireland continued to grow in Q1 2022 compared to Q4 2021 (9.6 per cent and 10.4 per cent, respectively). Over the same period, imports from Great Britain also increased (6.0 per cent) while exports declined (1.5 per cent).

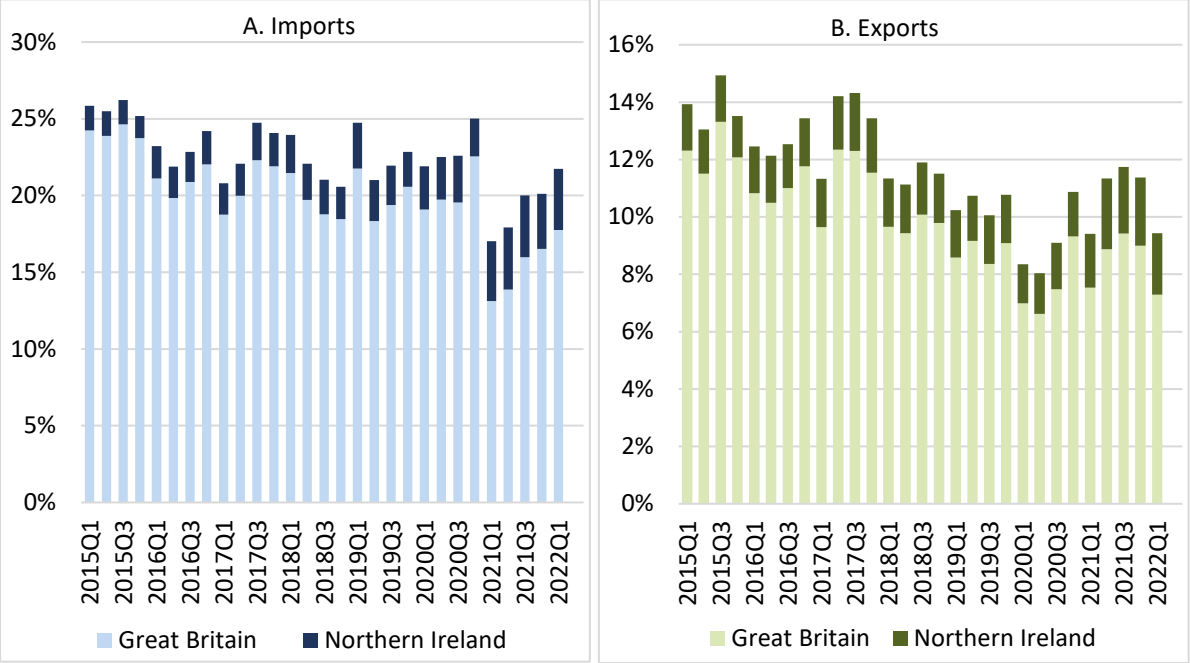
FIGURE 25 TRADE WITH GREAT BRITAIN (LHS) AND NORTHERN IRELAND (RHS) (VALUE, € MILLION)



Source: *QEC* calculations using Central Statistics Office data.

While the value of exports and imports from Great Britain appears to be recovering after the shock of Brexit, the recovery is less obvious when one accounts for the overall growth in Irish trade. As a share of total Irish trade, the value of exports to and imports from the UK has been declining. In Q1 2015, Great Britain and Northern Ireland accounted for 24.2 and 1.6 per cent of the total value of imports to Ireland, respectively. As of Q1 2022, the share of imports from GB has fallen to 17.7 per cent, while the share from Northern Ireland rose to 4.0 per cent (Figure 26, Panel A). As a share of the value of exports from Ireland, GB and NI accounted for 12.3 per cent and 1.6 per cent, respectively. As of Q1 2022, these shares changed to 7.3 per cent and 2.1 per cent, respectively (Figure 26, Panel B).

FIGURE 26 GREAT BRITAIN AND NORTHERN IRELAND SHARE OF TOTAL VALUE OF EXPORTS AND IMPORTS (%)



Source: *QEC* calculations using Central Statistics Office data.

Trade Outlook

Mounting challenges in the international outlook are likely to weigh on global trade in the coming period. The ongoing war in Ukraine, a slowed recovery of supply chains from COVID-19 and the rapid rise of commodity prices are likely to contribute to a slowdown in global trade. The effect of these pressures has led to downward revisions in forecasts for both global and US GDP in recent months.[22,23] Meanwhile, the prospect of negative economic growth in the UK,[24] delayed checks on products entering the UK from the EU,[25] and proposed changes to the Northern Ireland protocol by the UK government[26] may prove to be a risk to trade in the long term.

These global factors notwithstanding, Irish exports have held up remarkably well and continued to grow strongly in the first quarter of 2022. If this trend continues, exports should post another year of rapid growth for 2022. The continued strength of pharmaceutical and other FDI-related goods exports and computer service

22 The IMF growth forecast for global GDP in 2022 declined from 4.4 per cent in January to 3.6 per cent in April (see: https://www.imf.org/en/Publications/WEO/Issues/2022/04/19/world-economic-outlook-april-2022).

23 PIIE reduced its forecast for US GDP in 2022 from 4.6 per cent in October 2021 to 3.0 per cent in April 2022 (see: https://www.piie.com/research/piie-charts/growth-slows-across-global-economy-after-year-recovery).

24 Dixon, Peter (2022). *How likely are we to see a major recession in 2022?* National Institute of Economic and Social Research. https://www.niesr.ac.uk/wp-content/uploads/2022/05/Likelihood-of-a-major-recession-in-2022.pdf.

25 https://www.politico.eu/article/uk-to-delay-post-brexit-food-checks-on-eu-imports-until-end-of-2023/.

26 https://www.theguardian.com/uk-news/2022/may/10/liz-truss-preparing-to-tear-up-northern-ireland-protocol-reports.

exports in particular are signs of continued buoyance in the export numbers. We anticipate exports to increase by 8.5 per cent this year. This assumes a moderation in the growth rate throughout 2022 from the first quarter levels reflecting some impacts of the global slowdown. We have also moderated our outlook for imports given the slower domestic outlook as compared to the Spring *Commentary*. We now expect imports to increase by just 4.7 per cent in 2022. In 2023, assuming that challenges in the global economy abate somewhat, imports and exports are forecast to grow by 6.4 and 6.2 per cent, respectively.

INVESTMENT

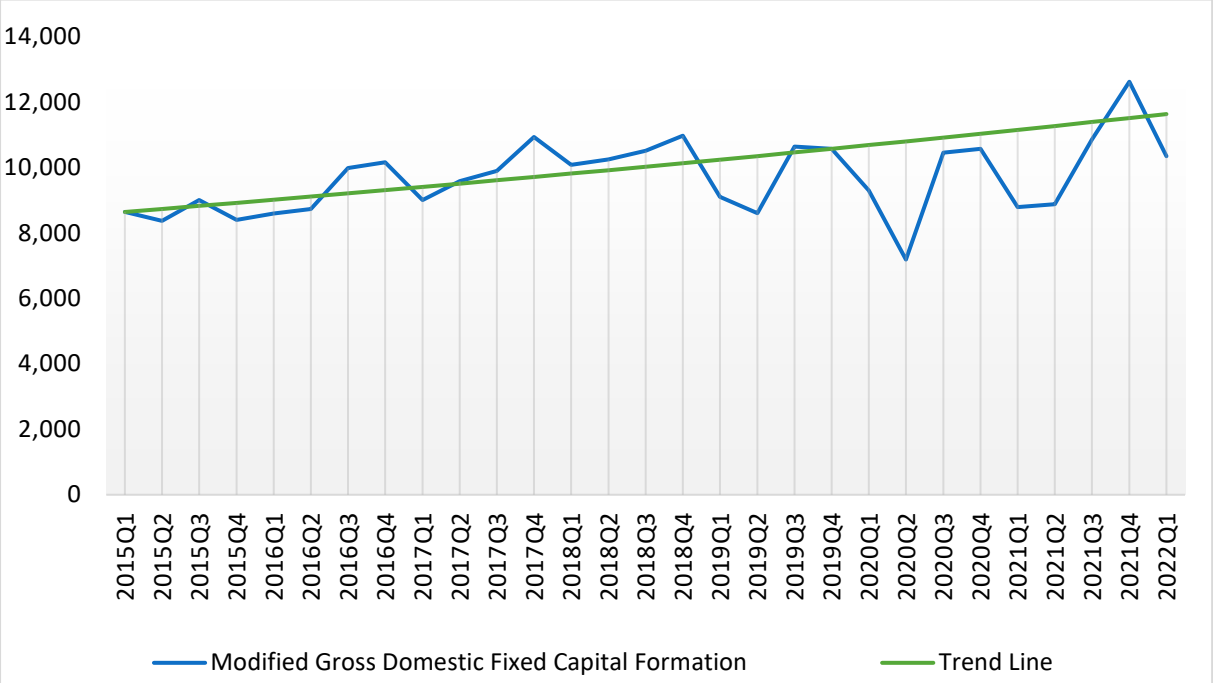
Key Points

- *The increase in international inflationary pressures and rising economic uncertainty are set to have a negative impact on investment.*
- *Enterprise sentiment has declined in the EU and Ireland as a direct result of the Russian invasion of Ukraine which has resulted in disruptions to supply chains and an increasingly uncertain operating climate.*
- *Domestically, we expect increases in housing investment to slow somewhat next year due to inflationary pressures; we now expect 26,000 units in 2022 and 27,000 in 2023.*
- *Modified investment is forecast to increase by 3.9 per cent in 2022 and by 4.4 per cent in 2022.*

Figure 27 presents the level of modified Gross Fixed Capital Formation in constant price terms for the period Q1 2015 to Q1 2022. A pre-pandemic trend line (based on the compound annual average growth rate in quarterly terms) is also presented to provide an indication of the investment level, had the series grown in line with its previous outturn.

The impact of the pandemic is clear: notable drops in investment are evident during the lockdown phases in 2020 and 2021 and sharp rebounds are apparent in the reopening phases. The final quarter of 2021 witnessed a marked increase in investment which surpassed the pre-pandemic trend for the first time since the COVID-19 shock. However, data for the first quarter of 2022 show a decline in investment vis-à-vis the end of 2021.

FIGURE 27 MODIFIED GROSS DOMESTIC FIXED CAPITAL FORMATION (€ MILLION)

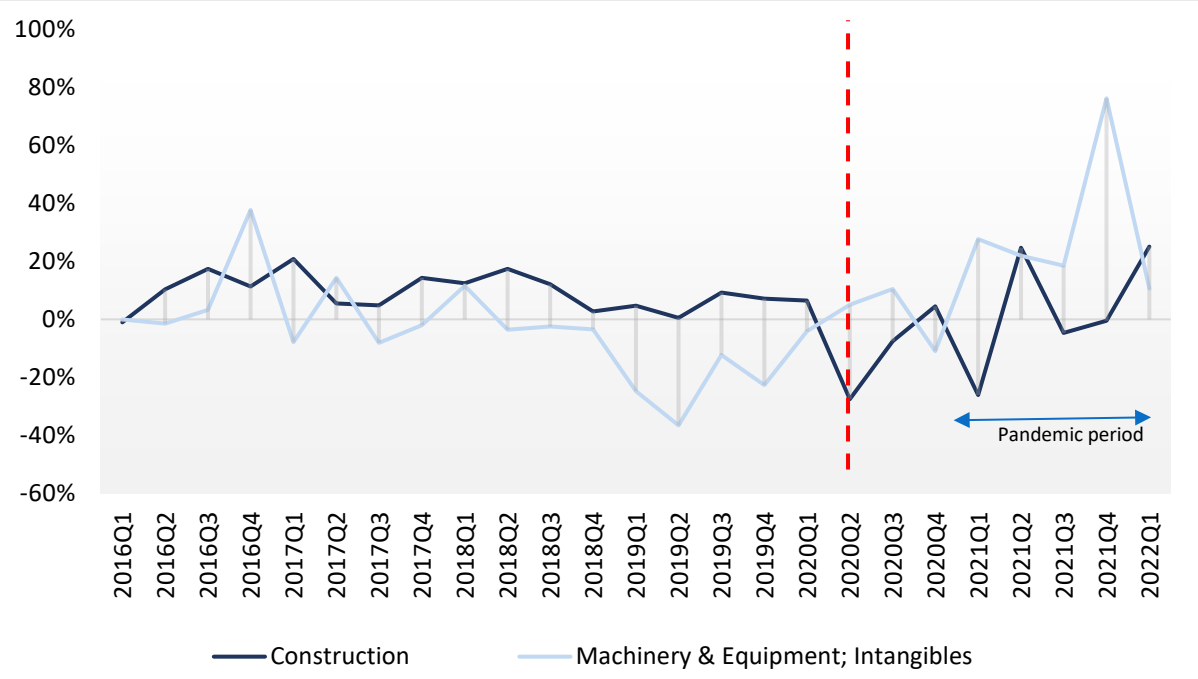


Source: Central Statistics Office.
Note: Trend line calculated as quarterly annual compound growth rate between Q1 2015 and Q4 2019. Growth factor – 1.06 per cent per quarter.

The main component asset types within the business Gross Fixed Capital Formation (GFCF) are construction (dwellings, improvements, and other construction), machinery and equipment, and intangible asset investment. Figure 28 presents the growth rate (year-on-year) of the subcomponents (modified as per the CSO definition). Due to redactions, it is not possible to separate out machinery and intangibles.[27] As documented in previous *Commentaries*, it is clear the restrictions have had a significantly adverse impact on construction investment. Non-construction investment has recovered markedly in the past number of quarters, however growth in this investment activity dropped substantially in the first quarter of 2022. Construction activity grew in the first quarter of 2022; however this must be placed in the context of the lockdown in Q1 2021 which resulted in particularly low investment levels for that quarter.

27 Indeed, the CSO does not provide separate data for these items and what is presented is the total minus construction investment.

FIGURE 28 SUBCOMPONENTS OF MGFCF – GROWTH RATES (YEAR-ON-YEAR, %)



Source: Central Statistics Office; data are in constant prices.

As uncertainty has a significant impact on investment activity, the views of businesses on the state of the current operating environment are critically important. We draw on the European Commission's data on business sentiment to understand the current trend in business economic conditions. The Commission monitors trends in business confidence on a monthly basis for four sectors: industry, services, retail and construction. The data presented are simple arithmetic averages of the positive/negative balance of responses in Figure 29.

FIGURE 29 BUSINESS CONFIDENT INDICATORS – IRELAND AND EU

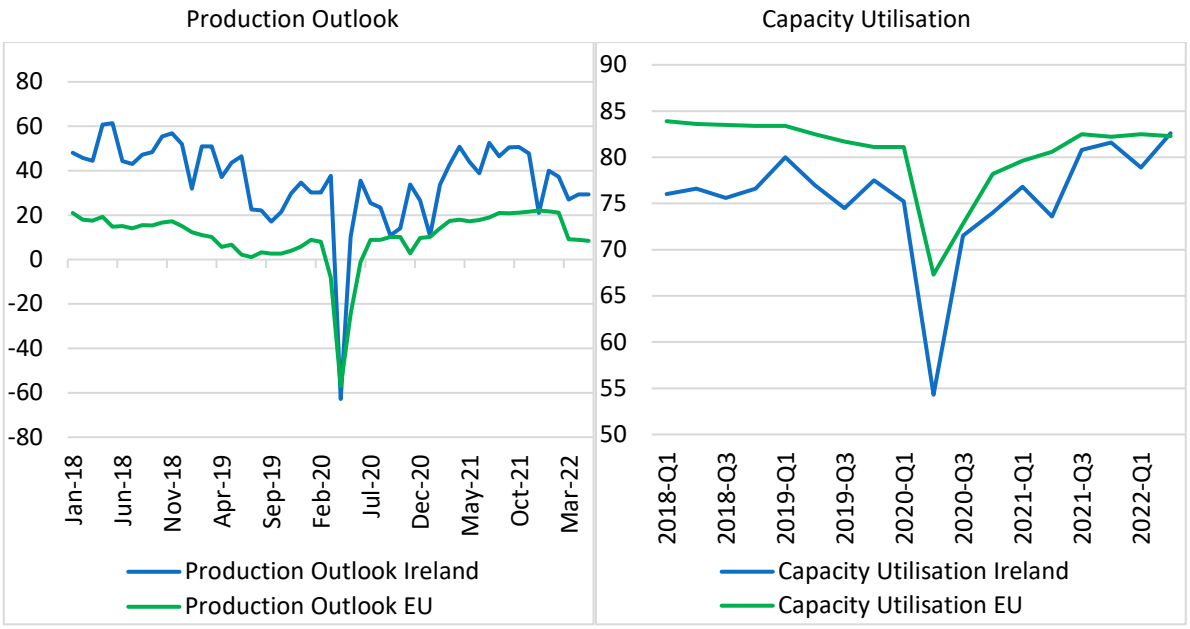
Source: European Commission.

The current economic climate can be characterised by increased uncertainty due to the Russian invasion of Ukraine. This will inevitably adversely impact business sentiment. The commencement of the Ukraine war has coincided with a significant decline in business confidence across all sectors in Ireland and the EU. These falls in sentiment are likely to feed through into the capital expenditure choices of enterprises across most sectors for the coming period.

Two critical issues impacting future business capital investment are the outlook for demand and the degree of capacity utilisation of current resources. Figure 30 presents the outlook for production and the existing capacity utilisation for Ireland and the rest of the EU for industrial firms (manufacturing and mining activities only). It is clear the production outlook has improved in Ireland through 2021 but it has dropped rapidly in both Ireland and the EU since March 2022 and the beginning of the Ukraine invasion. Capacity utilisation has also increased rapidly

since the low point in April 2020 and is now above pre-COVID levels in Ireland. It has also risen above the EU level for the first time in many years. This rise in capacity utilisation may reflect the twin pressures of rebounding demand but also a reluctance to invest in new capital given the uncertainties (thus making firms work existing assets harder).

