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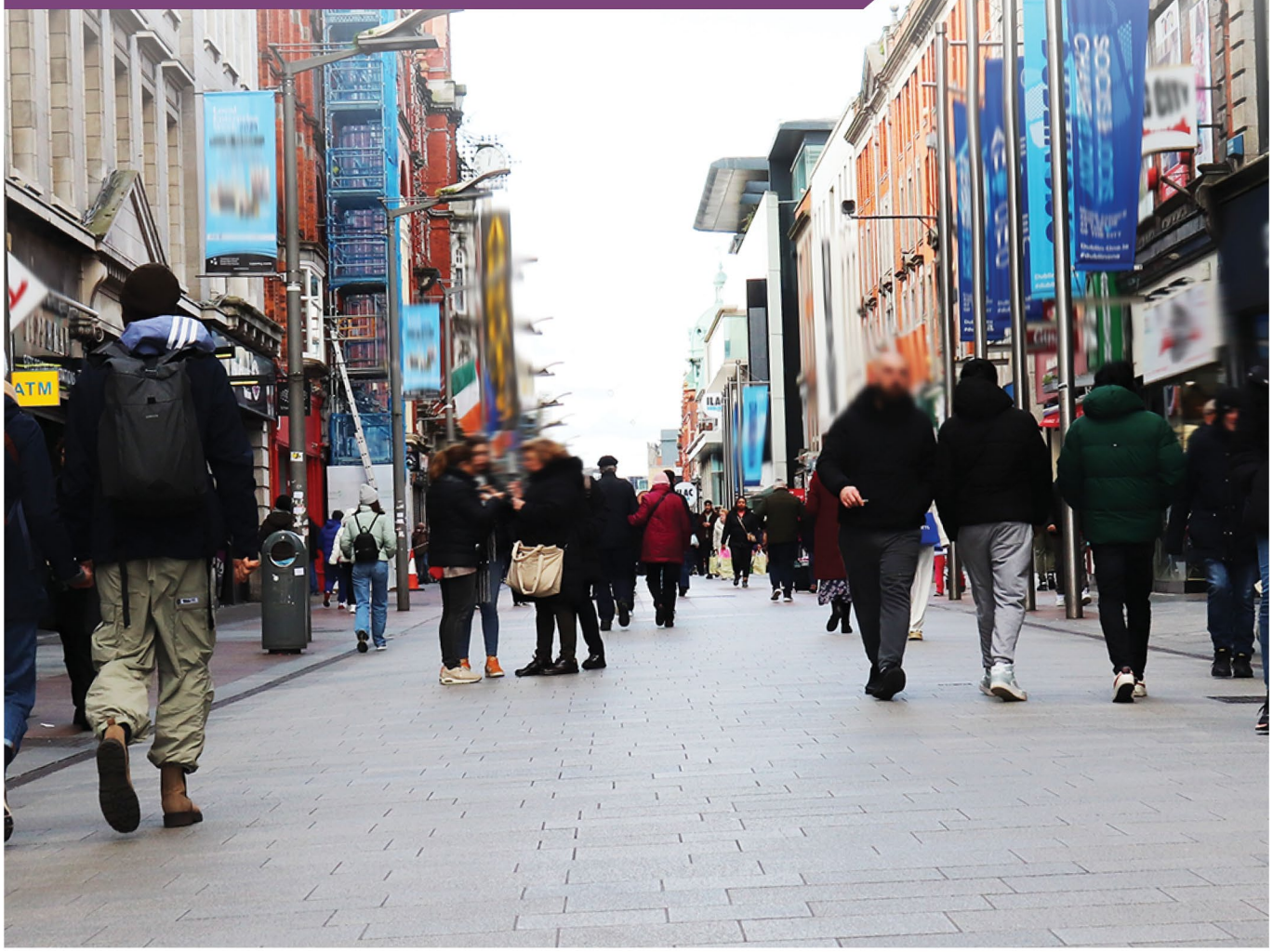

Contents

Fiscal Priorities for the Short and Medium Term

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Abstract

The Irish economy has withstood the effects of recent negative shocks and is at full employment. Starting from this favourable position, fiscal policy now has a central role to play in maintaining sustainable growth while at the same time addressing structural challenges. The public finances face growing demands linked to the cost of maintaining existing public services along with the need for additional investment to meet emissions reduction targets. Our analysis finds that expenditure growth above the Government's 5 per cent rule without offsetting revenue-raising measures would provide an unnecessary stimulus to demand and damage the economy's competitiveness. Additional expenditure should be accompanied by offsetting revenue-raising measures to help create capacity in the economy for public investment. Such measures are also warranted to ensure the tax base is resilient in the face of growing expenditure pressures and significant concentration risks to corporation tax and other government revenues. To help achieve these aims and to add credibility to fiscal plans, the government should commit to an anchor for expenditure growth net of tax changes. Policy should aim to reduce inefficiencies in the planning and delivery of capital projects to improve value for money and ensure the benefits of public investment for long-term growth are fully realised.

1. Introduction

The Irish economy has proven resilient in the face of a succession of large negative economic shocks since 2020. Fiscal policy has played a central role in how economic conditions have evolved in a broadly favourable direction over recent years. The estimated cost of the Government's counter-cyclical

[1] Irish Economic Analysis Division. We would like to thank Robert Kelly, Martin O'Brien, Gerard O'Reilly (Central Bank), Niall Conroy (Irish Fiscal Advisory Council) for comments. The views expressed in this Article are those of the authors and do not necessarily reflect those of the Central Bank of Ireland or the European System of Central Banks.

response to the pandemic stands at €32.4 billion between 2020 and 2023, or 12 per cent of modified national income (GNI*). These fiscal measures mitigated the extent of any permanent economic damage from the pandemic and laid the foundations for the economy's rapid recovery. In addition to this, expenditure to help households and businesses address cost of living pressures along with the humanitarian response by the Irish government to the Russian war in Ukraine is expected to amount to a further €8.3 billion (3.1 per cent of GNI*) in 2022 and 2023. The measures to address cost of living pressures – in particular those that have been targeted and temporary – reduced the hardship faced by the most vulnerable households and businesses as a result of rising prices.

Just as fiscal policy has played this stabilising role during recent economic challenges, the stance of budgetary policy will be equally instrumental over the coming years when economic conditions are expected to remain broadly benign. The unemployment rate has been at or below 4.5 per cent for two years and is forecast to stay close to this level out to 2026, signalling that the economy is operating at full employment. Inflation has reduced, but with relatively limited spare capacity in the economy, additional demand could amplify domestic price pressures keeping inflation higher than it would otherwise be and ultimately damaging Ireland's competitiveness.

Exceptionally strong growth in tax revenue from 2021-2023 has pushed the headline budget balance into surplus. However, this has been driven by windfall corporation tax (CT) gains that cannot be explained by growth in domestic economic activity. Excluding windfall CT, the budgetary position will remain in deficit in 2024 for the 17th consecutive year. The concentration of CT among a small number of large foreign-owned firms and the uncertainty over future revenue from this source given ongoing changes in international tax rules remains a key vulnerability for the public finances. The establishment of the Future Ireland Fund for saving a portion of CT is welcome but does not fully insulate the economy and public finances from the risk of a loss of corporation tax revenue, or more seriously a broader sector or firm-specific shock to the multinational-dominated sector of the Irish economy. The latter risk, were it to materialise, would have implications beyond a direct loss in CT as it would negatively affect income tax and other revenue sources as well as economic activity.

