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Post-Programme Surveillance Report

Ireland, Spring 2023

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The Post-Programme Surveillance assessment was prepared in the Directorate General Economic and Financial Affairs of the European Commission under the guidance of Declan Costello, Deputy Director General, Isabel Grilo, Director, and Robert Kuenzel, Deputy Head of Unit for Ireland ([1]).

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The report was prepared in liaison with staff from the ECB ([2]). Staff from the European Stability Mechanism (ESM) also provided comments.

This report reflects information available and policy developments that have taken place until 28 April 2023. Therefore, the macroeconomic and budgetary projections, including those underlying the debt sustainability analysis, are in line with the Commission 2023 spring forecast released on 15 May 2023 (with cut-off date 28 April 2023).

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([1]) The executive summary of this report was adopted as Commission Communication C(2023)4001 on 22 May 2023. The rest of the report reflects the findings of the Staff Working Document (SWD(2023)650) accompanying this communication.

([2]) European Central Bank (ECB) staff participated in this mission, and the drafting of this report, in accordance with the ECB's competences and thus provided expertise on financial sector policies and macro-critical issues, such as headline fiscal targets and sustainability and financing needs.

ABBREVIATIONS

CBI	Central Bank of Ireland
CBRE	Coldwell Banker Richard Ellis
CCyB	Countercyclical capital buffer
CET1	Common Equity Tier 1
CRE	Commercial Real Estate
CSO	Central Statistics Office Ireland
ECB	European Central Bank
EFSF	European Financial Stability Facility
EFSM	European Financial Stabilisation Mechanism
ESM	European Stability Mechanism
GDP	Gross Domestic Product
GNI*	Modified Gross National Income
HICP	Harmonised Index of Consumer Prices
ICT	Information and Communication Technology
NFCs	Non-Financial Corporations
NPL	Non-performing loan
NTMA	National Treasury Management Agency
O-SII	Other Systemically Important Institutions
PPS	Post-programme surveillance
q-o-q	Quarter-on-quarter
RoA	Return on Assets
RoE	Return on Equity
SME	Small and medium-sized enterprises
TLTRO	Targeted Longer-term Refinancing Operations
VAT	Value Added Tax
y-o-y	Year on year

EXECUTIVE SUMMARY

The 18th post-programme surveillance mission to Ireland took place from 6 to 9 March 2023. It involved European Commission staff in liaison with European Central Bank (ECB) staff. European Stability Mechanism (ESM) staff participated in aspects relating to the ESM's early warning system.

The Irish economy grew by 12% in 2022 – another year of historically high GDP growth – but began slowing towards the end of the year. Private consumption rebounded strongly as total employment reached record highs. Economic activity is set to continue growing strongly as headwinds to growth begin to ease and real disposable income growth strengthens household spending. Headline investment was buoyant in the second half of 2022 but is expected to moderate as a result of rising input costs, labour shortages and tighter monetary policy. Net exports may benefit from a more benign global economic outlook. However, they face many uncertainties associated with the geopolitical situation and developments in the information and telecommunications sector, one of the main drivers of the Irish economy. Ireland's real GDP is expected to grow by 5.5% in 2023 and 5.0% in 2024. Modified domestic demand is expected to grow by 2.0% in 2023 and 2.3% in 2024. Inflation is also expected to moderate slightly.

Public finances are solid and fiscal risks are balanced overall, though tilted to the downside in the long term. The general government recorded a higher than expected surplus in 2022, not least due to robust tax revenue growth driven by the rebound in private consumption and corporate profits. The Irish government allocated more than EUR 4 billion to measures to address the increase in the cost of living between 2022 and 2023. In the longer term, fiscal-structural challenges weigh on long-term fiscal sustainability due to population ageing. Risks to the fiscal outlook are overall balanced given the large cash buffers of the Exchequer and prudent policies such as the transfers to the national reserve fund. However, a share of corporate tax revenues might prove to be windfall gains and pose a structural risk.

The financial sector has remained resilient to the challenging economic environment and has so far withstood the flare-up in market volatility. Domestic banks have weathered the impact of the pandemic and energy crisis and, over the past few months, have witnessed an improvement in asset quality on their balance sheets. At the same time, higher net interest income and better cost efficiency has improved their profitability. Progress has also been made in absorbing assets and deposits from the two banks withdrawing from the domestic market. Despite these positive developments, ongoing monetary policy normalisation and the recent rise in financial market volatility warrant monitoring in future, including banks' otherwise solid liquidity position. Recent rises in corporate insolvency rates also deserve close monitoring. Non-bank financial entities continue to show limited interlinkages with the domestic economy. In this respect, non-bank lenders reported a reduction in their market share, as tighter financing conditions weighed on new non-bank lending.

Ireland retains the capacity to service its debt. Despite a number of challenges, the economic, fiscal and financial situation in Ireland is sound overall. Fiscal sustainability challenges for Ireland appear low over the short and medium term, and medium over the long term. Government gross financing needs for 2023 and 2024 are limited, on the back of projected surpluses. Ireland's first European Financial Stabilisation Mechanism (EFSM) loan maturity is due in the fourth quarter of 2023 and the first European Financial Stability Facility (EFSF) payment is not scheduled until 2029. Ireland has a very large cash buffer and continues to enjoy favourable financing conditions as its sovereign debt rating is stable.

CONTENTS

LIST OF TABLES

LIST OF GRAPHS

1. INTRODUCTION

From 2011 until the end of 2013, the European Union and the International Monetary Fund (IMF) provided financial assistance to Ireland. The economic adjustment programme for Ireland included a joint financing package of EUR 85 billion for the period 2010-2013. In December 2013, Ireland successfully completed the EU-IMF financial assistance programme.

The 18th post-programme surveillance (PPS) mission was conducted between 6 and 9 March 2023. It involved European Commission staff, in liaison with staff from the European Central Bank (ECB). Staff from the European Stability Mechanism (ESM) participated in aspects relating to the ESM's early warning system. Under PPS, the Commission carries out regular review visits to EU Member States that have implemented an EU financial assistance programme. The PPS visit aims to assess the economic, fiscal and financial situation to ensure the Member State maintains its capacity to service its debt to the European Financial Stabilisation Mechanism (EFSM), the European Financial Stability Facility (EFSF) and bilateral lenders ([3]).

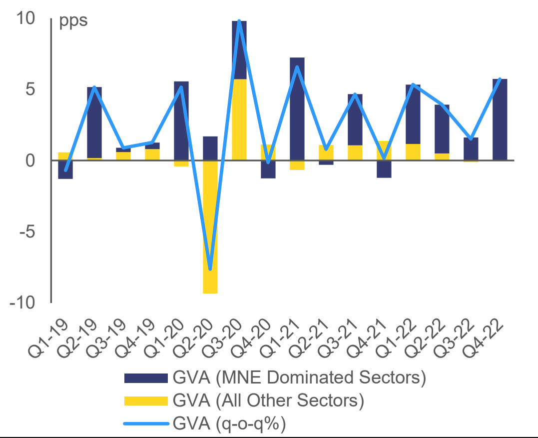
This report reflects information available and policy developments that have taken place up to 28 April 2023. The macroeconomic and budgetary projections, including those underlying the debt sustainability analysis, are in line with the Commission 2023 spring forecast released on 15 May 2023 (with cut-off date 28 April 2023).

([3]) Ireland has already repaid the outstanding bilateral loans from Denmark and Sweden, early and in full. On 26 March 2021, Ireland also completed the repayment of the outstanding bilateral loan from the UK. Under Regulation (EU) No 472/2013, PPS will continue until at least 75% of the financial assistance received under the programme has been repaid. Under the current repayment schedule, PPS will last until 2031.