FIGURE 30 PRODUCTION OUTLOOK AND CAPACITY ULTISATION – IRELAND AND EU



Source: European Commission.

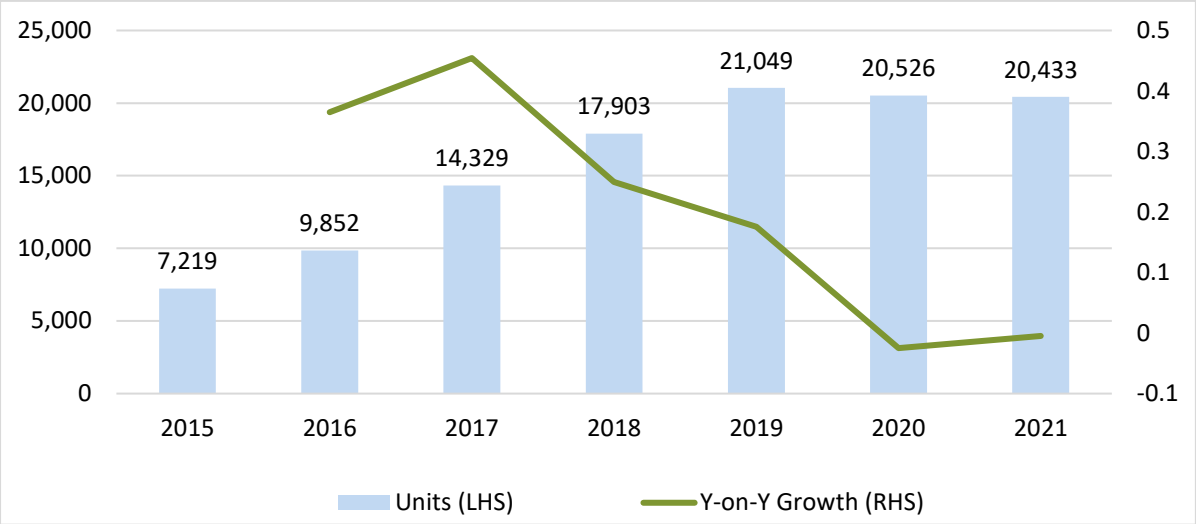
The indicators presented above clearly show falling sentiment which aligns with the general international commentary around a deteriorating global economic environment with mounting cost pressures on firms and heighted uncertainties around the outlook. The invasion of Ukraine by the Russian Federation has threatened the stability of the investment environment and is likely to dampen investment prospects across the economy. As global inflationary pressures rise, this is also likely to reduce operating margins amongst firms, if price increases are not fully passed through to consumers. This will also reduce the expected profitability of future investments and consequently adversely impact managerial investment decisions.

Housing completions

In the first quarter of 2022, a total of 6,997 residential units were completed; a 143 per cent increase on the same period in 2021. However, it must be noted that Q1 2021 posted an extremely low level of completions due to the public-health related sector shutdowns. The annual level of housing completions for the period 2015 to 2021 are presented in Figure 31. In total, 20,430 housing units were completed in 2021 which is marginally lower than the figure for 2020. The impact

of the pandemic on the trend is very clear as the completions in 2021 still remain below the pre-pandemic level of 21,000 in 2019.

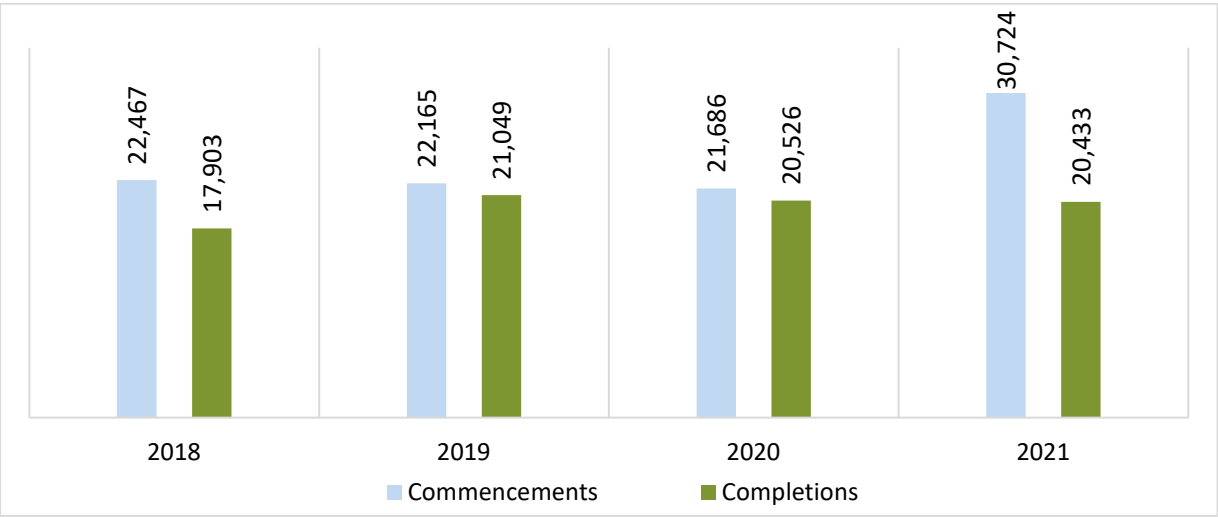
FIGURE 31 HOUSING COMPLETIONS



Source: Central Statistics Office.

To gain insight into the potential path for housing completions, it is useful to explore trends in residential construction commencements. While the initial COVID pandemic impact led to a marked decline in the number of new commencements, this has risen substantially in 2021. In 2020, a total of 21,686 commencements occurred and this has increased to over 30,000 for 2021. This represents a rapid increase in new unit starts and likely points to an escalation in the provision of new housing supply.

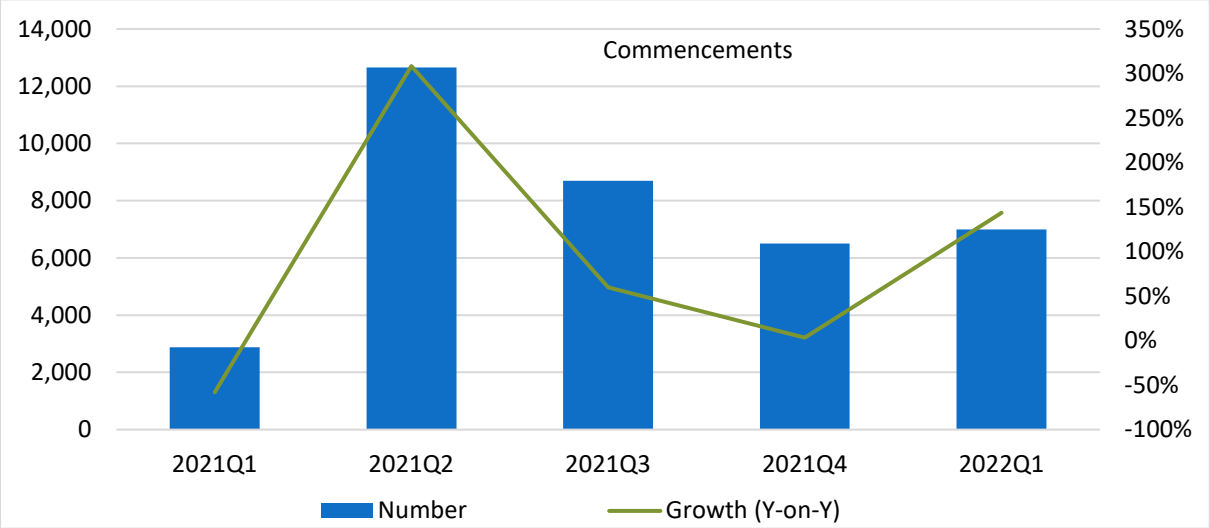
FIGURE 32 RESIDENTIAL COMMENCEMENTS AND COMPLETIONS

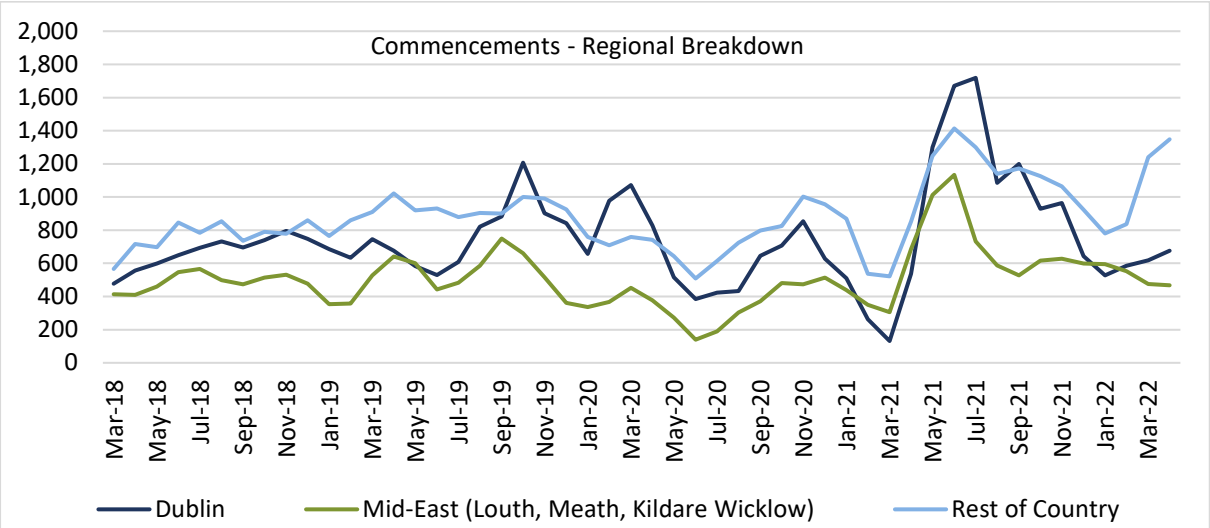


Source: Housing Agency and CSO data.

It is also useful to explore the quarterly profiles of commencements to ascertain whether short-term trends are apparent as it is a good barometer for future completions. Figure 33 presents the quarterly level and year-on-year growth rate of commencements as well as a three-month rolling average of the level of commencements by geographic area. Commencements in the first quarter of 2022 were above the level of Q4 2021 but lower than either Q2 or Q3. What is notable from the geographic breakdown is that the Dublin and Mid-East region has experienced a notable moderation in the number of units completed while the rest of the country has experienced quite a pick-up in investment levels. Given the requirements for housing units in the capital city and surrounding areas, it is notable that these areas have experienced quite a slowdown over the past 12 months.

FIGURE 33 RESIDENTIAL COMMENCEMENTS AND COMPLETIONS – QUARTERLY PROFILES





Source: Housing Agency.

In the previous *Commentary*, we noted that the recent invasion of Ukraine by Russia could present considerable downside risks to the realisation of housing supply due to both cost pressures as well as general economic impacts. The data presented in the *Commentary* predate the invasion and therefore do not yet reflect any adverse impact of the invasion on construction activity. However, this may impact commencements in the coming quarters with negative implications for completions in 2023. Therefore, we are maintaining our current forecast for housing completions for 2022 of 26,000 units, but are moderating downwards our forecast in 2023 to 27,000 from 30,000 units previously.

Investment forecasts

While investment levels would have benefitted from the re-opening of both the domestic and international economies, it is clear that rising inflationary pressures and a deterioration in economic conditions globally are set to exert downward pressure on investment rates. While we still expect domestic investment to accelerate this year (in particular in the housing market), multinational related activity means overall investment is set to decline by 12.3 per cent in 2022 and to increase by 6.3 per cent in 2023. As in the previous *Commentary*, risks are likely to be on the downside given the multiple headwinds the global economy is facing.

LABOUR MARKET

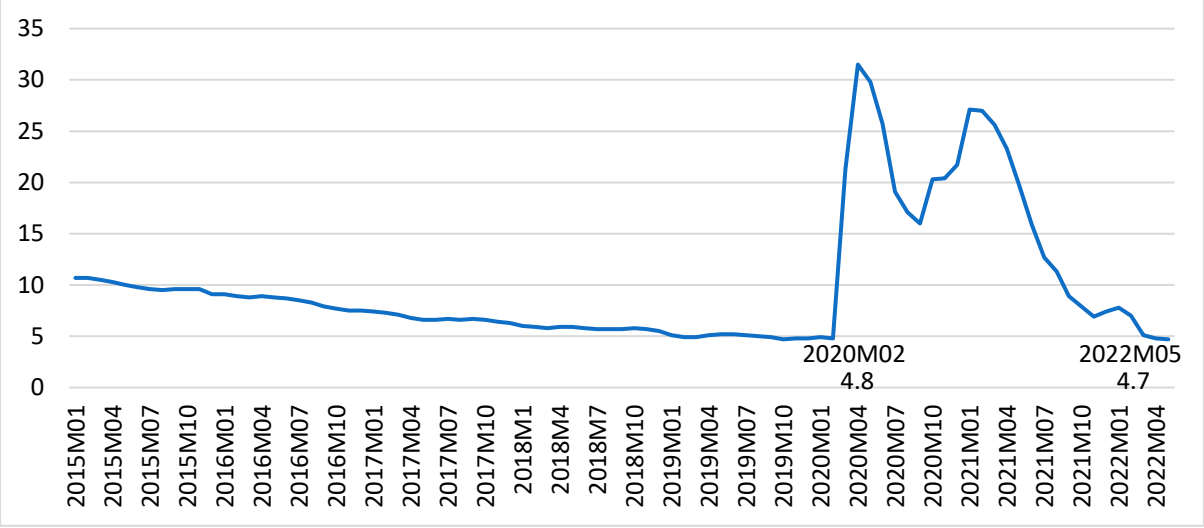
Key Points

- *May 2022 marked the first month in which the unemployment rate (4.7 per cent) has fallen below its pre-pandemic rate (4.8 per cent in February 2020).*
- *The economy is likely to be operating close to or at full employment over the coming period.*
- *High-wage and high-tech sectors have experienced increases in employment throughout the pandemic.*
- *The unemployment rate is set to fall to 4.3 per cent by Q4 2022 and average 5.0 per cent for the year.*

With the end of public health restrictions in the first quarter of 2022 and the phasing out of all COVID-related employment supports, the labour force has rebounded markedly. The impact of COVID-19 on employment can be most easily seen in fluctuations of the unemployment rate. From March 2020 to March 2022, the Irish labour market has changed in tandem with the tightening and loosening of public health restrictions, with the unemployment rate peaking at 31.5 and 27.1 per cent during lockdown periods and falling rapidly once restrictions were lifted (Figure 34).

In May 2022, the unemployment rate fell to 4.7 per cent, just below its pre-pandemic rate of 4.8 per cent in February 2020.

FIGURE 34 UNEMPLOYMENT RATE BY MONTH (SA, %)



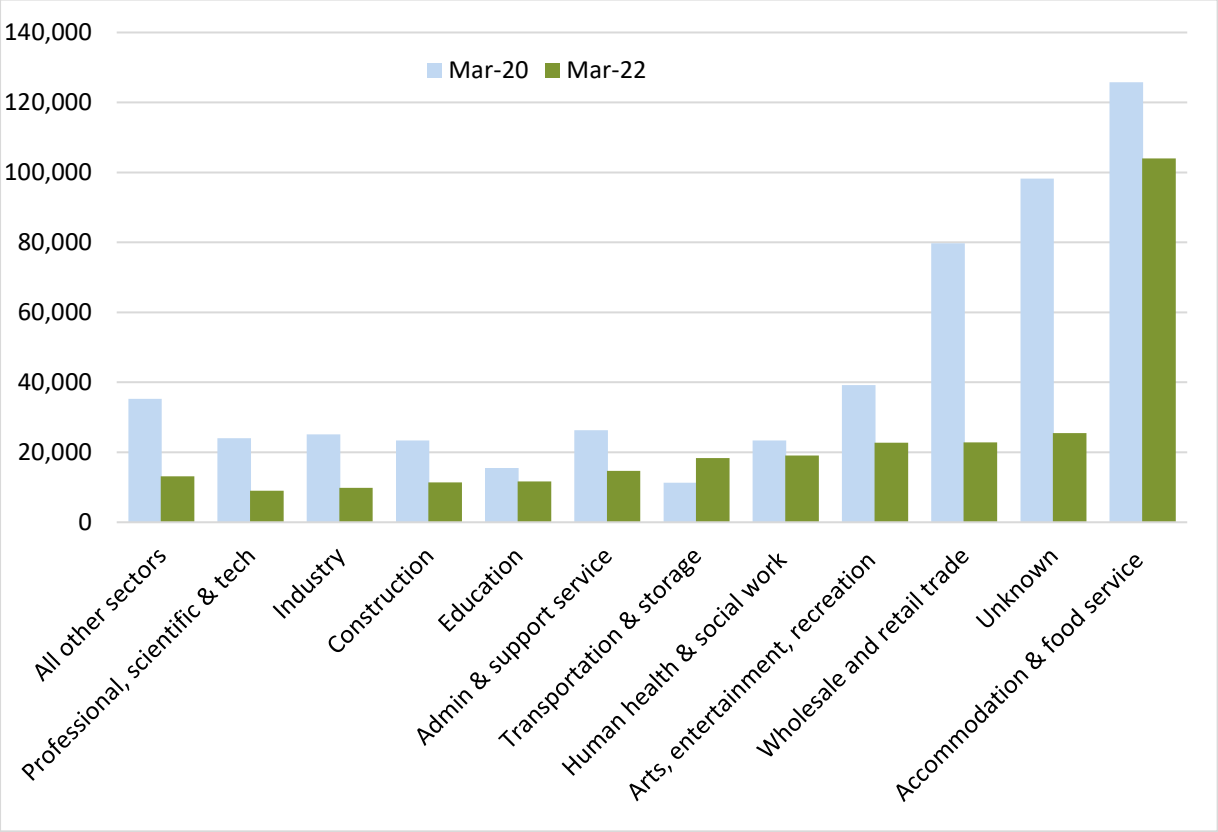
Sources: Seasonally-Adjusted Monthly Unemployment Rate Series. Central Statistics Office.
Note: The COVID-19 Adjusted Monthly Unemployment Rate Series is used for the period March 2020-March 2022 rather than the traditional unemployment rate series.