Against this backdrop for the economy and public finances, the priority for fiscal policy over the coming years is to maintain sustainable growth and resilient public finances while at the same time addressing structural challenges and boosting long-term growth potential. Consistent with these

objectives, the Government introduced an expenditure rule in its July 2021 *Summer Economic Statement* to anchor fiscal policy. This rule allows core government spending to increase by 5 per cent per annum, with this growth rate chosen as it is in line with the economy's estimated long-run trend growth rate (when allowance is made for inflation). It was confirmed in the 2023 *Stability Programme Update* that "the Government's spending rule is calibrated on the basis of net spending, i.e. spending net of discretionary taxation measures". Limiting the growth in permanent net spending to match the long-run sustainable growth rate of the economy (i.e. 5 per cent) would help to avoid a procyclical fiscal stance and the tendency for boom-bust dynamics in the Irish economy. Since it is a net rule, it is important to note that spending growth in excess of 5 per cent can be accommodated, as long as revenue-raising measures are introduced. Although improvements to the current rule could be made, such as extending its coverage from Exchequer to General Government expenditure, overall it could provide a useful guide for budgetary policy if implemented effectively. Having an effective domestic fiscal rule has added importance for Ireland since the recently reformed EU rules – based on GDP and with no allowance for excess CT – are unlikely to provide useful guidance for budgetary policy.

The current fiscal projections in *Stability Programme Update 2024* (*SPU 2024*) imply that net spending will grow slightly faster than 5 per cent from 2024 to 2026. Our analysis shows that around three quarters of the additional core expenditure growth over this period would be needed to fund the cost of maintaining existing public services and for the planned increases in capital expenditure. This would suggest that if the Government's own fiscal anchor is to be complied with there is very limited scope for new spending in the absence of re-allocation of existing spending or new revenue raising measures. Moreover, scenario analysis shows that additional expenditure above existing plans without offsetting revenue-raising measures would add to inflationary pressures, risk triggering potentially damaging overheating dynamics and lead to a larger underlying budget deficit over the coming years.

Investment in the public capital stock has an important role to play in the coming years to ease constraints that are evident in housing and in other infrastructure. Our analysis shows that significant public investment above existing plans will also be needed to ensure Ireland can meet its legally binding emissions reduction targets by 2030. To help create the economic capacity to absorb the necessary rise in public capital spending, additional public investment spending should be accompanied by offsetting revenue-raising measures. This would reduce the scale of the stimulus to the economy while

the investment is being undertaken and at the same time safeguard the tax base which is vulnerable to a reversal in corporation tax and significant concentration risk across a number of dimensions. More broadly, to facilitate effective management of the public finances over the coming years, the government should commit to an anchor for medium-term expenditure growth net of tax changes that credibly accounts for the increasing cost of maintaining existing public services and expanding the public capital stock to meet climate and housing needs.

Even before allowance is made for additional investment in the climate area, existing Government plans envisage strong double-digit growth in public capital spending out to 2027. Our analysis shows that in the housing area, total Government spending has increased rapidly since 2019 and at 2.3 per cent of national income (GNI*) in 2023, was in line with previous highs. Overall housing spending as a proportion of national income was also the second highest in the euro area (see Box A). To ensure value for money and to maximise the benefits of any additional investment in housing, climate and other supporting infrastructure, public policy should aim to reduce delays and improve the efficiency with which public investment is delivered.

The rest of this *Article* is organised as follows. Section 2 sets out the macroeconomic and fiscal context for *Budget 2025*. Section 3 focusses on public expenditure and considers two scenarios to illustrate the impact of additional current and capital expenditure above existing plans as set out in *SPU 2024*. In relation to public capital investment, the analysis examines the impact on the economy and public finances of the estimated additional investment that could be required to ensure emissions reduction targets are achieved, including assessing the options for financing the additional investment. Section 4 focuses on public capital spending and illustrates how the benefits of public investment for the economy's long-term growth can be maximised by reducing delays in the planning and delivery of expenditure. Section 5 concludes.

2. Macro-Fiscal Context for Budget 2025

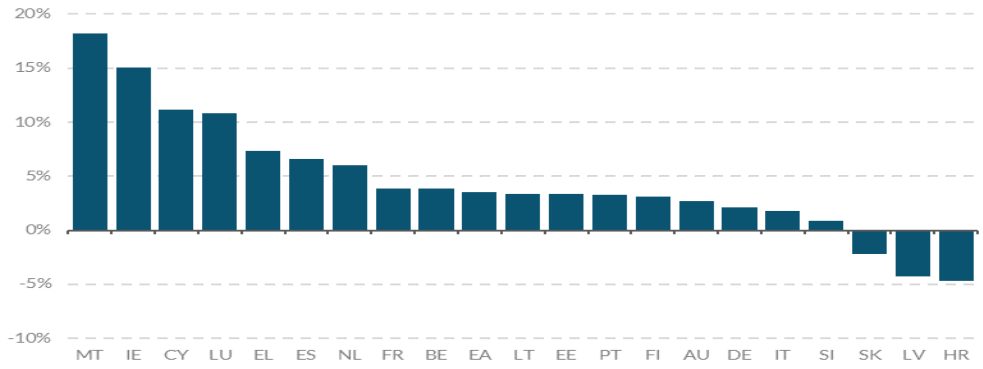
2.1. Assessment of macroeconomic conditions

Measured by employment growth, Ireland's recovery from the pandemic and recent economic performance was amongst the strongest in the euro area. Between 2019 and 2023, employment in Ireland increased by 15 per cent, the second highest of the 20 countries in the euro area (Figure 1). The scale of the

increase in employment is reflected in the unemployment rate, which has remained at or below 4.5 per cent for the last two years. As discussed in the Labour section of this *Bulletin*, overall labour market conditions remain tight, although there is some evidence of a slight easing over recent months with a decline in vacancies and an increase in some broader measures of labour supply. Inflationary pressures are still evident, despite monthly HICP falling below 2 per cent in March of this year. The decline in the headline rate is primarily driven by falling energy costs. Services inflation, which is more closely related to conditions in the domestic economy, stood at 4.2 per cent in April and is projected to remain elevated at around 3 per cent until 2026. Some sectors such as food and accommodation and residential rents are still exhibiting pronounced price increases.

