Ireland: Strong economic performance, external risks ahead

NTMA Investor Presentation
March 2025

Gníomhaireacht Bainistíochta an Chisteáin Náisiúnta
National Treasury Management Agency

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National Treasury Management Agency

Summary

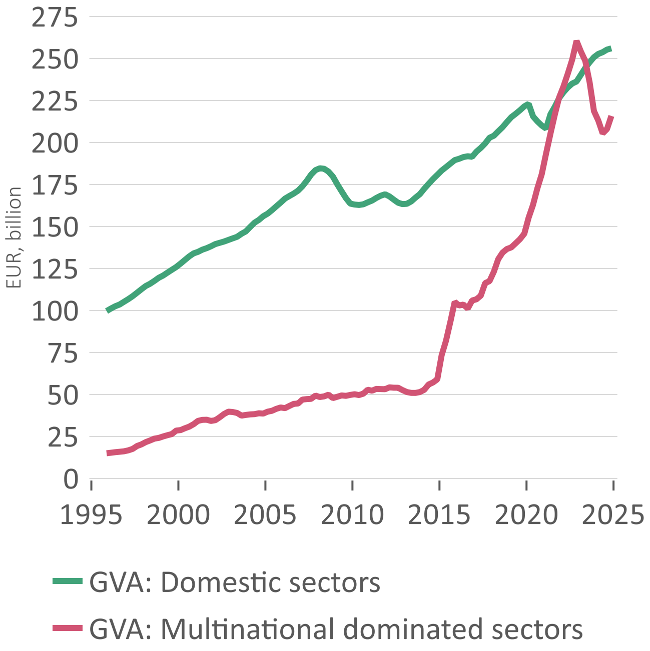
Economic growth is solid while fiscal position remains strong

Potential external risks

Real economic growth forecasted around 3%

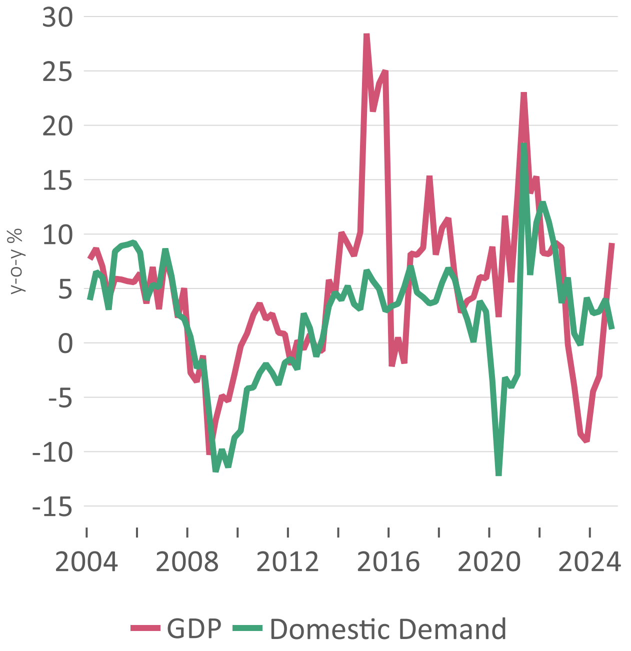
Full employment + fiscal policy + monetary policy will drive consumption

Value added from ICT & pharma strong – step back in manufacturing in 2023/24



Source: CSO

MDD gives better picture of growth: Consensus forecasts of 3% for 2025



Source: CSO

Unemployment rate around 4% - full employment for two/three years

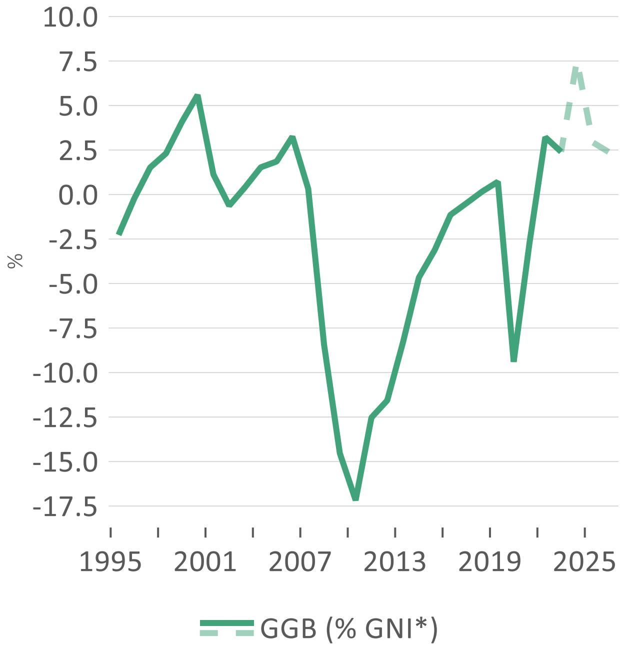
Source: CSO

* Modified Domestic Demand series accounts for multinational activity (technically modified final domestic demand (excl. inventories))
Note: RHS uses the standard unemployment rate during the Covid period. The Covid adjusted unemployment rate was as high as 31.5% at times between March 2020 and Feb 2022.

Large government surplus in 2024

Debt metrics improved in 2024; two long term funds–FIF/ICNF established with €10bn transferred

Forecasted 2025 GG surplus of 2.9% GNI*, similar to 2023 & 2024 (excl. CJEU)



Source: CSO

Debt metrics likely to have improved in 2024

Debt-to-GNI*

(69.1% 2024f; 75.9% in 2023)

Debt-to-GG Revenue

(145.8% 2024f; 178% in 2023)

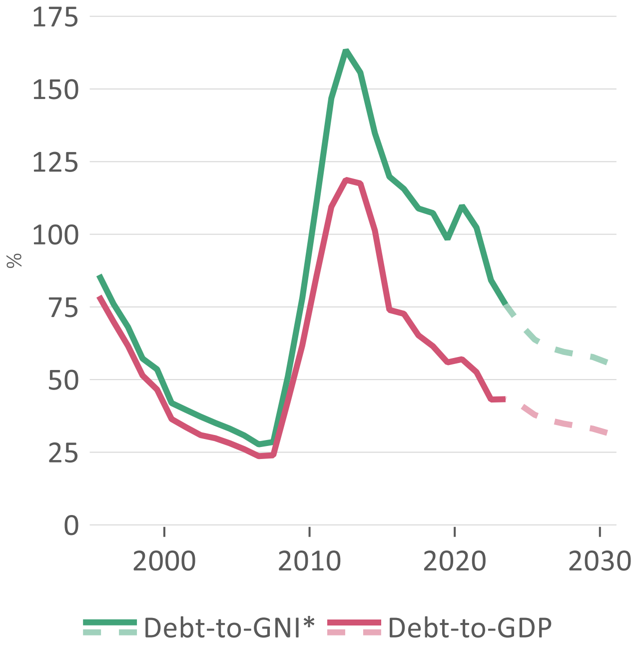
Average interest rate

(1.4% 2024f, 1.6% in 2023)

Debt-to-GDP^

(41.4% 2024f; 43% in 2023)

Debt to GNI* falling with solid growth, surpluses and limited issuance



Source: CSO

^ Debt to GDP is not an appropriate metric to use for Ireland

Medium term challenges/opportunities

External environment uncertainty means potential downside risks to strong growth outlook

Growth

Labour market strength remained in 2024. Healthy domestic balance sheets, lower inflation and easing policy likely to help consumer in short term.

Slow growth in Europe is a headwind.

FDI Model

Risks surrounding geo-politics, deglobalisation, and corporate taxation are short/medium term concerns for a small open economy like Ireland. Especially given the linkages to the US.

Ireland being adaptive to global events is critical.

FIF/ICNF

Large surplus excluding CJEU/Apple case proceeds (c. 2.5% of GNI*) in 2024 via exceptional CT receipts.

€10bn in new funds, after first transfers made. Intention is to save c. €6bn p.a. of tax receipts and partially alleviate future challenges.

NTMA funding range for 2025: €6bn to €10bn

€3bn issued in January; cash balance is elevated but expected to fall

Cash

Tax strength alongside Apple proceeds means Ireland in strong cash position.

The cash balance was €34bn at end 2024 but expected to fall through 2025

WAM

Weighted average maturity of debt one of longest in Europe.

NTMA issuance since start of 2022 of €23bn at WAM of 17.0 years and average interest rate of 2.41%.

AA

Ireland rated in the AA category with all major rating agencies.

Fitch and DBRS upgraded to AA in 2024 while S&P is at AA (positive). Moody's remains at Aa3 but with a positive outlook.

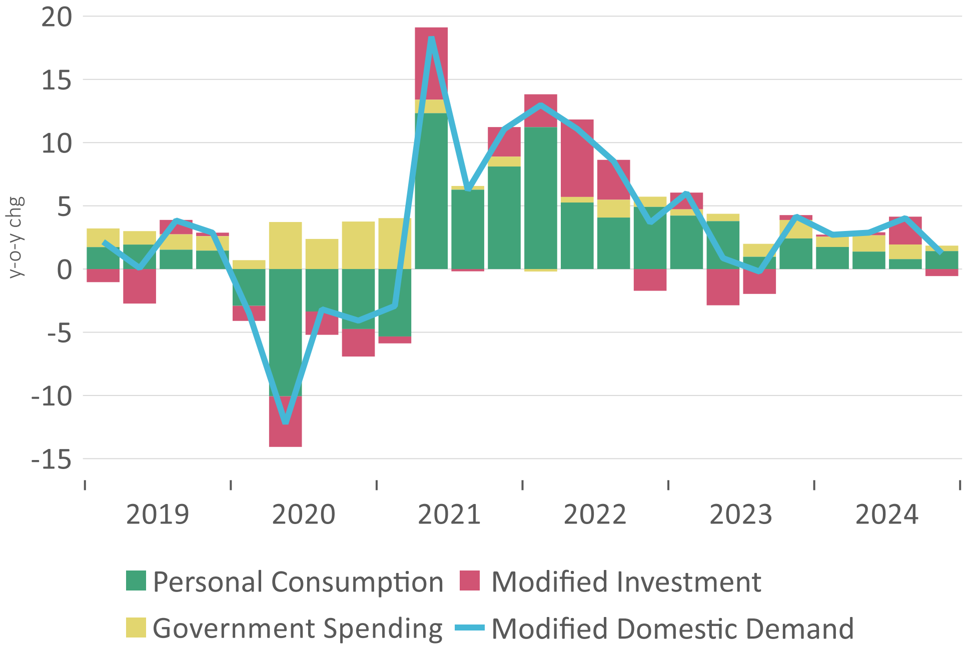
Macro

Economic growth in 2024
2.7% by MDD

Irish economic growth expected to continue in 2025

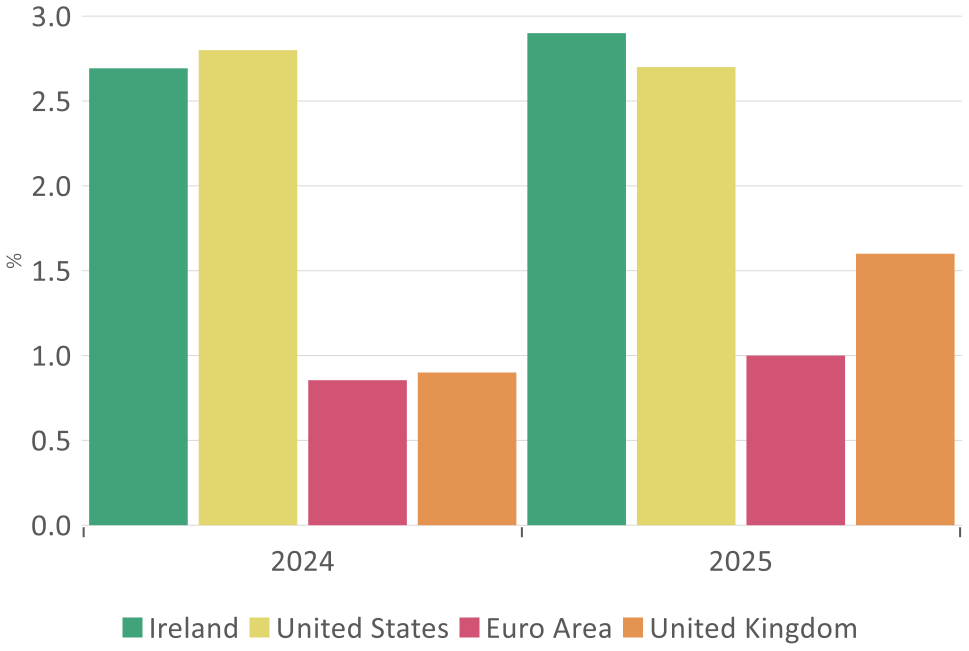
Absent shocks, consumption and employment growth can drive Irish economy

Modified Domestic Demand, our preferred measure increased by 2.7% in 2024, with consumption growing by 2.3%



Source: CSO

Irish economic activity* projected to continue growing strongly in 2025, more in line with the US rather than Europe



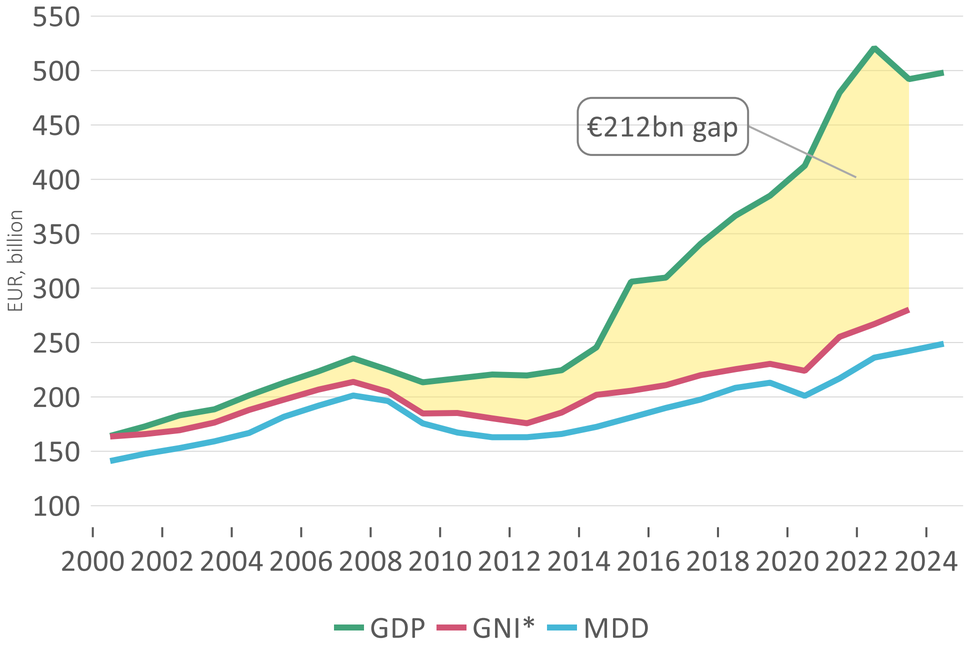
Source: IMF, CSO, Eurostat, ONS, BEA, Irish Department of Finance

Note: MDD for Ireland is modified for multinational activity by Ireland's Central Statistics Office (CSO). MDD = Consumption + Government (current) spending + Modified Investment. Seasonal adjustment mean contributions do not always add up to MDD growth rate.
* RHS chart uses MDD for Ireland and GDP for all other countries.

Real GDP grew by 1.2% in 2024, but level still below 2022

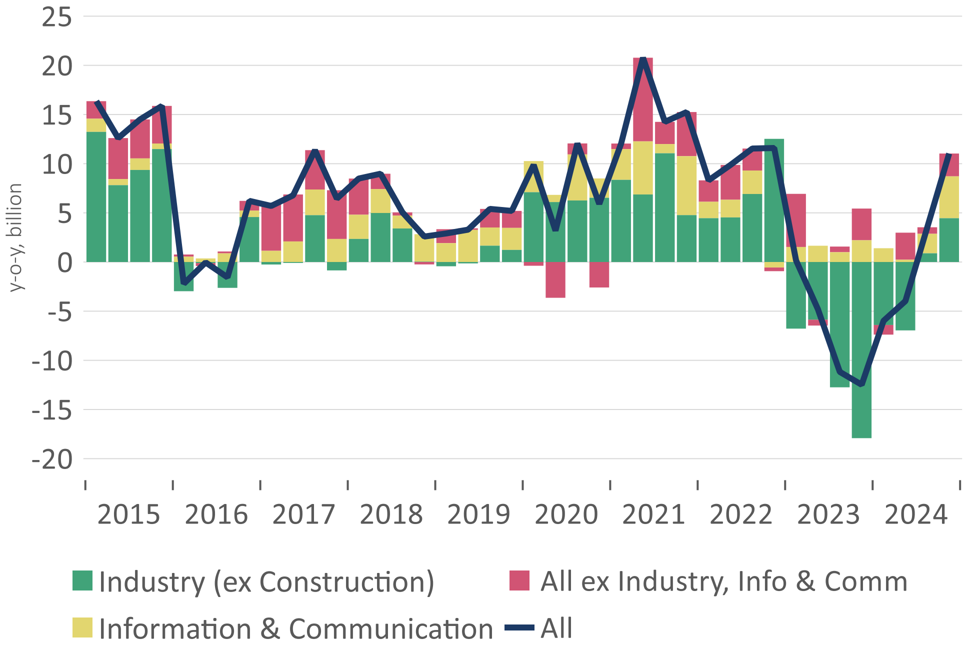
GDP isn't a reliable metric for Ireland, sharp drop recently due to Industry sector

Real GDP declined in 2023 and grew modestly in 2024 while measures that strip out MNE activity continued to grow



Source: CSO

Real GVA rebounded in H2 2024 largely due to pick-up in Industry and Information and Communication

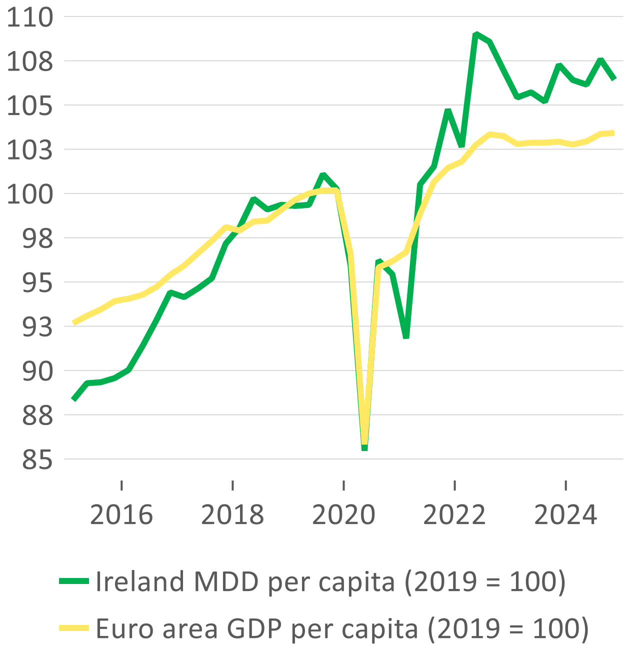


Source: CSO

Ireland vs Euro Area performance

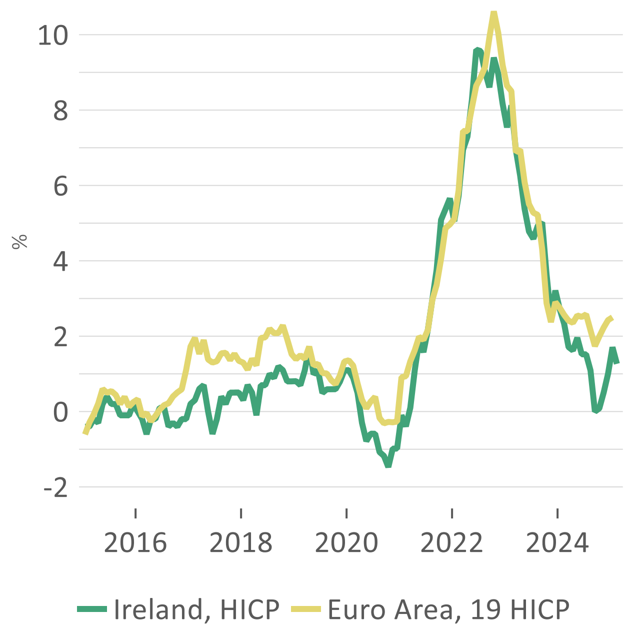
Greater growth in Ireland with a similar inflation path aided by labour force

Ireland has grown on a higher path post Covid than EA average



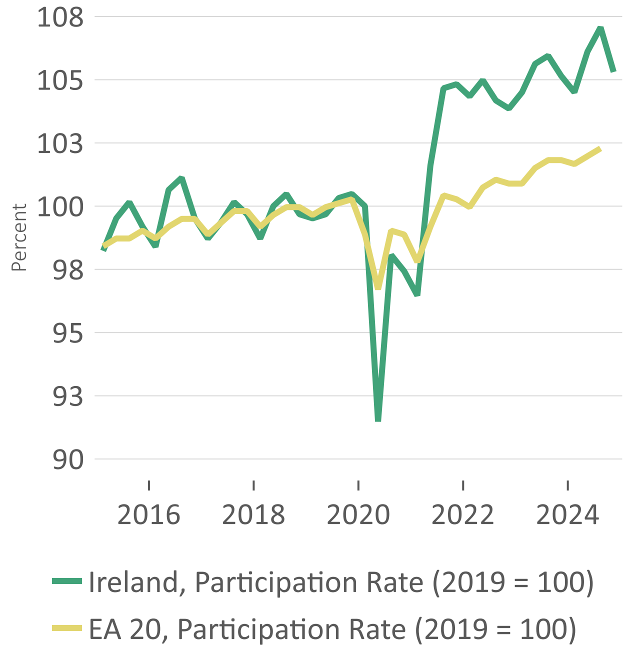
Source: CSO, Eurostat, ECB

Inflation in Ireland has fallen slightly faster than Euro Area HICP



Source: CSO, Eurostat, ECB

Increased labour force, especially female p. rate driven growth with less inflation

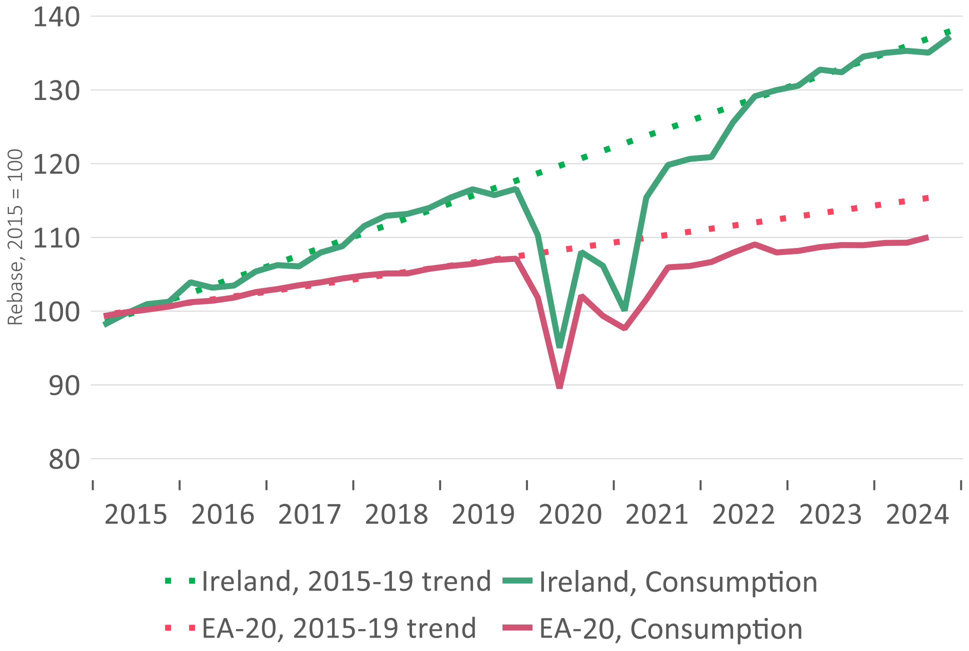


Source: CSO, Eurostat, ECB

Real spending main driver of economy

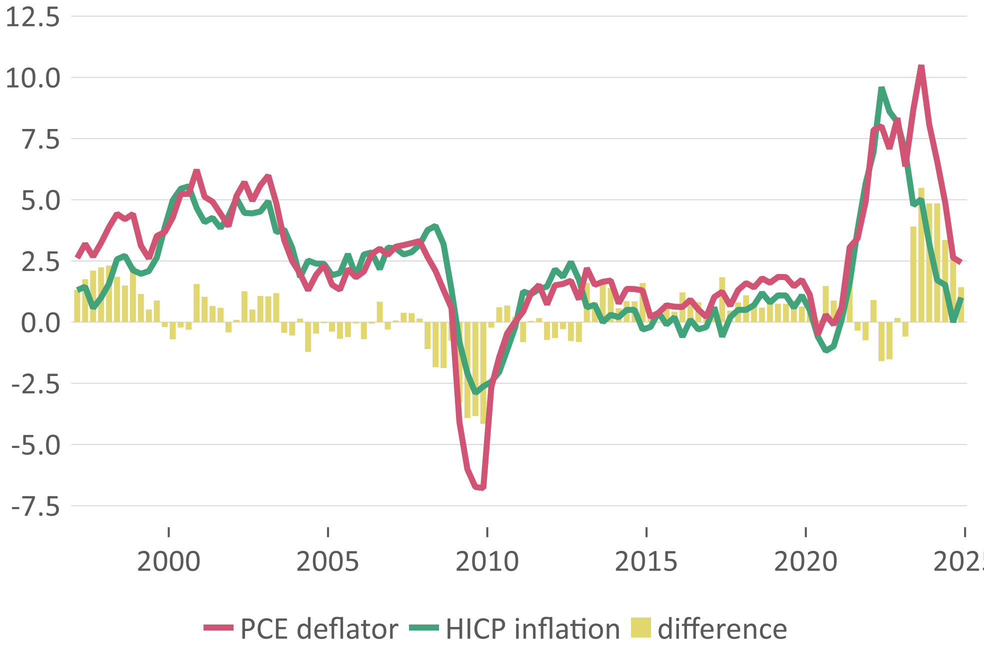
Consumption strong over last several year while savings remain elevated

Real personal consumption back at pre-pandemic trend. Performance outstrips euro area average



Source: CSO, Eurostat

Gap between PCE deflator & HICP apparent in recent data: real consumption may be higher than estimated at present