The pandemic unemployment payment (PUP) established by the Government provided income support to those affected by the pandemic and ended on 29 March 2022. Eligible PUP recipients were able to transition to jobseeker payments beginning 5 April.[28] Other supports available during the pandemic included the Temporary Wage Subsidy Scheme (TWSS), which enabled employees to receive supports directly from their employer, and the Employment Wage Subsidy Scheme (EWSS), which replaced the TWSS in September 2020 and was phased out from 30 April 2022.[29]

The prevalence of pandemic-related supports (PUP, TWSS, and EWSS) across sectors can help illustrate the heterogeneous effects of pandemic-related public health restrictions on the labour market. Figure 35 provides an overview of those receiving supports in March 2020 compared with March 2022 by sector. In total, 527,162 persons received pandemic-related supports as of 29 March 2020 compared with 282,208 as of 27 March 2022. Accommodation and food service accounted for the greatest share of persons in receipt of supports in both periods (23.9 and 36.9 per cent, respectively). Apart from transportation and storage, all other sectors experienced significant reductions in the number of people receiving supports, suggesting that improvements in employment have been felt across the economy.

28 See details here: COVID-19 Pandemic Unemployment Payment (PUP) (citizensinformation.ie).
29 See details here: Employment Wage Subsidy Scheme (citizensinformation.ie).

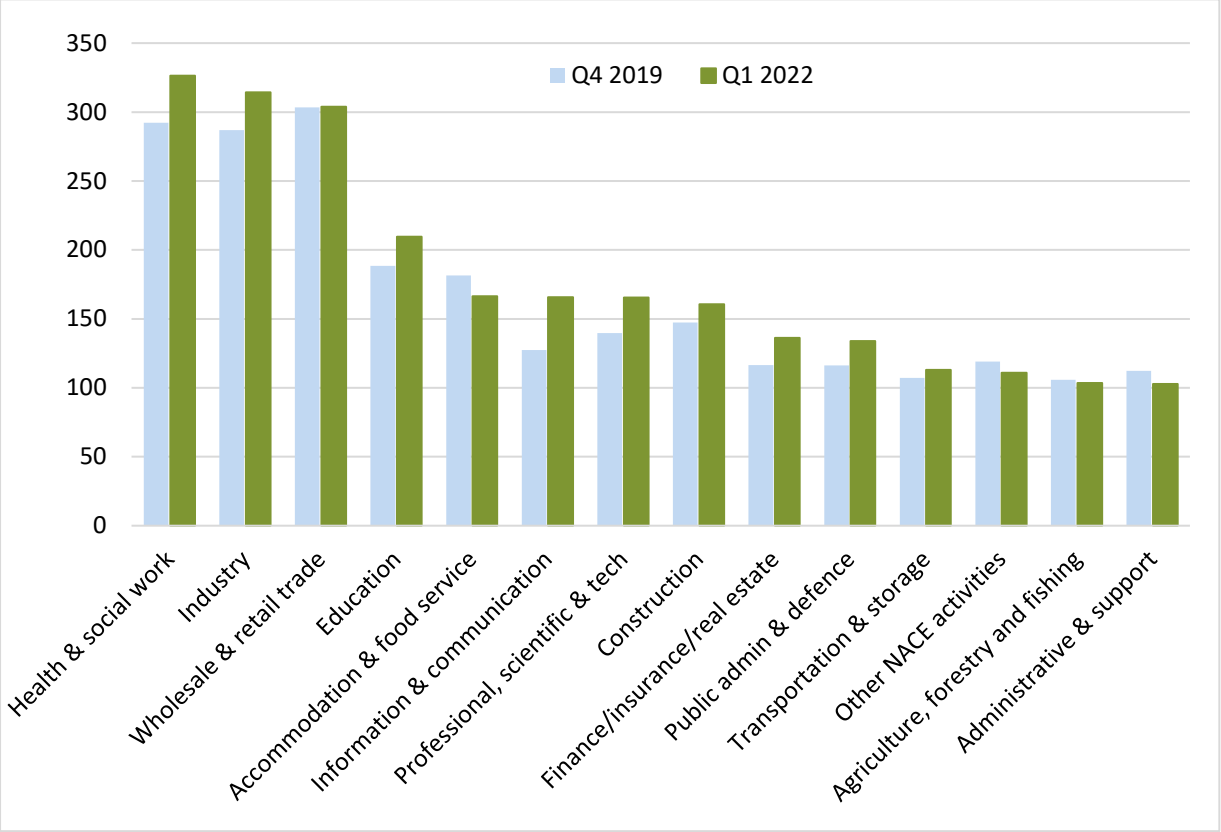
FIGURE 35 NUMBER OF PERSONS IN RECEIPT OF PANDEMIC-RELATED SUPPORT BY NACE



Source: Central Statistics Office.
Note: Pandemic-related supports include TWSS, EWSS, and Pandemic Unemployment Payment.

With the unemployment rate now at its pre-pandemic rate, its useful to see if employment across sectors has returned to their pre-pandemic levels. Figure 36 shows the level of employment in Q4 2019 compared with Q1 2022 by sector. Overall employment increased from Q4 2019 to Q1 2022, as 184,400 more persons entered employment. While gains in employment were experienced in most sectors, declines were recorded in Accommodation and food service (-15,100); Administrative and support services (-9,500); Agriculture (-2,300) and Other activities (-8,000). The sectors which expanded significantly over the pandemic included Information and communication (+38,300), Professional, scientific, and technical services (+25,800), and Finance/insurance/real estate (+19,700).

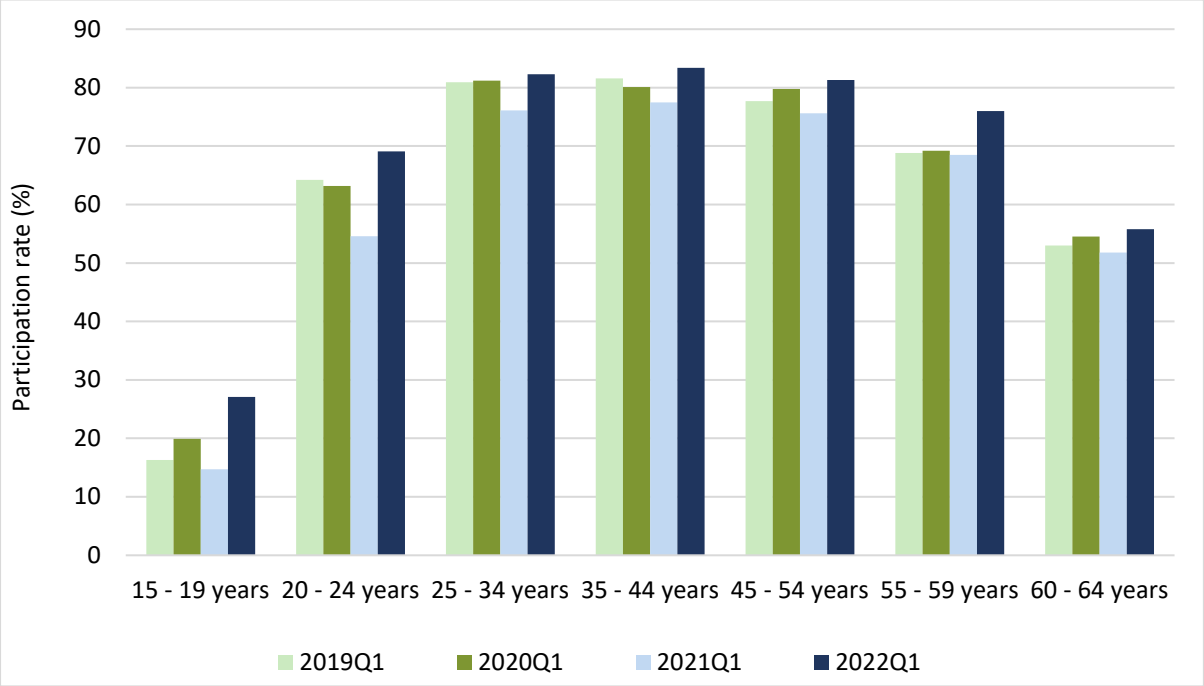
FIGURE 36 NUMBER OF PERSONS IN EMPLOYMENT BY NACE (THOUSANDS, SEASONALLY ADJUSTED)



Source: Central Statistics Office, Labour Force Survey (seasonally adjusted.)

It is also of interest to see if any particular age groups were disproportionately affected by the pandemic. Figure 37 shows participation rates by age group. The effect of public health-related measures is evident, as all age groups experienced a decline in Q1 2021, with 20- to 24-year-olds most affected. The notably high participation rate across all age groups in Q1 2022 reflects the robustness of the labour market. Across all ages, participation is higher in Q1 2022 than it was in Q1 2019.

FIGURE 37 ILO PARTICIPATION RATE BY AGE (%)



Source: Central Statistics Office.

The reopening of the economy and reduction in unemployment has been accompanied by an increased vacancy rate across all sectors.

While the number of persons employed increased by just over 7 per cent from Q4 2019 to Q1 2022 (2.35 million persons compared with 2.53 million), the number of vacancies across all sectors increased by just over 80 per cent during the same period (32,900 vacancies compared with 18,100). Figure 38 plots the vacancy rate against the unemployment rate from Q1 2008 to Q1 2022; both before and during the pandemic, the curve shows that vacancy rates are generally higher when the unemployment rate is lower. However, the impact of COVID-19 has led to a notable outward shift in the curve as vacancy rates have accelerated, implying that more vacancies are now required to maintain a given unemployment rate than at any other point in time. This is largely because, as the labour market approaches full employment, additional vacancies are unlikely to lead to additional employment. A shift in the Beveridge curve is typically associated with a lower efficiency rate in the matching process between employers and workers. Factors such as sectoral shifts or skills mismatch can contribute to such a shift.[30]

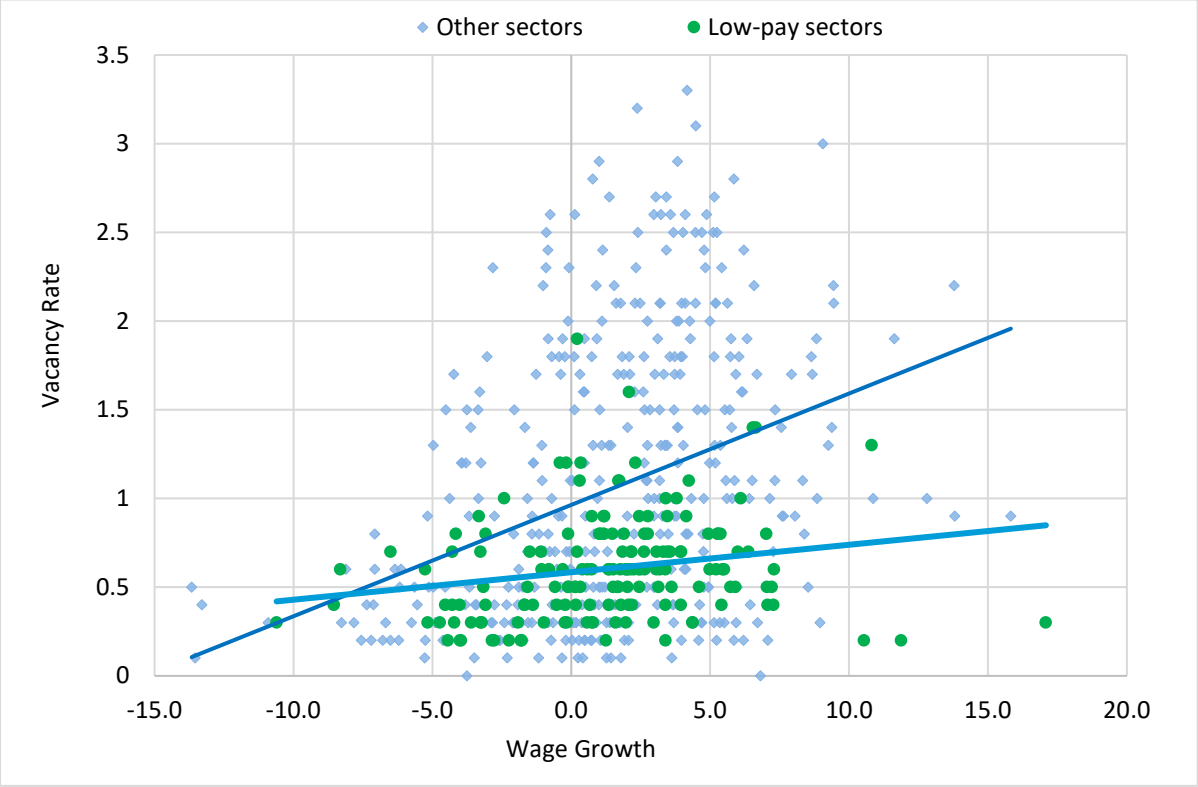
30 See: Lubik, Thomas (2021). *Revisiting the Beveridge Curve: Why Has It Shifted so Dramatically?* Federal Reserve Bank of Richmond. Revisiting the Beveridge Curve: Why Has It Shifted so Dramatically? | Richmond Fed.

FIGURE 38 BEVERIDGE CURVE: VACANCY AND UNEMPLOYMENT RATES Q1 2008 – Q1 2022

Sources: Central Statistics Office, authors' calculations

An additional consequence of rising vacancy rates is the potential for further pressure on wages. Figure 39 shows the relationship between the vacancy rate and wage growth from Q1 2009 to Q1 2022, demonstrating that wage growth tends to increase as vacancy rates rise and wages increase even faster in higher-wage sectors.

FIGURE 39 VACANCY RATE AND WAGE GROWTH BY SECTOR (Y-ON-Y, %) Q1 2009 - Q1 2022



Sources: Central Statistics Office, authors' calculations.
Note: Low-pay sectors include Wholesale and retail trade; Accommodation and food services; and Arts, entertainment, recreation, and other services. Wage growth refers to the annual growth rate in seasonally adjusted average weekly earnings.

Notably, the highest vacancy rates in Q1 2022 were concentrated in high-skill, high-wage sectors[31] suggesting that wages are likely to rise. In the following Box to the *Commentary*, McQuinn forecasts wage rates in the Irish economy through 2023. Given the accelerating rates of inflation seen in Ireland and abroad, the key question of concern is whether or not wage growth is likely to contribute to a 'wage-price spiral'.

Labour Outlook

Given the rapid recovery of the labour market in the first half of 2022, we expect the unemployment rate to continue to improve gradually. In 2022 and 2023, we forecast the unemployment rate to be just 5.0 and 4.0 per cent, respectively. In essence, the Irish economy will be operating at or close to full employment over the period ahead. This is likely to lead to upward pressure on wages as demand outstrips supply in the labour market.

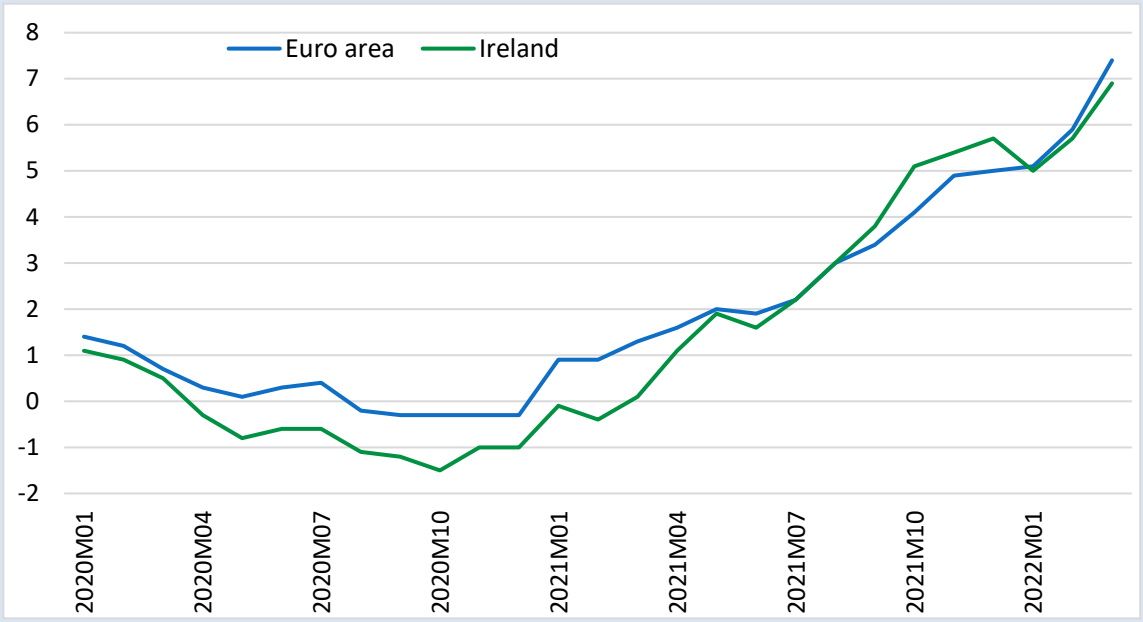
31 The three highest vacancy rates were: Professional, scientific and technical activities (3.2); Finance, insurance, and real estate activities (3.2); and Information and communication (2.7).