2. RECENT ECONOMIC DEVELOPMENTS

The Irish economy grew very strongly in recent years and its outlook remains positive. In 2022, Ireland's real GDP grew by 12.0% year-on-year, while modified domestic demand ([4]) increased by 8.2%, though growth slowed in the second half of the year. As in the past, multinational corporations played an important role in Ireland's remarkable economic expansion. Net exports accounted for more than two thirds of real GDP growth in 2022. The pharmaceutical sector performed particularly well, while the information and communication technology (ICT) sector – another dominant foreign sector in Ireland – saw some slowdown in the third quarter in line with global ICT developments, but recovered in the fourth quarter (see Graph 2.1). Strong recent inflows of investment, a gradually improving external environment and decelerating headline inflation suggest a positive outlook for Ireland in 2023 and 2024, although geopolitical risks and industry-specific risks contribute to considerable uncertainty.

Graph 2.1: **Gross value added quarterly growth by sector**

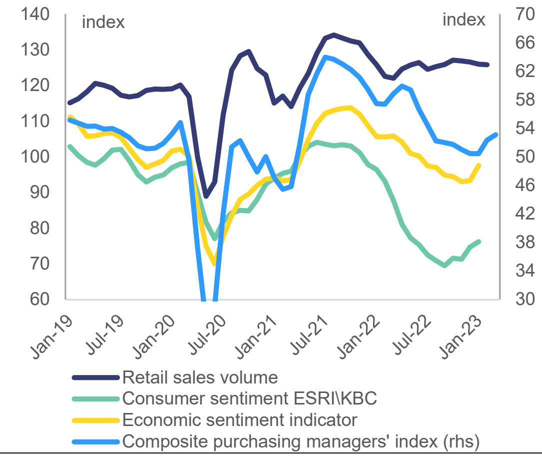


Source: Central Statistics Office (CSO)

Following a buoyant 2022, investment activity is projected to slow in 2023. Total investment rose by almost 26% in 2022, while modified investment (which strips out aircraft leasing and intellectual property transactions) rose by nearly 20%. Multinational corporations made plant-specific investments and aircraft leasing saw a post-pandemic activity revival, while domestic firms invested in machinery and data centres, and residential construction activity was stronger than expected. In 2023, investment is set to normalise from these very high levels of activity. Construction investment is set to slow in line with signals from the number of permits issued and the number of housing commencements in 2022, partly reflecting the rising cost of materials. Tightening financing conditions and labour shortages are also set to take a toll on investment decisions. Meanwhile, public investment is likely to gather speed as progress continues on the implementation of the National Development Plan 2021-2030.

Private consumption proved resilient to the cost of living shock and is expected to be robust going forward. Large savings accumulated during and after the pandemic, rapidly rising employment, and government support to address the cost of living crisis bolstered household spending in 2022. Real disposable incomes are expected to grow significantly in 2023 amid record employment and slowing inflation, paving a way for stronger consumption. Consumer sentiment also seems to be improving (see Graph 2.2).

Graph 2.2: **Sentiment indicators and retail sales**



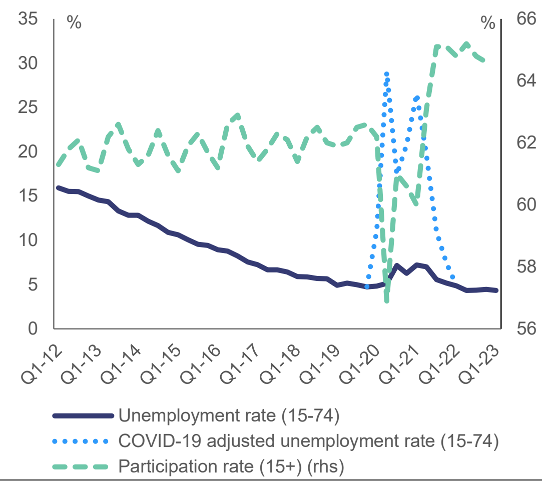
Three-month moving average
Source: IHS Markit, CSO, European Commission

The labour market is still very tight, with widespread labour shortages. Ireland's unemployment rate fell to 4.5% in 2022 and was 4.3% in March 2023 (see Graph 2.3). Employment levels remained strong throughout the year and were supported by a notable rise in female participation. The tight labour market offers better

([4]) Modified Domestic Demand excludes large transactions of foreign corporations that do not have a big impact on the domestic economy to give a better indication than GDP of how the Irish domestic economy is doing.

perspectives for young employees and those less closely associated with the labour market, particularly in the hospitality sector. Skills and labour shortages are widespread across all skill categories. Contrary to global developments, the ICT sector in Ireland continued hiring in the second half of 2022, with new hires offsetting lay-offs. Given the current labour market situation, inward migration has helped to alleviate labour shortages. In this context, Ukrainian refugees also added to the labour force, with around 15 000 in employment as of mid-March 2023. While the vacancy rate is slowly declining, unemployment is projected to remain low, averaging 4.3% in 2023 and 2024. On the negative side, risks to the ICT sector are arguably rising, with potential spillovers to supplier firms and other associated businesses in Ireland. Earnings of multinational firms' employees now account for a third of the total wage bill in Ireland, and the ICT sector alone foots nearly 10% of the total wage bill, underlining some concentration risks to growth.

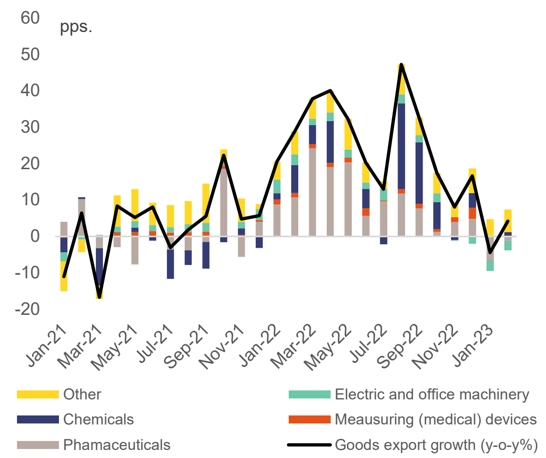
Graph 2.3: **Unemployment and participation rates**



Six-month moving average
Source: CSO

Net exports of multinational corporations remain the driving force behind Ireland's very high growth but may weaken. In the second half of 2022, chemical and pharmaceutical exports kept performing very well and typically account for nearly two thirds of total goods exports (see Graph 2.4). The export outlook remains positive, reinforced by recent large-scale investments. By contrast, the ICT sector, which accounts for more than half of service exports from Ireland, is facing a global slowdown. Net ICT exports were negative in the second half of 2022 amid stagnating exports and increasing imports. It remains to be seen how restructurings and global staff lay-offs will affect the ICT sector in Ireland. At the same time, a somewhat more benign global outlook and the reopening of China's economy could be conducive to Irish exports.