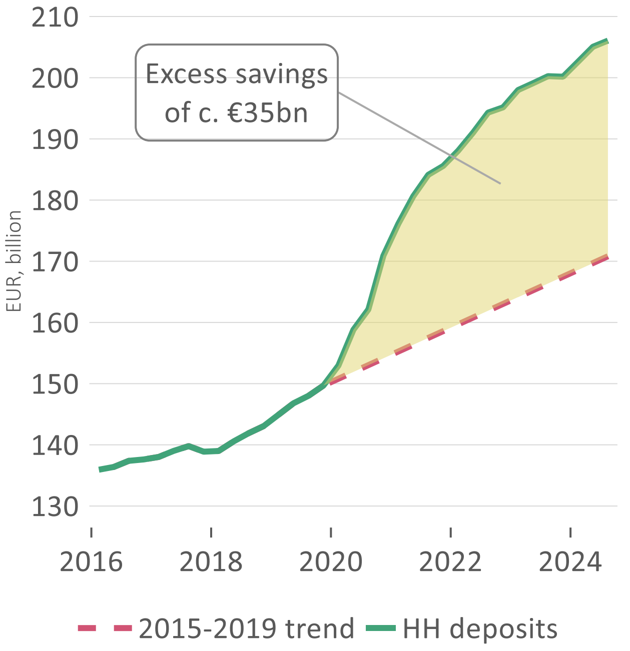


Source: CSO, Eurostat

Basis for household consumption growth

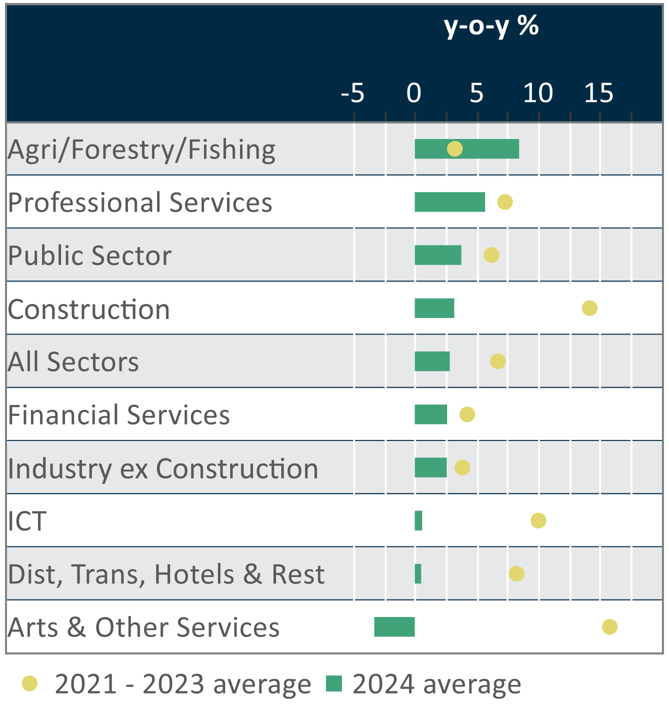
Spending comes from savings, incomes or borrowing; Ireland in good shape across all three

Large excess savings: pandemic savings remain in HH deposit. accounts



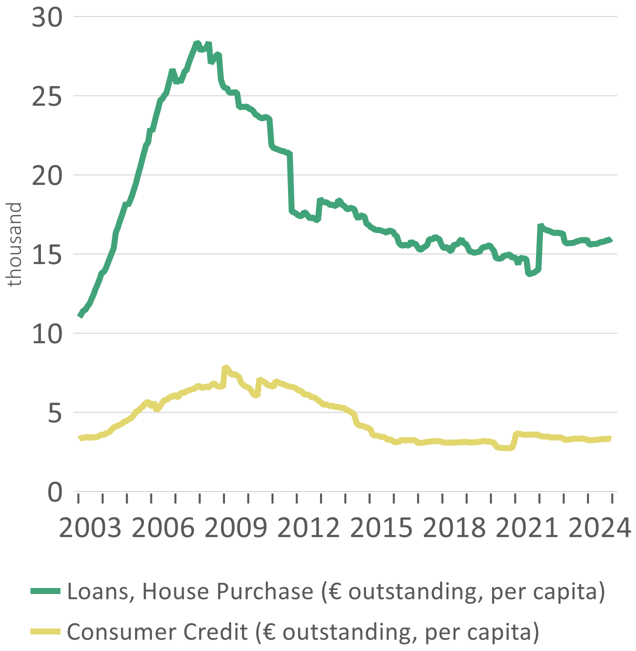
Source: Central Bank of Ireland, CSO

Income growth: Real compensation of employee growth still healthy



Source: CSO

Borrowing: deleveraged position means current spending growth isn't debt fuelled



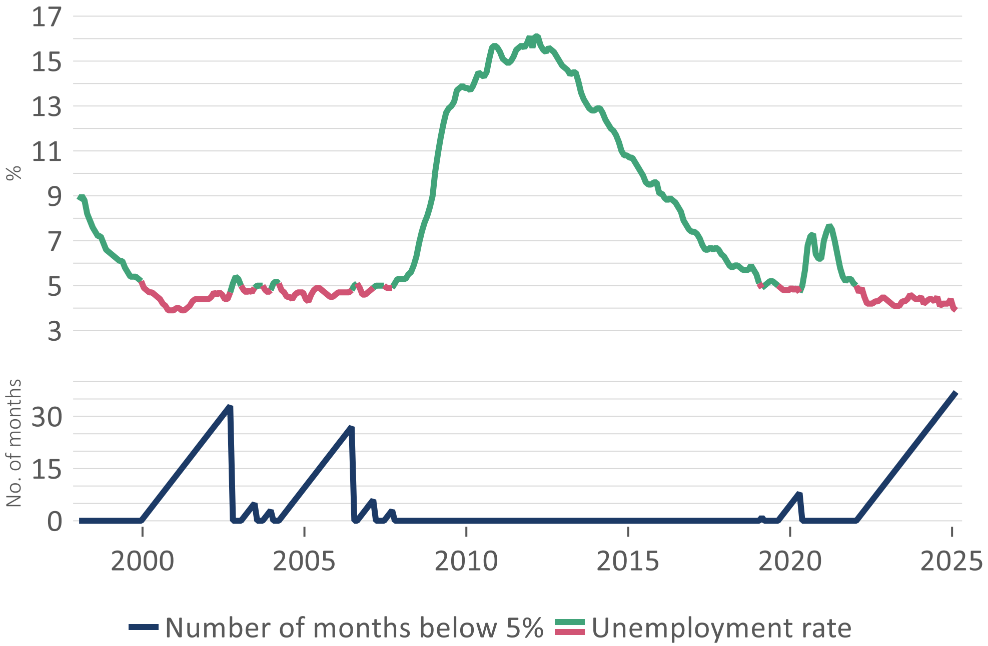
Source: Central Bank of Ireland, CSO

Source: CSO, Central Bank of Ireland

Labour market remains strong

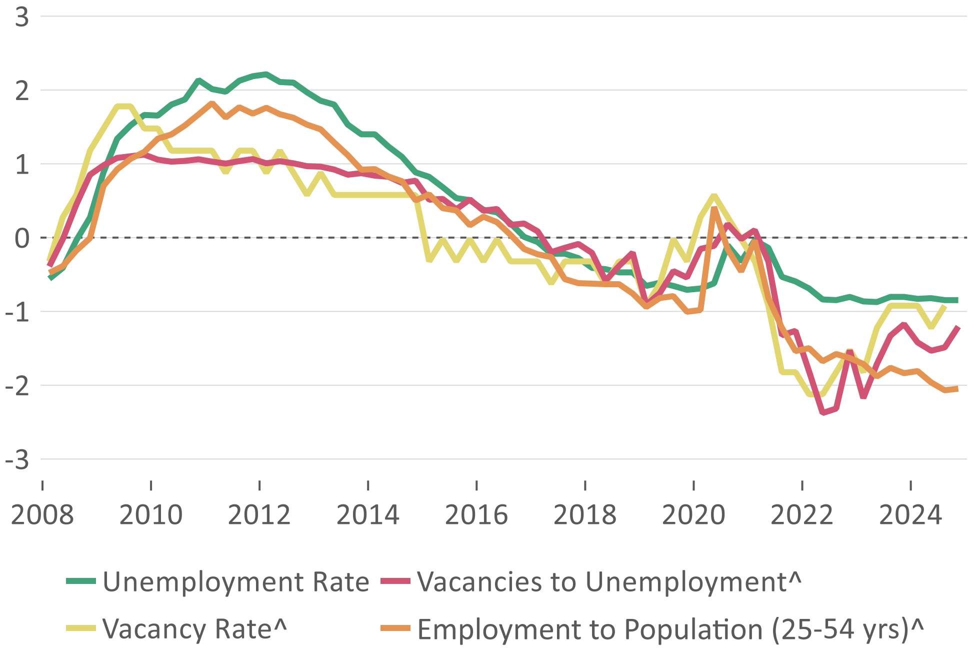
Unemployment rate low despite measurement volatility

Unemployment rate at 3.9% in February – has been below 5% for three years



Source: CSO

Labour market indicators suggest continued tightness, although some easing in vacancies in recent quarters



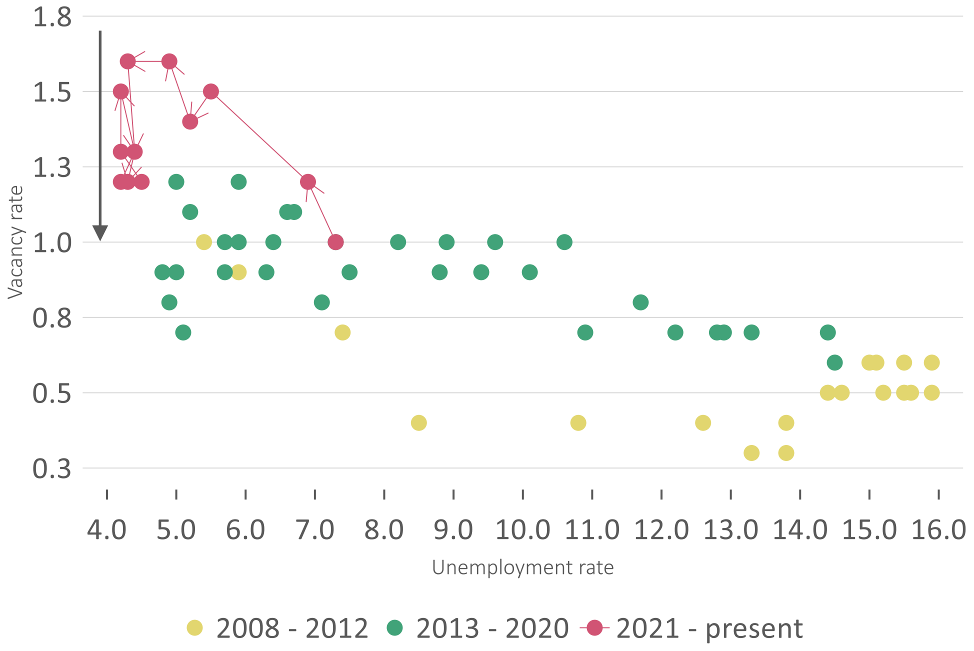
Source: CSO, Eurostat

Note: LHS uses the standard unemployment rate during the Covid period and red indicates when below 5%. The Covid adjusted unemployment rate reached a peak of 31.5% between March 2020 and Feb 2022. RHS chart shows standardised (Z-score) indicators; series denoted with ^ are inverted.

Labour market tightness has eased

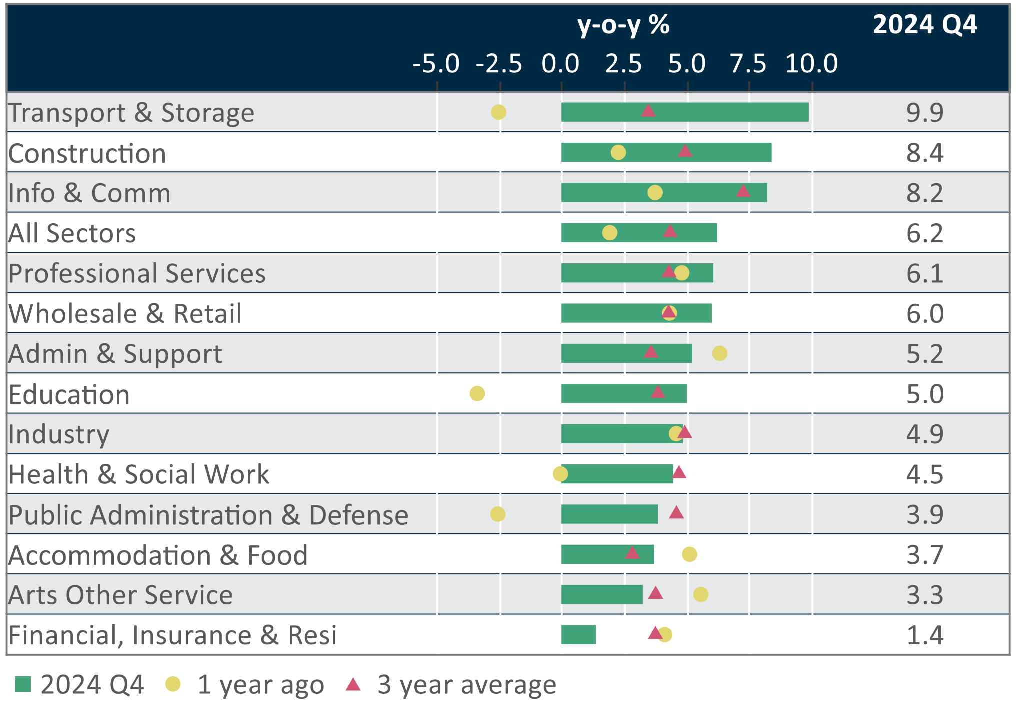
Wages are outstripping inflation currently

Beveridge curve suggests a tight labour market that has been loosening in recent months



Source: Eurostat, CSO

Latest wage data showing real wage growth has returned as inflation has been stymied

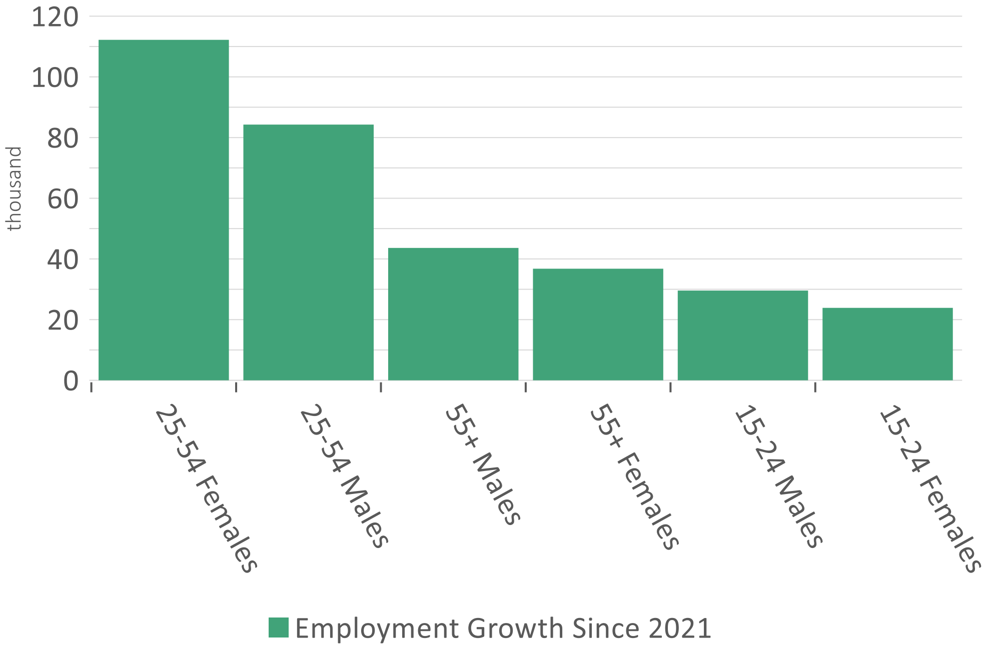


Source: CSO

Employment growth broad-based

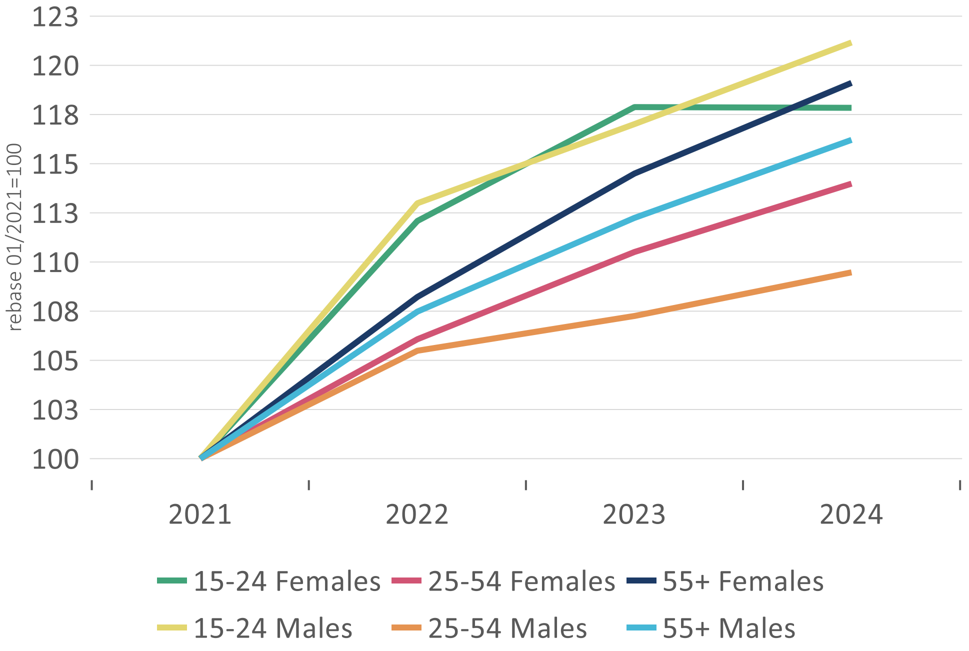
Participation rates up across the board

“Prime age” employees comprise the bulk of jobs created in Ireland since 2021



Source: CSO

Employment up by 14% since 2021 with notable growth rates in younger and older age brackets

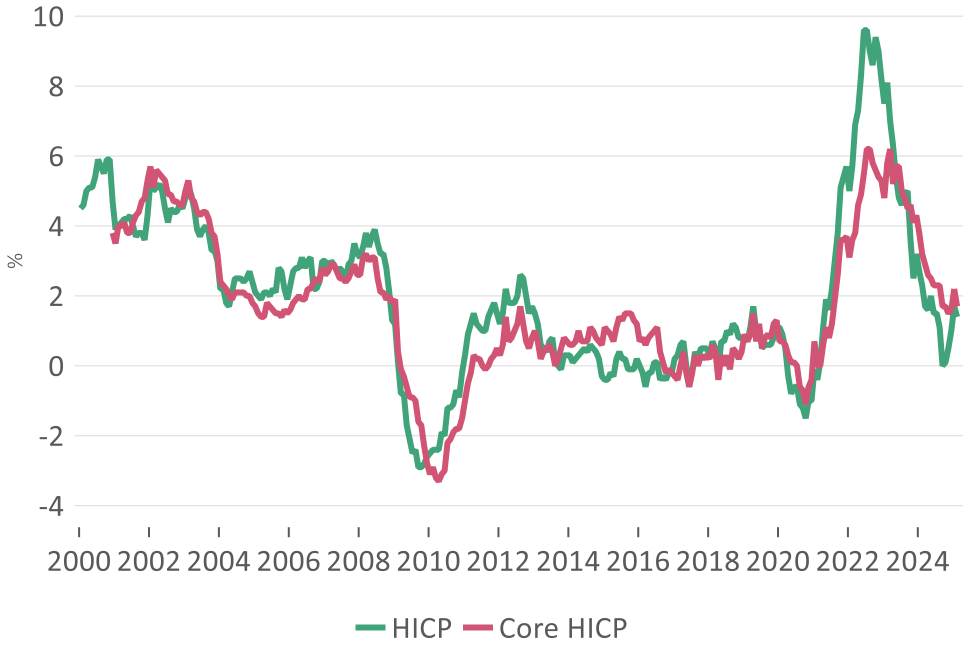


Source: CSO

Harmonised inflation at 1.4% in February

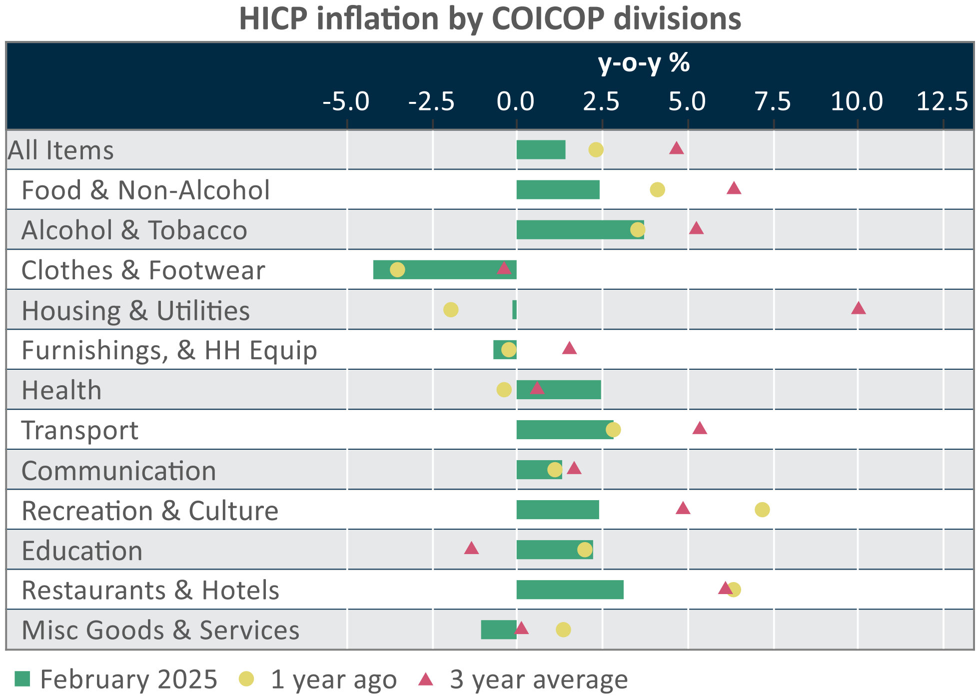
Disinflation trend running ahead of EA average

Headline inflation reverting closer to 2% in time. Core inflation at 1.7%



Source: CSO, Eurostat

Disinflation broad-based with energy base effects evident in utilities and transport

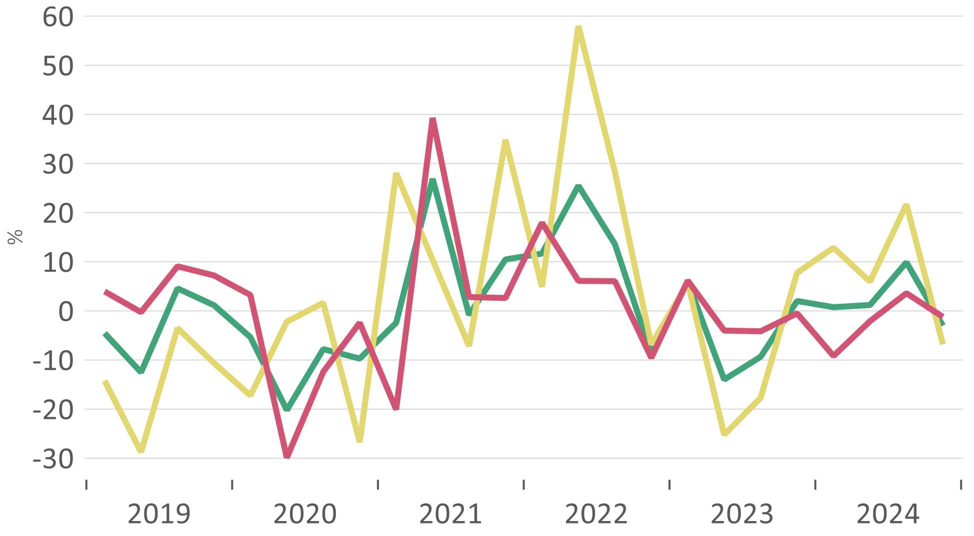


Source: CSO

Investment weakness in recent years

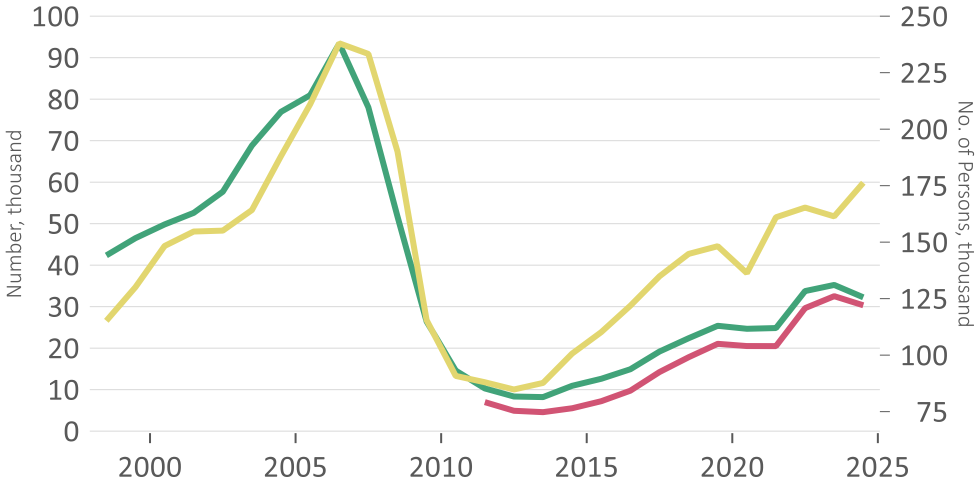
Interest rate environment has slowed investment, though 2024 better than 2023

Modified Investment up 2.2% in 2024 but there is weakness underneath in building and construction



Source: CSO

In housing, productivity an issue as increased employment is not leading to same increase in completions



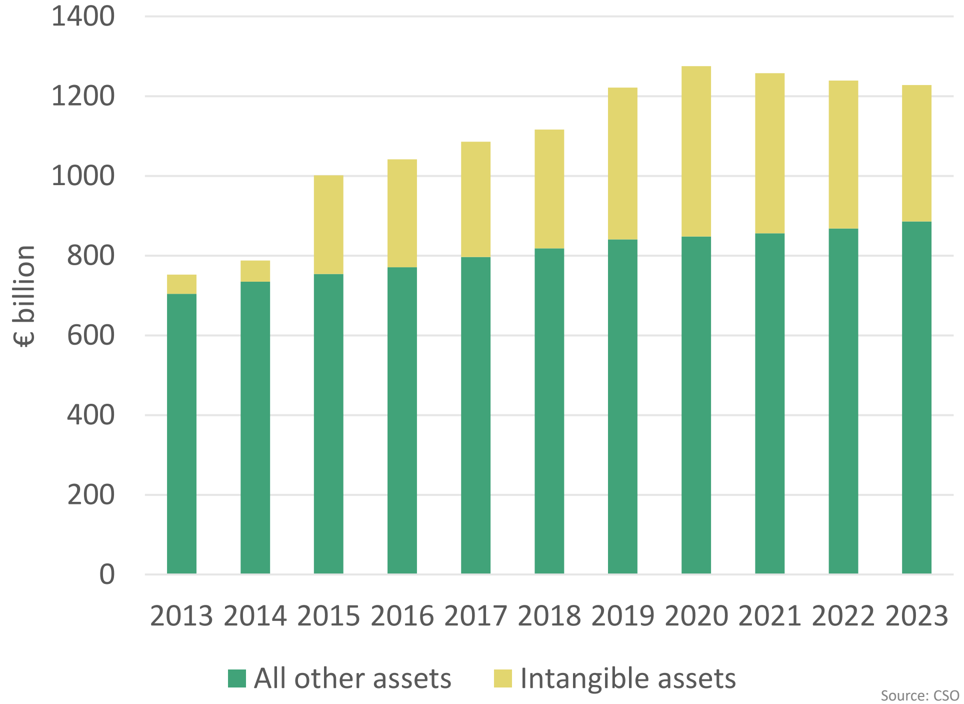
Source: CSO

Note: Ireland's metric is modified investment, which strips out multinational activity.