BOX A FORECASTING WAGE RATES IN THE IRISH ECONOMY

The increase in inflation rates across Western economies since the summer of 2021 has resulted in a renewed focus on the likely future path of wage rates as analysts seek to assess whether there is a discernible possibility of a 'wage-price spiral' beginning to emerge. Such a spiral, which suggests that wage rates are increasing in a bid to match general inflation rates, may convince policymakers to tighten monetary policy. In particular, policymakers seek to influence peoples' expectation levels by indicating that they are not letting inflation rates increase on a persistent basis. This, in turn, might lead to wage expectations being tempered somewhat, thereby lessening the possibility of second-round impacts from the initial inflationary shock.

As can be seen from Figure A.1, since the summer of 2021, Irish inflation rates are increasing at the same rate as the euro area average.

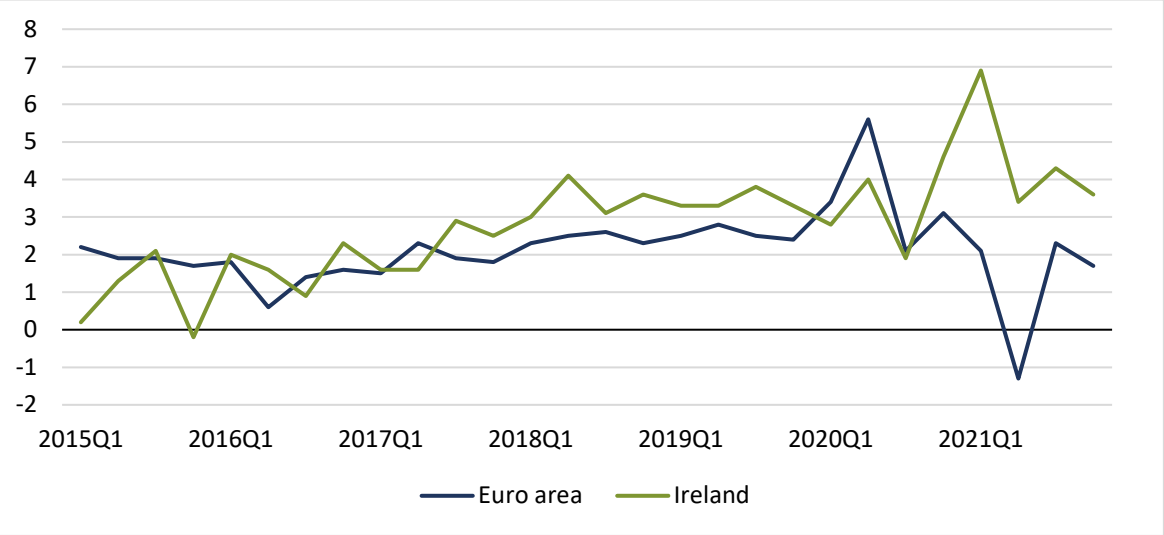
FIGURE A.1 IRISH AND EURO AREA HICP ANNUAL RATES OF GROWTH (%): 2020 - 2022



Source: European Commission NewCronos database.

In Figure A.2, we plot the annual growth in wage levels for the euro area and Ireland. In this case, it is interesting to note that wages in the domestic economy have been increasing at a faster pace than those in the euro area since early 2018. This is not surprising given that growth rates in the Irish economy have been more robust over that period. What is particularly interesting to note from a European perspective is that there is no evidence yet of a wage-price spiral emerging. While there have been some distortions due to the pandemic, on average wage growth in the euro area has been averaging approximately 2 per cent per annum, whereas wage growth in the domestic economy is growing at an average of 4 per cent.

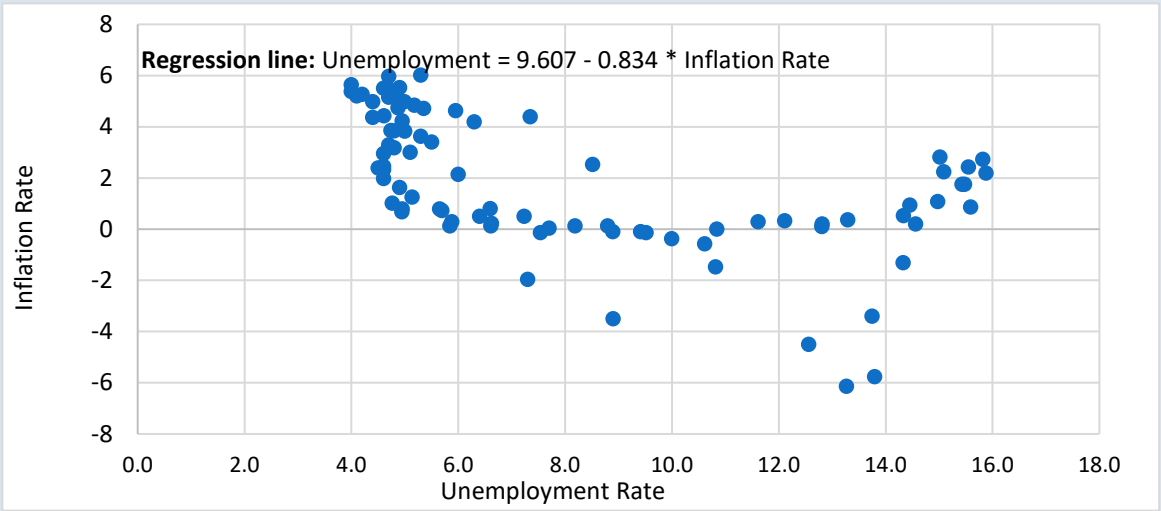
FIGURE A.2 ANNUAL GROWTH IN IRISH AND EURO AREA WAGE RATES[32] (%): 2015 - 2021



Source: European Commission NewCronos database.

Thus, while inflation rates in Ireland are almost exactly the same as those in the euro area, wage rates are growing by almost twice the euro area rate. Figure A.3 is a scatter plot of Irish inflation and unemployment rates over the period 1998 and 2019. The non-linear relationship between these two variables is apparent; there is a significant increase in the domestic inflation rate once unemployment falls below 5 per cent in the Irish labour market.

FIGURE A.3 SCATTER PLOT OF IRISH UNEMPLOYMENT AND INFLATION RATES (%): 1998 - 2019



Source: *QEC* estimates.

A model of Irish wage rates

We now specify and estimate a model of Irish wage rates, which we will then use to generate forecasts of Irish wages over the period 2022-2023. In doing so, we follow previous approaches by Gerlach et al. (2015) and Meyler (1999) who estimate Phillips-curve relationships by specifying wage inflation (Δw_t) as a function of its own lag and the

difference between the actual unemployment rate (u_t) and the NAIRU (u_t^*). The NAIRU is the non-accelerating inflation rate of unemployment and the wedge between the actual unemployment rate and the NAIRU captures demand-side pressures in the economy. The following specification is estimated:

$$\Delta w_t = \alpha + \beta_i \sum_{i=1}^{4} \Delta w_{t-i} + \delta_1 (u_t - u_t^*) + \varepsilon_t \quad (1)$$

As the NAIRU is unobserved, an estimate must be generated; while a number of fairly sophisticated techniques may be used (such as Hodrick-Prescott and Kalman Filters), in this case we have taken a six-quarter moving average as the estimate of u_t^*.[33] The results of the final specification are presented in Table A.1.

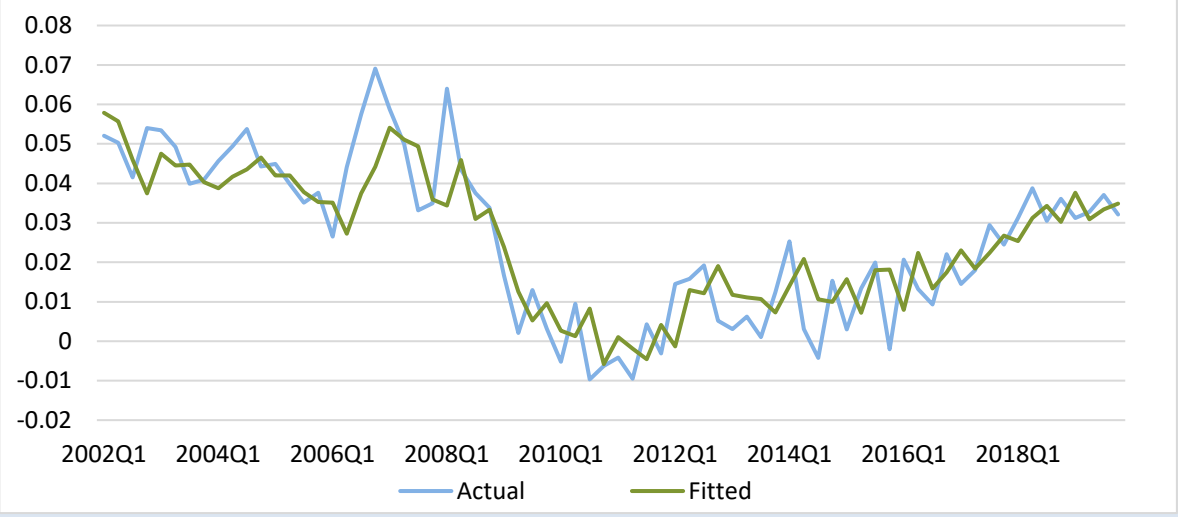
TABLE A.1 RESULTS OF IRISH WAGE GROWTH REGRESSION: Q1 2000 – Q4 2019[34]

Variable	Coefficient	T-Stat
Constant	0.003	1.703
$(u_t - u_t^*)$	-0.024	-2.266
Δw_{t-1}	0.590	6.052
Δw_{t-3}	0.240	2.645
$\overline{R^2}$	0.742	
DW	1.89	

Source: *QEC* estimates.

The results for the wedge between the actual unemployment rate and the NAIRU are pretty much in line with a similar model estimated by Meyler (1999).[35] The actual and fitted values from the model are plotted in Figure A.4.

FIGURE A.4 ACTUAL AND FITTED VALUES FROM WAGE EQUATION: 2002 – 2019



Source: *QEC* estimates.

32 The wage rates used are those for 'wages and salaries in the business economy' under the labour costs section of NewCronos.

33 Alternative specifications of the NAIRU were used; however, the results were not sensitive to changes in specification. Results are available from the author upon request.

34 We did not include observations for 2020 and 2021 due to the distortionary impact of the pandemic.

35 Note that Gerlach et al. (2015) do not actually estimate a comparable coefficient.

From the graph, it is clear that the model performs quite well in tracking the actual historical data.

Results and conclusion

Using the latest forecasts from the *Commentary* for the unemployment rate, we now use the model to generate forecasts of the growth rate in Irish wages over the period Q1 2022 to Q4 2023. The latest *Commentary* forecasts indicate that unemployment will decline from a rate of 4.9 per cent in Q1 2022 to 4.2 per cent in Q4 2022. We assume that the NAIRU will be 5.5 per cent in 2022 before declining to 5.3 per cent in 2023.

This results in annual average forecasts of 3.5 per cent wage growth in 2022 and 4.5 per cent in 2023. This suggests that the strong pace of wage growth observed in the Irish labour market is set to continue over the period. However, given the pace of inflation, it does mean that on a real basis, wage rates are set to decline in 2022. It should also be noted that if unemployment rates were to fall below 4 per cent, this would be historically low in an Irish context and could result in a further escalation in wage rates.

References

Gerlach S., R. Lydon and R. Stuart (2015). 'Unemployment and inflation in Ireland: 1926-2012'. CEPR Discussion Papers, 10567.

Meyler A. (1999). 'The non-accelerating inflation rate of unemployment (NAIRU) in a small open economy, The Irish context'. Central Bank of Ireland Research Technical Paper 5/RT/99.

This Box was prepared by Kieran McQuinn.

INFLATION OUTLOOK

Key Points

- *Higher inflation rates continue to be an international concern.*
- *Food and energy prices are the main drivers of inflation; volatility in these items as a consequence of the war in the Ukraine will continue to drive price pressures.*
- *Inflation in non-food and energy items should be monitored closely in order to assess the potential of second-round effects.*
- *Average inflation is expected to be 7.1 per cent in 2022 before easing back to 4.0 per cent in 2023.*

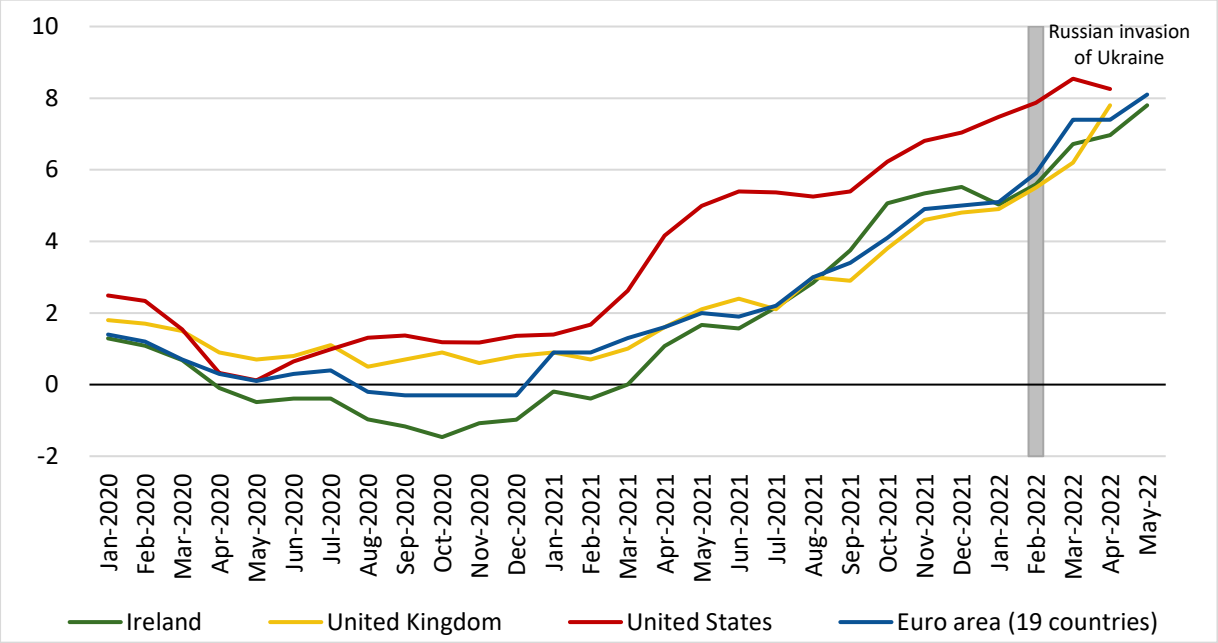
Inflation overview

As the pandemic began, supply chains abruptly shut down as public health-related restrictions disrupted production activities. Households and businesses alike paused spending. Government support flowed to those out of work in the hope of easing the financial strain of the crisis while considerable savings balances were built up for households whose income remained largely unaffected, but consumption was constrained.

As population vaccination coverage increased rapidly and hospitalisations declined, the re-opening of the global economy contributed to a sudden surge in demand: consumers were eager to spend on goods and services not previously available. Producers have struggled to meet demand and supply chains have yet to normalise; further bottlenecks have emerged with China continuing to pursue strict COVID management strategies. Meanwhile, vacancy rates are exceeding labour supply and the unemployment rate is falling.

These challenges are not unique to Ireland; high rates of inflation are being felt internationally (Figure 40). Following its pandemic-related stimulus package and rapid recovery, the US has experienced higher inflation than the euro area and the UK. By February 2022, US inflation reached 7.9 per cent compared to 5.9 in the euro area. Since February, the war in Ukraine contributed to further inflationary pressures, most notably through its amplification of disruptions in the food and energy market. As a result of these factors, inflation in Ireland and the euro area stood at 7.8 per cent and 8.1 per cent, respectively, in May 2022.

FIGURE 40 CPI, CROSS COUNTRY COMPARISON (YEAR-ON-YEAR %)

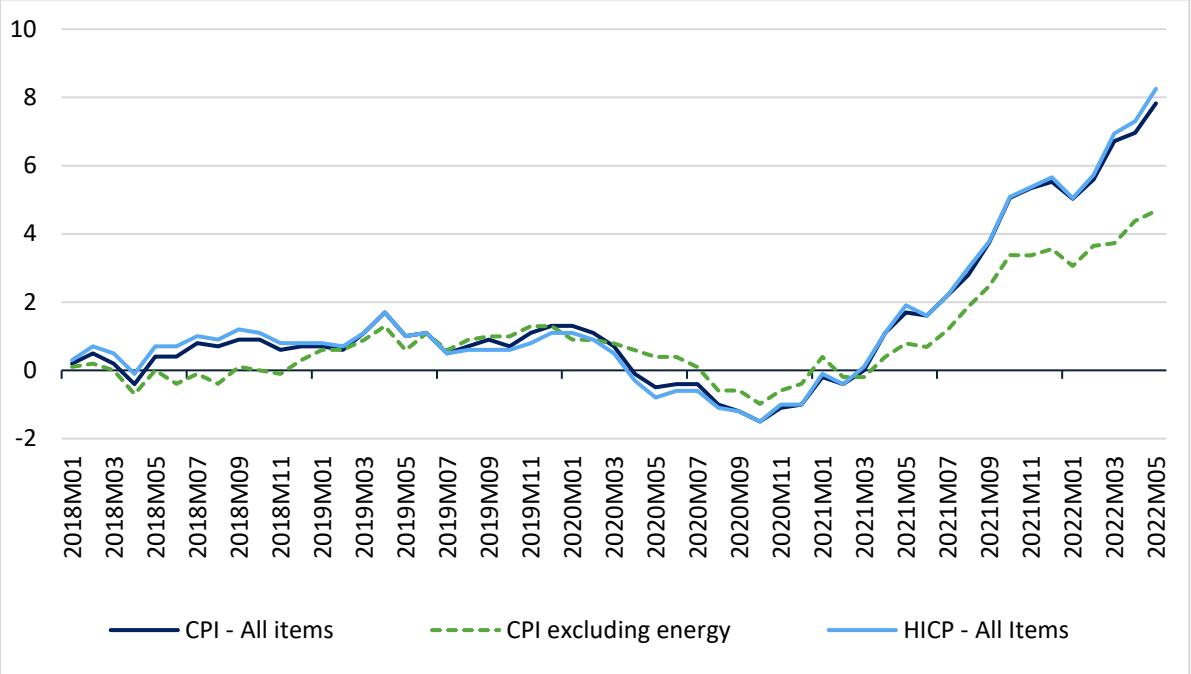


Source: OECD.