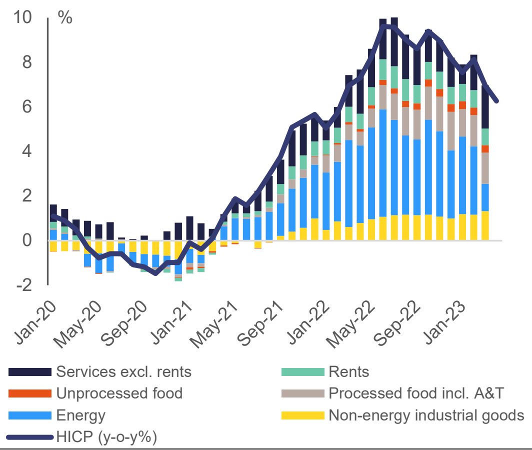
Graph 2.4: **Drivers of export growth**



Source: CSO

Inflation based on the harmonised index of consumer prices (HICP) remains high but decelerated in recent months. Falling oil and gas prices were the main factors behind lower inflation. In addition, prices of services rose at a slower rate than before, influenced by government measures such as the lowering of transport and certain education fees (see Graph 2.5). For non-energy industrial goods, supply chain problems have eased but higher energy costs limit the extent to which their prices can moderate. Inflation of processed and non-processed food items have remained in double-digit territory in recent months. The so-called 'grain deal' and falling fertiliser prices suggest moderating prices going forward, a view supported by food futures. However, news on droughts in Europe may change this outlook. Price pressures are generally expected to moderate, and HICP inflation is projected to be 4.6% in 2023 and 2.6% in 2024. At the same time, risks stem from (i) the concentration of companies in specific global and high value added sectors; (ii) a chronic undersupply of housing; and (iii) the full introduction of customs and regulatory checks by the United Kingdom.

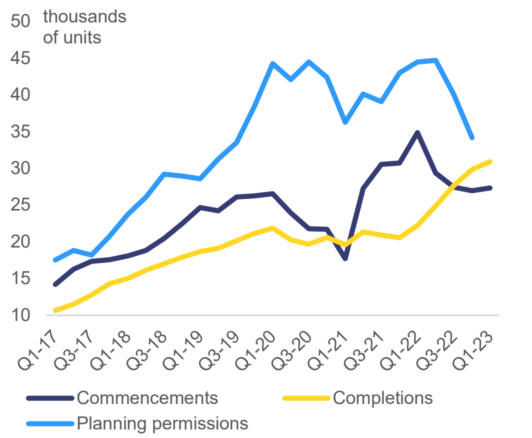
Graph 2.5: **HICP inflation components**



Source: Eurostat

The pace of housing construction is expanding but is still subject to supply bottlenecks. In 2022, new housing completions increased by around 40% to almost 30 000. However, this was in part driven by pent-up deliveries due to pandemic delays. Looking ahead, the fall in housing commencements (-12% y-o-y) and planning permissions (-20.5% y-o-y) in the second half of 2022 suggests completions might fall in 2023 (see Graph 2.6). Supply bottlenecks remain prevalent, mainly related to materials inflation, higher financing costs and capacity constraints in the construction sector.

Graph 2.6: **Housing developments**



Source: CSO, Department of Housing

House prices increased significantly in 2022 but are showing signs of potential cooling. In nominal terms, annual house price growth was 12.3% in 2022, with price increases higher outside Dublin (14.0%) than in the capital (10.3%). However, housing price inflation has been slowly declining for 11 consecutive months from the high of 15.1% in March 2022 to 5.0% in February 2023. House price growth is expected to further moderate in 2023 as rising mortgage interest rates curb some of the demand. However, the decision by the Central Bank of Ireland (CBI) to increase some of the mortgage lending thresholds for first-time buyers (see Section 4) from January 2023 should in part counterbalance this trend.

Rental prices showed strong growth in 2022 as the market remained very tight. While investments in large-scale rental projects from institutional investors are growing, this is being outpaced by the steady withdrawal of small-scale private landlords from the market. The limited supply was further encumbered by strong inward migration and efforts to house Ukrainian refugees. According to rental platform data, the number of properties available for rent was at record lows throughout 2022 and around half of pre-pandemic levels (a quarter for Dublin) ([5]). This lack of rental accommodation has become a key challenge and also hinders the recruitment of skilled labour from abroad.

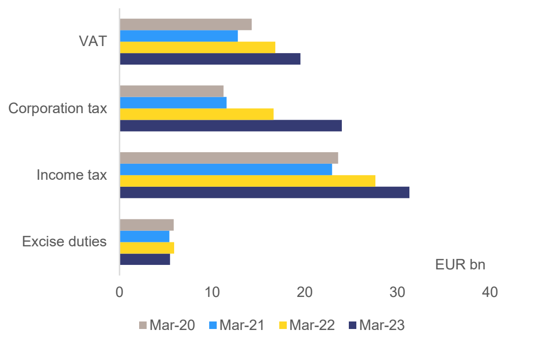
The commercial real estate market is cooling off. Particularly in the office market, investment has started to decrease on account of higher interest rates and lower demand for office space. However, some construction activity is expected to continue, especially as companies look for more energy-efficient buildings ([6]).

([5]) Daft.ie (2023) Q4 Rental Price Report.
([6]) CBRE (2023) Dublin Office Market Overview Q4 2022.

3. PUBLIC FINANCE

The Irish Exchequer's position is solid. In February 2023, despite a EUR 4 billion transfer to the national reserve fund in that year and a EUR 2 billion transfer in the fourth quarter of 2022, Ireland recorded a surplus on a twelve-month rolling basis of about EUR 1.5 billion. Tax revenues increased by 21.5% from 2021 to 2022 and were almost 15% higher year-on-year in the first quarter of 2023. Amid indications of high profits among large companies, corporation tax receipts increased by almost 70% year-on-year in the first quarter of 2023. Part of this increase might reflect the earlier payment of receipts. Income tax receipts increased by almost 10% year-on-year in the first quarter of 2023 in the face of a strong labour market (see Graph 3.1). VAT receipts were about 20% higher between 2021 and 2022 and also between the first quarter of 2023 and 2022 (+16%). Total expenditure decreased by around 4% from 2021 to 2022 and by 1.4% year-on-year in the first quarter of 2023 – after removing a EUR 4 billion transfer made to the national reserve fund.

Graph 3.1: **Main Exchequer tax receipts in 12 months till end-March**

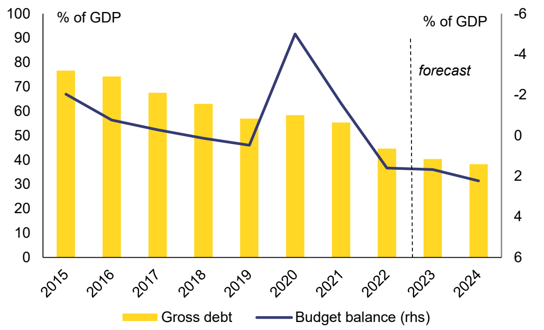


Source: Department of Finance

The general government recorded a surplus of 1.6% in 2022. General government revenue increased by 16.7% from 2021 to 2022 supported by strong personal consumption and strong corporate performance. Government expenditure increased by 1.6% in 2022, driven by trend growth in core spending. According to the Commission 2023 spring forecast, Ireland's general government balance is projected to reach 1.7% of GDP in 2023 and 2.2% in 2024 (see Graph 3.2). This forecast broadly matches GDP growth of 5.6% in 2023 and 4.1% in 2024 projected by the authorities in the Draft Stability Programme published by Ireland in April 2023. It provides projections up to 2025 and medium-term prospects up to 2030.

Government debt is below pre-pandemic levels as a percentage of both GDP and GNI* (7). The outlook for debt is for a continued reduction, driven by projected budget surpluses. In the Commission 2023 spring forecast, Ireland's gross general government debt-to-GDP ratio is projected to 40.4% in 2023; and 38.3% in 2024. The Irish authorities project a debt-to-GNI* ratio of 78.8% in 2023 and 75.4% in 2024. This metric shows the debt burden in proportion to the Irish domestic economy.