Growth in employment from 2019 to 2023 was well above the euro area average

Figure 1
per cent

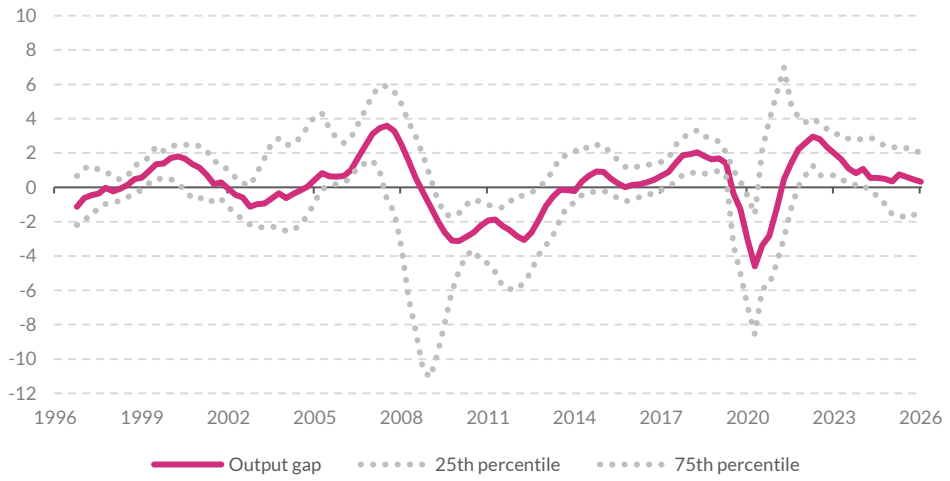


Source: Eurostat

To formally assess the current cyclical position of the Irish economy, the Central Bank of Ireland uses a number of structural and non-structural methods. By averaging across the range of production function and statistical filter-based estimates, we can generate an estimate of the output gap (Figure 2). This estimate implies that the recovery from the pandemic pushed the economy into a large positive output gap, meaning actual output was significantly higher than potential output during 2022 and 2023. Over the next three years, this positive output gap is expected to close gradually but spare capacity will remain very limited. This is in line with the projections for the labour market in this *Bulletin* – which projects unemployment remaining at historic lows of around 4.5 per cent for the full forecast period.

The large positive output gap that emerged after the pandemic is expected to decline

Figure 2
per cent



Source: Authors' calculations.

2.2. Fiscal context: recent developments in government revenue and expenditure

2.2.1 Recent Revenue Developments

Irish government revenue grew at an exceptional pace in recent years and was 40 per cent higher in 2023 when compared to its pre-Covid 19 level in 2019. Following a pandemic-led contraction in 2020, General Government revenue recorded its two highest annual growth rates on record in 2021 and 2022 (19.3 and 16.7 per cent respectively), surpassing those that occurred at the height of the housing boom. Three notable factors have supported the strength of revenue growth over this period. The first is the increase in employment (Figure 1). This has played a key role in supporting income tax receipts and social contributions (primarily PRSI receipts).

The second factor is the strength of corporation tax (CT) receipts, which more than doubled in the four years to 2023 as global output rebounded in the immediate post pandemic period and companies responded to changes in international tax rules. As discussed in more detail below, CT receipts are highly concentrated, and a large part of the growth in this tax heading since 2014 cannot be explained by developments in the underlying economy. This raises concerns about the sustainability of revenue from this source over the medium and long term.

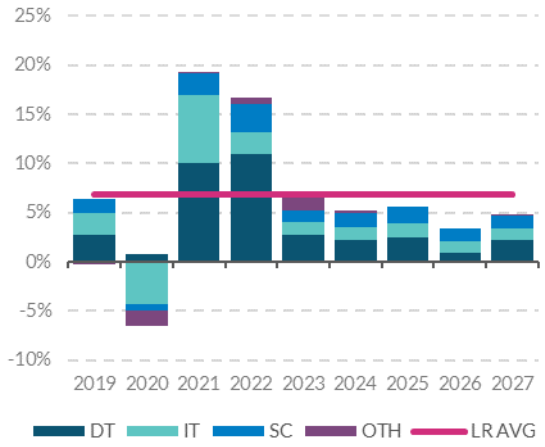
A third factor supporting revenue growth is the period of high inflation that the economy has experienced in recent years. Higher inflation, and the resulting higher price level, has meant that the volume of consumption in the economy supports higher VAT and excise receipts than had previously been the case prior to 2020. In progressive income tax systems, meanwhile, increases in income in line with inflation push more workers into higher tax brackets, strengthening direct tax receipts in a process known as 'fiscal drag'. The overall impact of high inflation on revenue growth has been reduced somewhat by Government measures to reduce specific VAT and excise rates and the change in income tax bands and credits in recent Budgets.

We can estimate the impact that higher-than-expected prices have had on VAT receipts by decomposing the increase in receipts that occurred in 2022 and 2023 into real and price effects. We use the Personal Consumption Expenditure (PCE) deflator to deflate nominal VAT and estimate a measure of 'real VAT'. The ECB's target of 'an inflation rate of 2 per cent over the medium term' is then used to determine the expected price increase. Decomposing the VAT change in this way suggests that around €1.8bn of the €4.9bn increase in 2022 and 2023 – or 37 per cent of the total change - was due to higher than expected prices. Similarly, we can use changes in the effective income tax rate to estimate the role that inflationary pressures have played in supporting income tax growth through fiscal drag. The effective income tax rate is generated by dividing total income tax receipts by whole economy compensation of employees, with the rate increasing from 24 per cent in 2021 to 24.9 per cent last year. Given actual tax rates did not change, this increase must reflect a greater proportion of compensation being taxed at the higher rate. Were the effective rate to have remained unchanged, the income tax increase would have been €1.2bn lower in 2023. While other factors could be at play, such as compositional changes in employment growth and stronger earnings growth in high wage sectors, this provides an estimate that up to 20 per cent of the income tax increase last year was due to fiscal drag.

Reflecting the above factors, direct tax receipts – mainly income and corporation tax – were responsible for two-thirds of the total growth in Irish government revenue in the four years to 2023, with indirect tax and social contributions playing smaller but still significant roles (Figure 3). Other revenues, which includes government sales, investment income and capital receipts, made a smaller contribution. The strength of Irish revenue growth over this period is particularly evident when compared to developments in other countries, even when corporation tax growth is excluded (Figure 4).

Exceptional revenue growth seen in 2021 and 2022 is not projected to continue

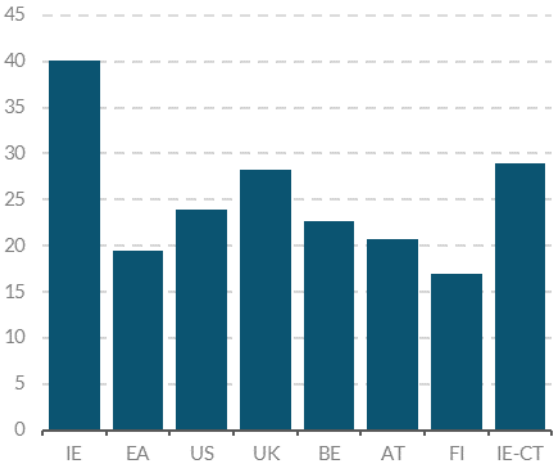
Figure 3
per cent



Source: Authors' calculations
Notes: DT – Direct Tax; IT – Indirect Tax; SC – Social Contributions; OTH – Other; LR AVG – Long Run Average

Irish revenue growth from 2019 to 2023 was stronger than in the euro area

Figure 4
per cent



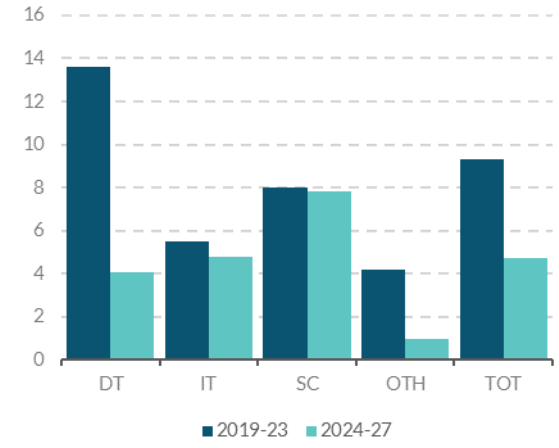
Source: IMF WEO Databank, Central Statistics Office
Notes: IE-CT is growth in Irish revenue excluding corporation tax receipts