Continued need for infrastructure investment

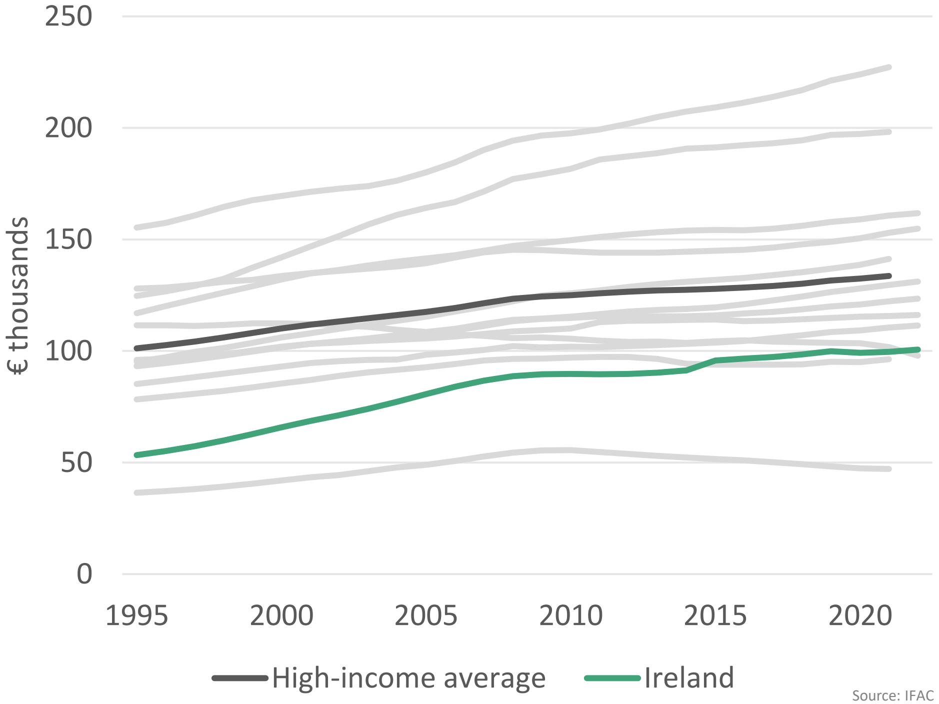
Physical capital stock in Ireland has not met the demand for infrastructure and is below high-income average

The proportion of fixed assets that are intangible increased from 6.5% in 2013 to a peak of 33.5% in 2020



Source: CSO

Real net capital stock per capita below European high-income average (after accounting for multinational distortions)



Source: IFAC

Note: Intangible fixed assets include computer software, R&D, works of art and mineral exploration. High income countries include Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Luxembourg, Netherlands, Norway and Sweden.

Overview: Ireland's trading partners

2023 Exports amount to €600bn per annum; €200bn goods; €400bn services

Ireland main trade flows: Goods exports to EU and US, Services exports to EU, Service imports from US

% of total	Goods 2023		Services 2023		Total 2023	
	Exports	Imports	Exports	Imports	Exports	Imports
US	28	16	13	48	18	40
UK	11	19	12	8	12	11
EU-27	41	35	30	16	34	21
China	5	8	3	1	3	3

Ireland's main trade flows

- Service imports from US of Intellectual Property/R&D assets
- Multinational then uses those assets and employment in Ireland to produce goods & services to be sold on.
- This leads to goods exports all over the world. EU and US most important. Pharma is main sector.
- Also leads to services exports to EU and UK. This is tech firms selling into European markets.
- The result of exports is significant income flowing back into Ireland (via profits and wages). This is then spent on goods imports from EU/UK.
- "Domestic" exports more focused on food and agri products.

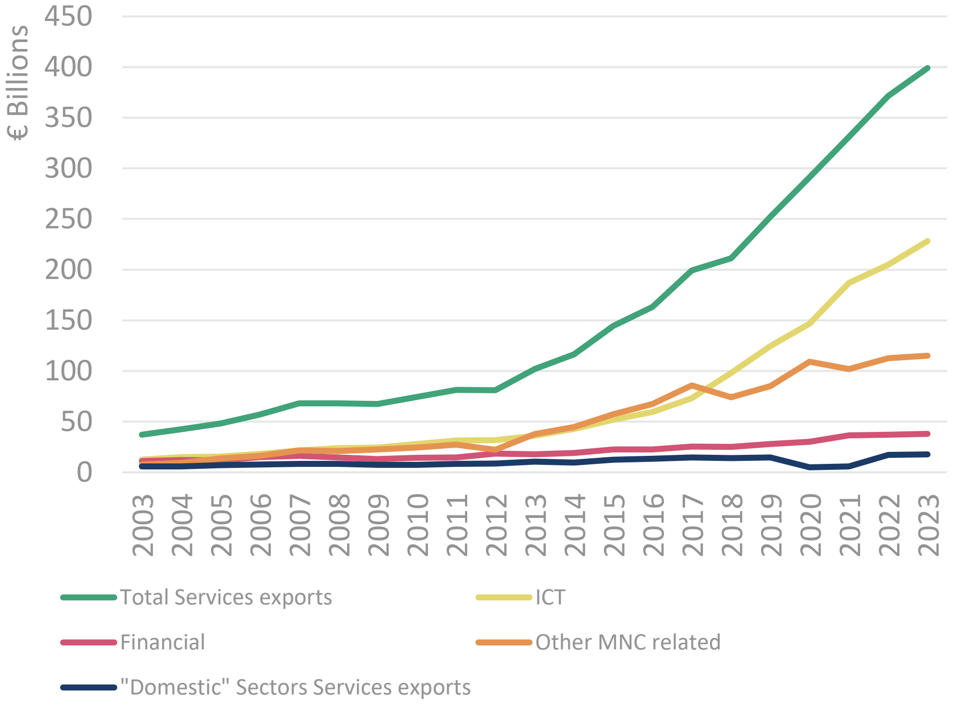
Note: Figures exclude contract manufacturing impact on exports. Data is based on external trade data from CSO rather than national account data on exports/imports

Exports by goods and services

Multinational sectors dominate Irish exports

Goods exports – USA is key exports sector for MNCs and domestic sector

Services exports are dominated by the multinationals in ICT, finance and IP/R&D/royalties

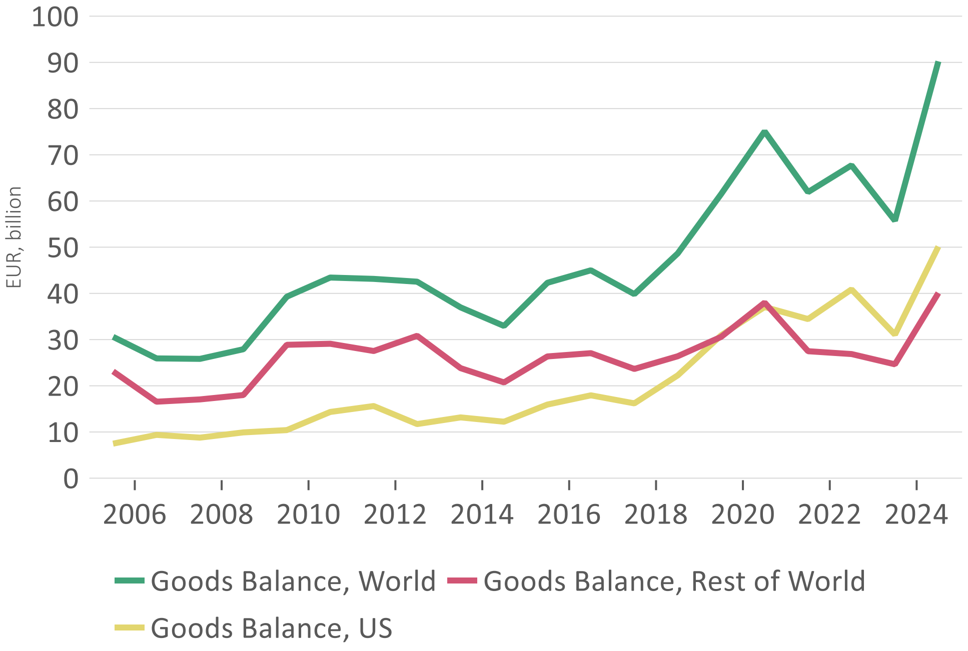


Source: CSO. Goods balance includes 2024 data, services data up to 2023

Goods surplus with US, overall deficit

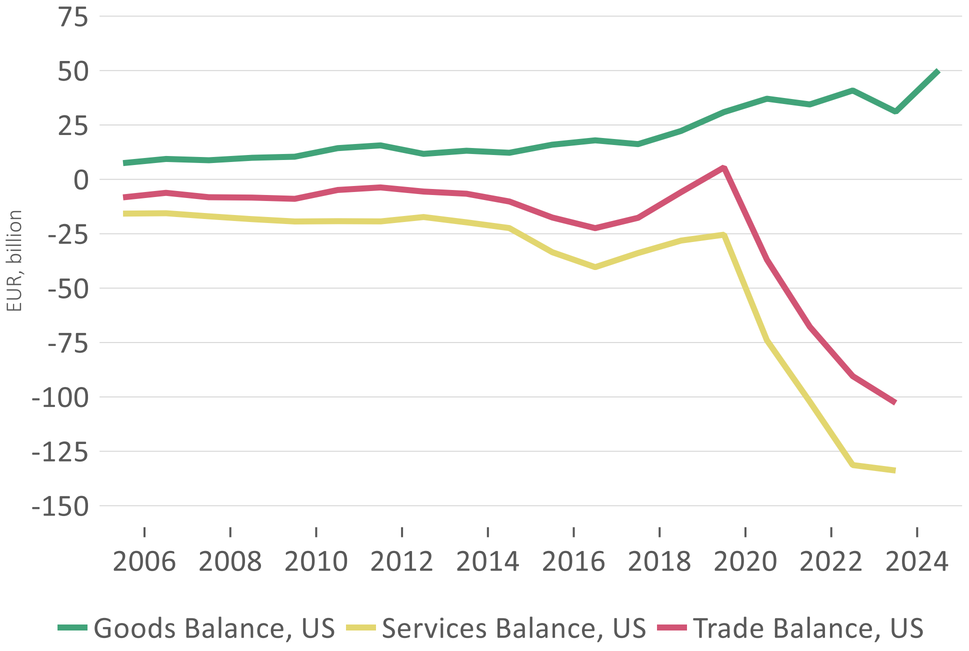
US administration is highlighting countries running goods trade surpluses

Goods Exports less Goods Imports – Ireland has clear surplus versus US. It has increased significantly since 2017…



Source: CSO

…however, since 2019, Ireland's trade surplus with US turns into deficit when services trade is included



Source: CSO

Note: Goods balance includes 2024 data, services data up to 2023

Uncertainty surrounding OECD's BEPS process

Pillar Two implemented in EU in 2024, US administration withdrawal means path is unclear

Pillar One: Proposal to re-allocate taxing rights on non-routine profits

- The first pillar seeks to address taxing rights. It reallocates 25% of MNE's excess profit* from jurisdictions where companies reside to the markets where user/consumers are based.
- This is to keep pace with digitalisation of the economy where sales can take place without taxable presence in market jurisdiction.
- Pillar 1 will reduce Ireland's corporation tax base.
- Ireland has always been fully supportive of Pillar One despite the implied cost to the Exchequer.
- Pillar 1 may not materialise with several countries struggling to agree, the US withdrawal adds further uncertainty. If Pillar 1 was stalled, unilateral tax reforms by countries may be the result.

Pillar Two: 15% minimum effective global tax rate

- Countries will introduce a minimum effective tax rate with the aim of reducing incentives to shift profits.
- Where income is not taxed to the minimum level, there will be a 'top-up' to achieve the minimum rate of tax.
- The EU have agreed a directive to implement the 15% rate in 2024. The impact on tax will not be seen until 2026, however.
- US administration has raised issues about the Undertaxed Profits Rule amid their withdrawal from process.
- Ireland's rate will remain one of the lowest in EU and will continue to be competitive. The R&D tax credit enhanced in Budget 2024 to maintain net benefit for businesses.
- Ireland can lean on other positives; educated and young workforce, English speaking, EU access, and ease of doing business.

* Excess profit is defined as a group profit in excess of 10% of its revenue

High frequency data suggest continued growth

Consumer confidence, tax and unemployment giving positive signals

	2/23	3/23	4/23	5/23	6/23	7/23	8/23	9/23	10/23	11/23	12/23	1/24	2/24	3/24	4/24	5/24	6/24	7/24	8/24	9/24	10/24	11/24	12/24	1/25
Retail sales (ex motor)	0.3	-0.4	-0.4	0.0	0.4	0.3	0.2	-0.4	-0.1	-0.1	0.3	0.3	-0.1	-0.1	0.0	0.0	-0.1	0.0	-0.1	0.3	0.2	0.4	0.3	-0.2
Unemployment rate	4.2	4.1	4.1	4.1	4.3	4.3	4.4	4.6	4.5	4.4	4.4	4.5	4.1	4.2	4.4	4.4	4.3	4.5	4.1	4.2	4.2	4.2	4.5	4.0
Payroll employees	0.3	0.2	0.2	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.2	0.1	0.2	0.2	-0.1	0.2	0.1	0.4	
Headline HICP	0.1	0.5	0.9	0.5	0.5	0.4	0.5	0.3	0.3	-0.2	-0.1	-0.6	0.0	0.0	0.5	0.4	0.4	0.4	0.2	-0.2	-0.2	-0.4	0.2	-0.1
Core HICP	0.4	0.6	1.1	0.8	0.6	0.5	0.4	0.0	0.1	-0.1	0.2	-0.4	0.1	0.1	0.7	0.5	0.4	0.5	0.3	-0.2	-0.1	-0.4	0.2	-0.2
House prices	-0.2	-0.5	-0.4	-0.3	0.1	0.3	0.5	0.6	0.8	1.0	1.1	1.0	0.8	0.5	0.5	0.4	0.6	0.8	1.0	1.0	0.8	0.8	0.7	
Consumer confidence	55.6	53.9	59.2	62.4	63.7	64.5	62.2	58.8	60.4	61.9	62.4	74.2	70.2	69.5	67.8	65.7	70.5	74.9	72.0	71.9	74.1	74.1	73.9	74.9
Composite PMI	54.5	52.8	53.5	51.9	51.4	50.0	52.6	52.1	49.7	52.3	51.5	50.7	54.4	53.2	50.4	52.5	50.1	52.2	52.6	52.1	52.6	55.2	52.1	52.3
Income Tax	2.2	2.3	3.1	2.6	2.5	2.7	2.5	2.4	2.6	4.6	2.6	2.9	2.4	2.6	3.2	2.7	2.8	2.9	2.6	2.6	2.8	4.7	2.8	3.0

Source: CSO, Eurostat, ILCU, SPDJI, Irish Department of Finance

Note: Retail sales, payroll employees, HICP and house prices are calculated as m-o-m% 3mma. Income tax is the monthly tax revenue; November includes income tax for those who are self-employed.

Fiscal

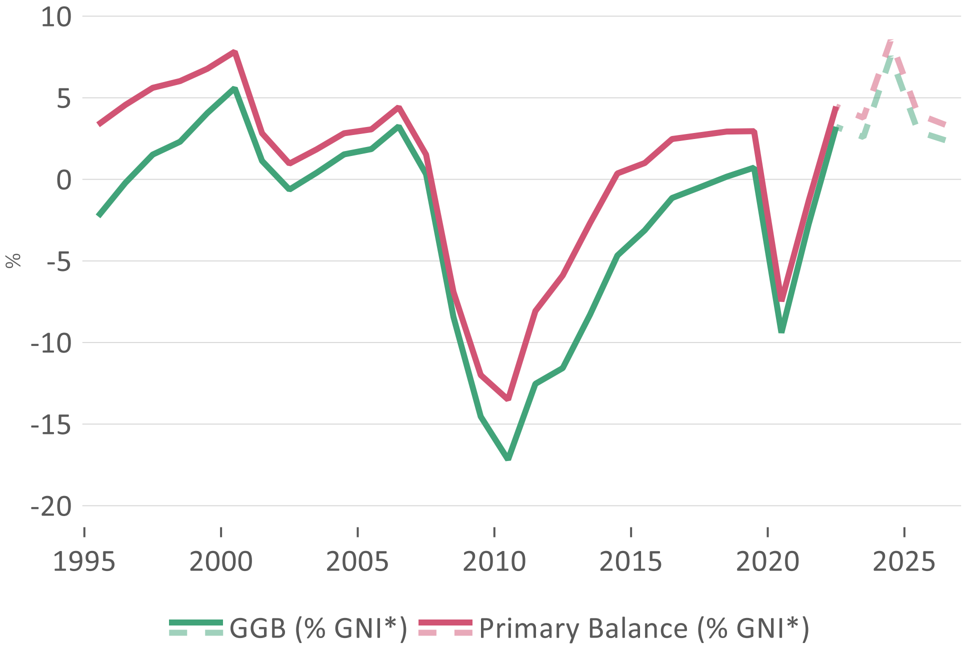
Large surplus in 2024 due to CJEU/Apple proceeds and continued corporate tax strength

Sovereign Funds established

Fiscal surplus in Ireland – c. €8bn in 2024

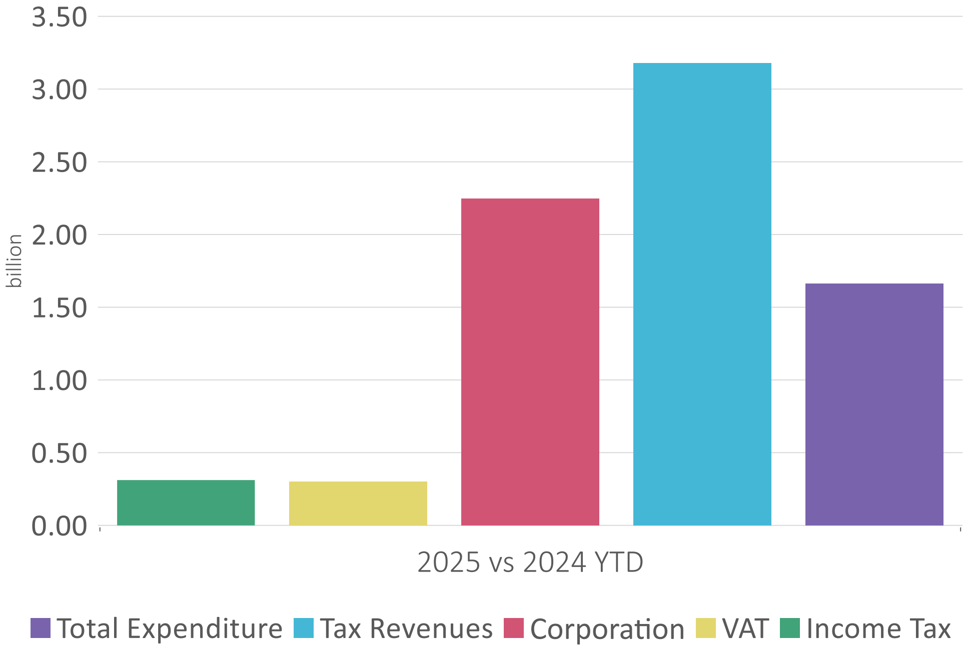
CJEU case proceeds plus robust CT revenues mean surpluses expected despite increases in expenditure

2024 General Government surplus expected to be c. 7% of GNI* on back of strong CT receipts and CJEU ruling



Source: CSO

Early 2025 saw jumps in CT and expenditure

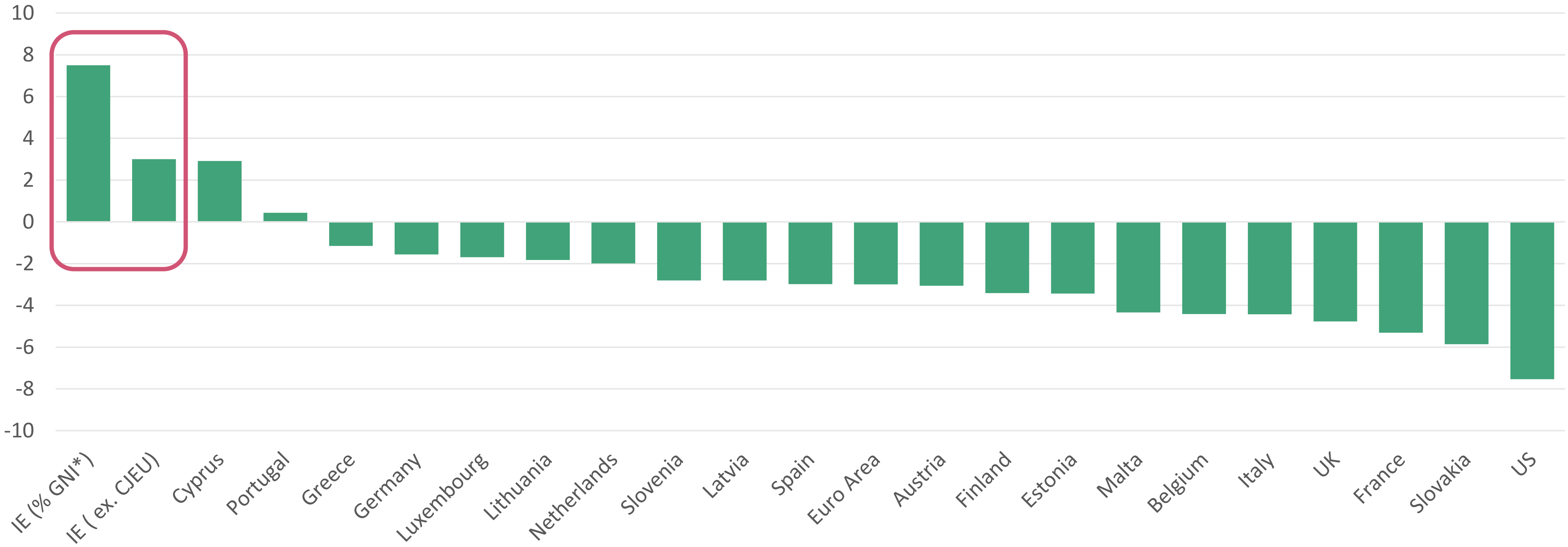


Source: Irish Department of Finance

LHS chart: GG and primary balance numbers used exclude banking recapitalisations during GFC. For General Government statistics, the €14.1bn Apple case proceeds must be recognised immediately although the cash has not yet been received. It will likely be received over the next six months. RHS chart: Expenditure is Total Gross Voted Expenditure

Surplus after one-off proceeds still strong

Fiscal position points to question of how to prudently manage such surpluses

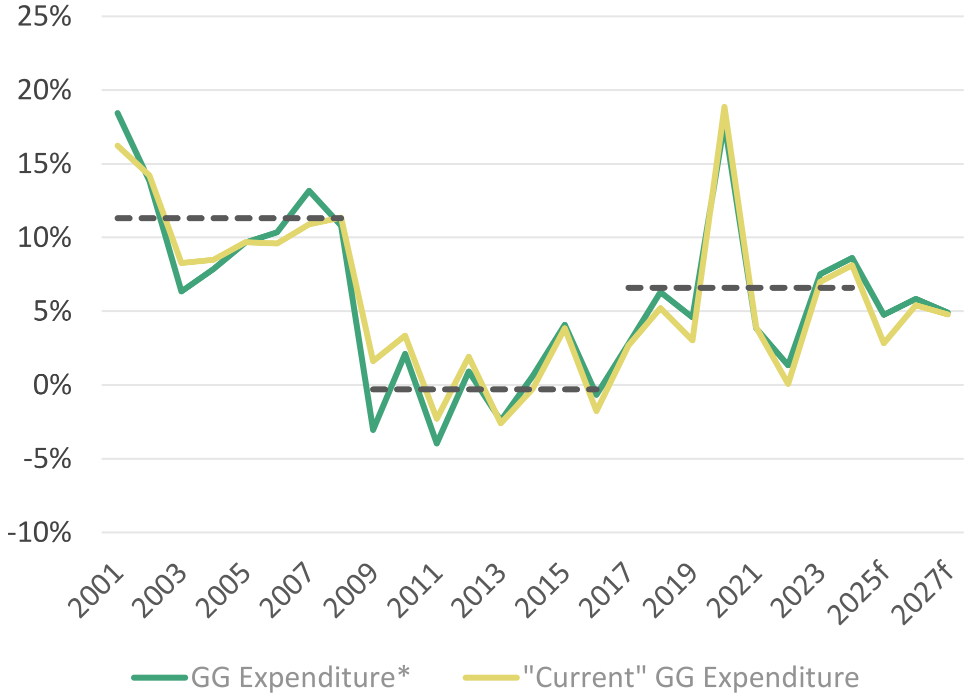


Note: Irish forecast based on Department of Finance Budget 2025 forecasts and most recent Exchequer Returns data. Forecasts for other countries taken from the European Commission's Autumn 2024 Forecasts.