Graph 3.2: **General government budget balance and gross debt forecast**



Source: European Commission

Ireland's fiscal-structural challenges weigh on long-term fiscal sustainability. Population ageing will put pressure on the pension system's sustainability in the absence of effective reforms. The reforms announced in September 2022 keep the statutory pension age at 66 despite a recommendation by an independent pension commission to incrementally raise the pension age as of 2028.

The path of government expenditure is well within Ireland's economic trajectory. While not legally binding, the '5 per cent' expenditure rule is proving well-suited for budgeting expenditure in the short term. While there is still scope to broaden the tax base – as discussed in previous PPS

(7) Modified gross national income (GNI*) reflects the income standards of Irish residents more accurately than GDP. It differs from actual GNI in that it excludes, for example, the depreciation of foreign-owned, but Irish-resident, capital assets (notably intellectual property and assets associated with aircraft for leasing) and the undistributed profits of firms that have redomiciled to Ireland.

reports [8] – promising reforms on recurrent property taxes have been introduced, such as (i) the revaluation of properties for tax purposes; (ii) the inclusion in the tax base of previously excluded properties built since 2013; and (iii) a regular revaluation every 4 years. Taking effect from the final quarter of 2022 and into 2023, the Irish government has allocated more than EUR 4 billion to address the increase in the cost of living. The measures include payments to all domestic electricity accounts, grant schemes to support businesses with rising energy costs, a temporary reduction in excise duty on fuels, and VAT cuts on gas and electricity. Unless new measures are announced in Budget 2024, government support is expected to be tapered by the end of 2023. The 2023 Country Report for Ireland provides a comprehensive overview of the measures taken in response to the energy crisis, together with an assessment of whether they are targeted towards the most vulnerable and preserve the price signal, as well as the government's intentions for their withdrawal.

Risks to the fiscal outlook are balanced. According to the Irish authorities, long debt maturities and 'locked-in' interest rates protect Ireland from possible interest rate shocks. A share of corporate tax revenues might prove to be windfall gains and pose a structural risk. However, the national reserve fund of EUR 6 billion is a sufficient buffer to absorb revenue fluctuations in the short term. The implementation of international tax reforms may affect corporation tax receipts – the authorities assume a permanent loss in receipts of EUR 2 billion. Fiscal sustainability challenges for Ireland appear low over the short and medium term, and medium over the long term (see Annex 2).

[8] For instance, European Commission (2022) Post-Programme Surveillance, Spring 2022.

4. FINANCIAL SECTOR DEVELOPMENTS

The Irish banking system appears stable and well capitalised. Irish retail banks have successfully curtailed their non-performing exposures, lowering their non-performing loan (NPL) ratios to close to EU averages. Prudent lending standards and the resilient aggregate financial position of Irish households provide some reassurance in the face of new macroeconomic risks related to the global rise of inflation and interest rates. However, risks have risen in the corporate loan books and need to be carefully monitored. Meanwhile, KBC Ireland and Ulster Bank Ireland are progressing in their withdrawal from the Irish market, as most of their loan books and deposits are being acquired by the remaining three retail banks.

Irish retail banks' capital ratios remain solid after the incorporation of assets from the two withdrawing banks. Domestic retail banks reported a decline in their capital ratios in the course of 2022, with the Common Equity Tier 1 (CET1) ratio and total capital ratio decreasing by 1.1 percentage points to 17% and 20.5%, respectively, at the end of 2022. The leverage ratio also declined but remains solid, at 6.7% on a transitional basis and 6.3% fully loaded. The reduction in these key capital ratios is mainly driven by increases in total risk exposure amounts deriving from the acquisition of loan portfolios from the two banks exiting the Irish market. Despite this, capital ratios remain well above regulatory requirements. In future, improving profitability levels in the sector should allow for an adequate level of organic capital generation.

Liquidity levels remain high amid ample availability of deposits, without major setbacks from ongoing monetary policy tightening. Irish retail banks display high levels of liquidity, supported by high national saving rates. Banks maintained relatively low interest rates on customers' savings and current accounts even in the face of the steep rise in central bank rates. Deposits from the Irish retail sector ([9]) increased, from EUR 218 billion in January 2022 to EUR 229 billion in October 2022, and then declined slightly to EUR 228 billion in January 2023. Most of banks' excess liquidity is still held with central banks, as loan origination remains limited. At the end of 2022, the liquidity coverage ratio stood at 204% and the net stable funding ratio at 160%. Both indicators declined over 2022 but remain well above their regulatory minimum requirements of 100%. Even though deposits have so far displayed a low sensitivity to central bank rate hikes, banks expect to pay higher interest rates on customers' deposits in the coming quarters. These would translate into higher funding costs for banks, compounding the higher rates that banks already face for their wholesale funding and offsetting, at least partially, their higher interest income. Banks' solid liquidity positions could be challenged in future if customers were to move funds to higher-yielding investment products. Such developments warrant caution, especially in the context of the strong financial market turbulence observed over the past months. Regulators and supervisory authorities will need to closely monitor liquidity within the sector as well as within single institutions.

Irish retail banks have benefited from increasing interest margins and better cost efficiency, boosting their profitability. Banks showed a higher sensitivity to rate increases on the asset side rather than on the liability side of their balance sheets. Over 2022, even as loan yields edged higher, banks' funding costs did not increase significantly as interest rates on their customer deposits remained stable. This translated into higher net interest income, which increased by 15% in 2022. Net interest margins also improved but remained low, at 1.84% in the third quarter of 2022, due to the high amount of low-yielding cash or cash equivalent assets held by banks. The higher interest income streams were partially offset by banks' outstanding interest risk hedges and by lower income from their participation in targeted longer-term refinancing operations (TLTROs), as the amounts borrowed under these operations were almost fully repaid by the end of 2022. Restructuring efforts from the past few years have improved banks' cost efficiency, with a cost-to-income ratio of 68.7% in third quarter of 2022 compared to 74.8% in fourth quarter 2021, which is still above the euro area average of 61.1%. These positive developments supported a marked increase in return on equity and return on assets, which reached 7.0% and 0.64% respectively at the end of 2022. Both return on equity and return on

([9]) Deposit statistics refer to all Irish domestic banking groups. However, these are almost entirely covered by the three main domestic retail banks.

Table 4.1: **Financial soundness indicators**

in %	Ireland									Euro area	EU
	Q4-2016	Q4-2017	Q4-2018	Q4-2019	Q4-2020	Q4-2021	Q1-2022	Q2-2022	Q3-2022	Q3-2022	Q3-2022
Non-performing loans	13.1	9.9	5.5	3.4	3.4	2.4	2.1	2.0	1.7	1.8	1.8
o/w NFC sector	15.3	11.8	5.7	3.2	6.2	6.1	5.1	5.2	5.1	3.4	3.3
o/w HH sector	17.4	15.5	10.1	7.2	6.8	4.7	4.7	4.4	3.2	2.1	2.2
Coverage ratio	35.5	29.9	28.5	27.5	30.2	30.6	31.4	32.4	30.9	45.6	45.5
Return on equity(1)	6.3	5.0	4.9	3.7	-2.2	4.5	1.9	2.9	2.6	6.1	6.1
Return on assets(1)	0.9	0.7	0.7	0.5	-0.3	0.5	0.2	0.3	0.3	0.4	0.4
Total capital ratio	25.0	25.2	25.4	24.9	25.4	25.5	24.8	24.3	23.3	18.5	18.6
CET 1 ratio	22.2	22.9	22.9	22.3	22.3	22.2	21.5	21.2	20.4	15.1	15.3
Tier 1 ratio	23.0	23.4	23.4	23.0	23.3	23.3	22.6	22.2	21.3	16.2	16.3
Loan to deposit ratio	93.2	95.3	90.2	91.5	83.9	72.7	75.5	72.6	72.8	85.9	88.6

(1) For comparability reasons, annualised values are presented.
The figures in the table refer to all domestic and foreign banks in Ireland. These figures may differ from those reported in the text, which generally refer exclusively to the three main domestic retail banks.
Source: ECB - Consolidated banking data; own calculations.

assets were above their pre-pandemic levels, i.e. 3.3% and 0.38% respectively as at Q4-2019, and appear in line with the euro area average. Looking ahead, banks expect further growth in their profitability even if net interest income could be challenged by pressures on customers' deposit rates and potential increases in impairments, as authorities expect some asset quality deterioration as interest repayment burdens rise.