Looking ahead, the pace of revenue growth is expected to moderate considerably over the medium term. *SPU 2024* forecasts average revenue growth of 4.7 per cent per annum over the period 2024 to 2027, half the average growth rate of the preceding four years (Figure 5).[2] This is led by a moderation in direct tax growth, reflecting an assumed negative impact of the Base Erosion and Profit Shifting (BEPS) reforms on corporation tax receipts.[3] The Government also notes that downside risks dominate this outlook, with international tax reforms identified as a key source of uncertainty. Growth in indirect tax receipts is also expected to moderate as inflationary pressures dampen leading to weaker increases in nominal consumption.

[2] Stability Programme Update 2024
[3] The Government noted in April's *SPU* that "overall, the net effect of the two-pillar [BEPS] solution on Ireland will be a significant loss of corporate tax revenue". The *Budget 2024* projections included a technical assumption, with an estimated overall net cost of the introduction of both pillars of €2 billion relative to the baseline in 2026.

Growth in every tax category is expected to moderate

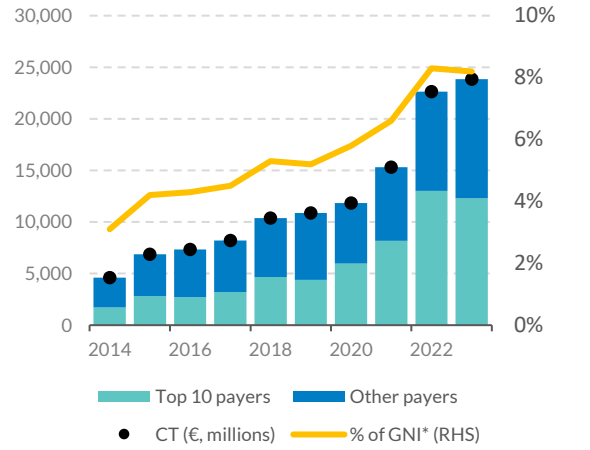
Figure 5
per cent



Source: Central Statistics Office, Stability Programme Update 2024
Notes: Projections for the years 2024 to 2027 are taken From the Stability Programme Update 2024.

Corporation tax receipts remain concentrated in just 10 firms

Figure 6
€, million
per cent GNI*



Source: CSO, Revenue, Department of Finance
Notes: Department of Finance Exchequer Returns, various years.

2.2.2 Corporation Tax

CT receipts continued to grow at a rapid pace during and after the Covid-19 pandemic. Receipts more than doubled from €10.9bn to €23.8bn between 2019 and 2023, and now account for just over one-quarter of total Irish tax receipts. As noted above, CT receipts are forecast to grow at a weaker pace over the medium term - average growth of 2 per cent per annum is projected by Government over the period 2024 to 2027 - with the impact of BEPS reforms expected to have a negative impact on receipts over this period.

There are two significant concerns over the increasing importance of CT to total revenue growth in the State. The first of these reflects the narrowness of the tax base. Data from the Revenue Commissioners show that just 10 large companies paid 52 per cent of net corporation tax receipts – or 14 per cent of total Exchequer tax receipts - in 2023 (Figure 6). IFAC (2023) estimates that payments are even more concentrated and just three company groups accounted for 43 per cent of corporation tax revenue in 2022. This concentration risk is evident more broadly as multinational companies also generate a significant proportion of other tax receipts, including 40 per cent of income tax in 2022 and just under 40 per cent of VAT revenue. This clearly represents a significant risk, leaving Ireland's revenue base – and ability to

finance public expenditure without borrowing – highly exposed to the decisions and profitability of a small number of companies.

The second concern is that a very high proportion of CT receipts over the past decade are disconnected from actual economic activity taking place in Ireland. These receipts, which could therefore be vulnerable to reversal, are often referred to as 'windfall' or 'excess' revenues. As outlined by the Department of Finance (2022) and IFAC (2022) estimating the size of excess CT is subject to significant uncertainty and a number of different methodologies can be used. Reflecting this, we use a number of approaches to estimate a possible range for CT receipts that might be considered unsustainable over the medium to longer term.[4] These results highlight the uncertainty in estimating excess CT receipts, but also show that – using a number of different methods - a significant share of CT receipts cannot be explained by developments in the underlying economy or are out of line with historical and international norms. The mid-point of our estimates are also broadly in line with those produced by the Department of Finance in *SPU 2024* for most of the projection horizon, that is assuming around half of all CT is excess, with some divergence in 2026 (Table 1).[5]

Table 1 Estimate of 'excess' corporation tax receipts

€ billions

	2021	2022	2023	2024	2025	2026
Central Bank of Ireland	5.7	11.2	12.2	12.2	12.5	13.5
Department of Finance		10.7	11.2	11.2	11.5	9.9

Source: Stability Programme Update 2024, Budget 2024, Authors' calculations.
Note: CBI projection represents midpoint of estimates.

2.2.3 Recent Expenditure Developments

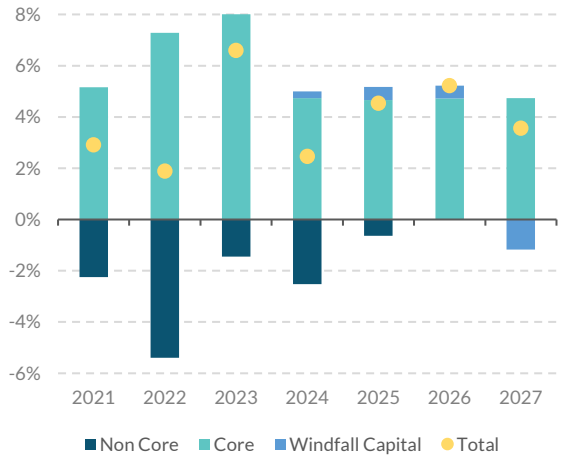
Government expenditure has increased at a strong pace in recent years, both in Exchequer and broader General Government terms.[6] Assessing overall government spending over this period is complicated by the Government's introduction of 'non-core' expenditure - expenditure on temporary external challenges that require additional resources outside of the day-to-day spending of Departments. These external challenges have included Brexit, the

[4] These approaches are discussed in more detail in Conefrey et al., 'Managing the Public Finances in a Full Employment Economy', Central Bank of Ireland Quarterly Bulletin 2, 2023.
[5] We assume that half of the additional revenue generated by BEPS Pillar 2 represents excess CT, consistent with the proportion of total CT receipts estimated to be excess in previous years.
[6] See IFAC for a detailed description of the difference between the Exchequer and General Government.

Covid-19 pandemic, the Russian invasion of Ukraine and the cost of living crisis. Non-core spending has declined each year since 2020 placing downward pressure on total expenditure growth, while core (or day-to-day Departmental spending) has continued to increase (Figure 7).