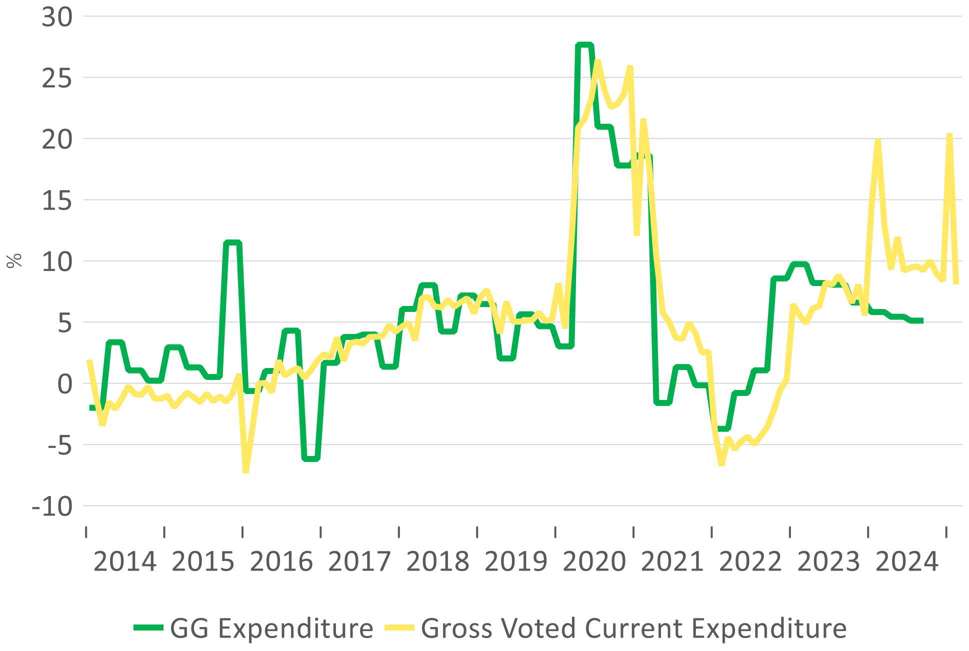
Expenditure spiked in 2024

Latest forecasts expect spending growth to be well above 5% spending rule in 2024 and 2025

Recent trend on expenditure growth in between loose 2000-2008 period and austere 2009-2017 period but…



…clear spike in gross current voted expenditure in 2024 and early 2025 (annual growth rates)



Source: Irish Department of Finance, CSO

Source: Department of Finance, CSO, Forecasts from Budget 2025
LHS: * GG expenditure excludes banking recapitalisation costs. “Current” GG exp = GG exp minus govt. GFCF. RHS: 3 month-on-3month growth used.

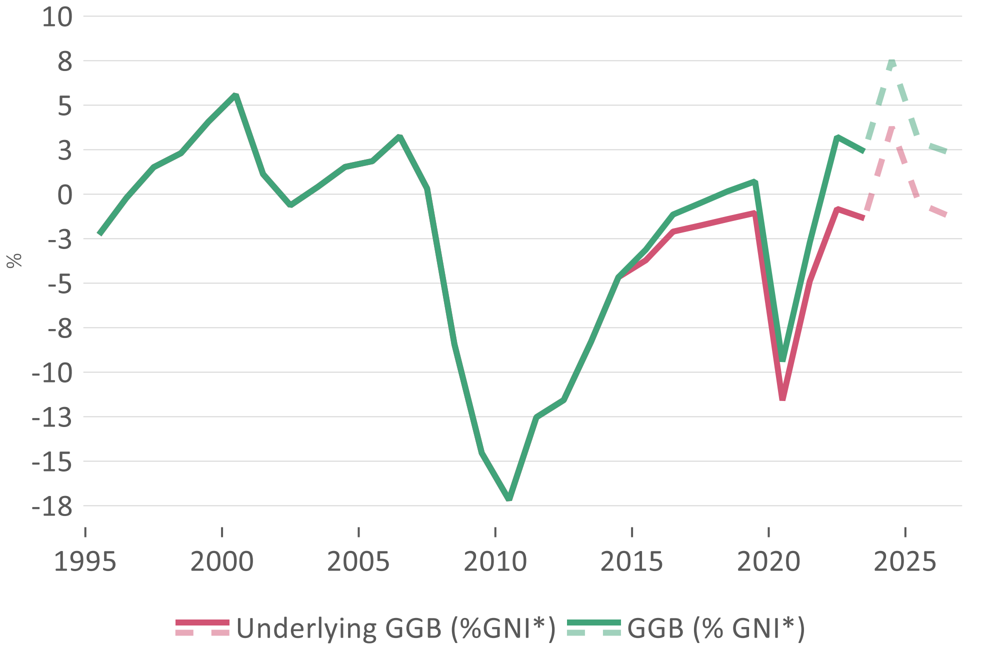
Corporate tax – strong growth but obvious concentration risk

Two new sovereign investment funds (FIF/ICNF) help to safeguard portion of CT receipts

CT revenue was €23.8bn in 2023 and double 2020 level – forecasts suggest €28.2bn received in 2024 (excluding CJEU)

Source: Irish Department of Finance

Underlying GGB suggests Ireland would be in deficit in 2024 if excess CT and CJEU ruling windfalls excluded (-2.2% of GNI*)



Source: CSO

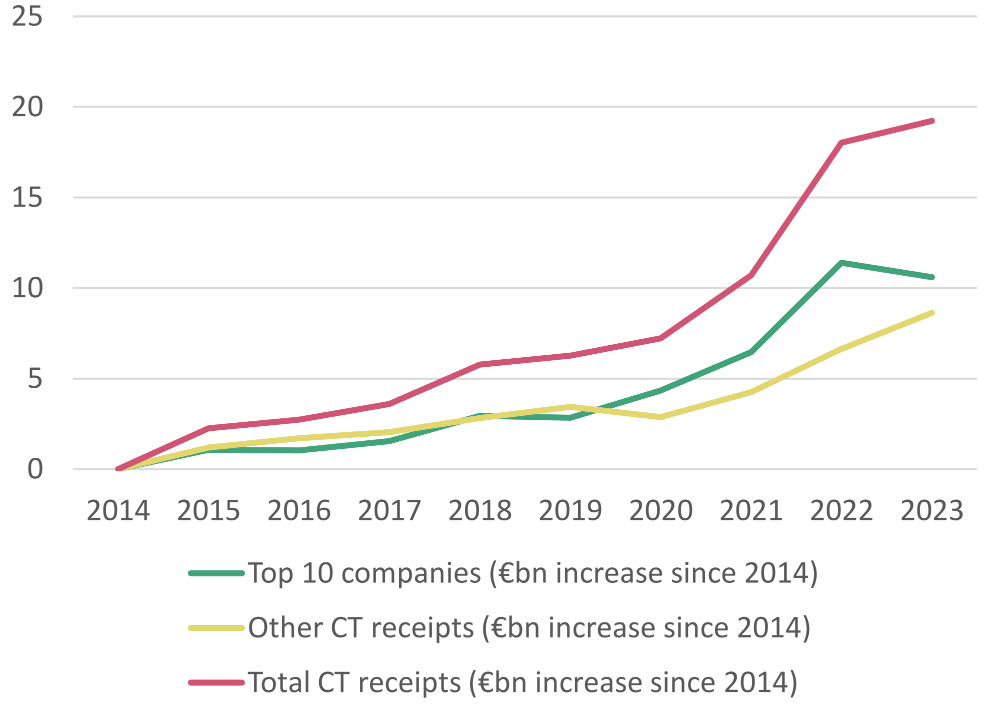
Note: The Department of Finance's underlying general government balance is the GGB excluding the Government's estimated windfall corporation tax receipts (windfall estimated at €15.9bn for 2024) and the Apple case proceeds.

Multinationals at core of CT payments

Manufacturing the top driver in CT but chemical and pharma fell versus 2022

CT paid (€m)	2023	vs. 2022
Manufacturing	9,073*	-1,005
ICT	4,131	-53
Fin and Insurance	3,593	+895
Wholesale, retail	2,700	+408
Admin and Support	1,609	+410
Prof, Sci, Tech	844	+184
Construction	543	+74
Mining, Quarry, Utilities	327	+23
Other	1,021	+261

Top 10 driving recent CT surge until 2023 – likely top 3 companies pay c. 40% of all CT receipts (Fiscal Council analysis)

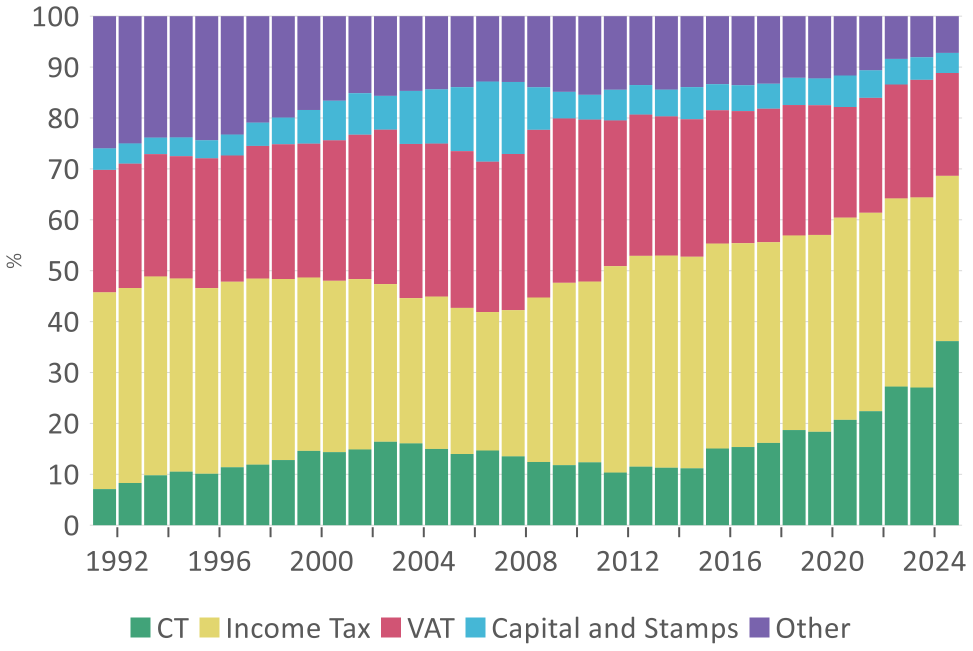


Source: Revenue Report 2024. *€3,884m chemical and pharma manufacture (- €1,651m on 2022), €4,248m ICT manufacture (+ €460m on 2022)

Corporate tax – critical revenue source

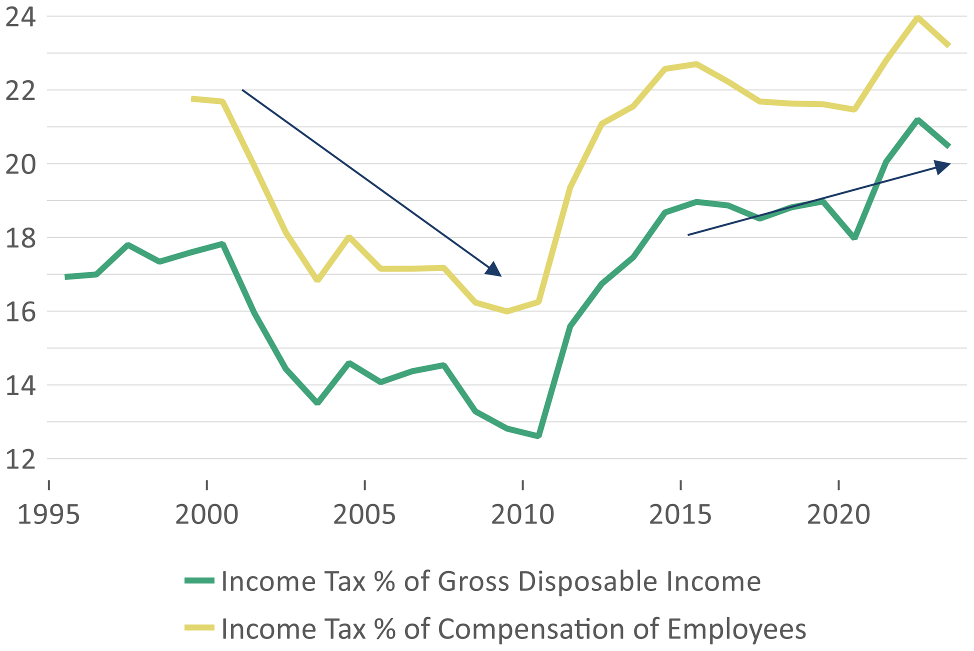
CT accounts for 29% of tax receipts, it was 11% a decade ago

CT accounts for 29% of tax receipts after excluding CJEU ruling; spillovers to Income Tax/VAT from MNC employees



Source: Irish Department of Finance

Income tax base was narrowed massively in early 2000s; In recent years we have seen no such narrowing



Source: CSO, Irish Department of Finance

FIF/ICNF funds established; first transfers have been made

New funds help to mitigant to excess CT risk

Future Ireland Fund (FIF) - €8bn AUM

- The FIF is a long-term savings fund which intends to contribute to exchequer expenditures in 2040s onwards (e.g., for population ageing, the digital & climate transitions).
- Legislation sets out that 0.8% of GDP (c. €4-6bn per annum) to be transferred to the FIF each year out to 2035.
- Just over €8bn now sits in the FIF. To start, €4bn of €6bn in the National Reserve Fund (NRF, or Rainy Day Fund) was transferred to FIF. The transfer of 2024’s 0.8% of GDP contribution brings the FIF to €8bn. In time, the Government suggest as much as €100bn could reside in the FIF.
- The Funds are to be managed and controlled within the NTMA.

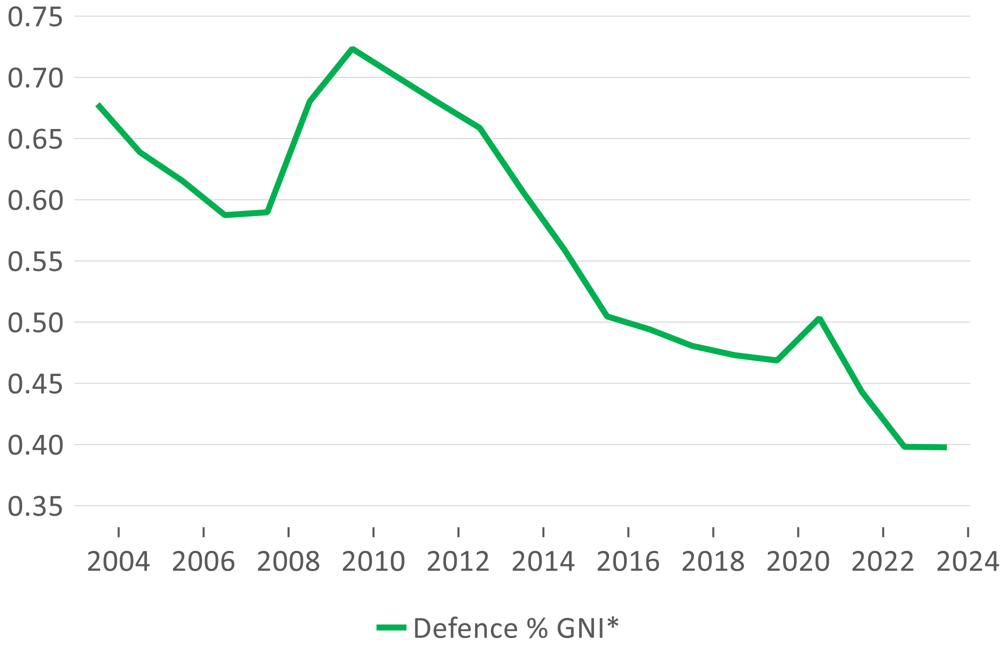
Infrastructure, Climate and Nature Fund (ICNF) - €2bn AUM

- The ICNF’s mandate is to help the state meet its considerable infrastructure and green climate needs.
- In the past, Ireland has fallen into the trap of cutting capital investment in downturns. This fund will act as a reserve to be drawn on for capital expenditure if a downturn arises.
- To start the fund off, the remaining €2bn in the NRF has been transferred into the ICNF. From 2025 to 2030, €2bn a year will be transferred into the ICNF from the Exchequer.
- There are clear rules on how money can be drawn down with Irish Fiscal Advisory Council to play a role.
- A portion of the ICNF can be drawn down if needed to help meet climate and nature targets.

Ireland’s neutrality has meant limited defence spending

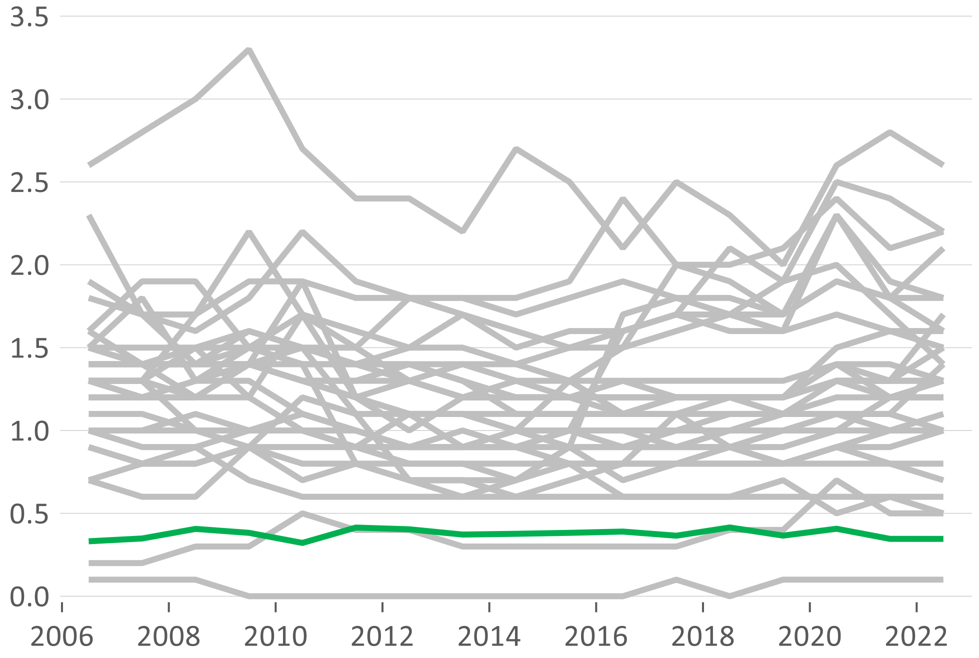
Despite a record €1.35 bn for defence in Budget 2025, Ireland lags behind European peers

From a peak 0.72% of GNI* in 2009, spending on defence as a proportion of national income has broadly declined



Source: Irish Department of Finance, CSO

As one of few EU countries not in NATO, Ireland is not subject to any guideline on spending



Source: Eurostat, CSO

Apple: CJEU confirms EC decision

CJEU set aside General Court decision meaning escrow funds go to Ireland

- In 2016, the European Commission ruled that Ireland provided State aid of up to €13bn, plus interest to Apple. The Irish position has always been that Ireland does not give preferential tax treatment to any companies or taxpayers.

- Apple appealed the ruling, as did the Irish Government. The General Court granted the appeal in July 2020, annulling the EC's ruling. The Commission then appealed to a higher court: the Court of Justice of the European Union (CJEU).

- In September 2024, the CJEU set aside the judgement of the General Court and gave a final judgment in the matter. The CJEU confirmed the Commission's decision that Ireland granted state aid. The case involved an issue that is now of historical relevance only; the Revenue opinions date back to 1991 and 2007 and are no longer in force. The proceeds amount was based on the tax foregone owing this period. The Irish Government closed this provision in December 2014.

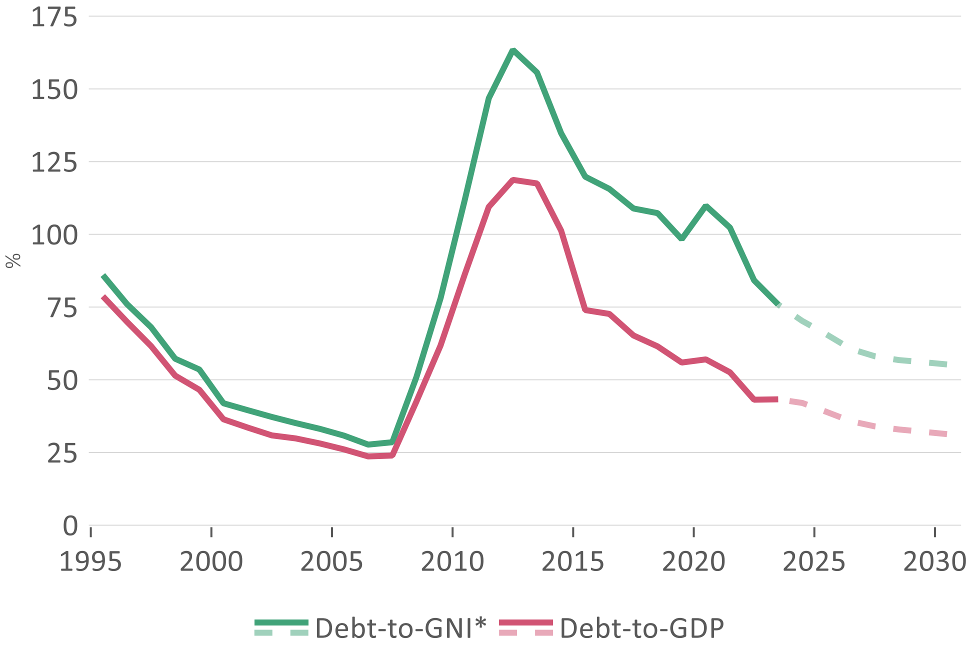
- The process of transferring the assets in the Escrow Fund to Ireland has been completed. In his Budget Speech, the Minister for Finance outlined the Government's intention to use the funds for long term infrastructure spending.

- As stated previously, the NTMA has not included these funds in any of its issuance plans.

Debt to GNI* likely falling to high 60s in 2024

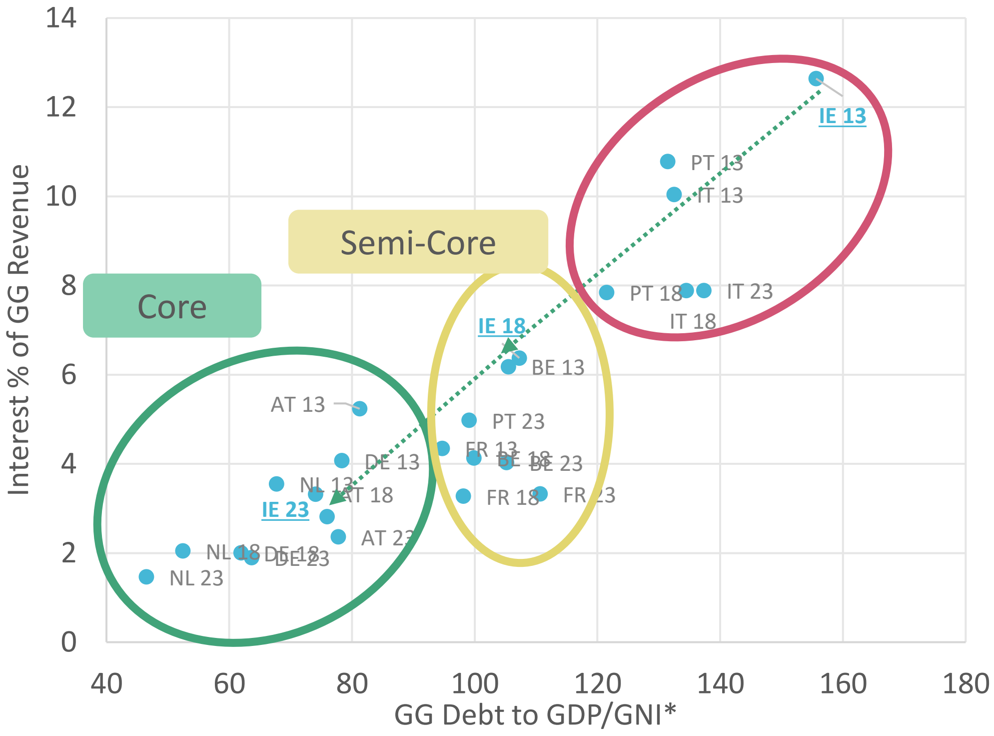
GG debt to GNI* to fall on nominal growth and surplus position

Debt to GNI* at 76% in 2023 and at 69% in 2024f; low debt to GDP means proposed EU fiscal rules won't impact Ireland



Source: CSO

Ireland's debt fundamentals have moved firmly into "core" space in recent years



Alternative Debt Metrics

Need to assess metrics other than debt to GDP when analysing debt sustainability

2024

	GG debt to GDP %	GG debt to GG revenue %	GG interest to GG revenue %
Greece	154	317	7.1
Italy	139	294	8.4
France	112	217	3.9
Spain	106	242	5.8
Belgium	105	207	4.2
UK	104	247	7.0
Portugal	96	218	4.9
EA 19	90	193	4.0
EU 27	82.9	180	4.0
Austria	78	156	2.7
Ireland	**41 (69 GNI*)**	**145**	**2.1**
Cyprus	71	163	3.2
Slovenia	68	151	3.1
Germany	63	135	2.0
Slovakia	58	141	3.2
Netherlands	47	110	1.6

Source: DG ECFIN, Irish Department of Finance

Source: Forecasts from the SPU 2024 and the European Commission's Spring 2024 Forecasts. Irish revenue figures temporarily inflated in 2024 by one-off Apple case proceeds

NTMA Funding

2025 funding range €6bn - €10bn

NTMA funding range for 2025: €6bn to €10bn

€3bn issued in January; cash balance is elevated but expected to fall

Cash

Tax strength alongside Apple proceeds means Ireland in strong cash position.

The cash balance was €34bn at end 2024 but expected to fall through 2025

WAM

Weighted average maturity of debt one of longest in Europe.

NTMA issuance since start of 2022 of €23bn at WAM of 17.0 years and average interest rate of 2.41%.

AA

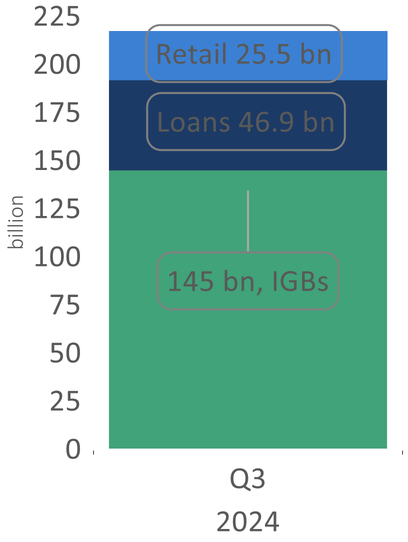
Ireland rated in the AA category with all major rating agencies.

Fitch and DBRS upgraded to AA in 2024 while S&P is at AA (positive). Moody's remains at Aa3 but with a positive outlook.