The strong recovery from the pandemic has helped contain non-performing exposures, but new risks are building up in loan books in the face of the uncertain macroeconomic outlook. The Irish retail banks' headline NPL ratio declined further in recent months to 2.3% in December 2022, corresponding to an NPL stock of EUR 5.5 billion. Since March 2022, the NPL ratio has stayed below its pre-pandemic minimum of 4.3%, or EUR 7.9 billion of NPLs, recorded in December 2019 ([10]). NPL reductions were mainly driven by portfolio sales, restructuring and securitisations. These were concentrated in the mortgage portfolios. Residential mortgage NPLs stood at EUR 1.8 billion in December 2022, down from the pandemic peak of EUR 5.4 billion in Q4-2020. NPLs in the corporate loan segment also declined from EUR 4.1 billion in December 2021 to EUR 3.0 billion in December 2022. However, this is above its pre-pandemic value of EUR 2.2 billion in December 2019. The impact of higher interest rates and inflation on credit risk has not yet fully materialised for the majority of the loan portfolios, but will likely emerge in 2023. The CBI sees the risk of defaults increasing over the next few months. NPL ratios may rise again if risks linked to the macroeconomic outlook materialise.

The share of banks' corporate loan books classified as increased risk (stage 2) has declined in recent months but remains elevated. Since 2021, as the risks from the pandemic subsided and turned out to be less severe than initially feared, banks reclassified loans from stage 2 to stage 1. In 2022, the share of stage 2 loans decreased further, as the reduction in model overlays resulted in a lower credit risk for banks. Nevertheless, within certain non-financial corporation (NFC) sub-sectors the worsening macroeconomic environment has led to an increase in vulnerabilities and in turn the amount of stage 2 loans.

The hospitality and real estate sectors remain the most exposed to deteriorating credit risk. In December 2022, hospitality was the sector with the highest NPL ratio, at 12.9%. It also has the highest share (56.3%) of increased risk loans, classified as IFRS stage 2. This sector was not only heavily impacted by the pandemic but also by higher energy costs, which account for about 20% of its total expenses. On the other hand, in December 2022 loans to this sector represented only 7.4% of banks' corporate loan books, worth EUR 4.0 billion. By this measure, the most important sector is real estate, with a carrying amount of EUR 15.3 billion, representing 28.8% of the NFC loan portfolio. This sector has an NPL ratio of 4.9%, and 34.5% of its loans are classified as stage 2. An increasing share of NFC loans are collateralised with commercial real estate (CRE). This could become a concern given the recent decline in CRE

([10]) These numbers represent the three active retail banks.

valuation, a risk which the Central Bank of Ireland intends to focus on.

Impairment charges were observed in 2022, partially reversing the releases seen in 2021. Charges were driven by a general downgrade in the macroeconomic outlook relative to the previous year. Provisioning levels for NPLs, at 32.8%, are lower than the EU average, without adjusting for collateralised portfolio composition effects. The central bank points out that Irish retail banks make use of calendar provisioning, creating provisions by deducting them directly from their CET1 capital, and these provisions are not reflected in reported provisioning ratios. Taking these into account, the aggregate coverage ratio would be 38.0%.

Loans with expired European Banking Authority payment breaks often resulted in inflows into NPLs and stage 2 loans. After the onset of the pandemic, banks granted EUR 23.5 billion of payment breaks to their customers, most of which expired in 2021. In December 2022, 18% of loans with expired payment breaks were still under forbearance. These were concentrated in the NFC sector, especially in the CRE segment where 44% of loans were under forbearance, while 31% of large NFC loans and 22% of SME loans were forborne. With respect to staging, 28% of expired moratorium loans were in stage 2 and 8% in stage 3.

The risk environment is more benign for households, as they were able to build financial buffers during the pandemic. Several factors contributed to the more resilient situation in the household lending segment compared to the business sector. First, many households were able to maintain income levels through the pandemic thanks to government support schemes. Second, the unemployment rate is currently at a historical low. Looking ahead, higher interest rates are going to make debt servicing more expensive. However, most mortgage borrowers are shielded in the short term as the majority of outstanding mortgages have an interest rate fixation period of more than 1 year. On the flip side, just under half of home loans are still at variable rates or have a short interest rate fixation period. This exposes these borrowers to higher debt service payments. House prices have kept increasing but at a slower pace after rising sharply in 2021 and in early 2022. A sudden drop in house prices would lead to a devaluation of collateral and would be a major risk. Nevertheless, property prices are supported by high input costs as well as by shortages of material and skilled labour. These, together with structural inefficiencies within the planning system, lead to higher housing costs, resulting in higher prices. While residential building output increased markedly in 2022, slowing commencements point to a possible weakening of new supply, making a sudden drop in house prices unlikely. The banking sector has also benefited from prudent underwriting standards in recent years.

The expansion of new lending was driven by a buoyant housing market, while business lending saw a slower recovery after the pandemic. New residential mortgage lending accelerated in 2022, supported by rising house price valuations, reaching EUR 14.1 billion compared to EUR 10.5 billion in 2021, also surpassing pre-pandemic levels. Meanwhile, the outstanding amount of mortgages declined by EUR 3.8 billion to EUR 83.4 billion in December 2022, as banks reduced their legacy mortgage NPLs. The outstanding amount of loans to Irish non-financial corporations increased to EUR 31.8 billion in December 2022 from EUR 30.5 billion in December 2021. This was in line with the improving business environment, but also the phasing out of government support schemes ([11]). New lending to small and medium-sized enterprises (SMEs) grew by 4.3% year-on-year in 2022, to a total of EUR 4.2 billion. This expansion was largely built on a strong performance in the first 9 months of the year, which slowed down in the fourth quarter. In any case, SME lending remained below the level seen in 2019, at EUR 5.4 billion.

The CBI aims at a gradual increase of its countercyclical capital buffer (CCyB) and introduced some updates to its mortgage measures. The CCyB remains, together with the other systemically important institutions (O-SII) buffer, the CBI's main macroprudential capital tool. In November 2022, the CBI announced an increase of the CCyB from 0.5% to 1.0% and expects, conditional on macro-financial

([11]) Figures in this paragraph are taken from statistics published by the Central Bank of Ireland and refer to all credit institutions resident in Ireland, not only retail banks.

developments, to further increase it to 1.5% by mid-2023. This is the level deemed appropriate when risk conditions are deemed to be neither elevated nor subdued. Six banks are currently classified as O-SII and need to fulfil additional capital requirements between 0.5% and 1.5%. In January 2023, the CBI recalibrated some of its mortgage measures in a targeted manner. It now prescribes a maximum loan-to-value ratio of 90% for both first-time and subsequent buyers (up from 80% for the latter group). The loan-to-income ceiling was increased from 3.5x to 4x for first-time buyers, while it is still 3.5x for subsequent buyers.