Exchequer spending growth is moderated by reductions in non-core spending

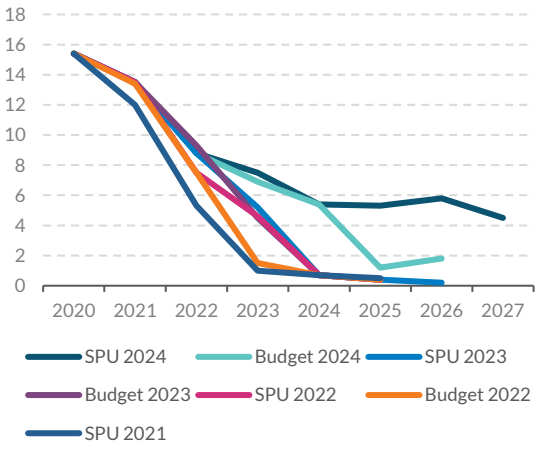
Figure 7
per cent



Source: Department of Finance, *SPU 2024*.

Duration of non-core spending has been repeatedly extended

Figure 8
€bn



Source: Department of Finance, Stability Programme Updates and Budgets, various years.
Notes: Chart shows the projections for non-core government spending from successive Budget and SPU publications from 2021 to 2024.

Additional capital spending funded by windfall corporation tax receipts is also planned over the next three years. This is separated from core spending in the Government's *SPU 2024* projections, although given it is similar to the remainder of government capital spending we include it in our measure of overall core expenditure. It is currently expected to fall to zero in 2027 – reducing overall spending growth - although it is not clear why this occurs. Core and non-core spending are presented by the Government on an Exchequer basis and, as a result, do not provide a full picture of overall General Government spending.

A key assumption underpinning the Government's fiscal projections in recent years was that non-core spending would be almost fully withdrawn by 2025. This assumption changed in April's *SPU*, when a contingency reserve equal to expected non-core spending in 2024 was included on a technical basis for the period 2025 to 2027 (Figure 8). Given uncertainty around much of this spending, this represents a prudent approach. This persistence of non-core

spending also means that it is not credible for it to be separated from more general, day-to-day spending when evaluating the fiscal stance or sustainability of the public finances. As noted in *Budget 2024*, for example, non-core spending continues to be allocated for Covid-19 in 2024, five years after the emergence of the pandemic. It also appears that spending linked to the Russian invasion of Ukraine may persist into the medium term. In both cases, this would appear to be stretching the definition of a temporary external challenge and would support the elimination of the distinction between "core" and "non-core" spending. Removing this increasingly unjustified categorisation would increase transparency, simplify domestic fiscal rules and mitigate downside risks related to the difficulty of withdrawing spending which has been present for a prolonged period.

While "non-core" expenditure has been on a declining path in recent years, "core" spending has recorded strong growth (Figure 8). We estimate that permanent Exchequer spending increased by €20bn (7.3 per cent of GNI*) between end-2019 and 2023. The latest Government forecasts in *SPU 2024* anticipate that core Exchequer spending growth will moderate significantly this year from an estimated 8.9 per cent in 2023 to 5.1 per cent.[7] With gross voted expenditure already 2.6 per cent (€975m) ahead of its Budget profile in May, however, there are clear risks that the increase for the year will be stronger than this. Looking ahead, the *SPU* has forecast that core spending will grow at a pace consistent with the net expenditure rule over the period 2025 to 2027. This continues a trend, which has seen the Government's budgetary projections anticipate core spending growth in line with the net spending rule over the medium term, only for this to be delayed in subsequent projection exercises.[8]

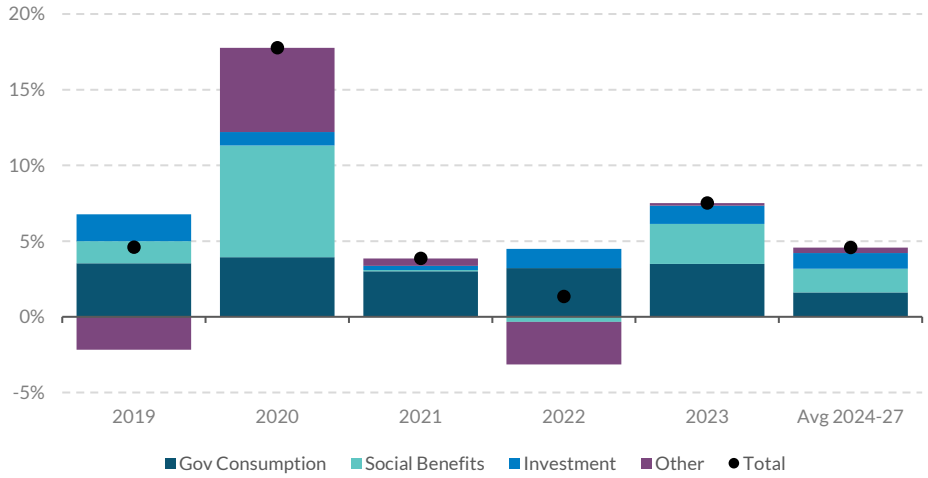
Since the Government's expenditure rule is set in net terms, we adjust these projections to take account of announced and planned discretionary tax changes as well as additional "windfall" capital spending that is included in *SPU 2024*, but not incorporated into core expenditure. As discussed further in Section 3.2 below, with these adjustments, core net spending grows in excess of 5 per cent out to 2026.

[7] Core spending growth of 6.1 per cent had been forecast for 2024 in October's *Budget*. The downward revision in the *SPU* reflects a stronger than expected outturn in 2023 – increasing the 2023 base - rather than policy steps to bring the rate closer to the net expenditure rule.
[8] *Budgets 2022*, *2023* and *2024* all projected that core spending growth would return to 5 per cent in the year following the budget (2023, 2024 and 2025 respectively). Similarly *SPU 2022*, *2023* and *2024* all projected that core spending growth would return to 5 per cent in the following year (2023, 2024 and 2025 respectively).

Government consumption is driving spending growth since the pandemic

Figure 9

per cent



Source: Department of Finance, SPU 2024, authors' calculations.
Note: Government consumption includes intermediate consumption and compensation of employees. Other includes subsidies, interest, other current transfers, capital transfers and other acquisitions of non-financial assets.

2.2.4 General Government Revenue, Expenditure and overall Balance

Focusing on Exchequer spending developments presents an incomplete picture, as it only includes cash transactions undertaken by central government. General Government expenditure is the internationally recognised governmental accounting aggregate. It includes spending by all arms of government – central, local, the Social Insurance Fund - and non-commercial State bodies. General Government expenditure increased by 33 per cent between end-2019 and 2023, with government consumption accounting for around half of this increase and social benefits driving a further third of the growth rate (Figure 9).