In Q1 2021, some of the increases in inflation could be explained by base effects; prices had been increasing on the back of the negative price growth that occurred from Q2 2020 to Q1 2021. However, price growth turned positive as of April 2021 and has increased relatively rapidly since.

The impact of energy markets on Irish inflation during the past year is quite clear. While historically relatively aligned, a growing divergence can be seen between overall CPI and CPI excluding energy products in Figure 41. The increase in the CPI excluding energy products was 4.7 per cent in May 2022 compared to 7.8 per cent for overall CPI in the same period. However, the rising level of non-energy CPI also highlights the risk of domestic factors beginning to feature in the inflationary process in Ireland.

FIGURE 41 ANNUAL INFLATION RATE (%)

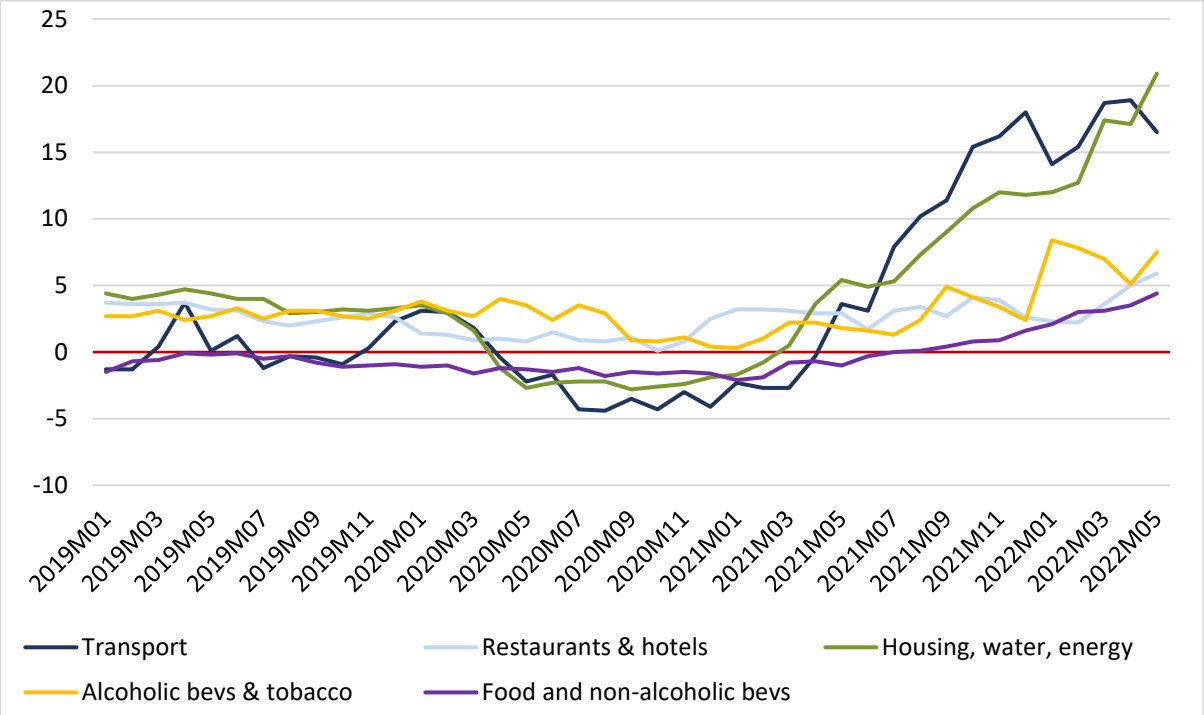


Source: Central Statistics Office.

Figure 42 shows the five commodity groups experiencing the greatest price increases according to recent data. Housing, water and energy was the largest driver of inflation in May 2022, with prices of this commodity group increasing 20.9 per cent per annum. Transport is also a major contributor to overall inflation, increasing 16.5 per cent year-on-year in May 2022. Transport costs are being acutely affected by the increased cost of energy products as well as a surge in demand for travel. The spillover effects from the war in Ukraine are becoming increasingly apparent in food prices; prices of food and non-alcoholic beverages increased 4.4 per cent per annum in May 2022 compared to a growth rate of 2.1 per cent in January of this year. While this growth is notably milder than that of housing and transport, prices for these items have not grown by more than 1 per cent on an annual basis since August 2013. Consumers facing higher prices in food and staple commodities may therefore be more likely to change or limit consumption patterns if prices do not abate throughout the year. Restaurants and hotels are experiencing increases in prices as well (+5.9 per cent per annum in May 2022) likely due to a significant increase in demand. The growth in prices of alcoholic beverages is associated with new legislation rather than international pressures or pandemic-related trends. Minimum pricing for alcohol was introduced in January 2022 as a public health measure, requiring a minimum price of 10 cent per gram of alcohol.[36]

[36] https://www.irishtimes.com/news/politics/minimum-pricing-for-alcohol-to-be-enforced-from-january-2022-1.4555289.

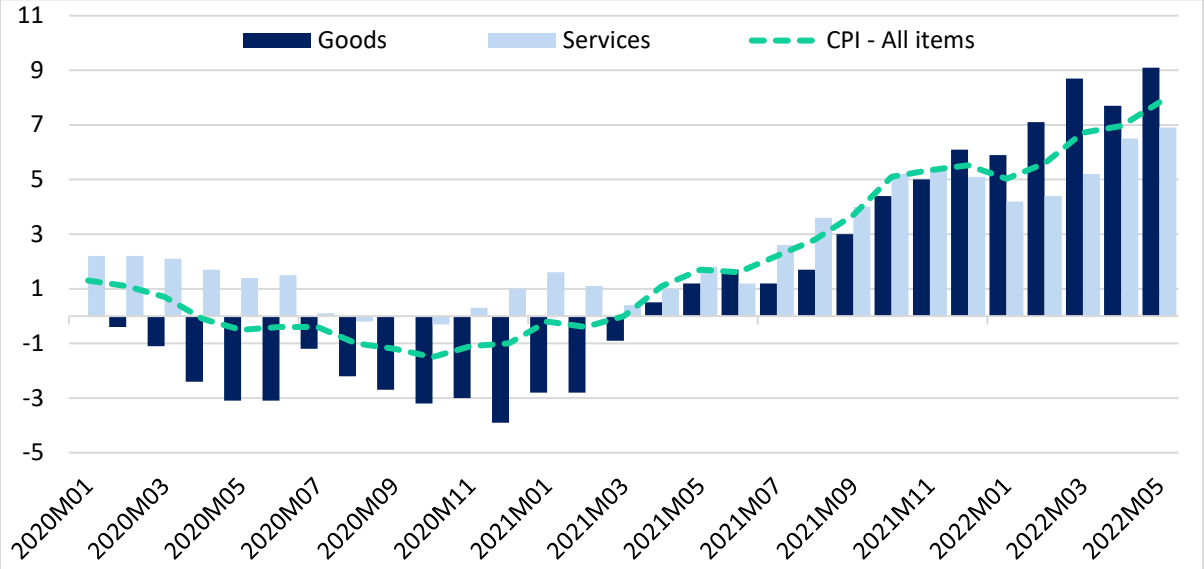
FIGURE 42 ANNUAL CHANGE IN INFLATION BY SUB-INDICES (%)



Source: Central Statistics Office.

Both goods and services are driving overall inflation. In May 2022, prices of goods and services were 9.1 and 6.9 per cent higher than the year prior respectively (Figure 43). Within the services sector, transport and accommodation services are driving much of the high growth; these services increased 8.1 and 21.9 per cent per annum in May 2022, respectively. Energy items continue to dominate the increase in goods prices; energy products experienced inflation of 46.3 per cent in May 2022.

FIGURE 43 DECOMPOSITION OF ANNUAL CPI GROWTH INTO GOODS AND SERVICES GROWTH (%)



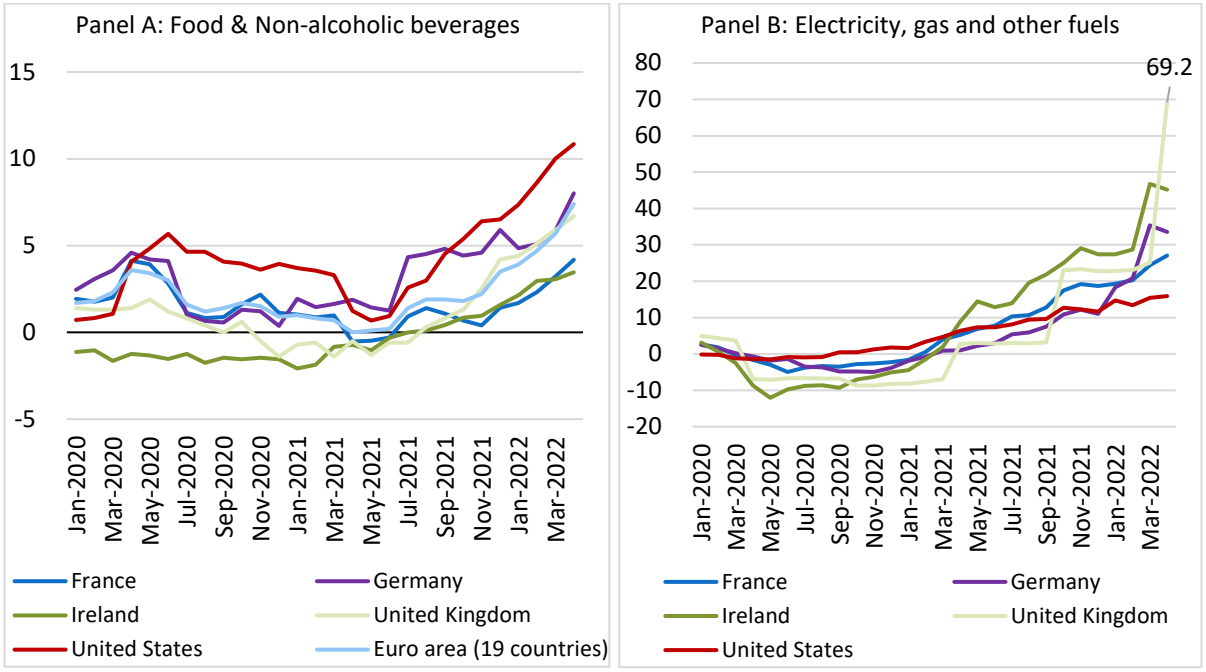
Source: Central Statistics Office.

Food and energy

As detailed in Box B of this *Commentary,* food and energy prices have seen the most acute inflation throughout the year. In the US and the euro area, food and non-alcoholic beverages reached 10.8 per cent and 7.4 per cent in April 2022 respectively (compared to 3.5 and 1.3 per cent in 2021). In terms of energy prices, Europe has experienced greater price pressures than the US. In particular, Europe's natural gas market has been particularly affected by lower than average storage inventory and significant declines in Russian pipeline supplies following the invasion of Ukraine and the imposition of sanctions and countermeasures (Figure 44, Panel B). In the UK, the decision to increase energy price caps in April 2022 contributed to its substantial growth in electricity and gas prices[37] (+69.2 per cent year-on-year).

[37] The Office of Gas and Electricity Markets (Ofgem) increased gas and energy prices in the UK in October 2021 and April 2022. See details here: https://www.ons.gov.uk/economy/inflationandpriceindices/bulletins/consumerpriceinflation/latest.

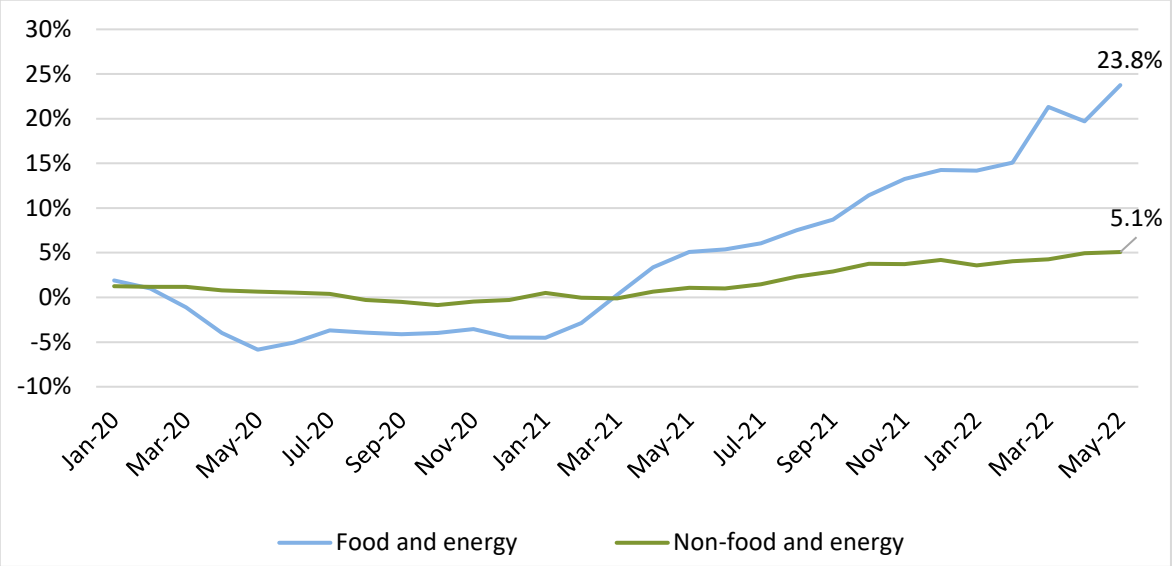
FIGURE 44 CPI, CROSS COUNTRY COMPARISON (YEAR-ON-YEAR %)



Source: OECD.

Figure 45 depicts the inflation rate of two separate indices: food and energy related items, and non-food and energy items. Food and energy items have accelerated rapidly over the past year, reaching a high point of 23.8 per cent per annum in May 2022. While the increase in non-food and energy-related goods has been more gradual, price pressures in these items are of real concern. As of May 2022, prices of these items had increased 5.1 per cent from May 2021. As core inflation rises, the likelihood of increased inflationary expectations amongst the public could result in greater demand for higher wages which in turn can reinforce any inflationary pressures.

FIGURE 45 INFLATION IN FOOD AND ENERGY AND NON-FOOD AND ENERGY ITEMS (Y-ON-Y %)



Source: CSO, *QEC* estimates.

For the period January to May 2022, annual inflation stood at 7.3 per cent. Table 1 breaks down current inflation YTD by food and energy items and all other items. In total, food and energy items account for just one-fifth of household consumption. While this suggests that overall inflation will remain closer to the price pressures experienced in non-food and energy items, the trajectory of inflation for the remainder of the year will depend on the degree to which volatility in food and energy markets are passed on to other consumer goods.

TABLE 1 WEIGHT AND ANNUAL GROWTH (%, YTD) IN FOOD AND ENERGY AND NON-FOOD AND ENERGY ITEMS

CPI Component	Weight (2022)	Annual Growth YTD
Non-food and energy	80.12	4.4%
Food and energy	19.80	18.9%
Total	*100*	*7.3%*

Source: Central Statistics Office, *QEC* estimates.