The asset value of the Irish market-based financial sector declined in 2022, but remains among the highest globally. The sector's total assets decreased from EUR 5.6 trillion at the end of 2021 to EUR 5.2 trillion at the end of 2022. The decline was driven mainly by the tightening of financing conditions internationally and by price corrections in some market segments. Bond, equity and mixed funds recorded the largest drops in assets under management, particularly in NFC and government portfolios. The sector is globally oriented and displays only limited exposures and links to the Irish domestic economy. These links are mainly related to the activities of property funds, securitisation vehicles and to the financing provided by special purpose entities to Irish-based multinational corporates. The geographical breakdown of the assets under management is varied and focuses on developed countries outside of Ireland. Despite the limited connections to the domestic economy, the volatility observed in financial markets over the past few months warrants a close oversight of these entities. This is especially relevant where investment funds' leverage and liquidity vulnerabilities can become systemic and, through their interconnectedness, transmit a shock to the wider financial system and real economy.

Non-bank financial entities' activities in Ireland are being impacted by rising funding costs. Non-bank lenders (NBLs) are more exposed to interest rate hikes than banks as they rely to a larger extent on rate-sensitive wholesale funding. As rates rose in 2022, many NBLs started charging higher interest rates for new home loans, while banks could still benefit from liquid positions and cheaper deposit funding. The sectors most reliant on NBLs such as real estate, construction and transport have been more heavily impacted by higher rates. It will be important for the authorities to ensure that such sectors maintain adequate access to finance. Over 2022, property funds increased their holdings in Ireland, for a total of EUR 22.1 billion by June 2022, accounting for 35% of the investable commercial real estate market. To reduce the systemic risk posed by the property fund sector, the CBI announced a macroprudential leverage limit of 60% (measured as total debt to total assets) and new central bank guidance on liquidity timeframes (a minimum of 12 months) to address liquidity mismatches for alternative investment funds that invest 50% or more of their assets under management in Irish property. The implementation periods for such measures will be 5 years and 18 months, respectively, for existing funds. Funds established after 23 November 2022 will instead have to comply with them since their inception.

The uncertain global economic outlook and macro-financial situation has created new risks for the Irish financial sector. The openness of the Irish economy exposes it to global economic, financial and geopolitical developments. In this respect, the increased volatility observed in financial markets over the past few months suggests that rapid and unexpected shifts in confidence and potential corrections in asset prices could have a significant impact also on the Irish financial sector. The improvements made in strengthening the domestic banking system over the past few years, together with the very strong performance of the Irish economy (see Section 2), mitigate the risks arising from possible fallouts in the financial sector. Domestic credit institutions are well capitalised and have so far benefited from ample liquidity thanks to the availability of a wide deposit base, while default rates have remained low, preventing major deteriorations in asset quality. However, households are likely to reduce their savings in future, and banks may be forced to pay higher rates on deposits while experts expect an uptick in insolvencies. Liquidity conditions may therefore tighten further in the coming months, diminishing the sector's buffers to help it weather volatile financial markets. This calls for vigilance on the side of the financial institutions and the supervisors.

5. SOVEREIGN FINANCING AND THE CAPACITY TO REPAY

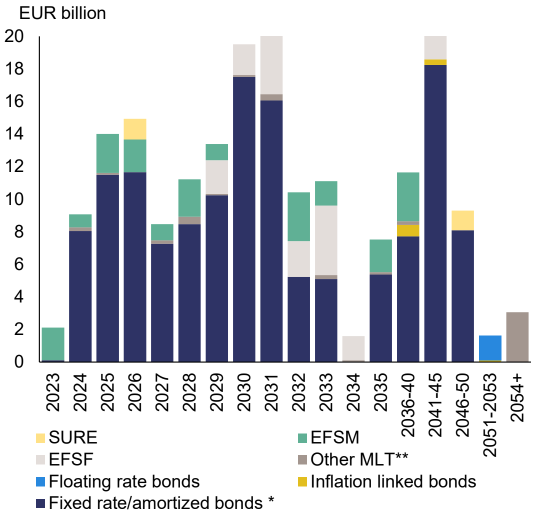
Ireland's fiscal sustainability challenges appear low over the short and medium term, and medium over the long term. Alternative scenarios show an higher government debt ratio if the current surpluses were to return to deficits or in the case of a permanent worsening of the macro-financial conditions. A 'financial stress' scenario would result in a debt projection similar to the baseline (see Annex 2).

The Irish sovereign's positive market perception is proven by the stability of its credit rating outlook. Ireland is rated in the AA-category with all major rating agencies. Despite limited refinancing and a fiscal surplus being forecast, Ireland plans to issue between EUR 7 and 11 billion of bonds in 2023 to preserve market access and add liquidity. According to the Irish authorities, interest expenditure on government debt is projected to remain stable at 1.2% of GNI* up to 2024. The main risk factors for the Irish sovereign are the persistence of high inflation and concentration of corporate taxes in a small number of large companies. On the other hand, Ireland's refinancing risk is low, and it is a well-rated issuer on risks related to environmental, social, and governance dimensions.

Ireland entered 2023 with a strong cash position, thanks to the repeated outperformance of revenues and a prudent funding strategy. Ireland's funding plans reflect a long-term vision predicated on stability. The National Treasury Management Agency (NTMA) plans a funding range of between EUR 7 and EUR 11 billion for 2023. Cash balances were EUR 23 billion at the end of 2022 and are expected to be at a broadly similar level at the end of 2023. The only bond redemption in 2023, for EUR 7 billion, was in the first quarter of the year.

Ireland is well positioned to manage higher sovereign borrowing costs. In December 2021, the ECB started a path of monetary policy normalisation ([12]). Since then, it has for example raised its main policy rates by 3.5 percentage points. The tightening of financing conditions is also reflected in the rising yields for the 10-year Irish government bond to over 3% at the end of February 2023, while spreads against the German benchmark have remained stable at around 50 basis points.

Graph 5.1: **Maturity profile of medium- and long-term debt (end-March 2023)**



The Irish programme was the second euro area assistance programme and the first financed by two new financial assistance instruments established in 2010, the EFSF and the EFSM.
* Includes NTMA repo activity.
** Excludes other medium and long-term loans (MLT) of EUR 5 million.
Source: NTMA

Ireland is servicing its debt to official creditors. The outstanding debt to the EFSF and EFSM amounts to EUR 18.4 billion and EUR 22.5 billion, respectively. Ireland's first EFSM maturity is due in the fourth quarter of 2023 and the first EFSF payment is not scheduled until 2029.

Ireland retains the capacity to service its debt. As of the end of 2022, and similar to 2021, 'sticky' sources – such as official loans, Eurosystem bond holdings and domestic retail holdings – accounted for about 60% of Irish government debt. The investor base was wide and varied, with an 85/15 split between non-resident and resident holdings of debt as of the first half of 2022.

([12]) This process began with the ECB's announcement that the net asset purchases under the pandemic emergency purchase programme would end in the first quarter of 2022. Subsequently, the ECB also ended the net purchases under the asset purchase programme and increased its main policy rates.