Smooth maturity profile

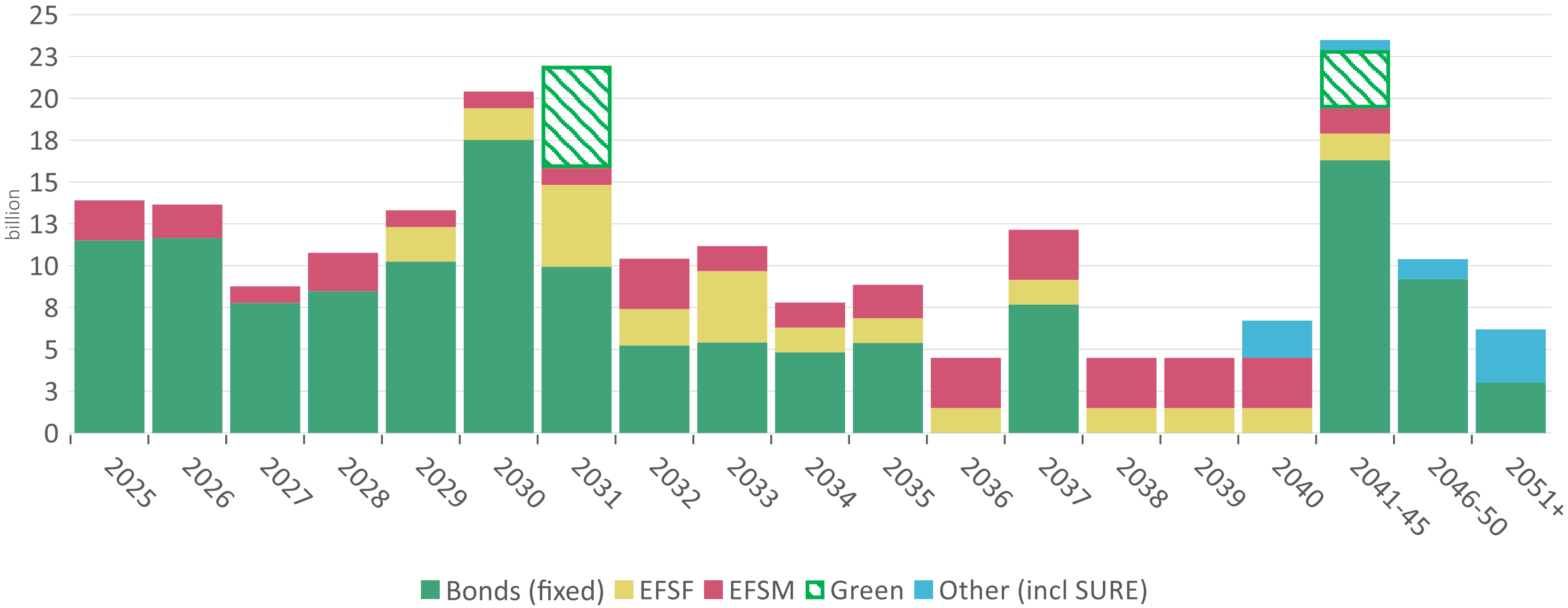
Redemptions are modest in coming years

GG debt of €217bn (Q3 2024)



Source: Eurostat

Marketable debt profile

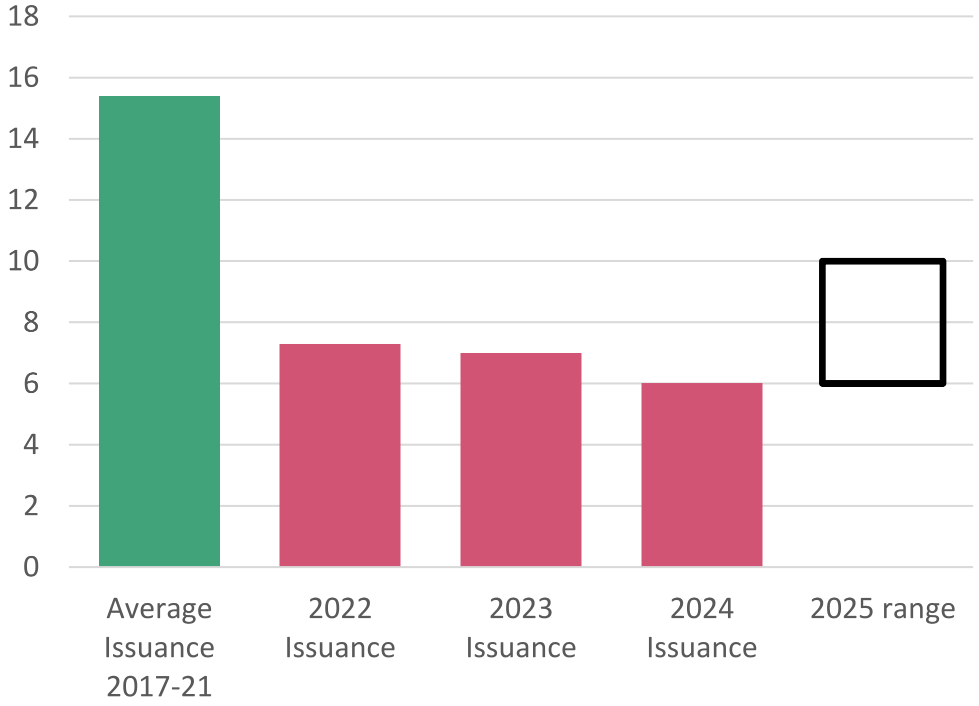


Source: NTMA

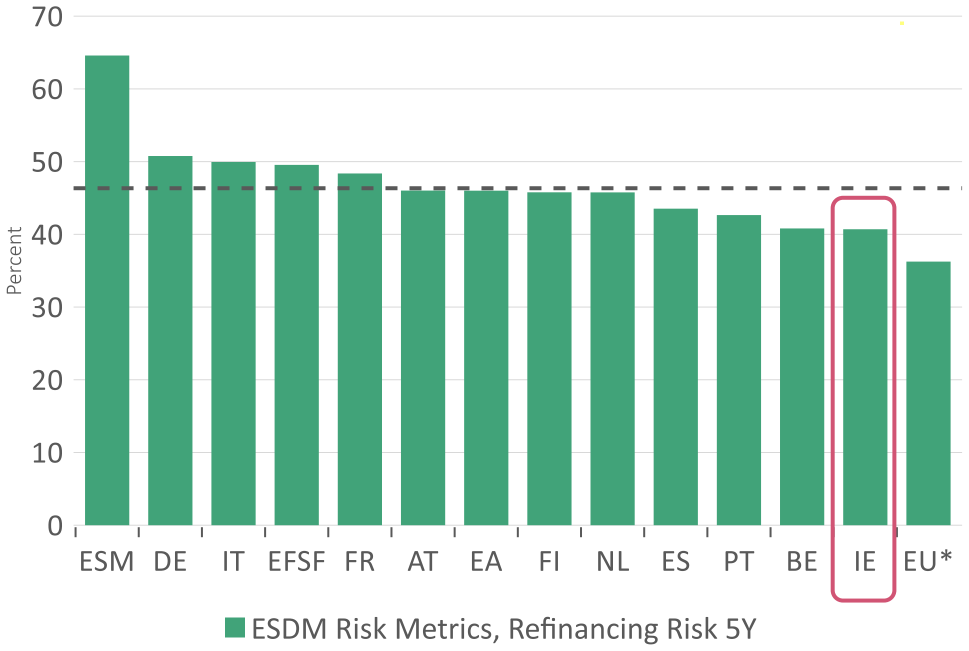
Low supply expected given strong surpluses

Redemptions in next 5 years are modest compared to rest of Europe

Current borrowing requirements suggest NTMA issuance will be similar to recent years (€bns)



Ireland's refinancing risk is low – Ireland below euro area in what is to mature in the next five years



Source: ESDM

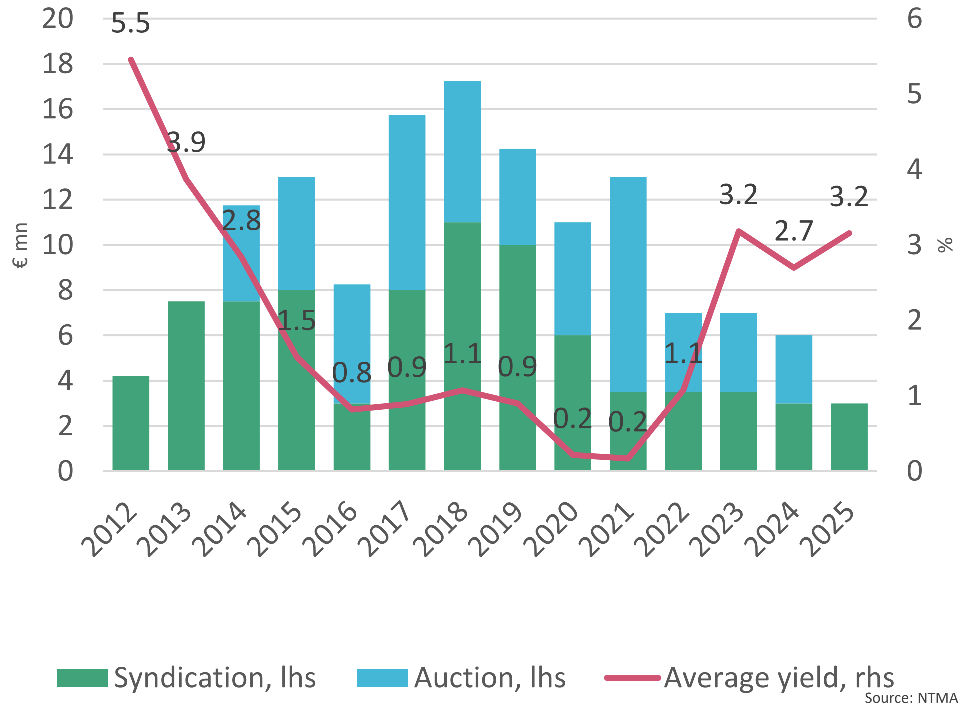
Refinancing rate defined as debt maturing within five years divided by total debt outstanding, Q4 data from ESDM.
* EU data is EU as an issuer

Gníomhaireacht Bainistíochta an Chisteáin Náisiúnta
National Treasury Management Agency

Borrowing costs anchored

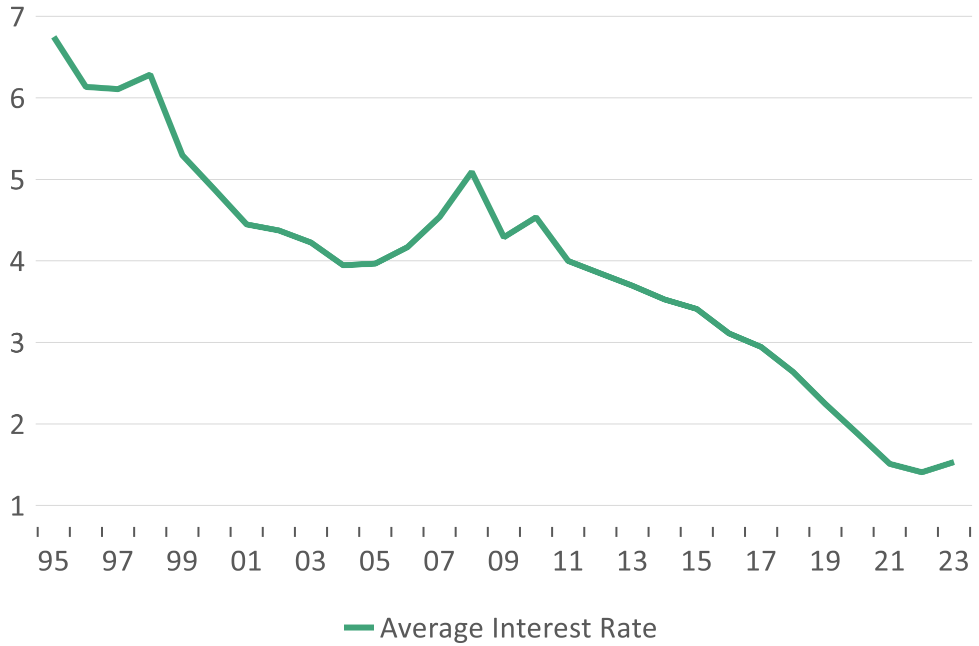
Ultra-low rate era well in rearview mirror but Ireland used that period well

Modest issuance in 2022-25 at "normalised" rates - €bn issued at c. 3.0%



Source: NTMA

Vast majority of Irish debt is fixed rate at average cost of 1.5%



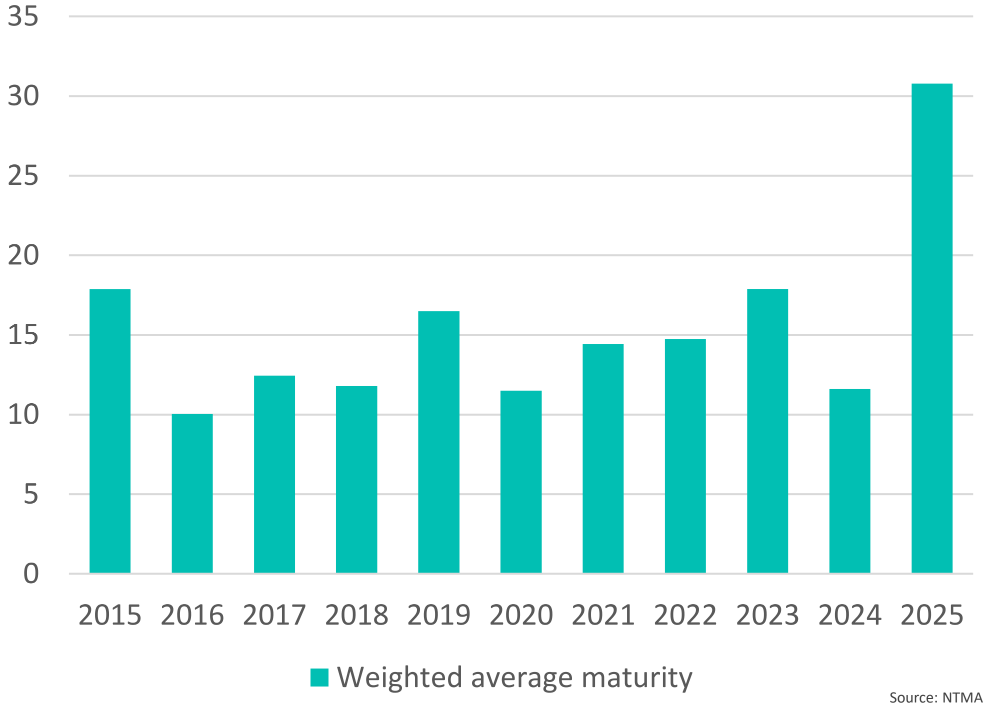
Source: CSO

Note: LHS chart includes only auctions and syndication

NTMA weighted maturity longer than most

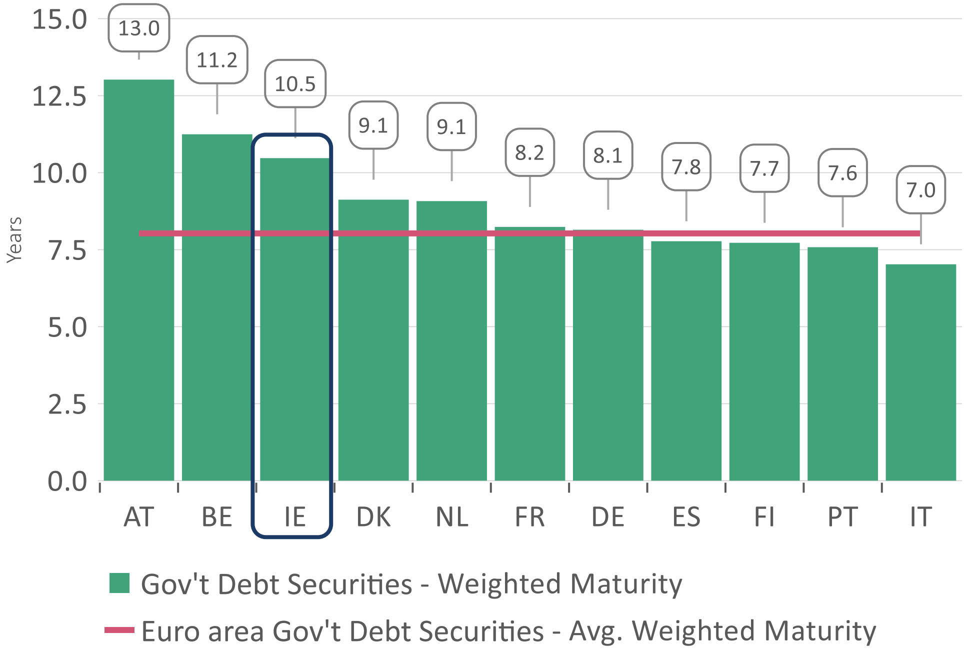
Debt management strategy has extended debt profile

Benchmark issuance has extended the maturity of Government debt since 2015



Source: NTMA

Ireland’s debt securities (in years) compares favourably to other EU countries



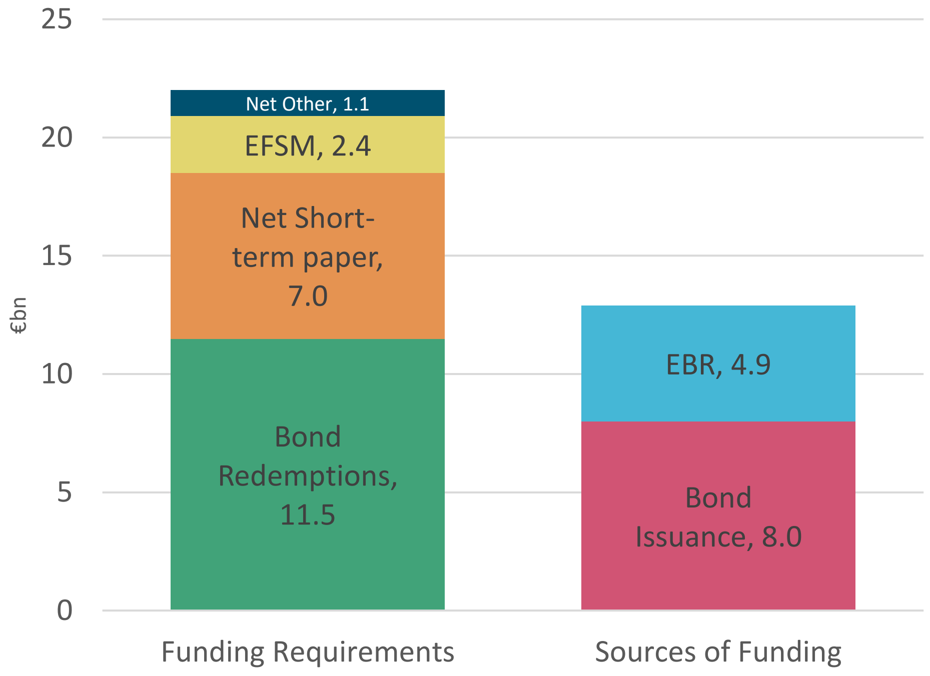
Source: ECB

Note: For RHS, weighted maturity for Ireland includes Fixed rate benchmark bonds, Amortising Bonds, Notes issued under EMTN programme, T-Bills and ECP Data. It excludes programme loans and retail.

Funding needs and sources for 2025

Tax receipts and CJEU/Apple proceeds means cash balance larger than expected

- There is a bond redemption of €11.5bn in March this year. There was also a EFSM repayment of €2.4 due.
- The Exchequer Borrowing Requirement (EBR) for 2025 is expected to be a surplus (hence shown as funding source). It includes the remaining c. €3bn in cash receipts from the CJEU/Apple case proceeds.
- The NTMA held significant cash & liquid asset balances throughout 2024. The balance at year-end was €34.3bn. We are currently forecasting the cash & liquid asset balance to be approx. €25bn for end-2025.



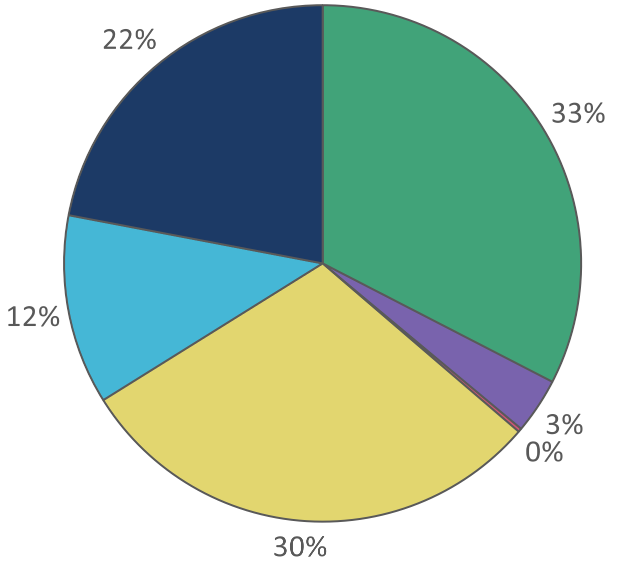
Source: NTMA

Rounding may affect totals.
1. In the funding sources column, €8bn is reflective of the midpoint of the €6-10bn funding range.
2. EBR is the Budget 2025 estimate adjusted for the additional Court of Justice of the European Union judgement proceeds received in 2024.

Diverse holders of Irish debt

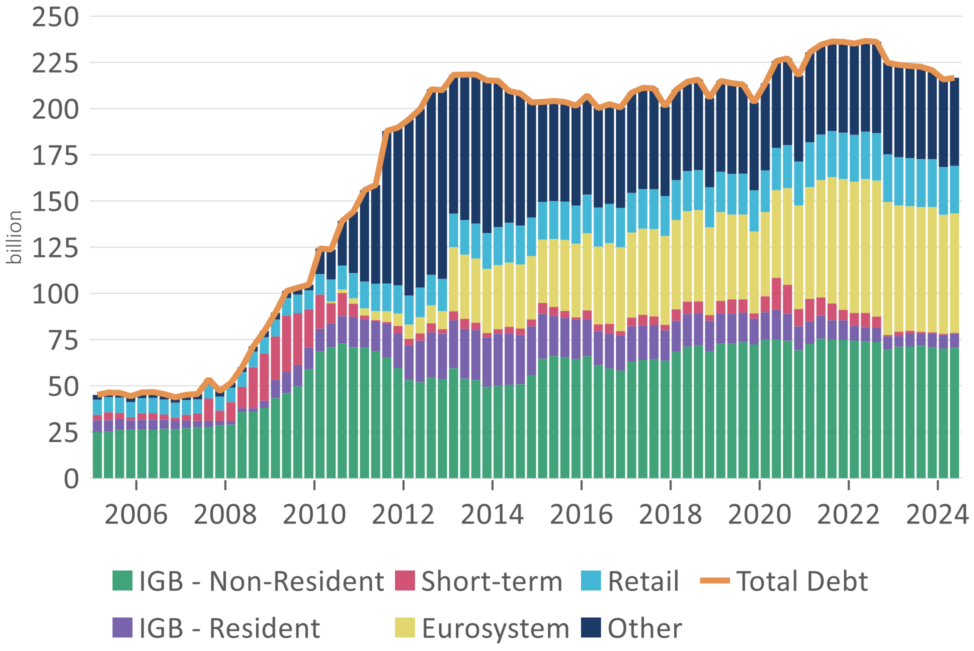
“Sticky” sources account for nearly two-thirds of debt

Ireland split roughly 85/15 on non-resident versus resident holdings



Source: Eurostat, ECB, Central Bank of Ireland

“Sticky” sources – official loans, Eurosystem, retail – make up c. 65% of Irish debt



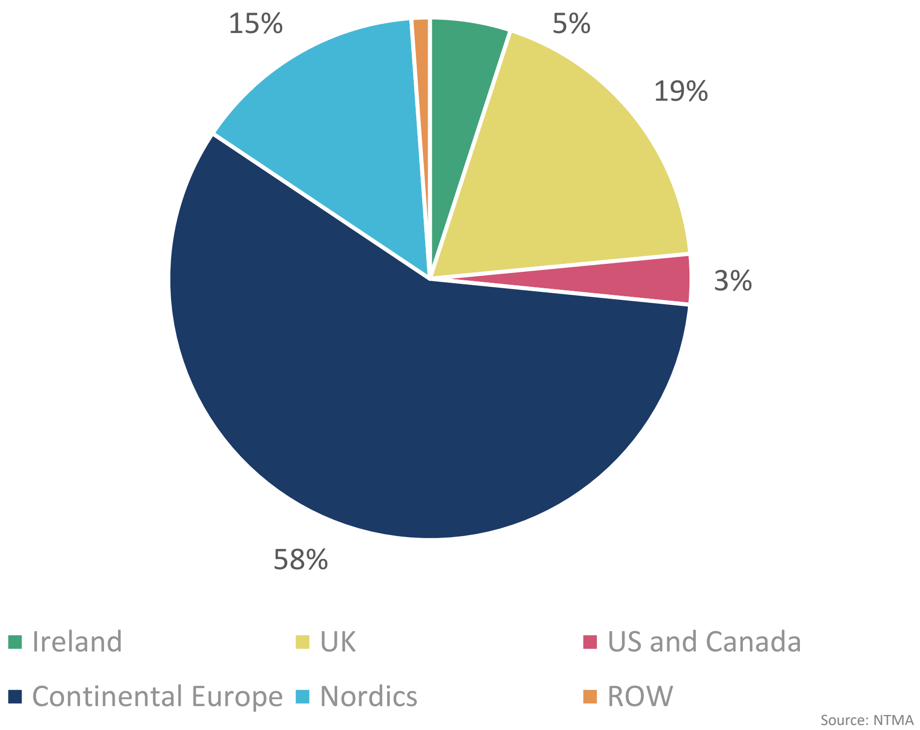
Source: Eurostat

Note: IGBs excludes those held by Eurosystem. Eurosystem holdings include SMP, PSPP, PEPP and CBI holdings of FRNs. Figures do not include ANFA. Other debt has included IMF, EFSF, EFSM, Bilateral as well as IBRC-related liabilities over time. Retail includes State Savings and other currency and deposits. The CSO series has been altered to exclude the impact of IBRC.

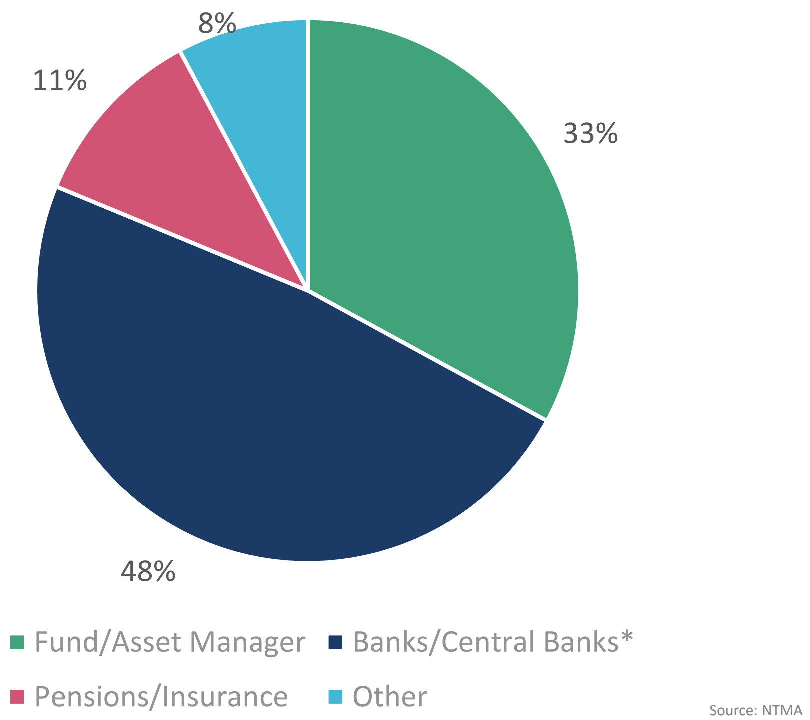
Investor base

Demand for Government bonds is wide and varied

Country breakdown: Average over last five syndications



Investor breakdown: Average over last five syndications



* Does not include ECB.