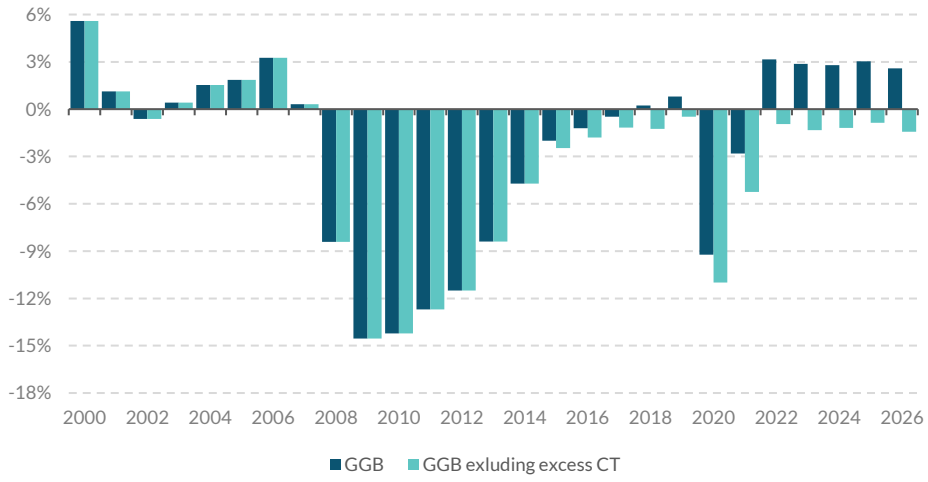
The increase in government investment was also notable, growing by close to 50 per cent against the backdrop of the NDP. The Government anticipates that General Government expenditure will increase by an average of 4.6 per cent per annum over the period 2024 to 2027, with the composition of this growth more broadly balanced. Despite the change in the global interest rate environment in recent years the outlook for expenditure on debt interest remains relatively benign over the medium term. This reflects the supportive

fiscal outlook, a favourable maturity profile and the large cash balances at the Government's disposal.

Against the backdrop of the significant revenue growth outlined above, the General Government balance (GGB) is estimated to have improved from a small surplus of 0.8 per cent of GNI* in 2019 to an estimated surplus of 2.9 per cent last year (Figure 10). The latest Government outlook, taken from April's *SPU*, is that the State will continue to run headline budget surpluses over the medium term. As noted above, much of the recent improvement in the Irish budgetary position has been driven by growth in CT, a large part of which cannot be explained by underlying developments in the Irish economy. Given the risk that these excess CT receipts could be subject to sharp reversals, it is prudent to adjust the headline GGB to exclude such inflows. Doing so reveals that the outlook for the 'underlying' fiscal position is not as strong as the 'headline' projections would suggest. In fact, the underlying GGB would remain in deficit until 2026, which would make 19 successive years that the State has run a budget deficit.

General Government Balance to remain in deficit in the coming years when excess CT is excluded

Figure 10
per cent of GNI*



Source: CSO, authors calculations.
Notes: GGB excludes financial sector support provided during the financial crisis. Central Bank of Ireland estimates of excess corporation tax are used.

The structural primary balance - which excludes temporary measures (in this case also excess CT receipts), interest spending and adjusts for changes in the economic cycle – is considered a good proxy for the Government's overall fiscal stance as it removes factors not directly under its control. A deterioration in the structural balance indicates fiscal policy is stimulating the economy

while an improvement in the balance points to a restrictive stance. On the basis of the forecasts in *SPU 2024*, the structural primary balance is forecast by the Government to record a surplus of 0.8 per cent of GNI* in 2024. By 2027, the structural balance is estimated to stand at 0.9 per cent, a marginal improvement of 0.1p.p. from 2024. This signals that Government projections imply a broadly neutral fiscal policy stance in the coming years. Accordingly, any additional government spending or tax cuts – above those that underpin the Government's current fiscal forecasts – could result in an expansionary fiscal stance at a time when the economy is already growing at full capacity.

3. Managing Public Expenditure at Full Employment: Scenario Analysis

3.1 The estimated cost of maintaining existing public services

In assessing the future path for public expenditure, it is important to consider the increase in expenditure that would be required to maintain existing levels of public services into the future. The Department of Public Expenditure and Reform refer to this as "Existing Level of Service" (ELS). Using a different methodology, IFAC estimate these increases as "standstill" costs. ELS captures the additional expenditure needed to maintain today's levels of public services taking into account population growth and the impact of previous budgetary policy measures, including public sector pay agreements. ELS represents the amount of additional expenditure required each year to maintain existing services before any new policy decisions.

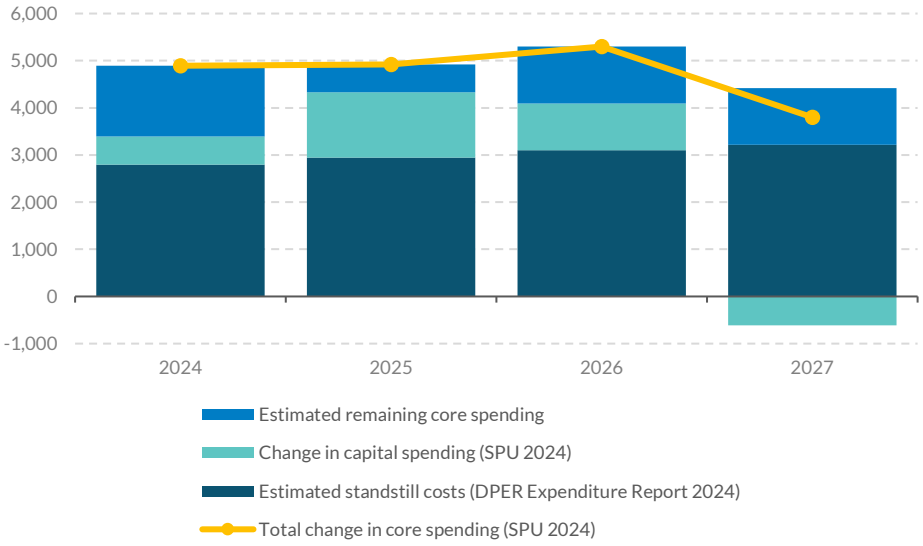
Based on the *SPU 2024* projections and adjusting for announced and planned discretionary tax changes, net spending is forecast to grow in excess of the 5 per cent rule from 2024-26 (by 5.4 per cent per annum on average) and by 3.7 per cent in 2027. The *Expenditure Report 2024* states that an estimated 3 per cent of the core expenditure base would be required each year to accommodate ELS costs.[9] Using this figure, it is possible to estimate the proportion of the projected increase in overall core spending that will be needed to cover the cost of maintaining existing services. On average, over the period 2024-2027, estimated ELS costs would absorb around two-thirds of the projected increase in overall core expenditure (Figure 11).

[9] See *Budget 2024: Expenditure Report*, page 24.

In addition to ELS costs, the Government expects to increase capital expenditure in line with the objectives in the NDP. Adding the forecast increase in public capital spending to the estimated expenditure required for ELS costs implies that on average, three quarters of the planned increases in overall core spending in the period out to 2027 is already accounted for by these two spending needs. In the absence of new discretionary revenue raising measures and assuming the 5 per cent net spending rule is complied with, this implies that there is very limited scope for any additional increases in expenditure or tax cuts beyond existing plans after ELS costs and capital spending have been accommodated.[10]

Three quarters of overall projected core expenditure growth required to cover costs of existing public services and planned capital spending

Figure 11
€, millions



Source: Department of Finance, *SPU 2024*, Department of Public Expenditure and Reform, *Expenditure Report 2024* and authors' calculations.