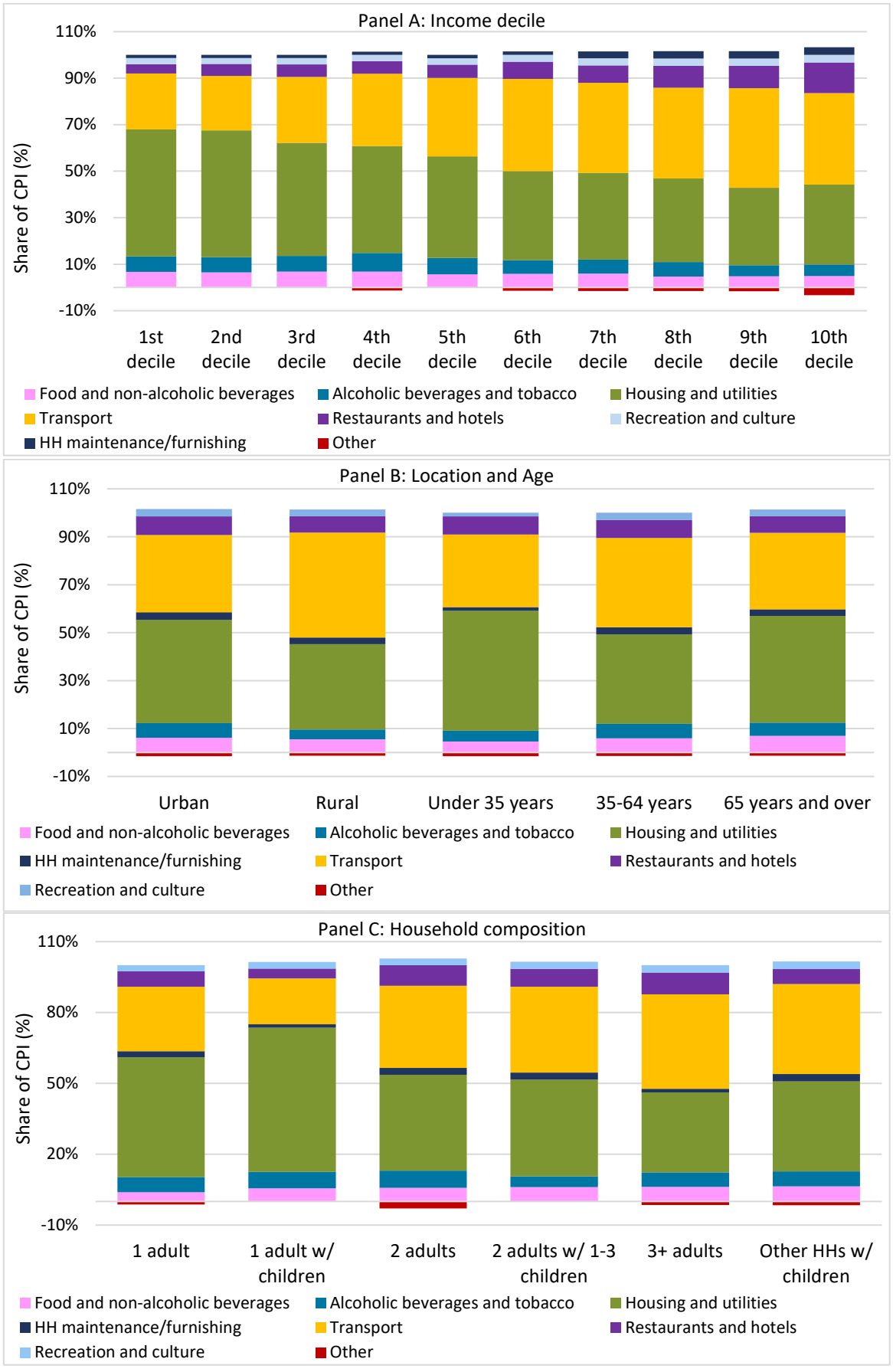
Distributional effects of inflation

While all households are impacted by recent price increases, household expenditure varies greatly by characteristics of each household and, therefore, the consequences of inflation will be heterogeneous across households. As discussed in Box B of this *Commentary,* food and energy related costs are increasing at a faster rate than other components of CPI. As a result, households who typically spend more on these items are experiencing higher rates of inflation.

Figure 46 depicts the contribution to inflation by income decile, location, age, and household composition. In the two lowest income deciles, essential spending such as Housing and utilities and Food and non-alcoholic beverages accounted for just over 60 per cent of the share of CPI. For the two highest income deciles, these items accounted for just under 40 per cent of the share of CPI. Transport and Restaurants and hotels contributed more to inflation in higher-income households than lower-income households; combined, these items contributed over 50 per cent to CPI in the top two deciles compared to under 30 per cent in the bottom two deciles (Figure 46, Panel A).

While housing and utilities contributes a larger share of urban CPI (43 versus 36 per cent), transport contributes more to rural households (44 versus 32 per cent) (Figure 46, Panel B). Therefore, the increased cost of certain transport items is contributing to a higher rate of inflation amongst rural households. Housing and utilities is a significantly greater contributor to CPI for single households compared to households with two or more adults (Figure 46, Panel C). However, transport costs are lower for single adult households when compared to all other households.

FIGURE 46 CONTRIBUTION TO ESTIMATED INFLATION BY HOUSEHOLD CHARACTERISTICS

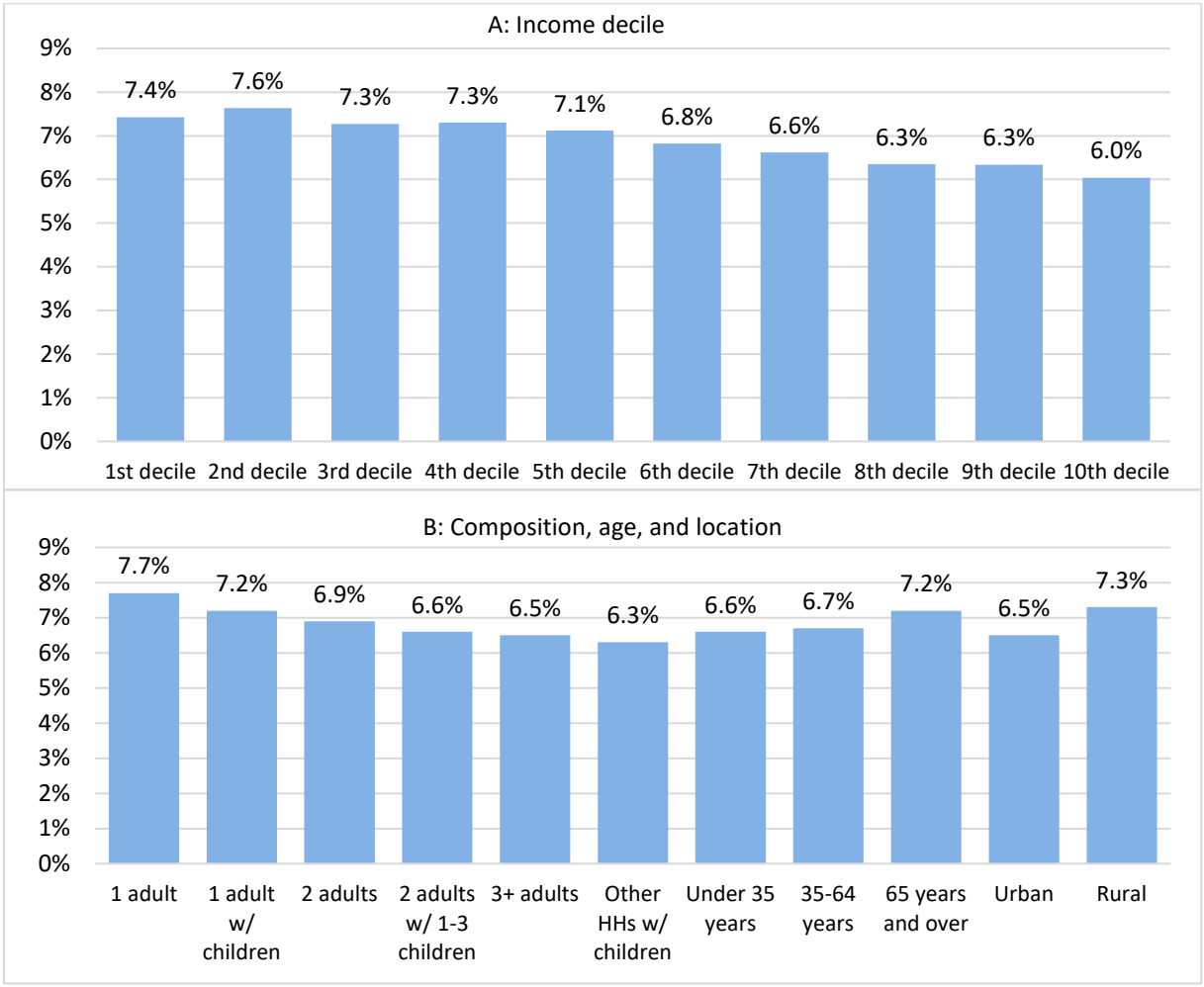


Source: CSO.

Due to differences in the composition of household expenditure, households are experiencing different rates of inflation. Figure 47 shows the diverging inflation rates across income deciles, location, age groups, and household composition. Across income deciles, it is clear that lower income households are disproportionately affected by the recent increase in price. For households in the bottom half of the income distribution, inflation exceeded 7 per cent in March 2022 (Figure 47, Panel A).

When considering household composition, single adult households experienced the highest inflation rate in March 2022 (7.7 per cent). Rural households also experienced higher inflation than urban counterparts, and households over age 65 experienced inflation of 7.2 per cent, while inflation remained under 7.0 per cent amongst younger households.

FIGURE 47 CPI IN MARCH 2022 BY HOUSEHOLD CHARACTERISTIC



Source: CSO.

Outlook

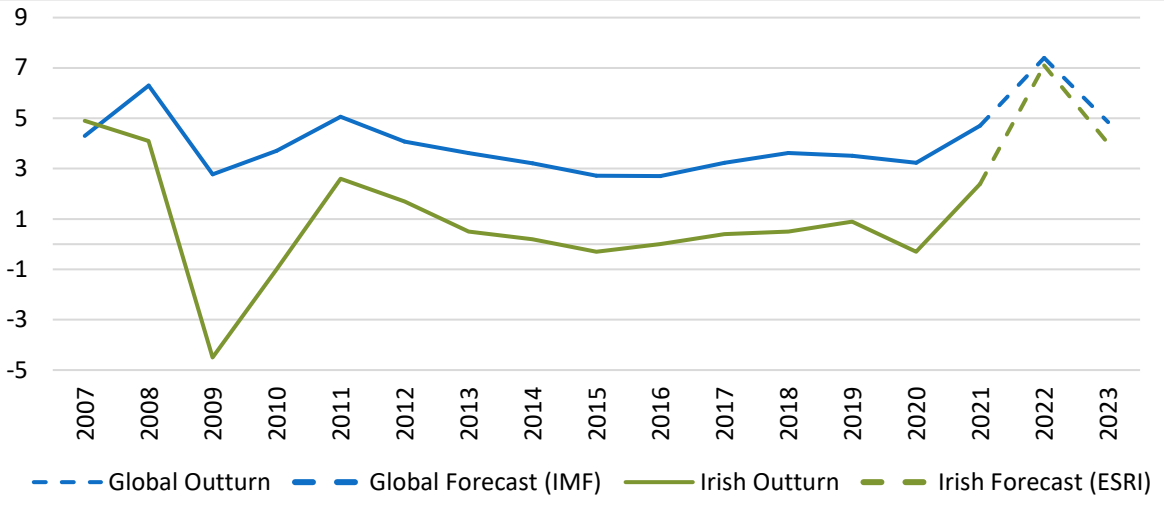
Much of the volatility likely to impact the overall CPI in the near-term is the trajectory of food and energy prices. As outlined in Box B, inflation rates of energy-related items have already surpassed their model predicted levels. While swings in these items have the potential to be significant, inflation in food and energy is relatively transitory. The duration of the war in Ukraine is highly uncertain but, as the conflict continues, we expect some of the upward pressure to abate as supply and usage adjusts to the new price levels. As a result, we expect the disruptions in these items to abate by the end of 2023. The larger concern will be the extent to which changes in food and energy items are passed on to other consumer goods.

Overall, we expect an inflation rate of 7.1 per cent in 2022 and 4 per cent in 2023. Relative to our previous forecast, we have raised the expected inflation rate for 2022 give our assessment of inflationary pressures remaining higher for longer in 2022. We have moderated somewhat our inflation rate in 2023 in part given an expectation of a degree of abatement in energy and food prices in 2023 in line with international forecasts but also reflecting the base effects of a higher rate of inflation in 2022.

BOX B GLOBAL INFLATIONARY PRESSURES AND THE SPILLOVERS TO IRISH PRICES

The pandemic-related economic strains in commodity markets and supply chains, coupled with the invasion of Ukraine by the Russian Federation, have placed considerable upward pressures on international prices. International inflationary pressures have escalated to levels unseen in many years and considerable global research has documented these escalating trends (IMF, 2022; BIS, 2022). Figure B.1 presents the inflation rate for the Irish and world Consumer Price Index for the period 2007-2023. While the first year of the COVID-19 pandemic was associated with a marginal decline in global inflation rates, and actual deflation in the Irish case, a notable change is evident for 2021. This increase was driven by multiple factors including the escalation in international energy prices and also supply-chain disruptions from the pandemic. A continuation of these factors, as well as added upward energy and food price disruptions from the Russian invasion of Ukraine have significantly increased expectations for higher rates of inflation going forward. Indeed, the IMF have increased their latest global inflation forecast to above 7 per cent for this year.

FIGURE B.1 TRENDS IN IRISH AND GLOBAL CONSUMER PRICE INFLATION



Sources: IMF WEO Data; CSO; ESRI Forecasts.

The areas of energy and food have seen the most acute inflation in recent months. Panels A and B in Figure B.2 present the trend in inflation in global indices for food, beverages and selected energy series (the IMF compositive energy index, a natural gas index, oil prices indices and coal prices) as well as forecasts for these series for 2022 and 2023 from the most recent IMF World Economic Outlook (April 2022). Food prices experienced large increases in 2021 with a near 30 per cent rate of inflation; for 2022 the expectation is just under 14 per cent inflation again for food prices. Given Russia and Ukraine's roles as major producers and exporters of food, these forecasts are likely to come with considerable upside risks as the war in Ukraine continues.

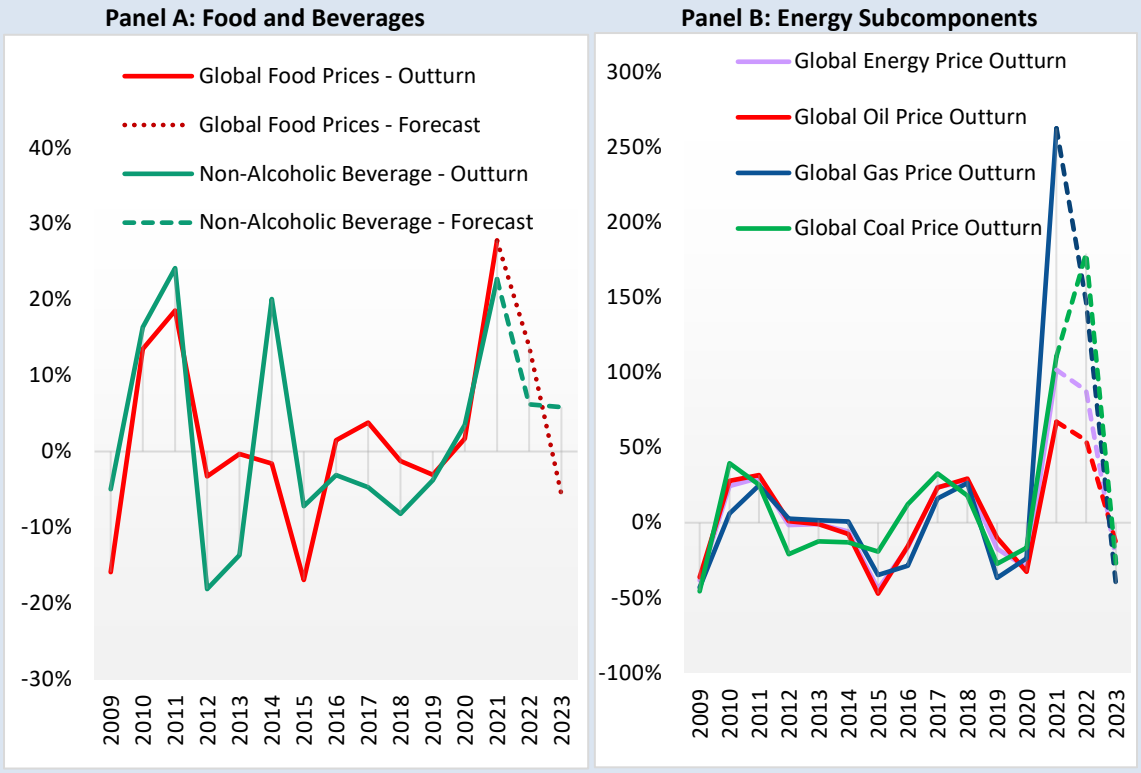
For the energy series, it is very clear that 2021 saw extremely high inflation in these areas, with the overall energy price index (including oil, gas and coal) increasing by over 100 per cent. The rapid economic recovery and the resultant surge in demand, a colder winter season, less investment in new production, and lower renewable generation all

contributed to price pressures in the energy market in 2021 as supply was unable to meet surging demand (ACER, 2021). The war in Ukraine and the subsequent sanctions imposed on Russia have further exacerbated price pressures in the energy market, given Russia's role as a major supplier of oil, gas and coal. In 2022, the energy price index is forecast to grow by a further 87 per cent before dropping back by 24 per cent in 2023.

While all subcomponents are increasing, the energy sub-item experiencing the greatest rate of inflation is natural gas, which grew by over 250 per cent in 2021 as global natural gas consumption in 2021 was more than double its decline in 2020 (IEA, 2021). Oil and coal prices grew 70 per cent and 110 per cent, respectively, in 2021. The expectation for 2022 is that gas prices will increase further by over 146 per cent (on top of the 250 per cent increase in 2021) while they are expected to fall back in 2023 by 46 per cent. Oil prices are expected to grow by 54 per cent in 2022 and then decline by 13 per cent in 2023. Coal prices are forecast to increase by 180 per cent this year and drop back by 26 per cent next year.

That both basic food and energy are the products experiencing high inflation is of particular concern for low-income households who typically tend to spend a high proportion of their budget on foodstuffs and energy costs.

FIGURE B.2 TRENDS IN WORLD FOOD, BEVERAGES, AND ENERGY PRICES



Source: IMF World Economic Outlook, April 2022.

A key question arises as to what extent these extreme price increases are going to feed through into domestic Irish prices for related products. Table B.1 contains subcomponents of the Consumer Price Index for Ireland that relate to food and energy items (both home energy costs and personal transportation-related costs). While the escalation in

international food and beverage prices did not pass completely through to Irish consumers in 2021, it is clear that the increase in energy inflation had begun to pass-through to the Irish consumer. Petrol, diesel, electricity and liquid fuel prices all grew at over 10 per cent in 2021. Given it is likely that there is a considerable lag between international commodities price changes and end-user prices (due to market structures, regulation, and financial activities such as hedging) it is highly likely that the inflationary dynamics will pick up going forward.