Credit Ratings for Ireland

Three ratings agencies on positive outlook; Ireland rated in AA category by all

Rating Agency	Long-term	Short-term	Outlook/Trend	Date of last rating change	Date of next review
Standard & Poor’s	AA	A-1+	Positive	May 2023	21 March
Fitch Ratings	AA	F1+	Stable	May 2024	9 May
Moody’s	Aa3	P-1	Positive	Apr 2023	H2
Morningstar DBRS	AA	R-1(high)	Stable	Sept 2024	14 March
R&I	AA-	a-1+	Positive	Feb 2022	H1
KBRA	AA	K1+	Stable	May 2023	Q2
Scope	AA	S-1+	Stable	Aug 2024	H2

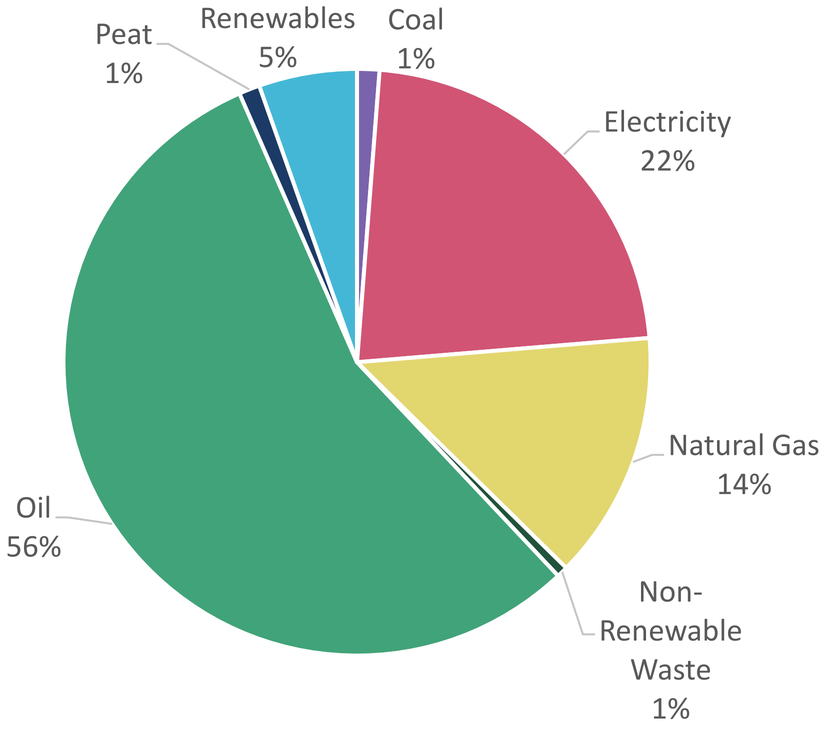
ESG Sustainability

Issuance & government policy demonstrate Ireland's green commitment

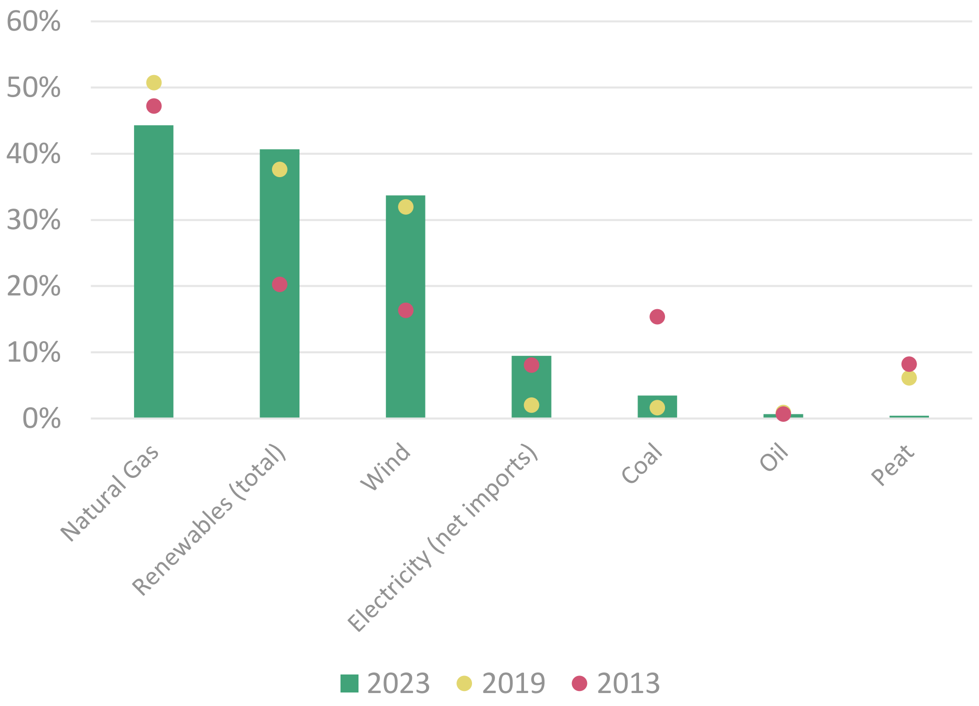
Ireland’s energy: fossil fuels prevalent

Ireland’s energy mix is reliant on fossil fuels but share of renewables to increase by 2030

Oil accounts for the largest share of Ireland’s energy mix (2023 data)



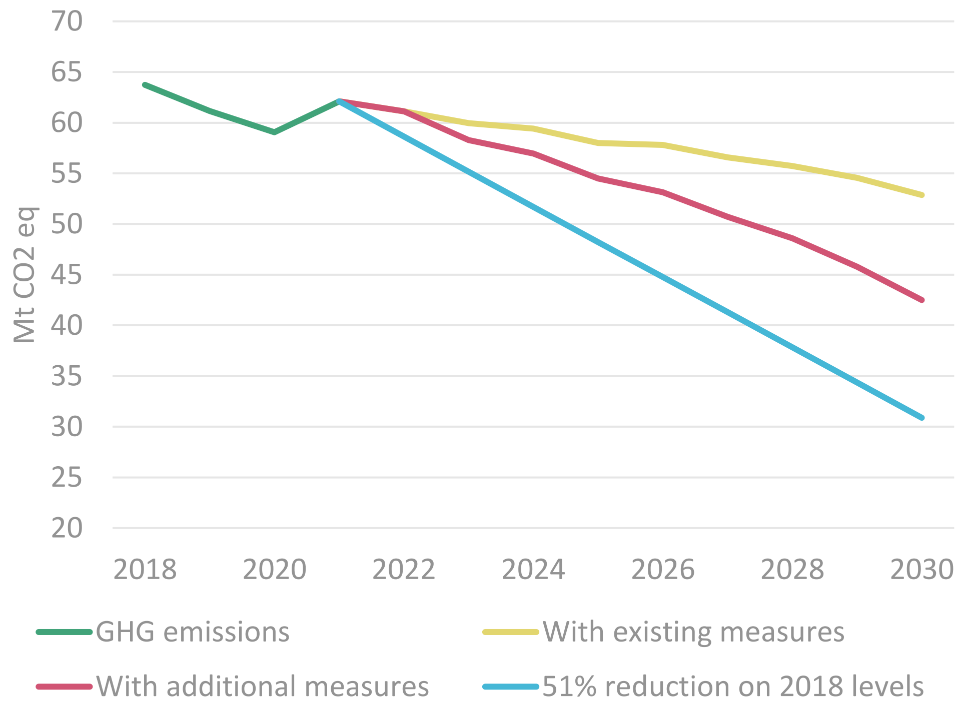
Electricity production has become more renewables based but still far from Climate Action Plan aim of 80% by 2030



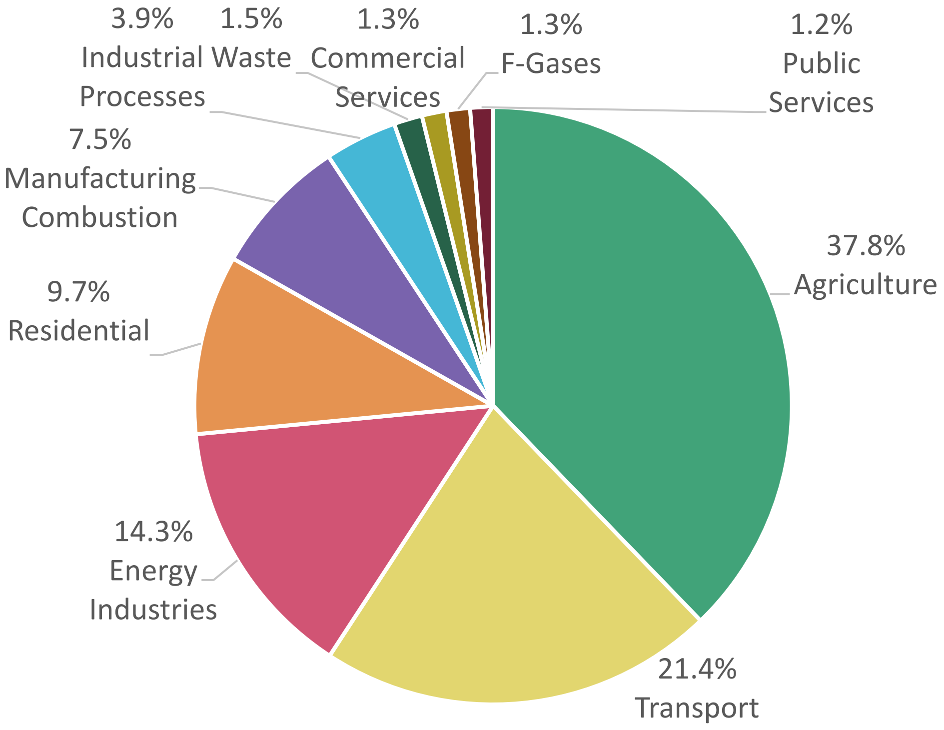
Ireland's greenhouse gas emissions

EPA report notes further measures needed to achieve emissions reduction target

EPA projections indicate Ireland will fall short of the 51% reduction target for 2030



Emissions from agriculture make up a significant portion of the total in Ireland



Source: Environment Protection Agency (Ireland). Note: Metric used is million tonnes carbon dioxide equivalent (Mt CO2eq). RHS is provisional 2023 data.

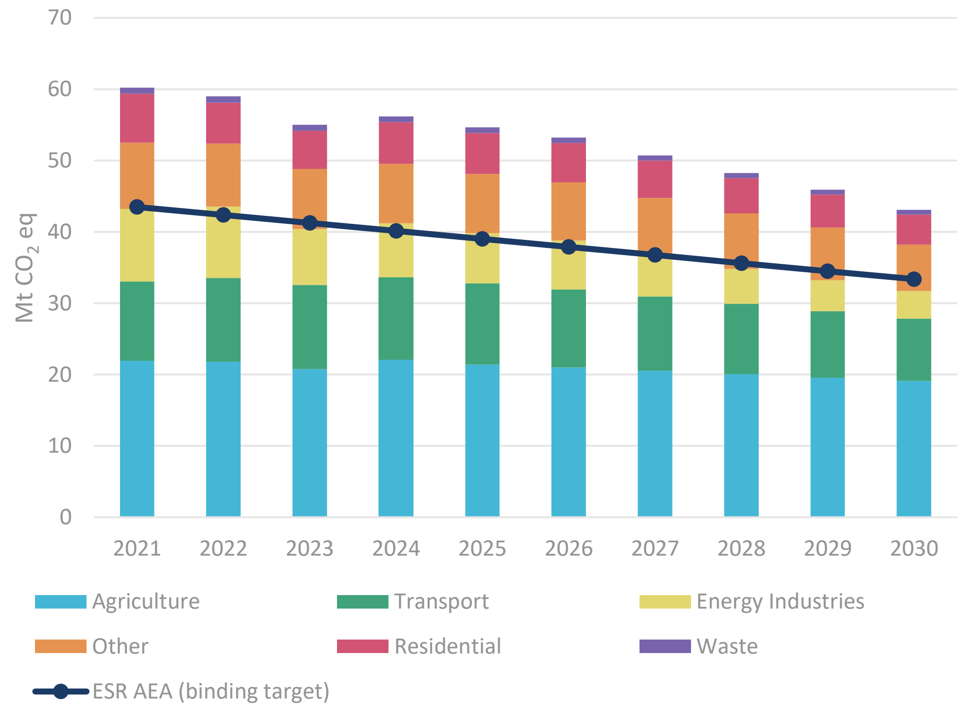
Climate Action Legislation

The Climate Action & Low Carbon Development Act 2021 aims for Net Zero by 2050

Climate Action & Low Carbon Act:

- Carbon Budgeting: The Act embeds the process of carbon budgeting into law. It requires Government to adopt a series of economy-wide-five-year carbon budgets.
- National Climate Objective: First carbon budgets will aim for a reduction of 51% of emissions by 2030.
- Climate Action Strategy: A national plan will be prepared every five years and actions for each sector will be updated annually.
- All of Government approach: Local authorities are required to prepare a Climate Action Plan and public bodies obliged to conduct their functions in line with the national plan
- Progress: At the end of 2023, Ireland was exactly 60% through the 2021-2025 carbon budget and is over-emitting against its CAP targets (SEAI analysis).

Greenhouse Gas Emissions and Effort Sharing Regulation Annual Emissions Allocations (ESR AEA)



Source RHS: Environmental Protection Agency.

Projections are based on With Additional Measures (WAM) scenario

Climate Action Plan 2024

Pillars to tackle emissions reduction

Powering renewables

· 9GW onshore wind, 8GW solar and at least 5GW offshore wind by 2030

· Phase out and end use of coal and peat in electrical generation

·Transform flexibility of electricity system by improving system services and storage capacity

Building Better

· Retrofit 500,000 dwellings by 2030

· Put heat pumps into 680,000 homes by 2030

· Generate 2.7TWh of district heating by 2030

· Improve carbon sequestration and reduce management intensity of drained soils on grasslands

Transport

· Reduce distance driven across all car journeys by 25%

· Walking, cycling, public transport will account for 50% of journeys

· 1 in 3 private cars will be EV's

· Increase rural bus routes and frequency

Agriculture

· Reduce use of chemical nitrogen as fertiliser

· Increase organic farming to 450,000 hectares

· Expand indigenous biomethane sector

· Contribute to delivery of land use targets for afforestation, reduce mgmt. intensity of organic soils

· Increase uptake on protected urea on farms to 90-100%

Enterprise

· Reduce clinker content in cement and substitute products with lower carbon content for construction materials

· Reduce fossil fuel share of final consumption

· Increase total share of heating to 70-75% by 2030

· Grow the circular and bio economy

Land Use

· Increase annual afforestation rates to 8,000 hectares

· Promote forest management initiatives in forests to increase carbon sinks and stores

· Improve carbon sequestration and reduce management intensity of drained soils on grasslands

· Rehabilitate 33,000 hectares of peatlands

Irish Sovereign Green Bonds

Over 11bn issued in Green and allocated to green projects

Summary of Green Bond Issuance

- €11.38bn nominal outstanding across two bonds
- Cumulatively €11.3bn allocated
- Issuance through both syndicated sales and auctions
- Pipeline for eligible green expenditure remains strong
- Launched 2018 and based on ICMA Green Bond Principles – Use of proceeds model
- Governed by a Working Group of government departments chaired by the Department of Finance
- Compliance reviews by Sustainalytics
- Six annual allocation reports and five annual impact reports now published

Irish Sovereign Green Bond Impact Report 2022: Highlights*

Environmentally Sustainable Management of Living Natural Resources and Land Use

- Number of hectares of forest planted: 2,273
- Number of Landfill Remediation sites with funding drawn down: 67

Renewable Energy

- Number of companies (including public sector organisations) benefitting from SEAI Research & Innovation programmes as lead, partner or active collaborators: 23
- SEAI Research & Innovation awards: 41

Sustainable water and wastewater management

- Public side water savings (litres of water per day): 11 million
- New & upgraded water and wastewater treatment plants: 15
- Length of water main laid (total): 315km

*For a more detailed break-down please see the ISGB 2022 Impact Report

Irish Sovereign Green Bonds (ISGB)

Irish Sovereign Green Bond Impact Report 2022 & Allocation Report 2023: sample impacts

Some highlights from the report*

Built Environment/Energy Efficiency

- Non-residential energy saving (Gigawatt Hours): 151
- Number of homes renovated: 27,200

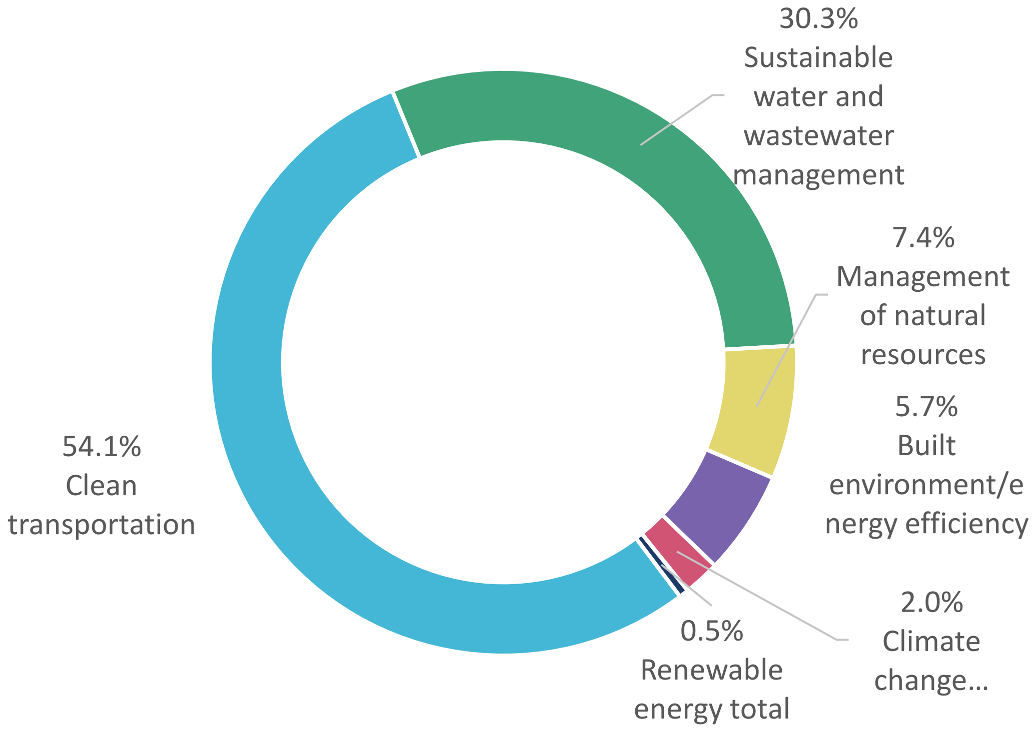
Clean Transportation

- Grant-aided EV home charging points installed: 16,299
- Number of public transport passenger journeys: 249.7 million
- Length of regional and national greenways constructed: 54km
- Take-up of Grant Schemes/Tax foregone provided (number of vehicles): 33,020

Climate Change Adaptation

- 16 major flood relief projects at planning, development or construction phase
- 8,913 properties protected on completion

Allocation in 2023 of ISGB funding has focused on Water/Waste management and transportation

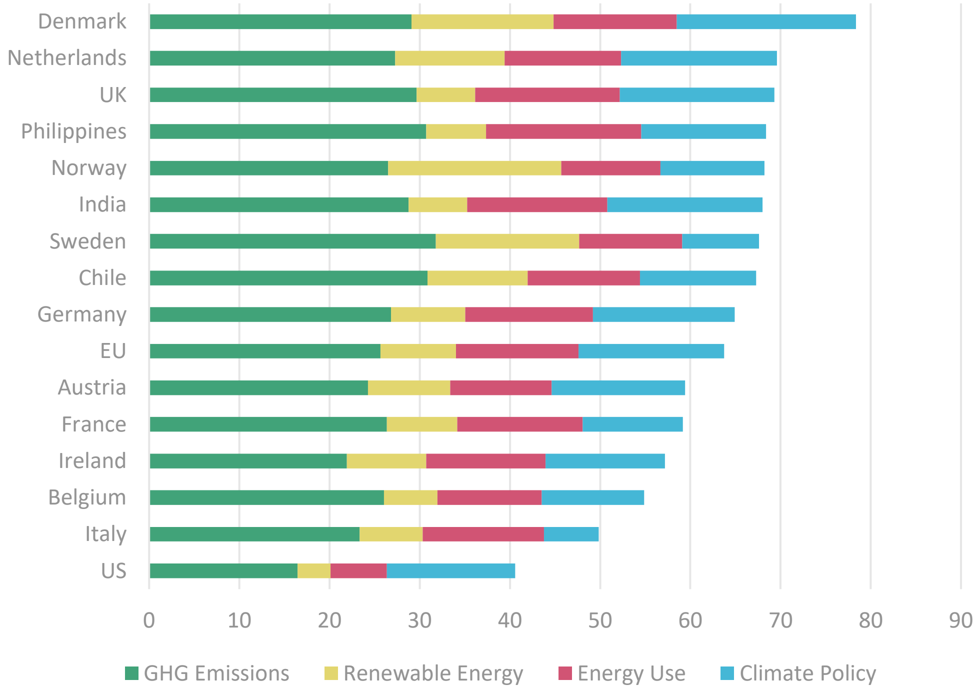


*For a more detailed break-down please see the Irish Sovereign Green Bond Allocation Report 2023

Further progress on ‘E’ and ‘S’ to be made

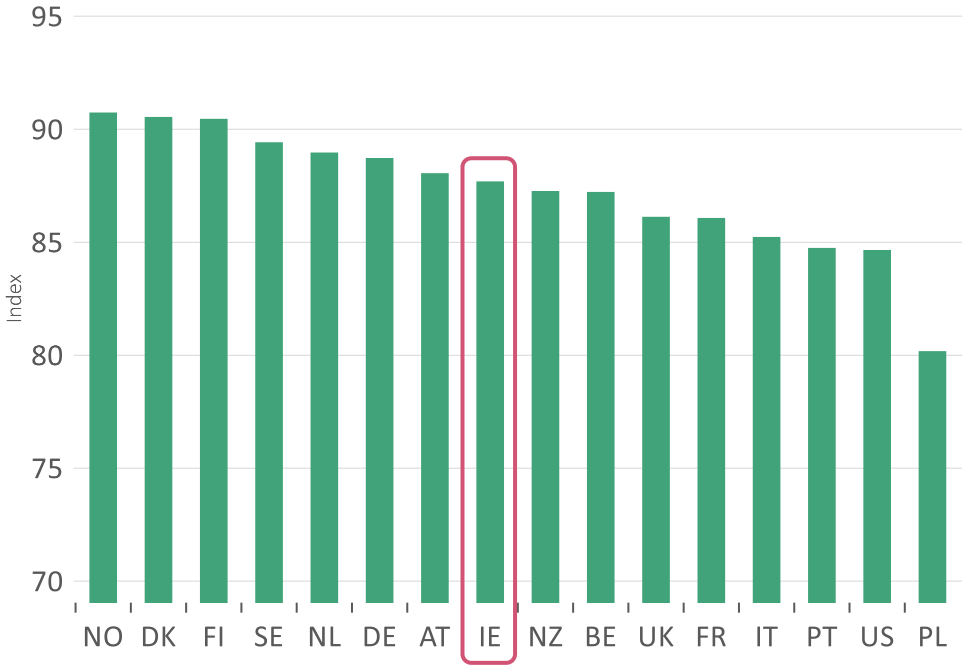
Action needed in sectors like energy and healthcare

Ireland’s rank jumped from 43 to 29, though still falls behind leaders like Denmark in current environmental metrics



Source: CCPI

Ranked 13th out of 160 countries in the Social Progress Index but scores lower on healthcare and housing affordability



Source: SPI

Policy on Just Transition and Biodiversity

All of National Parks and Wildlife Service budget included in Green bond allocation

Just Transition

The importance of ensuring a just transition is explicitly recognised in the Climate Act 2021 and in the Climate Action Plans

- National Just Transition Fund 2020
  - €22.1m in grant funding provided to projects the contribute to the economic, social and environmental sustainability for the Wider Midlands region
- EU Just Transition Fund and Ireland's Territorial Just Transition Plan
  - Includes up to €169m in investment for the economic transition for the Midlands region for 2021-2027
- Green Skills for Further Education and Training 2021-2030 Roadmap
- Skills for Zero Carbon
- Just Transition Commission set up

Biodiversity

Irish policies for biodiversity are primarily set by the National Biodiversity Action Plans

- 4^{th} National Biodiversity Action Plan 2023-2030
  - Backed by legislation, the NBP sets the agenda for biodiversity conservation and supports Ireland's international commitments
- Wildlife Amendment Act 2023
- International Commitments:
  - UN Convention on Biological Diversity
  - EU Nature Restoration Law
  - EU Biodiversity Strategy for 2030
  - Global Biodiversity Framework
- Peatlands Restoration
  - Bord na Móna Peatlands Restoration
  - EU supported The Living Bog Project 2016-2021

Source: 4^{th} National Biodiversity Action Plan, Territorial Just Transition Plan

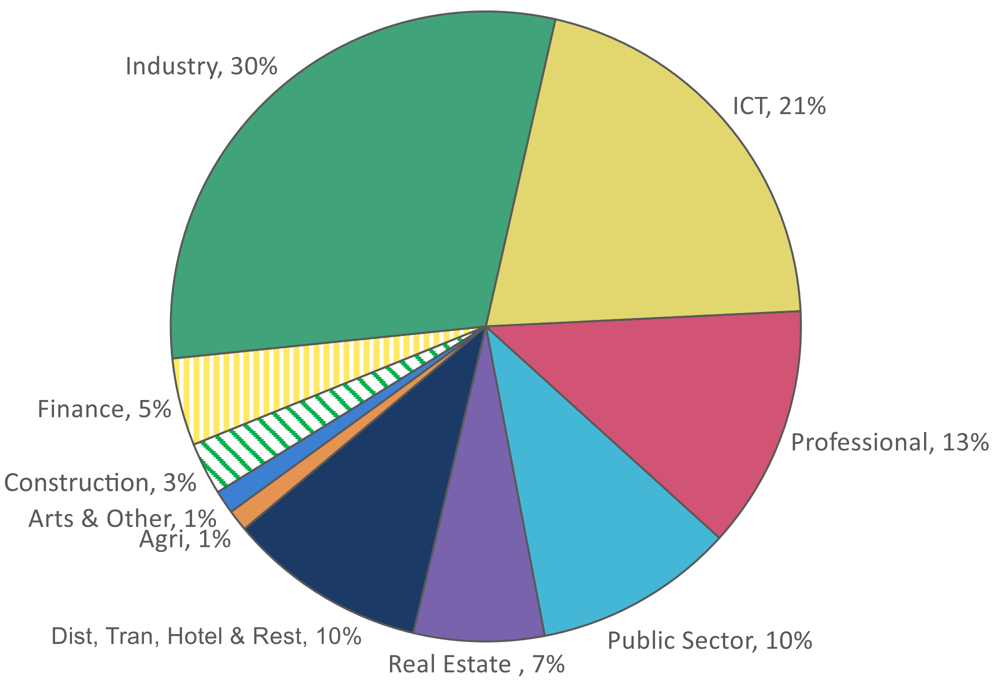
Structure of the Irish Economy

Multinationals overstate economic prosperity but offer clear benefits of jobs, income, taxes