Notes: The yellow line shows the projected increase in overall core net government spending from *SPU 2024*. The columns show the proportion of the overall increase that would be required to meet the cost of maintaining existing public services and planned capital spending increases based on *Expenditure Report 2024*.

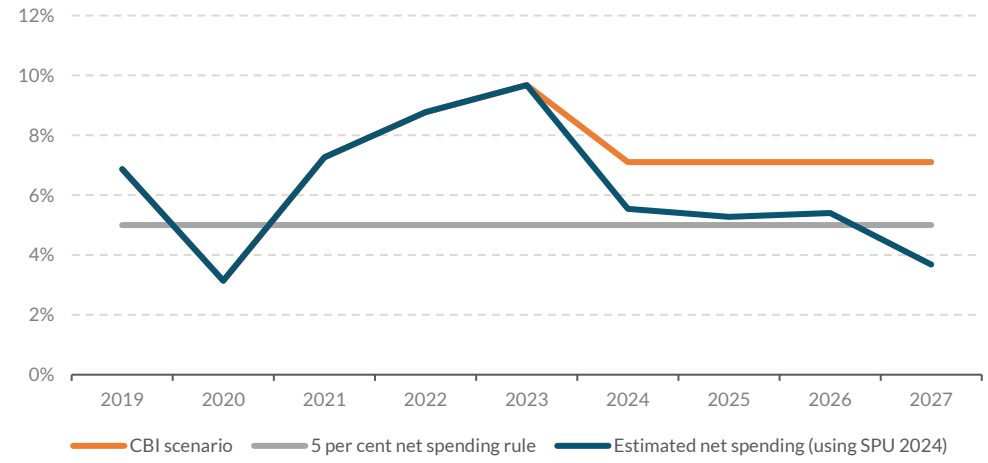
[10] Using a different methodology, IFAC's "stand-still" estimates are higher than the ELS costs derived here. IFAC estimate that stand-still costs would exceed the planned increases in current spending in *SPU 2024* over the period 2025-2027.

3.2 Assessing the impact of a permanent increase in government expenditure

There is a clear risk that actual government expenditure growth exceeds projected growth in the coming years. This reflects not only the established pattern of realised government expenditure growth regularly exceeding budget day projections, but also recurrent breaches of the Government's own 5 per cent net spending rule have been observed since 2021. Already in the first five months of 2024, health spending is already €0.7bn voted expenditure was almost €1bn (2.6 per cent) higher than planned in *Budget 2024* published last October. Moreover, there are considerable expenditure pressures over the coming years linked to the cost of maintain existing services before any new policy measures are accommodated, as outlined in the previous section. To assess this risk, we use the Central Bank's semi-structural model to illustrate the potential impact of a permanent increase in government spending above existing plans as set out in *SPU 2024*.[11]

Core expenditure growth: *SPU 2024* and alternative scenario

Figure 12
per cent



Source: *SPU 2024*, authors' calculations.

Notes: Simulation period is from 2022 to 2027.

As a basis for calibrating the scenario, we compare core spending growth to the Government's net 5 per cent rule.[12] Over the historic period from when the

[11] See McInerney, N. (2020), Conefrey, T., O'Reilly, G., & Walsh, G. (2018), and Bergin, A., Conroy, N., Garcia Rodriguez, A., Holland, D., Mc Inerney, N., Morgenroth, E., and Smith, D. (2017).

[12] To calculate core net expenditure, we take the projections for core spending from *SPU 2024* and adjust them to take account of the effect of announced discretionary tax changes. For the years 2019 to 2024 these come from the tax measures announced in the respective year's

rule was introduced (2022-2023), core net spending grew by 9.2 per cent per annum on average (Figure 12). Over the forecast period (2024-2027), for the purpose of the scenario, we assume that core expenditure grows above 5 per cent at its historical (2019-2023) average of 7.1 per cent. The expenditure path in this scenario is not intended as a forecast but serves to illustrate the implications of higher than budgeted for core government expenditure over the 2024-2027 period. We assume that the additional spending is split equally between government consumption and transfers, and is debt-financed.

Focusing on the historic period (2022-2023), the simulation indicates that the observed higher expenditure growth above the 5 per cent rule since 2022 added around 2.1 per cent per annum on average to the level of domestic demand (Figure 13a) and an average of 0.5 percentage points per annum to inflation (Figure 13b).

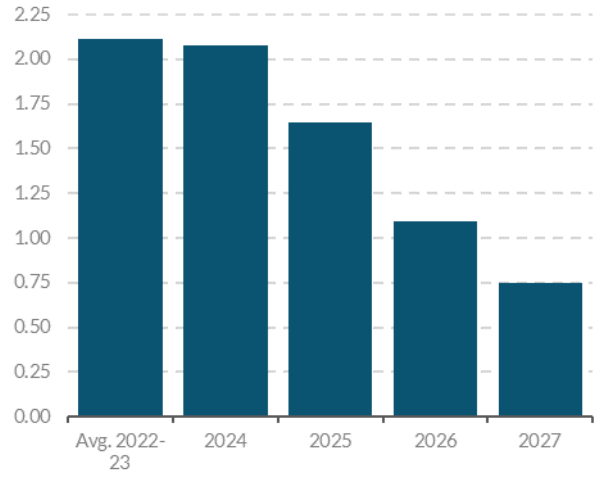
Further increases in expenditure in excess of the 5 per cent rule over the coming years would increase domestic demand and inflation. In the short-run, the level of domestic demand would be up to 2.1 per cent higher in 2024 than otherwise, and would remain above 0.7 per cent until 2027. Additional inflation of 0.5 percentage points would occur in 2024 and remain higher than otherwise until the end of the period.

The additional expenditure would have an uneven impact on different sectors of the economy (Figure 13c). While the economy as a whole would be stimulated for the duration of the shock out to 2027, wage pressures (Figure 13b), through higher prices and a tighter labour market, would lead to a loss of cost-competitiveness in the tradable sector that would build up over time. Consequently, output in the more productive sector of the Irish economy, the tradable sector, would be lower than otherwise. In terms of the fiscal implications, the underlying (excluding excess CT) General Government deficit as a per cent of GNI* would be larger over the course of the simulation period by about 0.2 percentage points (Figure 13d). In the baseline, the underlying GG balance is projected to move into surplus by 2027. If expenditure growth exceeds 5 per cent without any offsetting revenue-raising measures as set out in this scenario, the underlying GG balance would remain in deficit out to 2027.

Budget. For 2025 and 2026 we use the tax measure assumptions in the 2023 Summer Economic Statement. In 2027 we assume that discretionary measures remain at the same level as those in the preceding two years (€1.1bn). We also class windfall capital spending as core rather than non core spending as it does not appear to fit the Government's criteria for non core (it is not spending in response to a temporary external crisis).

Domestic demand

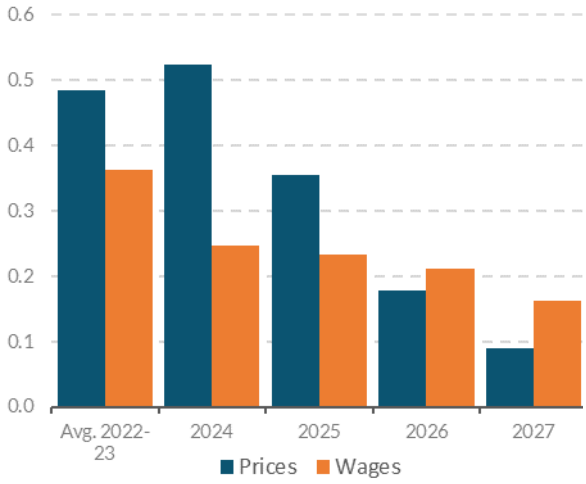
Figure 13a
per cent deviation from baseline



Source: authors' calculations.