TABLE B.1 INFLATION IN IRISH CPI FOOD AND ENERGY COMPONENTS

	2019	2020	2021
Food and Non-Alcoholic Beverages			
Food	-0.6%	-1.2%	-0.3%
Non-Alcoholic Beverages	-1.1%	-2.5%	0.6%
Home Energy Cost Items			
Electricity	3.2%	0.4%	12.3%
Gas	6.7%	-4.4%	7.8%
Liquid fuels (home heating oil)	-2.4%	-24.6%	30.7%
Solid fuels	1.9%	1.6%	4.7%
Transport Energy Cost Items			
Petrol	-0.7%	-3.1%	10.6%
Diesel	0.3%	-4.6%	11.4%
Motor oil	1.5%	-0.9%	4.0%

Source: CSO Annual CPI Data.

To understand how international prices have historically fed through into Irish domestic prices, we formally link certain items of the Irish sub-indices with a comparable global inflationary series; we run a series of standard ARMAX models which link inflation in each of the subcomponents named above with the contemporaneous and lagged values of external price factors using a AR(1) lag and MA(1) error structure. We assume that the Irish inflation series is exogenous as far as the international price is concerned i.e. Ireland is a price taker and does not impact the global inflation rate. The models are estimated on annual data (the sample used depends on data availability).

$$i_t = \alpha + \beta i_{t-1} + \theta_1 W_t + \theta_2 W_{t-1} + \varepsilon_t + \emptyset \varepsilon_{t-1}$$

Where *i* represents each of the aforementioned sub-series of inflation and W refers to an external index. The mappings between the CPI item and the international indices are presented below. In all the models above, we also included a variable which attempts to capture the pressures in the domestic economy and was defined as the current year unemployment rate minus the three-year average unemployment rate as a proxy for the NAIRU. This variable was only significant in the food and beverages regressions, therefore it is omitted from the energy price modelling.

TABLE B.2 MAPPING IRISH INFLATION ITEMS TO COMPARABLE INTERNATIONAL INDEX

Irish CPI Subcomponent	International Index
Food and Non-Alcoholic Beverages	
Food	Commodity Food Price Index includes Cereal, Vegetable Oils, Meat, Seafood, Sugar, Bananas, and Oranges Price Indices
Non-Alcoholic Beverages	Commodity Beverage Price Index includes Coffee, Tea, and Cocoa
Home Energy Cost Items	
Electricity	Commodity Fuel (energy) Index includes Crude oil (petroleum), Natural Gas, and Coal Price Indices
Gas	Commodity Natural Gas Price Index includes European, Japanese, and American Natural Gas Price Indices
Liquid fuels	Crude Oil (petroleum), Price index simple average of three spot prices (APSP); Dated Brent, West Texas Intermediate, and the Dubai Fateh
Solid fuels	Commodity Coal Price Index includes Australian and South African Coal
Transport Energy Cost Items	
Petrol	Crude Oil (petroleum), Price index simple average of three spot prices (APSP); Dated Brent, West Texas Intermediate, and the Dubai Fateh
Diesel	Crude Oil (petroleum), Price index simple average of three spot prices (APSP); Dated Brent, West Texas Intermediate, and the Dubai Fateh
Motor oil	Crude Oil (petroleum), Price index simple average of three spot prices (APSP); Dated Brent, West Texas Intermediate, and the Dubai Fateh

Sources: *CSO, IMF.*

Using these simple models, it is possible to provide a predicted outturn of inflation for each of the subcomponents for Ireland using the IMF series as an anchor forecast. The coefficient estimates and model predictive power statistics are available from the authors on request. The model predictions are presented in Table B.3 alongside the growth rate in the international index from the IMF forecasts as well as the outturn in the Irish monthly CPI for the year to date. It is clear that typically international inflation rates traditional do not fully pass through to the Irish CPI; therefore, we are unlikely to see all of the current volatility observed in the international series being passed through to the Irish CPI.

TABLE B.3 IMF FORECAST, MODEL PREDICTIONS AND ANNUAL GROWTH IN IRISH CPI YTD

Food and energy	IMF Index Global Forecast	Model Forecast (2022)	Annual Growth YTD
Food	13.8%	4.0%	2.8%
Non-alcoholic beverages	6.2%	3.0%	3.4%
Electricity	87.9%	11.0%	23.8%
Gas	146.9%	25.0%	33.5%
Liquid fuels	54.6%	28.0%	81.6%
Solid fuels	179.3%	9.0%	15.4%
Petrol	54.6%	12.0%	29.7%
Diesel	54.6%	18.0%	37.9%
Motor oil	54.6%	3.0%	6.6%

Source: IMF, authors' calculations.

The main aim of this Box is to demonstrate that it is unlikely that the full extent of international price pressures will pass through to Irish consumers. Indeed, the simple model prediction, in particular for electricity, food, beverages and gas is closer to the current YTD outturn indicating a more moderate pass-through of the international price increase than could be expected by reviewing only the global forecasts. These effects may also play out in reverse (albeit asymmetrically) if price pressures internationally abate i.e. Irish prices may not fall back to the full extent of international pressures. This may have a longer-term impact on Irish competitiveness if prices are sticky downwards.

It must be noted there are strong caveats to using any model-based prediction for a period like the present which has witnessed such considerable volatility. Indeed, it is clear the actual increase in inflation for the first number of months of the year exceeds that level predicted by the model for certain commodities. This highlights the exceptional nature of the global inflationary pressures at present. It also suggests that the traditional relationship between these sub-indices and the international comparator has changed quite significantly in the current context and that food and energy items in the overall Irish CPI are likely to witness significant inflation in the coming months.

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IEA (Producer) (2021). *Gas Market Report, Q1 2022.*

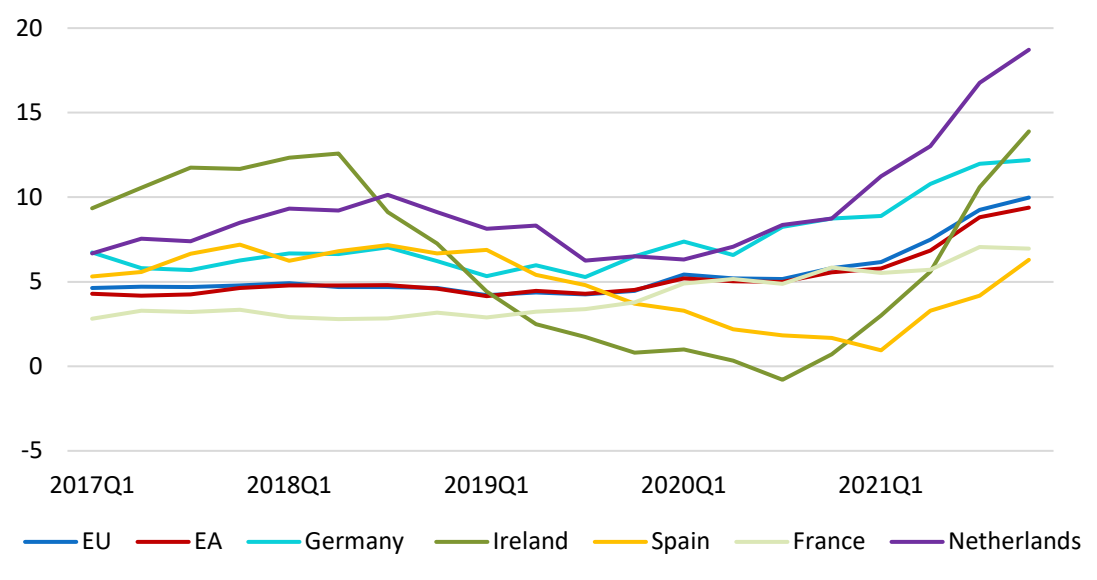
This Box was prepared by Conor O'Toole and Wendy Disch.

Another sector of the domestic economy experiencing significant inflation is the housing market with both house prices and rents increasing sharply over the past 12 months. In Box C, McQuinn looks at the impact of changes in the European Central Bank (ECB) policy rate on Irish mortgage rates and housing demand.

BOX C THE IMPACT OF INCREASES IN THE ECB POLICY RATES ON IRISH HOUSE PRICES

Recently, in light of the sharp and persistent increase in inflation, the European Central Bank (ECB) has committed to increasing its policy rates over the coming quarters.[38] Two sets of increases are now likely, each consisting of 25 basis points in July and September 2022. A particularly relevant consideration is the impact of an increase in the cost of finance on housing demand and house prices in particular. House prices across Europe have risen sharply since the COVID-19 pandemic with increased savings levels on the demand side and restrictions on housing construction on the supply side resulting in accelerated rates of house price inflation. Figure C.1 plots the annual rate of house price increases since 2017 of a select number of European countries.

FIGURE C.1 EUROPEAN ANNUAL HOUSE PRICE INCREASES (%): Q1 2017 – Q4 2021



Source: European Commission NewCronos database.

It is clear that most countries have experienced a sharp pick-up in house price inflation since the end of 2020, with Ireland, the Netherlands and Germany experiencing particularly significant increases. It should also be noted that Irish house price levels are already amongst the highest in the euro area (see Bricongne et al., 2019, for a detailed cross-country comparison of price levels adjusted for size). Indeed, the most recent data for the Irish market indicate that house prices for the year to March 2022 increased by over 15 per cent. Therefore, as interest rates are commonly regarded as being an important determinant of the demand for housing, what is the likely impact of a future increase in ECB policy rates on Irish house prices?

A model of Irish house prices

To quantify the potential impact of future increases in interest rates on house prices, we now specify and estimate a model of housing demand. The model is based on the

[38] See recent comments by ECB chief economist Philip Lane: https://www.bloomberg.com/news/articles/2022-05-30/ecb-s-lane-calls-two-quarter-point-rate-hikes-benchmark-pace.

affordability model specified and estimated in McQuinn and O'Reilly (2007). The affordability model uses the following annuity formula where A_t is defined as follows:

$$A_t = \omega Y_t \left(\frac{1 - (1 - R_t)^{-\tau}}{R_t} \right) \qquad (1)$$

The annuity is the fraction of current disposable income (ωY_t) that goes toward mortgage repayments and is discounted at the current mortgage interest rate (R_t) for a horizon equal to the term of the mortgage (τ). The model assumes that the demand for housing is mainly a function of the amount that prospective house purchasers can borrow from financial institutions and this, in turn, is dependent on current disposable income and the existing mortgage interest rate. The annuity formula is then nested within the following broader specification:

$$P_t = \alpha + \beta_1 A_t + \beta_2 CC_t + \beta_3 H_t + \beta_4 POP_t \qquad (2)$$

Where P_t is house price levels, CC_t is a credit conditions indicator, similar to that used in Kelly and McQuinn (2014), H_t is a housing stock variable and POP_t is the ratio of the population in the key house purchasing cohort (25-44 years of age). The model[39] is estimated over the period 1981-2019 and the results are summarised in Table C.1.

TABLE C.1 RESULTS OF IRISH HOUSE PRICE REGRESSION: Q1 1981–Q4 2019[40]

Variable	Coefficient	T-Stat
Constant	45.476	11.373
$\boldsymbol{A_t}$	0.738	15.476
$\boldsymbol{CC_t}$	1.488	17.346
$\boldsymbol{H_t}$	-2.845	-9.499
$\boldsymbol{POP_t}$	0.703	2.733
$\boldsymbol{\overline{R^2}}$	0.902	

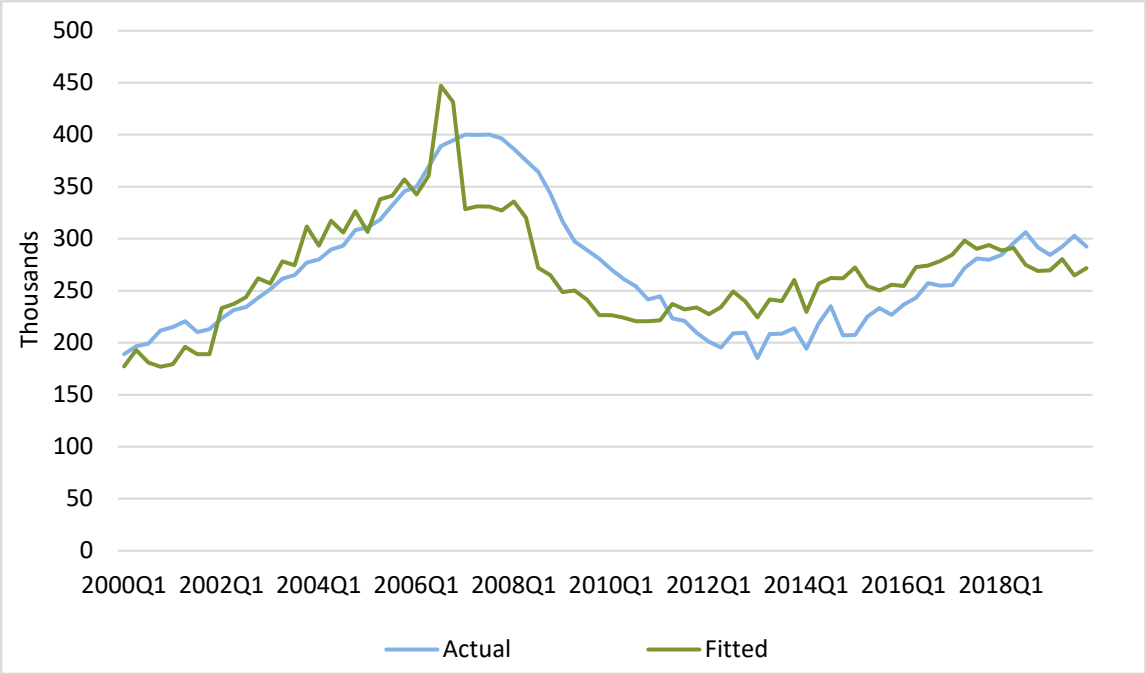
Source: Authors' calculations.

The estimation is conducted on a log-log basis so the coefficient for A_t can be interpreted as an elasticity. The size of the coefficient is in line with previous applications of the model (see McQuinn, 2017, for example). The actual and fitted values from the model are plotted in Figure C.2.

39 Note all monetary variables are deflated by the Consumer Price Index. The estimation does not include data for 2020 and 2021 so as not to be influenced by the pandemic when income data were to some extent distorted by the presence of the pandemic unemployment payment and the wage subsidy schemes.

40 We did not include observations for 2020 and 2021 due to the distortionary impact of the pandemic.

FIGURE C.2 ACTUAL AND FITTED VALUES FROM THE HOUSE PRICE EQUATION: 2002 - 2019



Source: *QEC* estimates.

From the graph it is clear that the model performs quite well in tracking the actual historical data.

Interest rate scenario and conclusion

We now use the model results to simulate the impact of an increase in the ECB policy rate. The interest rate used in the model is a representative mortgage rate published by the Central Bank of Ireland.[41] To gauge the potential pass-through of any increase in the policy rate, we draw on previous work by Goggin et al. (2012) which examines the issue of policy rate pass-through to domestic mortgage rates in some detail. Goggin et al. (2012) looked at the pass-through relationships over different sub-periods. In particular, we look at the results of the pass-through analysis for the period prior to 2008. This was a period when policy rates were increasing and as such it equates more closely with the present policy context.[42] For that period, the coefficient for the pass-through relationship was 0.6; i.e. 60 per cent of the ECB policy rate increase was passed on to domestic mortgage holders.

The other modification we apply to the higher policy rate is we weight it by the proportion of house purchases accounted for by household buyers. These represent the category of buyer most likely to be impacted by any change in residential mortgage rates. Over the past seven years (2015-2021), data from the Central Statistics Office (CSO)[43] indicate that 83 per cent of all house purchases are by household buyers.[44] Therefore, as a scenario, we multiply the proposed pass-through amount of 50 basis points by 0.6 and 0.83 and apply this to the mortgage rate, R_t, in the A_t variable in (2). This results in the fitted house price being 2 per cent lower under the scenario compared with what it would be with the existing mortgage rate.

Overall, an increase in the ECB policy rate will, ceterus paribus, have a negative impact on Irish house prices and this impact may be greater if people believe that further policy rate increases are likely in the short- to medium-term. However, it is clear that other demand-side characteristics such as income levels and population levels coupled with a relatively sluggish supply response in the domestic market will continue to exert upward pressure on Irish house prices over the coming year.

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This Box was prepared by Kieran McQuinn.

41 See mortgage rates published at the link below. We weight the variable and fixed rate mortgage rate by the volume of mortgages for each category.
https://www.centralbank.ie/statistics/data-and-analysis/credit-and-banking-statistics/retail-interest-rates.

42 One caveat to the use of these previous parameters is any change in competitive structures that alter the pass-through over time. This may alter the pass-through in the current context but, in the absence of other data, we continue to use this parameter as an empirical guide.

43 See *Characteristics of Residential Property Purchasers* at https://data.cso.ie/ for more details.

44 Household buyers are defined as purchasers by a non-company/institutional buyer (such as REITS, AHBs and Local Authorities) and may be for investment (buy-to-let) or owner-occupation purposes.