Multinational activity distorts Ireland’s data

Notwithstanding those issues, MNCs have real positive impact

Multinationals dominate GVA: profits are booked here but overstate Irish wealth generation



Source: Eurostat

Domestic side of economy adds jobs; MNCs add GVA/high wages

Percentage of Total

	Employment	Compensation of Employees	Real GVA
Industry (incl Pharma)	13	13	30
ICT (Tech)	7	10	21
Professional	10	14	13
Public Sector	30	28	10
Dist, Tran, Hotel & Rest	24	18	10
Real Estate	1	1	7
Financial	5	8	5
Construction	5	5	3
Arts & Other	4	2	1
Agriculture	1	1	1

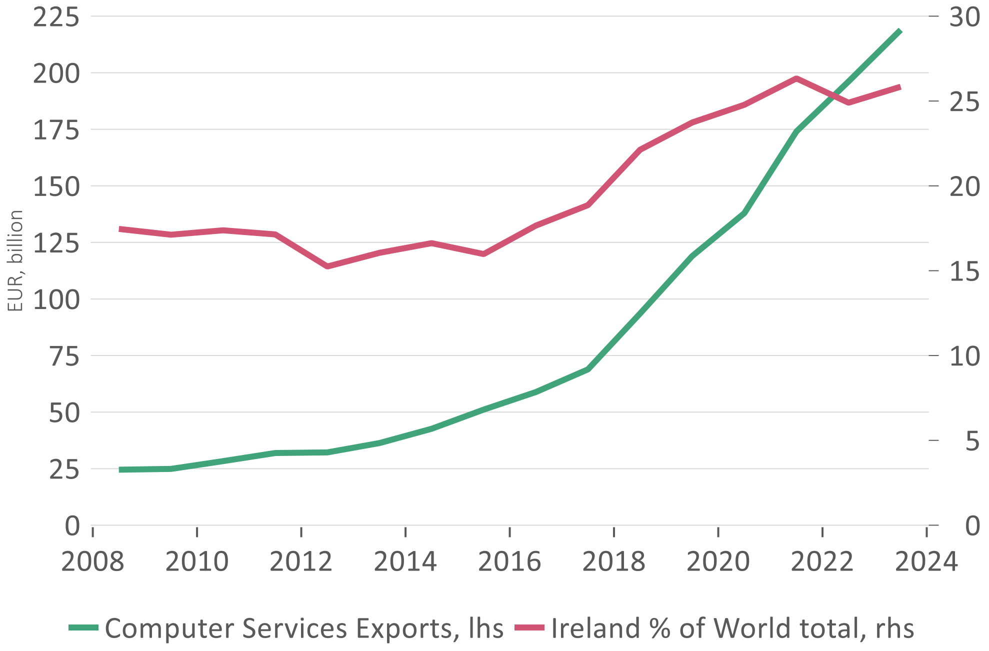
Source: Eurostat

Note: Based on calendar-adjusted seasonally-adjusted data as of 2024 Q3

€0.8trn of intellectual property into Ireland

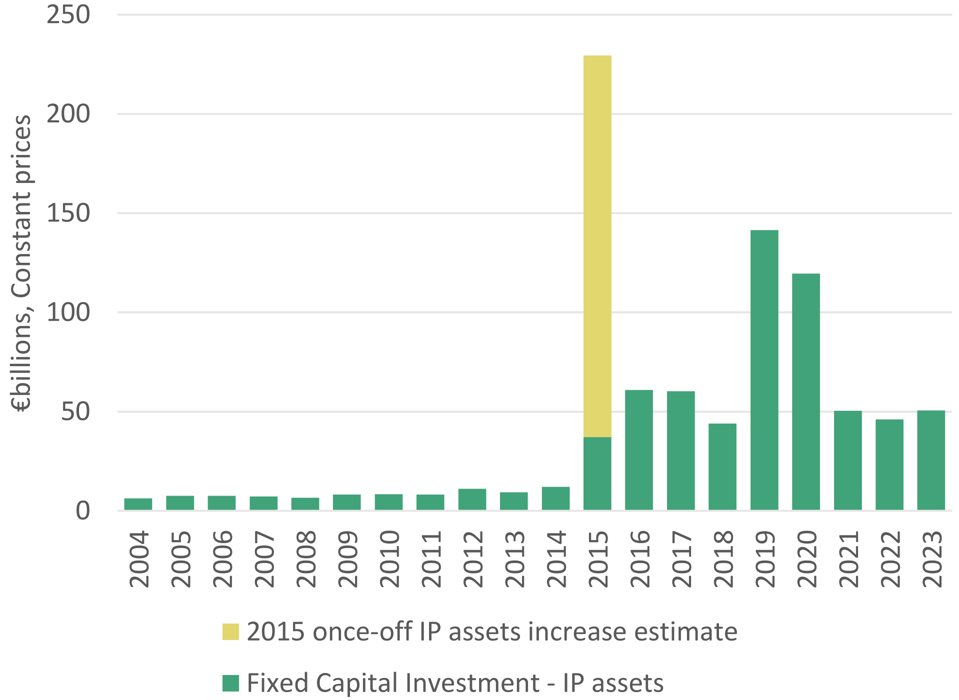
Assets brought here by tech. & pharma. in recent years

Ireland is now a leader in Computer Services; Exports up from €50bn to €170bn since 2015



Source: CSO, WTO

Enormous inflows (c. €800bn) of IP assets into Ireland since 2015 on the back of BEPS 1.0 and other tax reforms

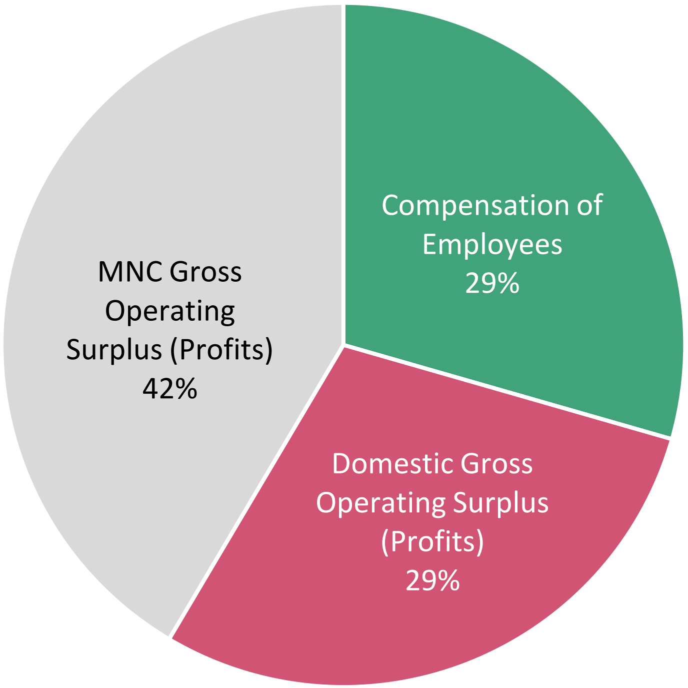


Source: CSO and NTMA analysis – Gross Fixed capital formation and Gross capital stock figures used in RHS chart

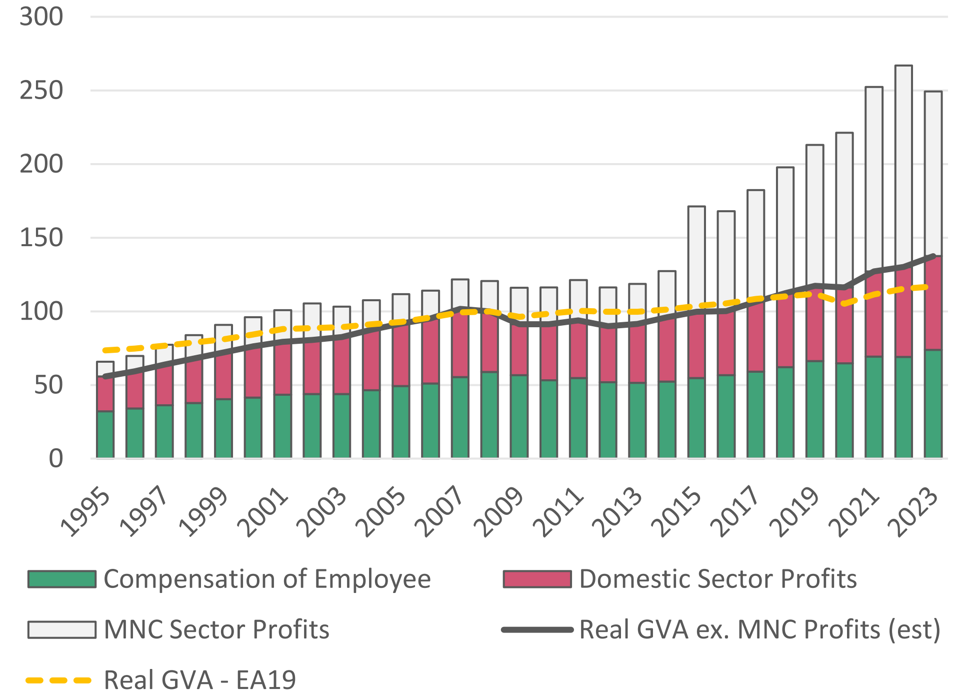
Underlying economy above EA average

MNCs add real substance to Irish economy as wage bill filters out to domestic sectors

Ireland's income = wages (all sectors) + domestic sectors profits + tax on MNC profits



Ireland, on an underlying basis, growing faster than euro area average in recent years (2008 = 100)

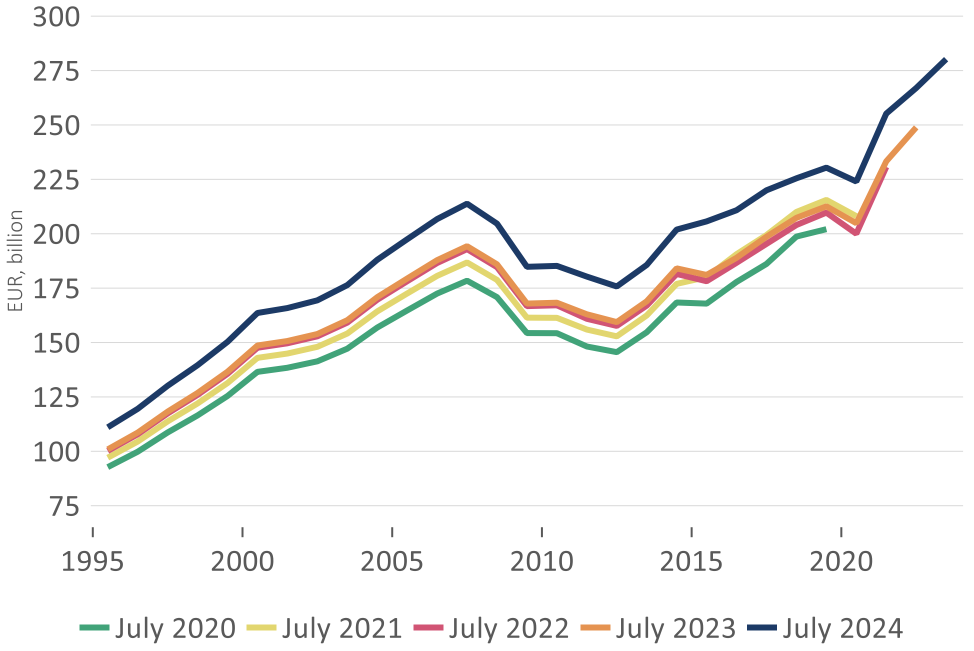


Source: CSO, NTMA calculations. LHS shows nominal 2023 data. Foreign-owned MNE dominated includes Nace sectors 19, 20, 21, 26, 31, 32, 58, 61, 62, 63 and 77. Ireland's GVA data has been adjusted to strip out the distortionary effects of some of the multinational activity that occurs in Ireland. Specifically, a profit proxy is estimated for the sectors in which MNCs dominate.

National accounts data regularly revised

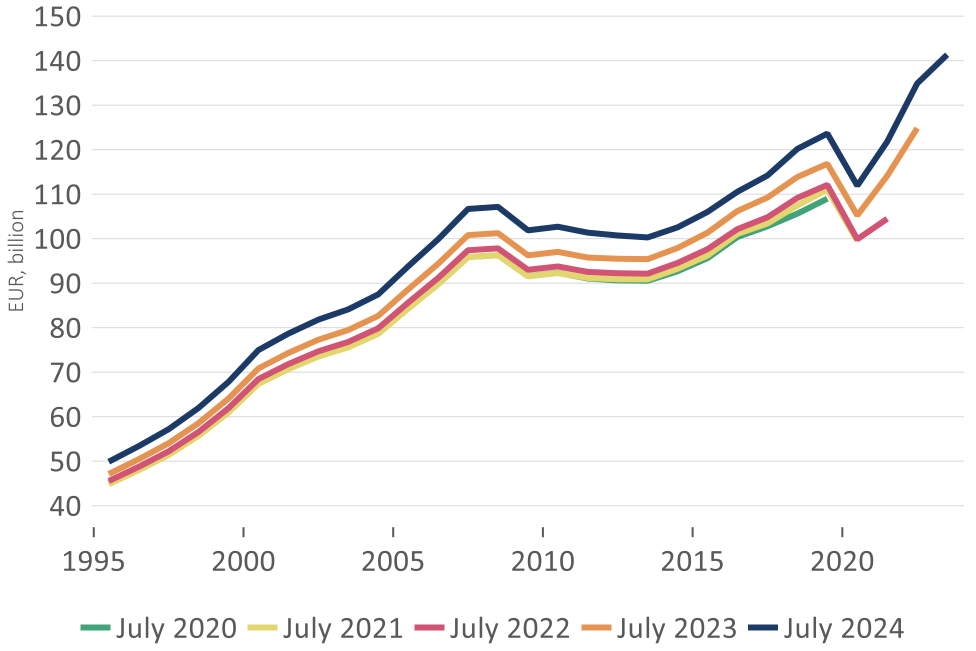
New data sources and major methodological changes have meant big upward benchmark revisions

Modified GNI has moved up significantly, with historical data revisions of ~20% for some years



Source: CSO

Consumption revisions notable in recent years, with 2022 seeing an upward move of c. €10bn in 2024 benchmark revision

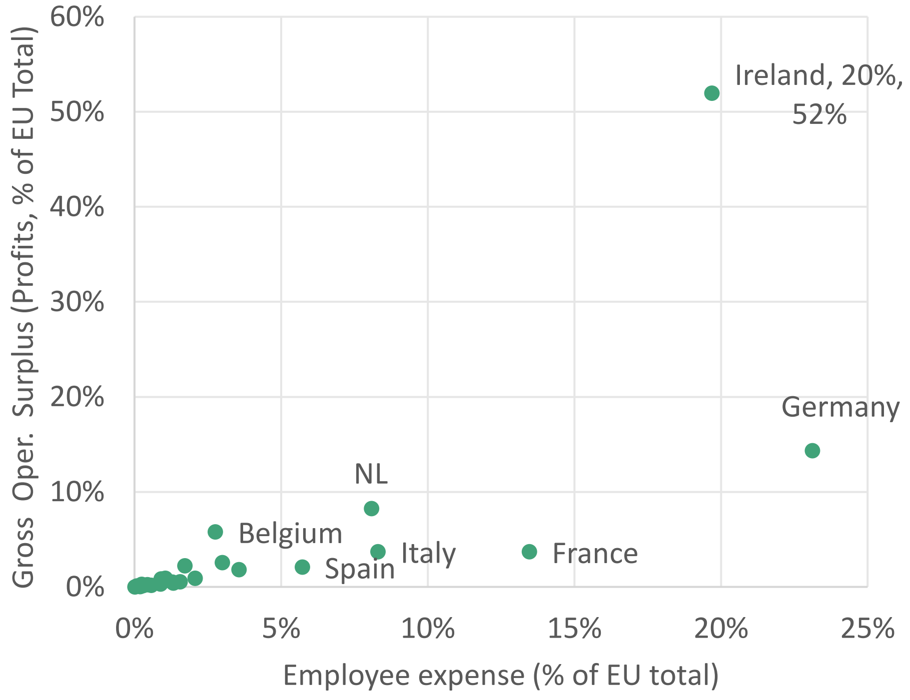


Source: CSO

Note: Legends d2024 was a Benchmark revision year for National Accounts purposes across EU Member States. Benchmark revisions are a coordinated major European revision carried out at least once every five years to incorporate new data sources and major changes in statistical methodology.

US companies in Europe

When US companies base themselves in EU, Ireland takes an outsized proportion



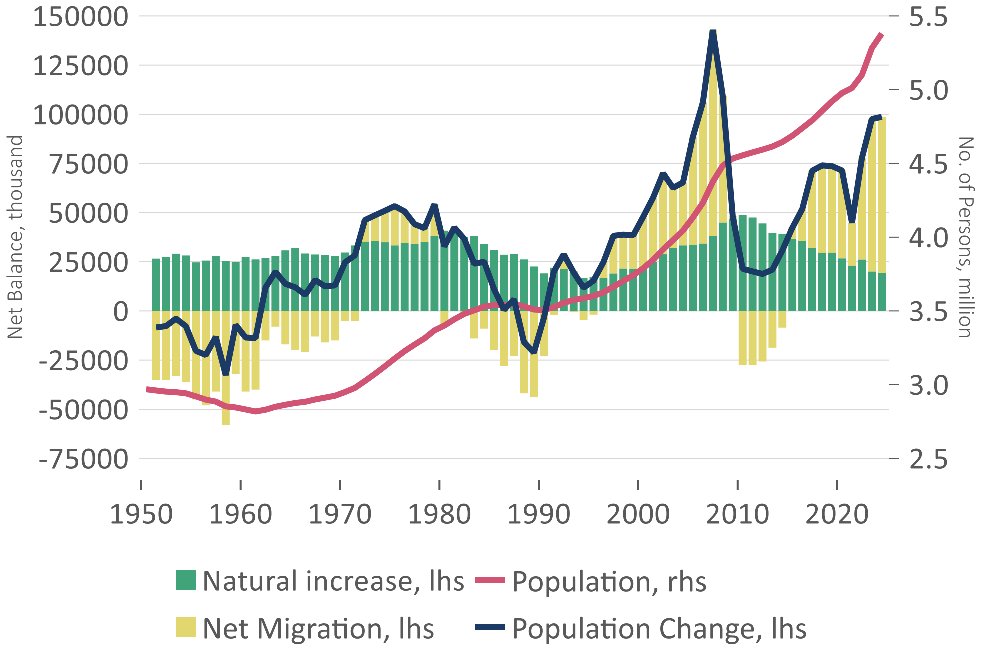
Company	Sector	Employees
Apple	ICT manufacturing	6,000
Microsoft	ICT Services	5,006
Google	ICT Services	4,832
Pfizer	Chemical & Pharma	5,000
Medtronic	Chemical & Pharma	4,000
Dell Ireland	ICT manufacturing	5,000
Meta	ICT Services	2,662
Cisco	ICT manufacturing	3,505
Merck	Chemical & Pharma	3,000
Citibank	Finance	2,900
Oracle	ICT Services	1,049
Analog Devices	ICT manufacturing	1,626
IBM	ICT manufacturing	1,283
Bank of America	Finance	2,548

Source: Eurostat; Irish times

Ireland’s population helps growth potential

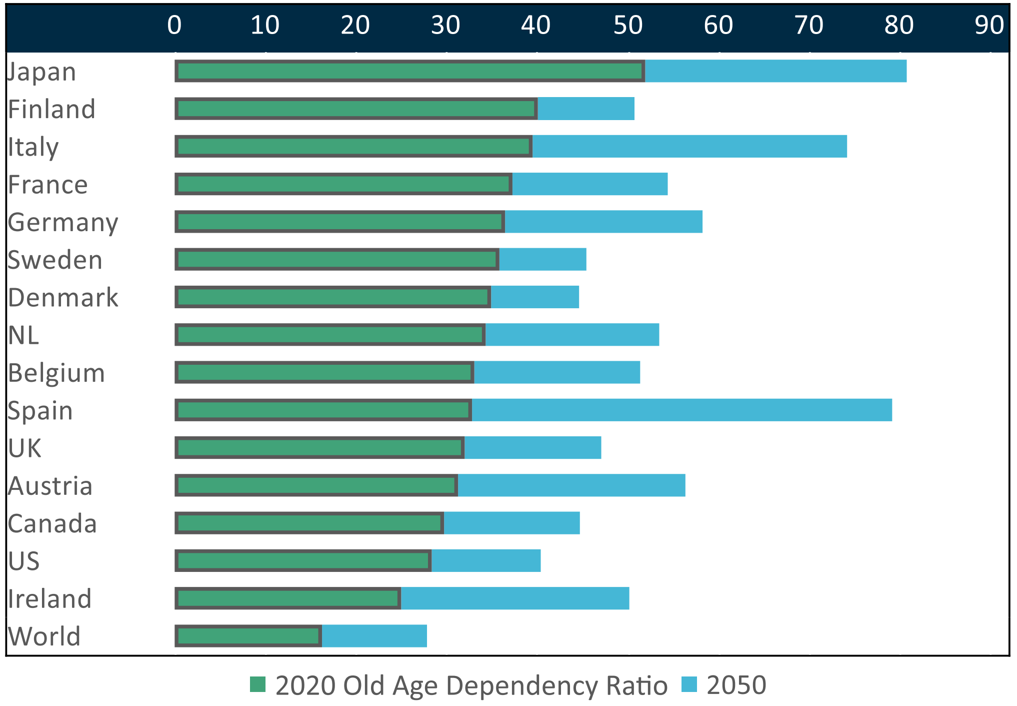
Age profile younger than the EU average but won’t outrun aging demographics

Ireland’s population at 5.4m in April 2024: Migration driving robust population growth



Source: CSO

Ireland’s population will age rapidly in decades to come; to remain younger than most of its EA counterparts

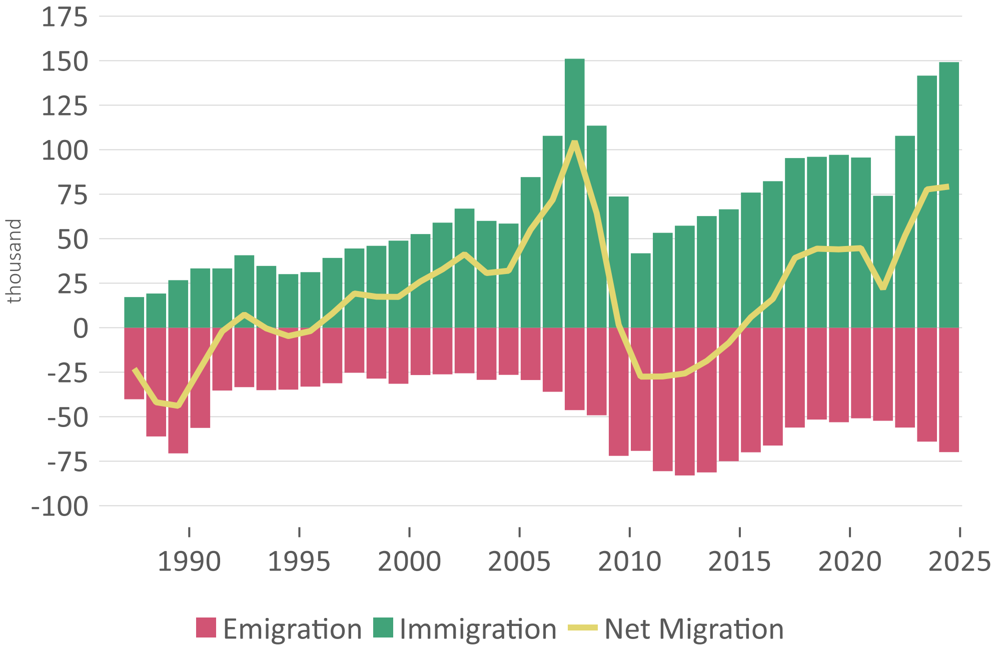


Source: UNDESA

Migration improves Ireland's human capital

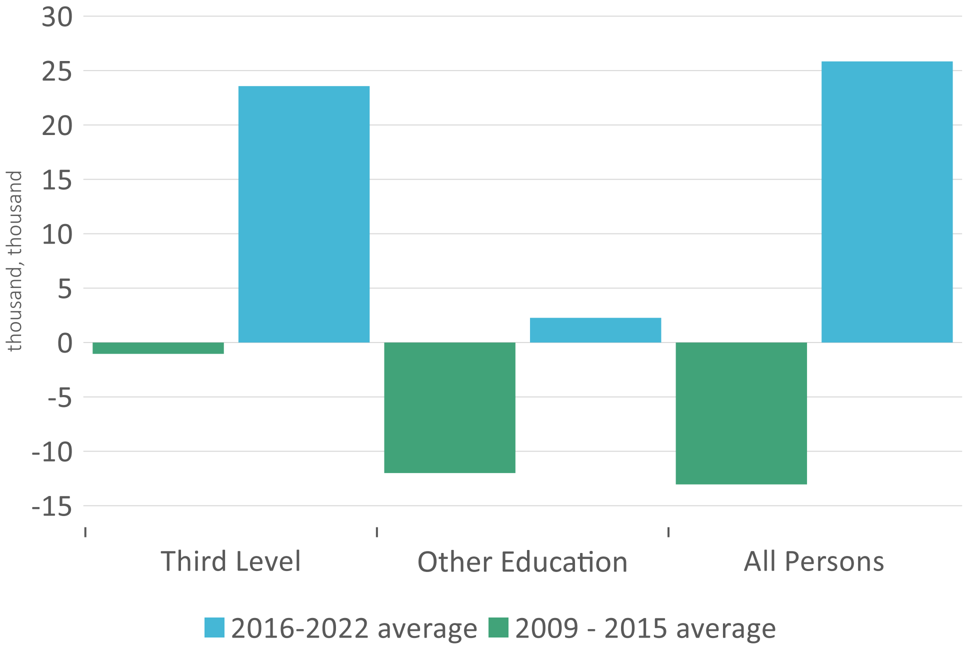
Ireland's net migration has swung back and forth on economic performance

Continued inward migration let to 98k increase (c. 2%) in last year – due to strong economy & UKR refugee efforts



Source: CSO

Migration inflow particularly strong in highly educated cohort – work in MNCs attractive

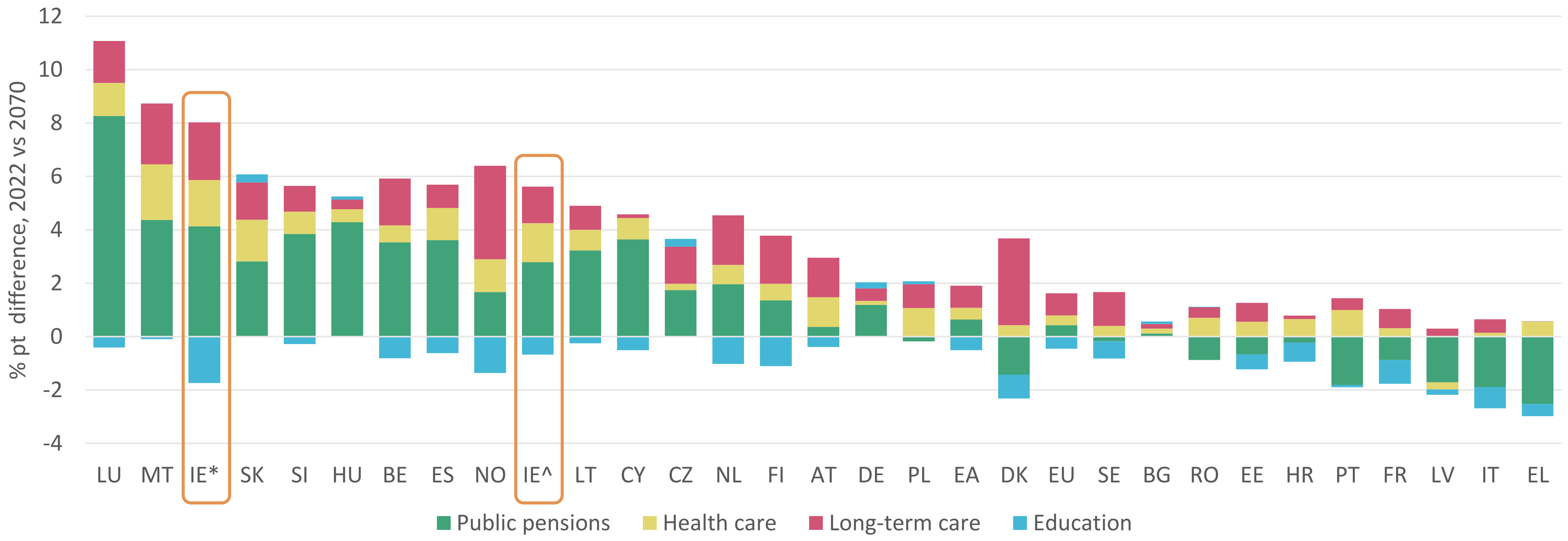


Source: CSO

Migration figures based on year to April

Total cost of ageing projected to increase

Increase largely driven by pensions, while education spending expected to decline



Source: 2024 Ageing Report. Economic and Budgetary Projections for the EU Member States (2022-2070) and NTMA calculations. Chart shows spending as a % of GDP/GNI*.