ANNEX 1
Supplementary tables

Table A1.1: **Fiscal accounts (based on Commission 2023 spring forecast)**

	2021	2022	2023	2024
		% of GDP		
Indirect taxes	6.9	6.3	6.1	6.0
Direct taxes	10.7	11.3	10.7	10.5
Social contributions	4.0	3.9	3.9	3.8
Sales	1.0	0.9	0.8	0.8
Other current revenue	0.4	0.3	0.3	0.3
Total current revenue	**22.9**	**22.7**	**21.8**	**21.4**
Capital transfers received	0.3	0.2	0.2	0.2
Total revenue	**23.2**	**23.0**	**22.0**	**21.6**
Compensation of employees	6.2	5.7	5.4	5.2
Intermediate consumption	3.8	3.6	3.3	3.1
Social transfers in kind via market producers	1.9	1.8	1.7	1.6
Social transfers other than in kind	6.9	5.6	5.4	5.2
Interest paid	0.8	0.7	0.6	0.6
Subsidies	1.7	0.7	0.5	0.4
Other current expenditure	1.1	1.0	1.0	0.9
Total current expenditure	**22.4**	**19.0**	**17.9**	**17.0**
Gross fixed capital formation	2.0	2.0	2.0	2.0
Other capital expenditure	0.4	0.3	0.4	0.4
Total expenditure	**24.8**	**21.3**	**20.3**	**19.3**
General government balance	**-1.6**	**1.6**	**1.7**	**2.2**
General government balance net of one-offs	**-1.6**	**1.6**	**1.7**	**2.2**
		EUR Billion		
Indirect taxes	29.4	31.6	33.9	35.9
Direct taxes	45.7	56.7	59.3	62.3
Social contributions	17.0	19.8	21.4	22.9
Sales	4.1	4.4	4.5	4.6
Other current revenue	1.5	1.7	1.8	1.8
Total current revenue	**97.6**	**114.3**	**120.9**	**127.5**
Capital transfers received	1.3	1.2	1.4	1.4
Total revenue	**98.9**	**115.5**	**122.3**	**128.9**
Compensation of employees	26.6	28.9	30.2	31.1
Intermediate consumption	16.3	17.8	18.3	18.5
Social transfers in kind via market producers	7.9	8.8	9.2	9.5
Social transfers other than in kind	29.3	28.3	30.0	30.7
Interest paid	3.3	3.3	3.3	3.4
Subsidies	7.2	3.3	2.9	2.5
Other current expenditure	4.7	5.2	5.3	5.4
Total current expenditure	**95.4**	**95.6**	**99.2**	**101.2**
Gross fixed capital formation	8.7	10.0	11.0	11.7
Other capital expenditure	1.6	1.6	2.4	2.3
Total expenditure	**105.7**	**107.2**	**112.6**	**115.2**
General government balance	**-6.8**	**8.0**	**9.3**	**13.3**
General government balance net of one-offs	**-6.8**	**8.0**	**9.3**	**13.3**

Source: Eurostat and European Commission

Table A1.2: **General government debt projections (based on Commission 2023 spring forecast)**

	2021	2022	2023	2024
Real GDP growth (% change)	**13.6**	**12.0**	**5.5**	**5.0**
	levels, EUR billion			
Government balance	**-6.8**	**8.0**	**9.3**	**13.3**
Gross debt	236.1	224.8	224.3	228.2
Change in gross debt	18.2	-11.4	-0.5	4.0
Real GDP	403.6	451.9	476.8	500.5
	% of GDP			
Government balance	**-1.6**	**1.6**	**1.7**	**2.2**
Gross debt ratio	55.4	44.7	40.4	38.3
Change in gross debt	-3.1	-10.7	-4.3	-2.2
	Contribution to change in gross debt			
Primary balance	0.8	-2.2	-2.3	-2.8
'Snow-ball' effect*	-6.6	-7.8	-3.6	-2.3
of which				
Interest expenditure	0.8	0.7	0.6	0.6
Real growth effect	-6.9	-5.6	-2.2	-1.9
Inflation effect	-0.3	-2.5	-1.9	-0.9
Stock-flow adjustments	2.7	-0.7	1.6	2.9
Implicit interest rate	*1.5*	*1.4*	*1.5*	*1.5*

The projections assume no borrowing for precautionary contingencies envisaged in the programme's financing plan.
*The 'Snow-ball' effect, interest expenditure, real growth effect and inflation effect are derived from the Commission forecast analysis.' Snow-ball' effects refer to the net impact of the counteracting effects of interest rates, inflation and real GDP growth on changes in the debt ratio.
Source: Eurostat and European Commission.

ANNEX 2
Debt sustainability analysis

This Annex assesses fiscal sustainability risks for Ireland over the short-, medium- and long-term. It follows the same multi-dimensional approach as the European Commission's 2022 Debt Sustainability Monitor, updated based on the Commission 2023 spring forecast.

SHORT-TERM RISKS

Short-term risks to fiscal sustainability are low overall. The Commission's early-detection indicator (S0) does not signal major short-term fiscal risks (Table A2.3) ([13]) Gross financing needs are expected to remain low at around 4% of GDP in the short term (2023-2024), considerably below the recent peak in 2020 (Table A1.1). Financial markets' perceptions of sovereign risk are positive, as confirmed by the ratings of the main agencies.

MEDIUM-TERM RISKS

Medium-term risks to fiscal sustainability are low overall. The baseline DSA for Ireland shows that the government debt ratio is projected to continue declining over the medium term, to around 21% of GDP in 2033 (Graph A2.1). ([14]) ([15]) The assumed structural primary balance (a surplus of 1.6% of GDP) contributes to these developments. It appears rather ambitious compared with past fiscal performance. At the same time, the baseline projections up to 2033 benefit from a favourable (although declining) snowball effect, with real GDP growth averaging 3.4% in 2025-2033. Government gross financing needs are expected to remain low over the projection period, at around 3% of GDP.

The baseline projections are stress tested against four alternative scenarios to assess the impact of changes in key assumptions (Graph A2.1). For Ireland, reverting to historical fiscal trajectories under the 'historical structural primary balance (SPB)' scenario would lead to a higher government debt ratio. If the SPB gradually converged to a deficit of 1.8% of GDP (its historical 15-year average), the projected debt-to-GDP ratio would be 41% of GDP in 2033, 21 pps. above the baseline. A permanent worsening of the macro-financial conditions, as reflected under the 'adverse interest-growth rate differential' scenario (i.e. 1 pp. higher than the baseline) would result in a debt-to-GDP ratio somewhat higher than the baseline projection. A temporary worsening of financial conditions, as captured by the 'financial stress' scenario, would result in a debt projection similar to the baseline. The 'lower structural primary balance (SPB)' scenario (i.e. SPB level permanently reduced by half of the cumulative forecast change), would lead to a government debt-to-GDP ratio that is about 8 pps. higher by 2033 than the baseline.

Additionally, stochastic debt projections indicate low risks (Graph A2.2). ([16]) These stochastic simulations point to a 9% probability of the debt ratio in 2027 being greater than in 2022, entailing low risk given the initial low debt level. In addition, such shocks point to some uncertainty (i.e. the difference between the 10th and 90th debt distribution percentiles) surrounding the government debt baseline projections.

([13]) The S0 is a composite indicator of short-term risk of fiscal stress. It is based on a wide range of macro-financial and fiscal variables that have proven to perform well in the past in detecting situations of upcoming fiscal stress.

([14]) The assumptions underlying the Commission's 'no-fiscal policy change' baseline notably comprise: (i) a structural primary surplus, before ageing costs, of 1.6% of GDP as of 2024; (ii) inflation converging linearly towards the 10-year forward inflation-linked swap rate 10 years ahead (which refers to the 10-year inflation expectations 10 years from now); (iii) the nominal short- and long-term interest rates on new and rolled over debt converging linearly from current values to market-based forward nominal rates by T+10 (as for all Member States); (iv) real GDP growth rates from the Commission 2023 spring forecast until 2024, followed by EPC/OGWG 'T+10 methodology projections between T+3 and T+10, i.e. for 2025-2033 (on average 3.4%); (v) ageing costs in line with the 2021 Ageing Report (European Commission, Institutional Paper 148, May 2021). For information on the methodology, see the 2022 Debt Sustainability Monitor (European Commission, Institutional Paper 199, April 2023).