PUBLIC FINANCES

Key Points

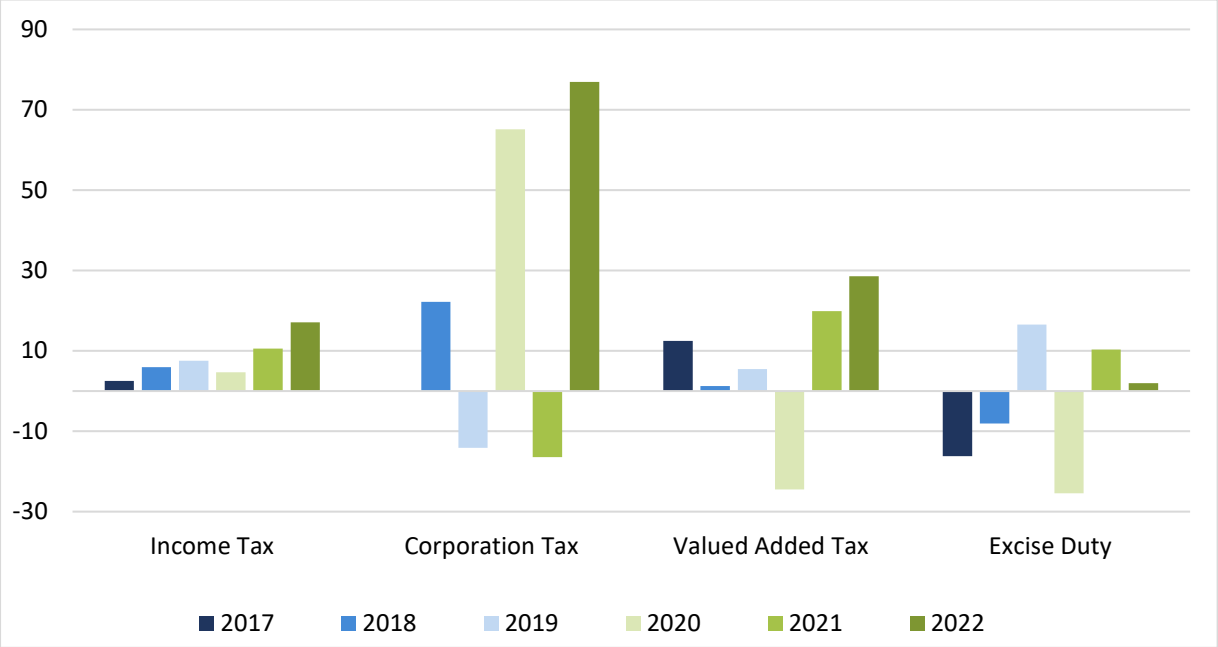
- *Tax receipts continue to exhibit strong annual growth across many headings including VAT and income tax.*
- *Corporation tax receipts also continue to perform strongly.*
- *Strong growth in tax revenues coupled with lower-than-targeted spending will likely result in a GGB surplus in 2022.*
- *Contingency fund to be used to fund additional spending on inflation-related and refugee-related supports.*

Taxation receipts for the major tax headings for the first five months of 2022 have been strong, with significant annual growth evident when compared with the period January-May 2021. While the recovery of the labour market was a large contributor to increased tax revenues during 2021, the improvement in VAT receipts is a notable development this quarter, with receipts increasing by 29 per cent for the period of January-May 2022 compared to the same period last year.

Income tax has continued to increase also, experiencing annual growth of 17 per cent in January-May 2022. This amounts to almost €12 billion for the first five months of the year. Corporation tax has also witnessed a significant increase up to May 2022 with over €5 billion taken in. This is an increase of €2.3 billion compared to the same period in 2021.

The development of the main taxation items is shown below.

FIGURE 48 GROWTH RATES OF MAIN TAXATION ITEMS



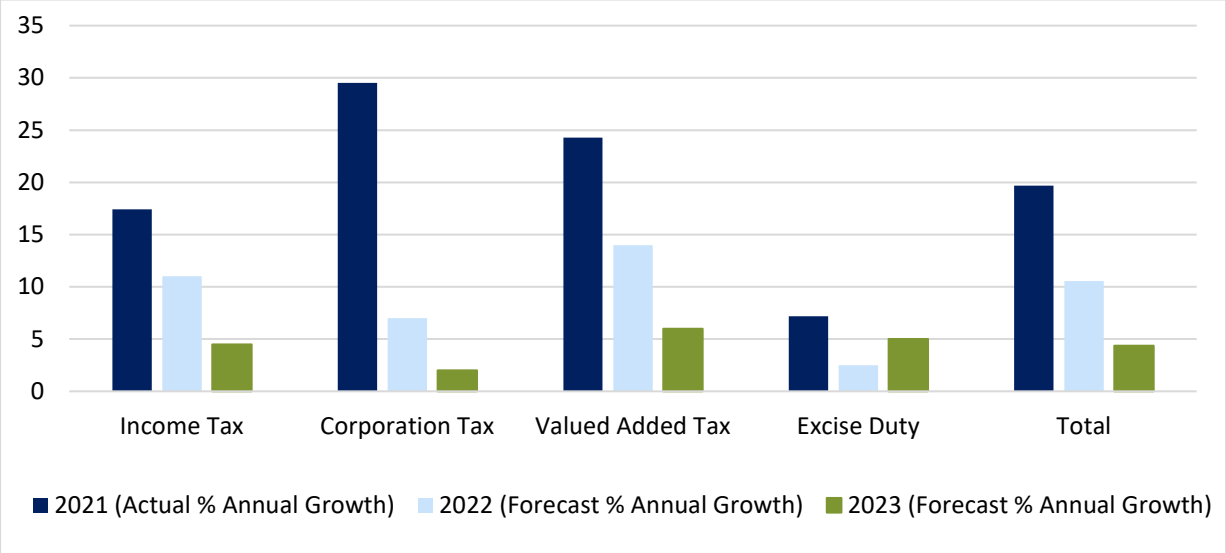
Source: *QEC* calculations.

Overall, government expenditure was 3.5 per cent lower in the period of January-May 2022 compared to the same period in 2021. Spending for the period was largely in line with what was targeted at the start of the year, coming in just €0.1 billion above profile. This lower level of expenditure is a result of both the declining threat of COVID-19 which has allowed for the removal of pandemic-related supports, as well as the continuous increases in employment, which reduces the need for transfer payments. Current spending on social protection is 35.6 per cent lower than it was for January-May 2021. It must be noted, however, that additional supports (for example to low-income households and particular sectors) may be provided during the remaining course of the year in order to deal with the persistence in inflation.

For the year to date, there have been decreases in capital spending across several areas, with capital spending on health decreasing by 17.4 per cent annually for the period of January-May compared with the same period in 2021. Capital spending on housing and transport decreased by 4.2 per cent and 24 per cent over the same period, respectively. However, it must be acknowledged that spending in all three of these areas is targeted to be greater than in 2021 by the end of this year.

Figure 49 shows our forecasts for the main taxation items for 2022.

FIGURE 49 FORECAST OF KEY TAXATION AGGREGATES



Source: Department of Finance and *QEC* calculations.

The significant growth in taxation receipts in 2021 was a result of the economic recovery as the effects of the pandemic subsided. However, given the more moderate pace of growth expected in the present year, most of the tax headings are not forecast to increase by as much as in 2021. Nevertheless, tax revenue across almost all major headings is still expected to grow robustly. This expectation is based on the strong annual growth in tax revenue observed from January-May 2022 as well as the expected continued improvements in the economy.

Despite the strong recorded growth in corporation tax receipts up to May of this year, it is prudent to regard a significant element of the recent increases in corporation tax as being windfall in nature. Using the full increase observed in corporation tax receipts to fund current expenditure in particular poses a risk to the public finances if such receipts were to decline significantly. The windfall element of the receipts should be targeted towards one-off productivity enhancing investments or accumulated for future use (such as in a rainy-day fund).[45]

Summary of public finances

Nevertheless, tax revenue is forecasted to continue to grow in 2022 and 2023. The General Government Balance (GGB) is expected to be in a surplus at 0.3 per cent in 2022. The continued improvement in fiscal indicators such as the GGB are due to the underlying pace of growth in the economy and recently have also been pushed down due to higher inflation. Inflation causes the real value of debt to

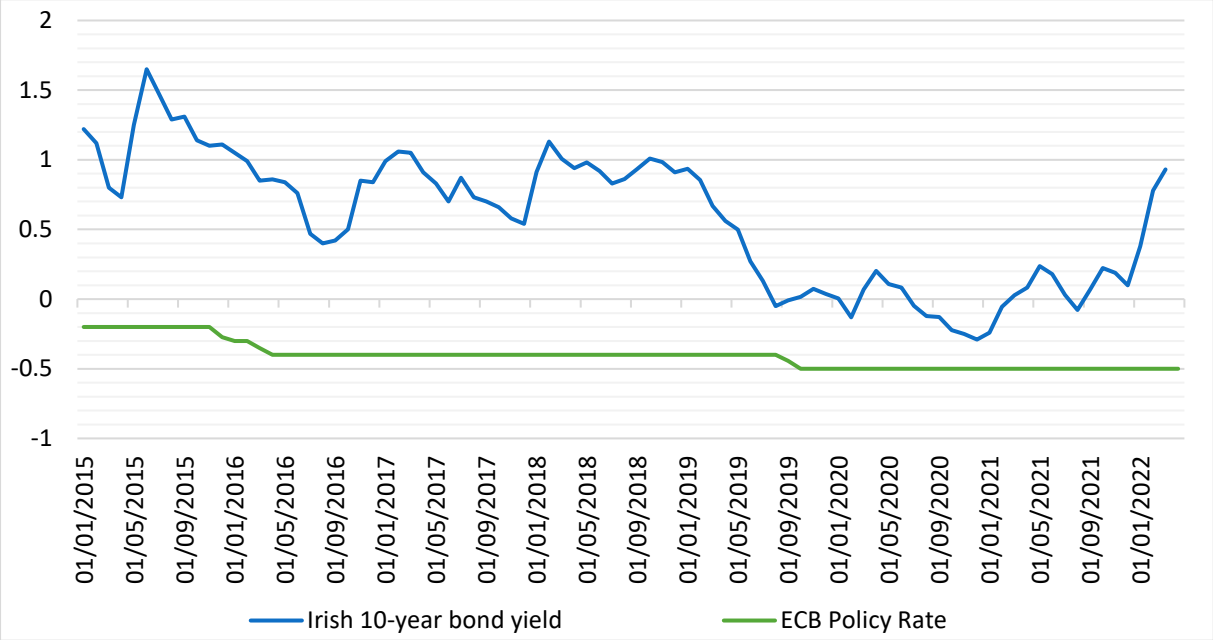
[45] This issue is discussed in more detail in the Irish Fiscal Advisory Council's latest *Fiscal Assessment Report* (Fiscal-Assessment-Report-May-2022.pdf (fiscalcouncil.ie)).

decrease and can also lead to higher tax intakes. With economic growth and inflation expected to continue, it is expected that the Irish debt-to-GDP and debt-to-GNI* ratios will continue to decline. By the end of 2023, it is forecast that these ratios will have declined to less than 47 and 89 per cent, respectively.

Of course, inflation has prompted action from government in the form of energy credits and it is likely that further measures will be required to insulate those most vulnerable from recent price pressures. It will also be necessary to support the large number of refugees arriving from Ukraine. However, the setting up of a contingency fund of €3.7 billion means this extra spending will not threaten the stability of the public finances. It is, however, important that any further spending is done in a targeted manner so as not to fuel additional inflationary pressures in the economy.

It should also be noted that likelihood of a tighter monetary policy environment with both higher rates and reduced or withdrawn asset purchase programmes appears to be on the horizon as Central Banks re-focus on the elevated levels of inflation. These policy changes will have an effect on the public finances. The ceasing of quantitative easing as well as large levels of uncertainty due to the pandemic and the war in Ukraine have led to decreased demand for government bonds, which has led to rising yields in many countries. The inevitable increase in interest rates on sovereign debt is a concern for certain euro area countries such as Italy, which have particularly high debt-to-GDP ratios.

FIGURE 50 YIELD ON IRISH TEN-YEAR SOVEREIGN BONDS



Source: Federal Reserve Bank of St. Louis.

As can be seen in Figure 50, yields on Irish bonds have increased over the past several months. This indicates a decreased demand for Irish bonds due to uncertainty and monetary policy changes. Nevertheless, on an international basis, Irish yields remain low and have not increased to the same extent as other countries such as Italy. The strong and robust rebound in taxation revenues as well as a swift economic recovery have led to declining debt ratios. Finally, although interest rates are due to rise by 50 basis points this year, they will remain very low in a historical context. Hence, the public finances are set to remain stable.

General Assessment

Price pressures and global factors weigh on the domestic recovery

2022 is likely to see the Irish economy experience more modest growth rates than the particularly robust performance in 2021; the strong recovery being driven by the consumption following the lifting of public-health restrictions as well as export growth. While the permanent removal of public health restrictions in early 2022 would typically have seen this recovery continue, and have yielded an economic dividend, a number of serious headwinds are likely to subdue both the international and domestic economies in the present year.

It is clear that most western economies are now set for slower than expected growth as global inflationary pressures accelerate. These pressures are particularly acute in critical commodities such as energy markets and foodstuffs. In a Box in this *Commentary*, O'Toole and Disch demonstrate the pass-through of energy and food price trends internationally to Irish consumer prices and find that international price rises are rapidly passing through to consumer prices. These inflationary pressures, allied to the continued uncertainty due to the conflict in the Ukraine, means that global demand for Irish goods and services is set to be lower than had been expected at the start of the year.

We now believe that Irish GDP will grow by 6.8 per cent in 2022, with the equivalent measure rising by 4.8 per cent next year. Modified domestic demand (MDD), which is a more accurate measure of domestic economic activity, is also set to increase by a slower pace than previously expected; we now expect growth of 4.4 per cent in the present year and 3.7 per cent in 2023. The continued growth of the economy can be seen in the Irish labour market; unemployment is now set to average 5 per cent in 2022 before falling to 4 per cent in 2023.

The recent strong pace of domestic growth, along with the international inflationary pressures evident since summer 2021 means that the escalation observed in the cost of living in the Irish economy in 2022 is set to be the highest since the early 1980s. Our forecast is for inflation to reach 7.1 per cent in 2022, falling back to 4.0 per cent for 2023.

Rising policy rates to combat inflation bring economic challenges

In light of European inflationary pressures, the European Central Bank (ECB) has now signalled it intends to increase policy rates in summer 2022 as well as ending its asset purchase programme. The ECB finds itself in a particularly precarious position with speculation about rate increases and the tapering of certain asset

support programmes already witnessing increases in the sovereign debt spreads of particular euro area countries such as Italy. There is now a clear signal of two increases of 25 basis points in the policy rates over the coming quarters.

As well as increasing the cost of borrowing to the Exchequer, rising policy rates can impact the Irish economy through a number of channels. In the residential mortgage market, an increase in interest rates will serve to reduce borrowing affordability which in turn, ceteris paribus, leads to a reduction in demand. In a Box to the *Commentary*, McQuinn assesses the impact on Irish house prices and finds that an increase in interest rates of 50 basis points would see Irish prices fall by 2 per cent relative to what they would otherwise be. Rising rates can also lower the demand for personal loans such as for home improvements, cars, and other consumption activities. On the enterprise side, rising lending rates would typically dampen investment demand by increasing the cost of borrowing and raising the cost of interest-bearing working capital facilities. In terms of existing borrowers of both commercial and household loans, increasing interest rates can reduce affordability if repayments increase. This can increase the default risk, however this depends on the type of loan contract, the general economic circumstances of the firm or household and other factors.

A critical issue in relation to the impact of rising policy rates on any economy is the degree to which the policy rate increases pass-through to lending rates. In the aftermath of the global financial crisis, policy rate declines did not pass through to Irish borrowers as banks kept non-indexed rates high. While numerous explanations have been put forward to explain this lack of pass-through, the degree of banking sector competition is a critical factor. While some new lenders have offered selected banking products in Ireland, the exit of Ulster Bank and KBC from the Irish market, and the highly concentrated nature of retail banking, is likely to present a considerable challenge in terms of the sector's competitiveness. It is critical that competition policy and industrial structure levers continue to be deployed to ensure competition is correctly monitored and barriers to entry are reduced. This will become even more important in a rate rising cycle.

Domestic pressures likely to become more acute in coming months

While the current upsurge in inflationary challenges has mostly been imported through energy and commodity markets, the continued robust performance of the domestic economy is likely to become more important as a driver of price pressure, especially as the labour market reaches full employment and if wage price pressures emerge. In light of these pressures, it is evident that fiscal policy will have to be particularly prudent over the coming years.

This strong recovery in the Irish labour market coupled with the persistent increases observed in Exchequer receipts means that the Irish fiscal position continues to improve despite the significant challenges of both the pandemic and the fall-out from the Ukrainian crisis. We now believe that there will be a surplus in the General Government Balance (GBB) of 0.3 per cent in 2022 before increasing to 0.6 per cent next year. This means that, given the likely growth trajectory of the domestic economy, the debt-to-GDP and debt-to-GNI* ratios are set to decline to 50.4 and 94.9 per cent respectively in 2022. As recently as 2014, the debt-to-GDP ratio stood at 104 per cent.

The improvement in the public finances does mean that there is still some scope for the Government to assist those most affected by the recent increases in the cost of living. However, it is imperative that any further such measures would be targeted in nature in order to avoid generating inflationary pressures themselves.[46] The continued increase in corporation taxation, while welcome, further highlights its importance as a source of government revenue. Given the possibility noted by other commentators that a portion of these receipts could fall away in future, their prudent deployment towards long-term investment activities or accumulation as savings would be advisable.

Furthermore, as significant investment is required in areas such as housing, the environment and healthcare, other areas of fiscal policy must be cautionary over the medium term so as to avoid generating additional inflationary pressures in the domestic economy. Increases in current expenditure in areas such as public sector pay must be carefully considered, while reducing the taxation burden in general would also constitute an unwarranted stimulus in the domestic economy at the present time.

The ongoing Brexit developments

A specific threat to the domestic economy lies in the continued uncertainty surrounding the Protocol which oversees trading relationships for the Northern Irish economy following Brexit. While a full-scale trade war between the United Kingdom and the European Union is still unlikely, it cannot be totally discounted. Such an eventuality would have a particularly adverse impact on the economy of the United Kingdom, and while the Irish export sector has diversified considerably away from the UK market in recent decades, a significant number of Irish SMEs still trade with our nearest trading partner. More generally, the medium- to long-term prospects for the UK economy are a concern for those who still trade with that market.

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[46] See https://www.esri.ie/events/webinar-launch-energy-poverty-and-deprivation-in-ireland for more details on this.

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