* denotes as a percent of GNI*, ^ as a percent of GDP.

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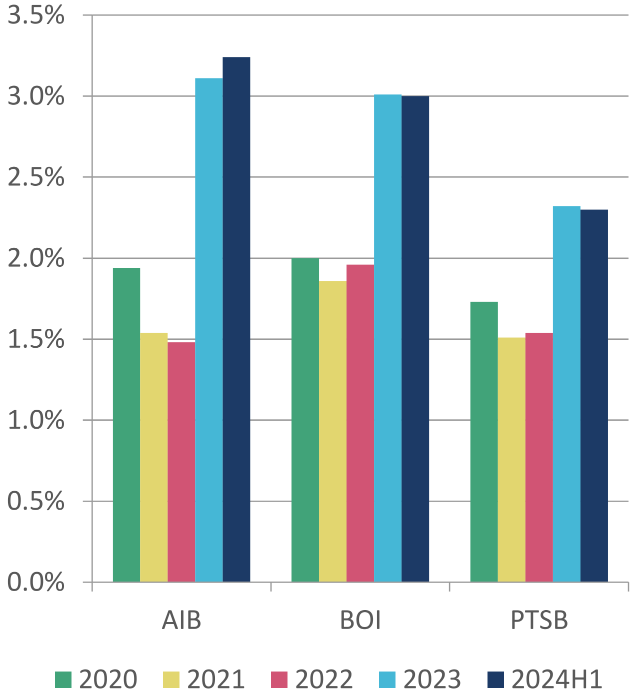
Ireland’s Banking Sector Overview

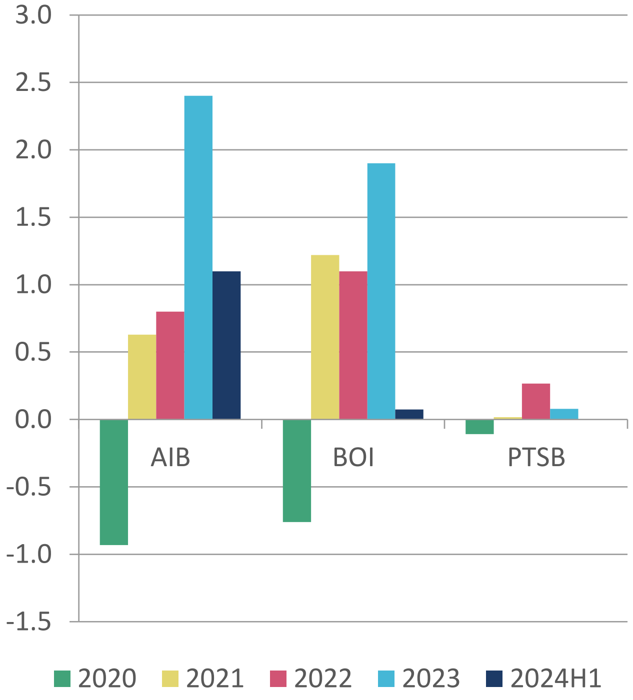
Profitable and well capitalised

Net Interest Margin – 2023 and 2024 saw rebound before ECB policy cuts



- Banking sector well capitalised with sufficient liquidity buffers
- Banks profitable as net interest margins helped by higher interest rate environment. ECB policy reversing this trend.
- The Irish Government has sold its share in BOI. This leaves just AIB and PTSB with government involvement.
- Further tranches of AIB and PTSB shares were sold in 2024/25. The Government owned 12.5% of AIB and 57% of PTSB at end Feb 2025. Sales of AIB shares are likely to be ongoing as government divests from sector.

Profit Before Tax (€bns) – margins helped by rates

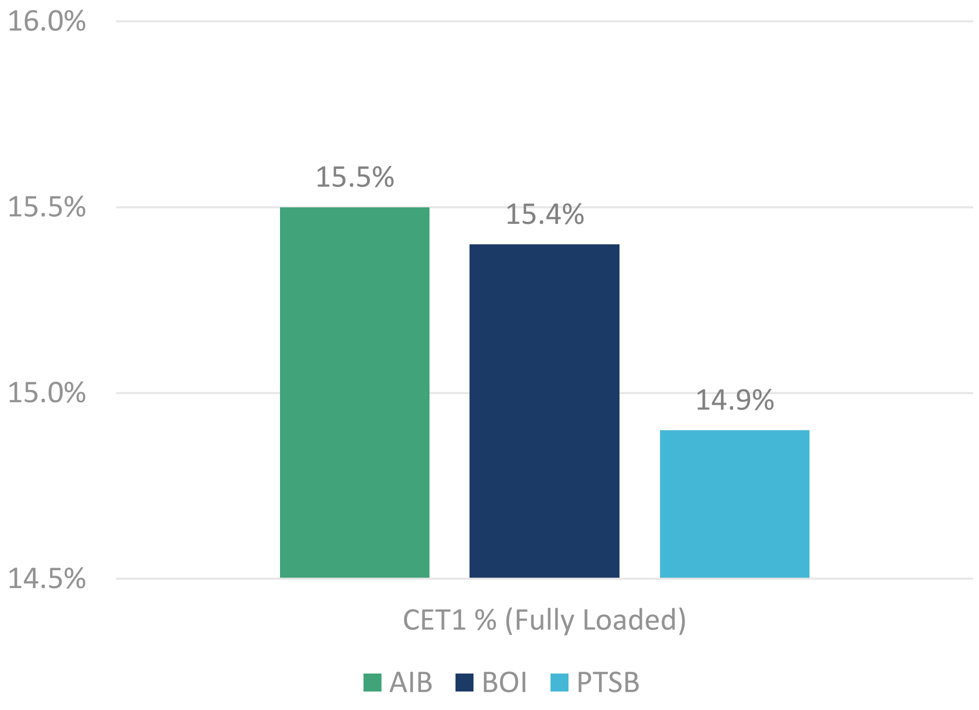


Source: Annual reports of banks - BOI, AIB, PTSB

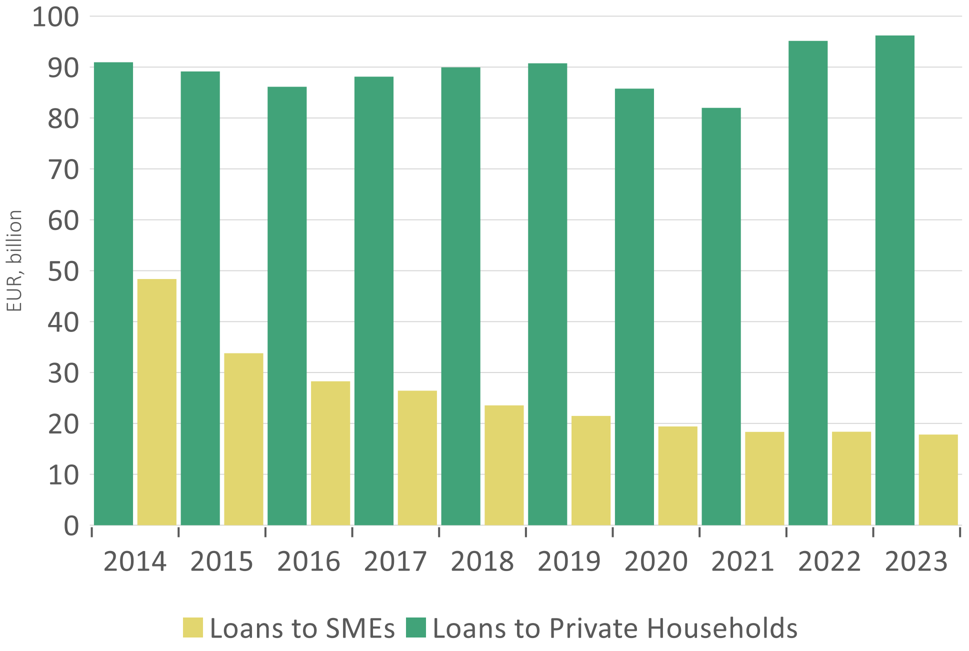
Capital ratios strong

Bank's balance sheets contracted and consolidated since GFC

CET 1 capital ratios healthy – interim results 2024 data



Lending to SMEs has seen overall decline, while the increase in credit flows to households since 2020 driven by mortgages



Source: Central Bank of Ireland

Source: Published bank accounts
Note: "Fully loaded" CET1 ratios used. Refers to the actual Basel III basis for CET1 ratios.

Housing

Demand/prices still elevated despite normalised interest rate environment and increased building costs

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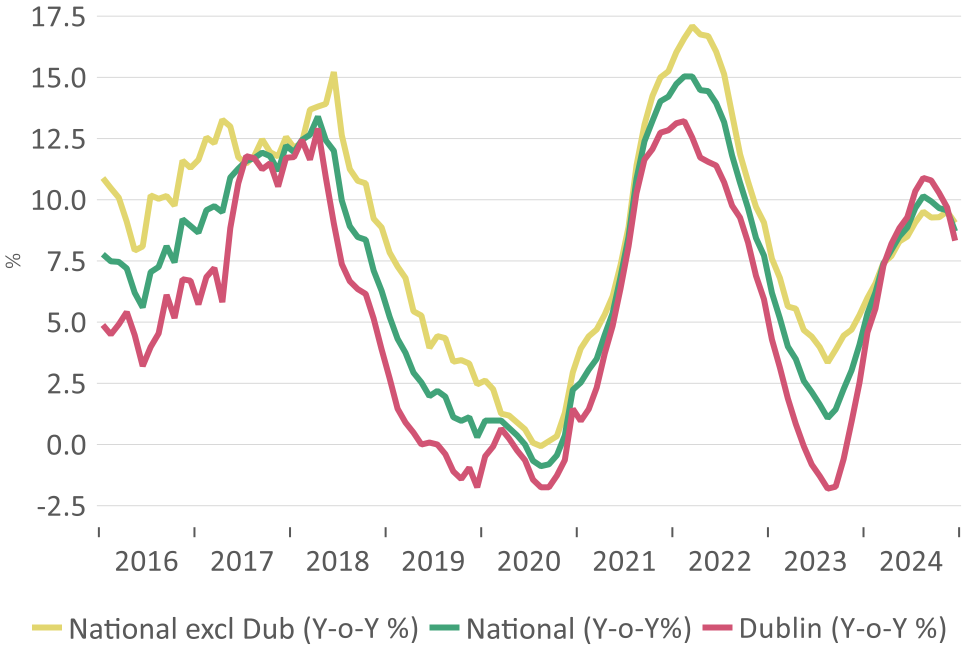
Prices up strongly in recent years

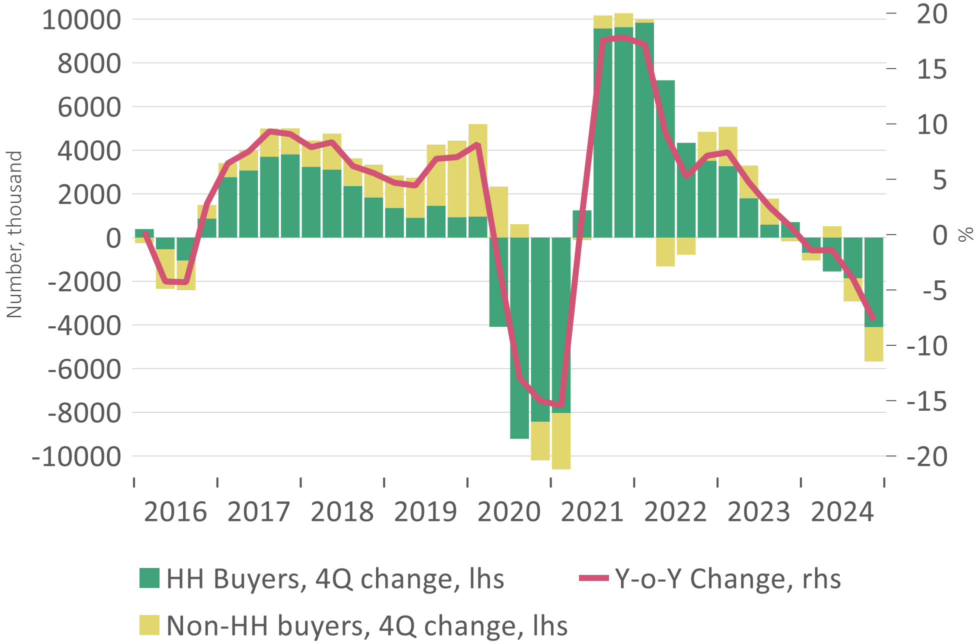
Supply hampered by the pandemic and inflation (with at least 50k units needed p.a.)

House prices up ~8% y-on-y. down from peak but still robust



Source: CSO

Transaction volumes have fallen on lower existing stock for sale as new homes completions in Q4 were down on 2023 Q4



Source: CSO

* Some estimates have put housing needs as high as 60,000 a year over the coming decades

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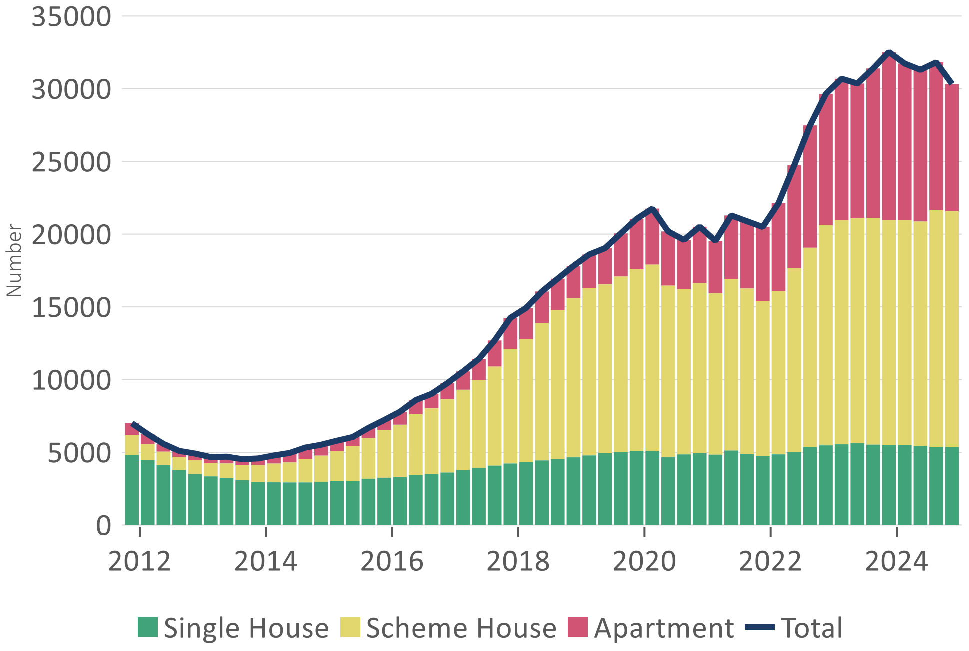
Supply is improving but below needed level

However, supply likely to rise less than suggested by recent starts data

New Dwellings Completions* of 30K units in 2024, down on 2023 level; pipeline suggest increases due in 2025

Source: CSO, Irish Department of Housing, Planning & Local Government

Completions driven to 30K level by apartments, but apartments have fallen back recently (-24% y-o-y growth in 2024)



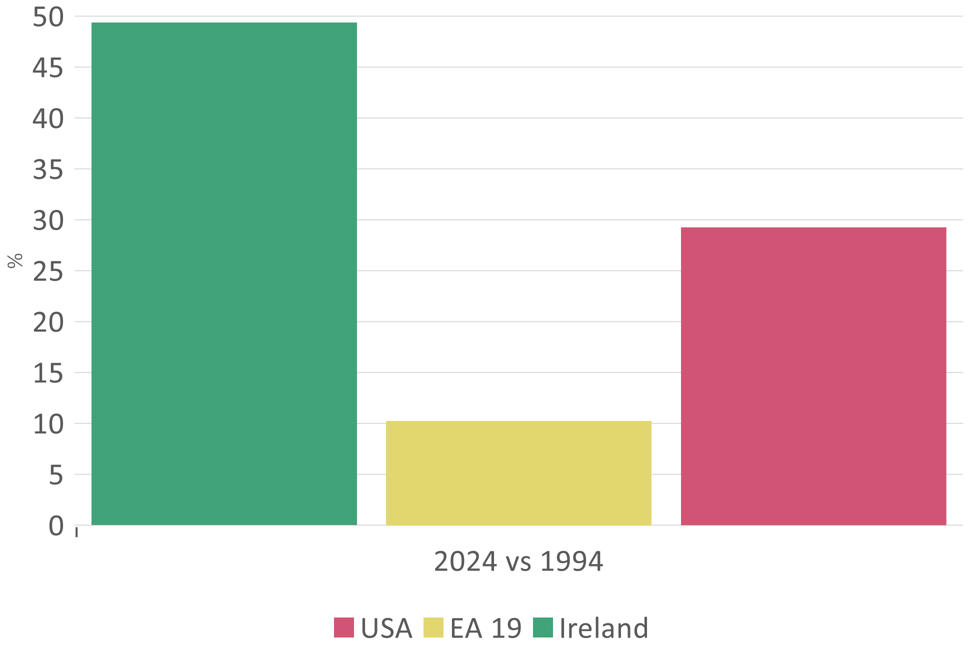
Source: CSO

* Housing completion derived from electrical grid connection data for a property. Reconnections of old houses overstate the annual run rate of new building (all connection sin graph). Starts data in 2024 impacted by deadline related to waiver on development contributions and rebate on water charges

Demand is strong

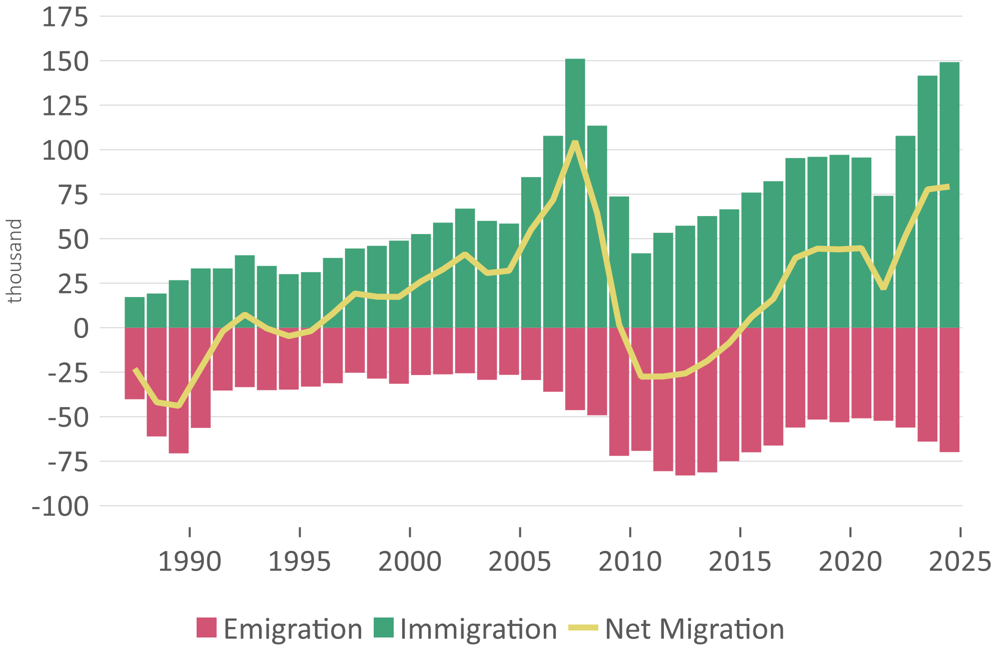
National population increase alongside net migration fuelling demand

Population has grown significantly for 30-40 years



Source: Eurostat, USCB

Increased net migration add demand for housing

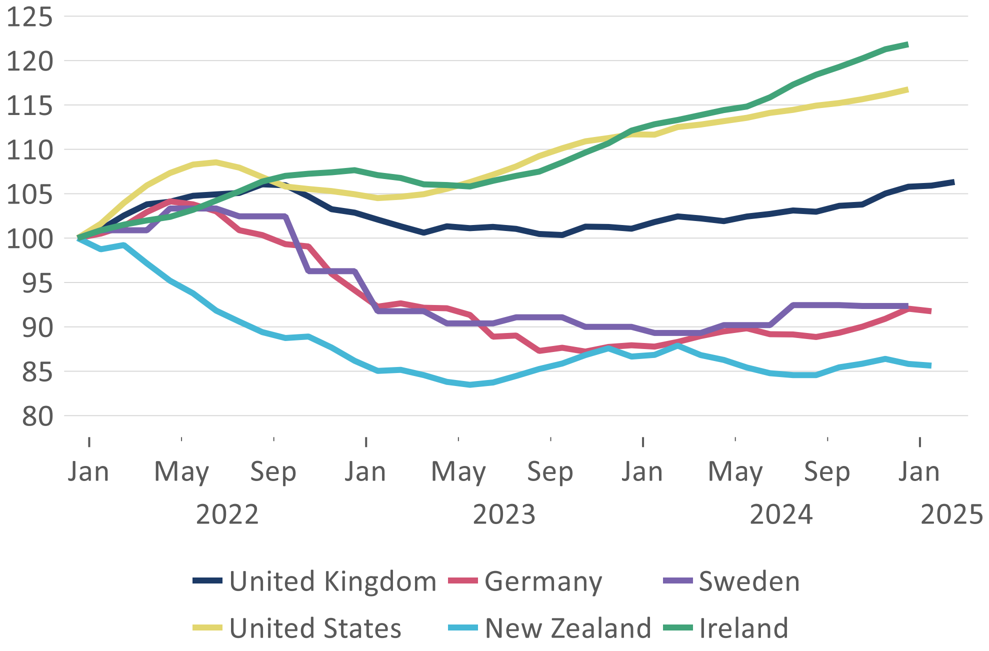


Source: CSO

House price strength versus other countries

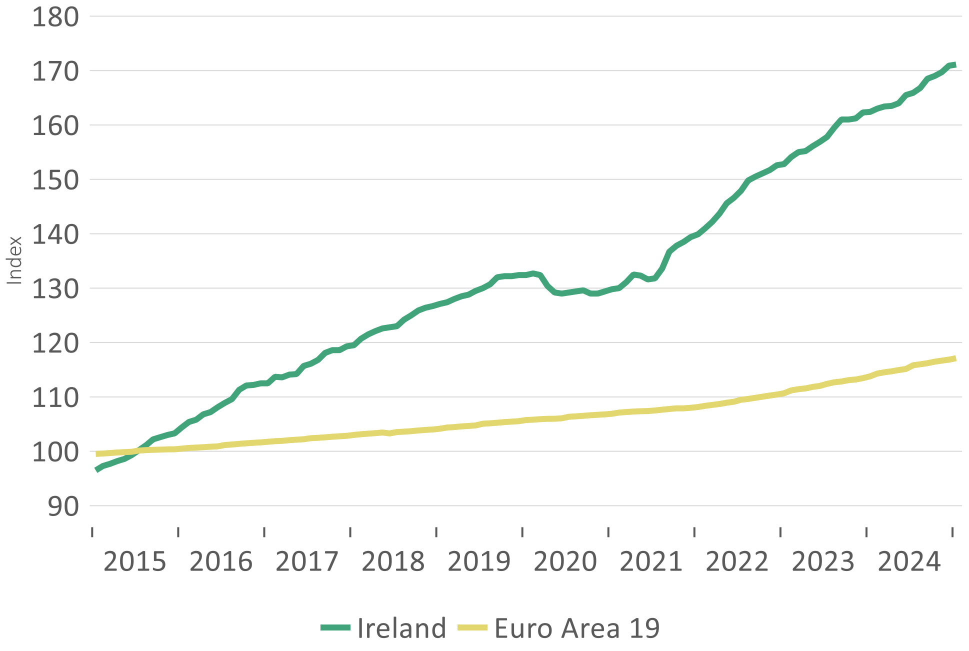
Demand has ensured prices and rents have increased, lower rates may act as tailwind

House prices have fallen in other countries, but Irish prices have remained elevated like US



Source: StatCan, CBS, Nationwide, S&P Global, Europace AG, Real Estate Norway (Eiendom Norge), REINZ, SCB, CSO, StatFin

Rent pressures remain strong with an annual rate of increase above 5% in 2024



Source: Eurostat

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