([15]) Table A2.1 shows the baseline debt projections and its breakdown into the primary balance, the snowball effect (the combined impact of interest payments and nominal GDP growth on the debt dynamics) and the stock-flow adjustment.

([16]) These projections show the impact on debt of 2000 different shocks affecting the government's primary balance, economic growth, interest rates and exchange rates. The cone covers 80% of all simulated debt paths, therefore excluding tail events.

Table A2.1: **Baseline debt projections**

Table 1. Baseline debt projections	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Gross debt ratio (% of GDP)	**58.4**	**55.4**	**44.7**	**40.4**	**38.3**	**34.0**	**30.7**	**28.2**	**26.0**	**24.2**	**22.8**	**21.7**	**21.1**	**20.6**
Changes in the ratio	1.4	-3.1	-10.7	-4.3	-2.2	-4.3	-3.3	-2.5	-2.2	-1.8	-1.4	-1.0	-0.7	-0.5
of which														
Primary deficit	4.0	0.8	-2.2	-2.3	-2.8	-2.2	-1.7	-1.1	-0.9	-0.7	-0.6	-0.4	-0.2	-0.1
Snowball effect	-1.4	-6.6	-7.8	-3.6	-2.3	-2.0	-1.6	-1.4	-1.3	-1.1	-0.8	-0.6	-0.4	-0.4
Stock-flow adjustments	-1.1	2.7	-0.7	1.6	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross financing needs (% of GDP)	12.1	5.8	3.4	4.1	4.3	2.8	2.7	2.3	2.3	2.3	2.1	2.5	2.6	2.7

Source: European Commission

LONG-TERM RISKS

Long-term risks to fiscal sustainability are medium overall. [17] **The S2 sustainability gap indicator (at 3.4 pps. of GDP) points to medium risks, suggesting that Ireland would need to improve its structural primary balance to ensure debt stabilisation over the long term**. This results from the projected increase in ageing costs, in particular for spending on pensions (2.3 pps. of GDP), long-term care (1.6 pps.) and health care (1.2 pps.) (Table A2.2).

Given low long-term debt vulnerabilities, as highlighted by the S1 indicator, overall long-term risks are assessed as medium. Indeed, the S1 sustainability gap indicator signals that a limited consolidation effort of 1 pp. of GDP would suffice to bring debt to 60% of GDP by 2070. This result is driven by the projected ageing costs (3.5 pps.), partly offset by the favourable initial budgetary position (-2 pps.) and moderate debt level (-0.5 pps.) (Table A2.2).

Finally, several additional risk factors need to be considered in the assessment. On the one hand, risk-increasing factors include the recent increase in interest rates, a relatively large share of short-term public debt as well as public debt held by non-residents and the negative net international investment position, though this largely reflects the presence of multinationals and the International Financial Services Centre. Finally, alternative metrics to GDP suggest higher fiscal sustainability risks. On the other hand, risk-mitigating factors include relatively stable financing sources (with a diversified and large investor base), the currency denomination of debt, and historically still low borrowing costs. In addition, the structural reforms under the NGEU/RRF, if fully implemented, could have a further positive impact on overall EU GDP growth in the coming years, and therefore further mitigate the debt sustainability risks.

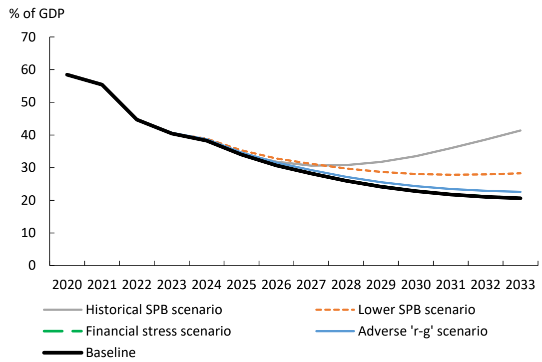
([17]) The S2 fiscal sustainability gap indicator measures the permanent fiscal effort (SPB adjustment) in 2024 that would be required to stabilise public debt over the long term. It is complemented by the S1 fiscal sustainability gap indicator, which measures the permanent fiscal effort required in 2024 to bring the debt-to-GDP ratio to 60% in the long term (by 2070). For both the S1 and S2 indicators, the risk assessment depends on the amount of fiscal consolidation needed: 'high risk' if the required effort exceeds 6 pps. of GDP, 'medium risk' if it lies between 2 pps. and 6 pps. of GDP, and 'low risk' if the effort is negative or below 2 pps. of GDP. The overall long-term risk classification brings together the risk categories derived from S1 and S2. S1 may notch up the risk category derived from S2 when it signals a higher risk than S2. See the 2022 Debt Sustainability Monitor for further details.

Table A2.2: **Breakdown of the S1 and S2 sustainability gap indicators**

		S1	S2
Overall index (pps. of GDP)		**1.0**	**3.4**
of which			
Initial budgetary position		-2.0	-1.5
Debt requirement		-0.5	
Ageing costs		3.5	4.9
of which	*Pensions*	1.9	2.3
	Health care	0.8	1.2
	Long-term care	0.9	1.6
	Others	-0.1	-0.1

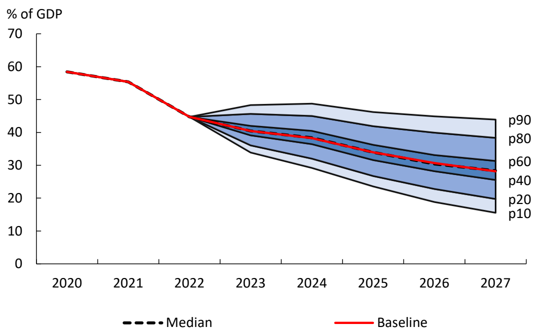
Source: European Commission

Graph A2.1: **Deterministic debt projections**



Source: European Commission

Graph A2.2: **Stochastic debt projections 2023-2027**



Source: European Commission

Table A2.3: **Heat map of fiscal sustainability risks**

Short term	Medium term - Debt sustainability analysis (DSA)								Long term		
Overall (S0)	Overall		Deterministic scenarios: Baseline	Historical SPB	Lower SPB	Adverse 'r-g'	Financial stress	Stochastic projections	S2	S1	Overall (S1 + S2)
LOW	LOW	Overall	LOW	LOW	LOW	LOW	LOW	LOW	MEDIUM	LOW	MEDIUM
		Debt level (2033), % GDP	20.6	41.4	28.3	22.6	20.7				
		Debt peak year	2022	2022	2022	2022	2022				
		Fiscal consolidation space	46%	72%	61%	46%	46%				
		Probability of debt ratio exceeding in 2027 its 2022 level						9%			
		Difference between 90th and 10th percentiles (pps. GDP)						28.4			

(1) Debt level in 2033. Green: below 60% of GDP. Yellow: between 60% and 90%. Red: above 90%. (2) The debt peak year indicates whether debt is projected to increase overall over the next decade. Green: debt peaks early. Yellow: peak towards the middle of the projection period. Red: late peak. (3) Fiscal consolidation space measures the share of past fiscal positions in the country that were more stringent than the one assumed in the baseline. Green: high value, i.e. the assumed fiscal position is plausible by historical standards and leaves room for corrective measures if needed. Yellow: intermediate. Red: low. (4) Probability of debt ratio exceeding in 2027 its 2022 level. Green: low probability. Yellow: intermediate. Red: high (also reflecting the initial debt level). (5) The difference between the 90th and 10th percentiles measures uncertainty, based on the debt distribution under 2000 different shocks. Green, yellow and red cells indicate increasing uncertainty.
Source: European Commission

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