Inflation

Figure 13b
percentage point deviation from baseline



Source: authors' calculations.

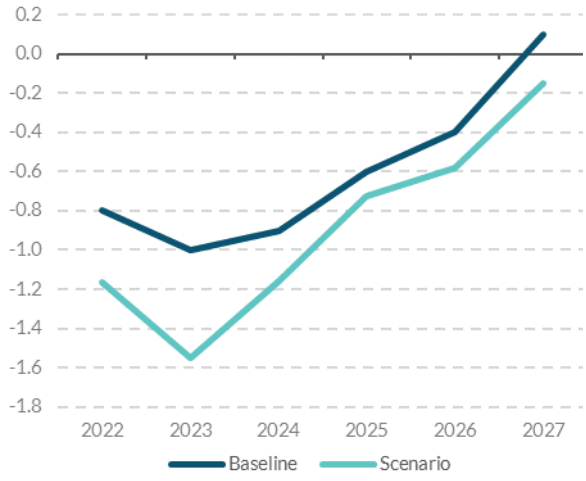
Output by sector

Figure 13c
per cent deviation from baseline

Source: authors' calculations.

GG Balance

Figure 13d
per cent of GNI*



Source: authors' calculations.

3.3 Focus on Public Capital Expenditure

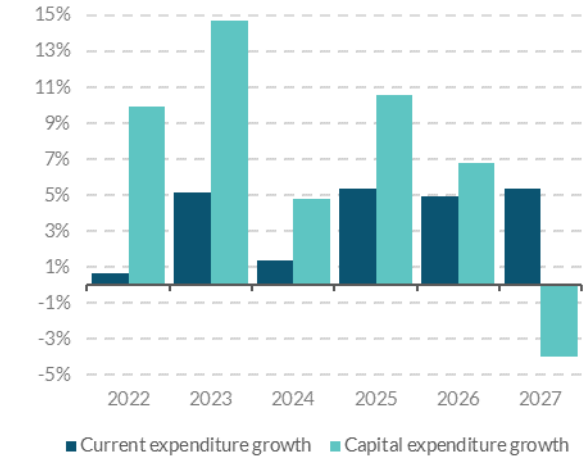
Given the scale of the capacity constraints facing the Irish economy in key areas like housing, infrastructure, and health, increasing public capital investment is an important medium-term policy goal. While the marked growth in total spending over the last decade has been almost entirely driven by rising current spending, the 78 per cent growth in capital spending (from €6.6bn to €11.8bn) in the five years to 2023 has added to the public capital stock and will drive improvements in the productive capacity of the economy. Capital

spending is projected to grow faster than current spending out to 2026, with the share of government spending going to capital investment is projected to increase (Figure 14). This gradual rebalancing of public spending is welcome. Government investment differs from government consumption spending because it contributes to the stock of public capital, which can have a longer lasting impact on the economy. While estimates of the effect of public capital on long-term growth potential vary - and depend on factors such as the composition and efficiency of spending - the literature typically finds a positive relationship between the two.[13]

Capital spending projected to grow faster than current spending until 2027

Figure 14

per cent

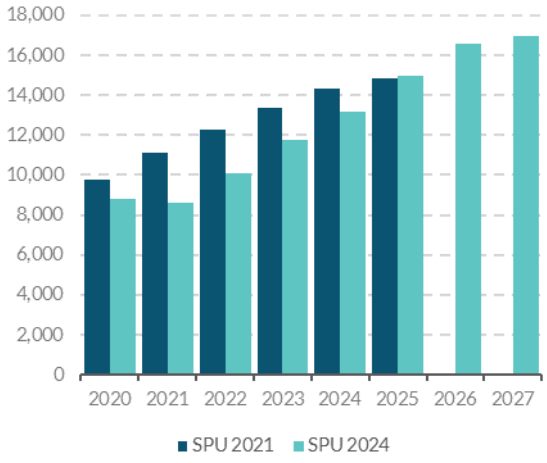


Source: *SPU 2024*, authors' calculations.

Revisions to nominal capital spending projections

Figure 15

€m



Source: *SPU 2024*, authors' calculations.

The current National Development Plan (NDP)[14], published in October 2021, sets out the Government's capital spending priorities out to 2030. It sets a target of spending (in Exchequer terms) of 5 per cent of GNI* per annum on capital investment. In nominal terms, this amounts to €165bn over the ten years of the plan. The NDP anticipated that the 5 per cent of GNI* target would be reached in 2024, which would imply a doubling in investment as a share of GNI* since 2017. Revisions to nominal capital spending since 2021 have been significant (Figure 15). Lower than expected investment in 2020 and 2021 as a result of the pandemic carried into subsequent years, while the April 2024 *SPU* has announced a significant increase in spending out to 2027. As such, increased capital spending over the next three years will close some of the gap

[13] For a more detailed discussion of the link between government investment and potential output see Hickey et al, (2018).

[14] National Development Plan 2021 - 2030

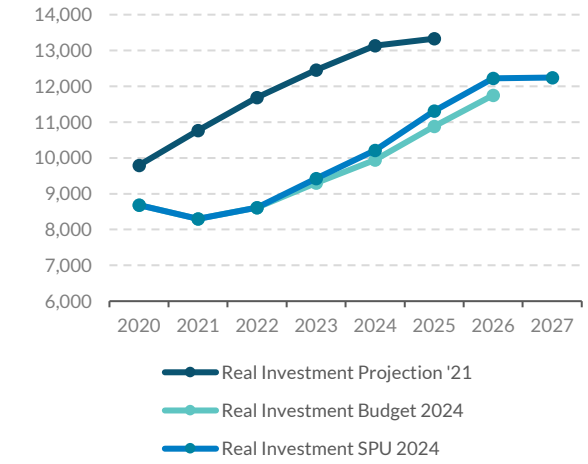
relative to the NDP, at least in nominal terms. For example, the NDP projected total growth in capital expenditure of 20 per cent from 2023 to 2027 – the *SPU* projects average growth of 26 per cent over the same period, with most of the increase coming in 2025.

More relevant for economic capacity, however, is the real level of investment that will be achieved relative to that anticipated in the existing NDP. In recent years, inflation has had a significant effect on the level of actual capital investment delivered for a given level of nominal spending. Nominal investment shortfalls in the early years of the NDP combined with higher than expected inflation pushed real investment levels well below what was planned (Figure 16). While the projections imply that investment will eventually reach the 5 per cent of GNI* target in nominal terms, higher inflation means that in real terms public investment as a share of output remains close to 3 per cent over the forecast period (Figure 17).

Last year, nominal investment spending was 17 per cent higher than the previous peak in public investment in 2008. In real terms, however, investment levels will have recovered only by 2026 (Figure 18). The effect of inflation is even more pronounced when looking at real investment per capita which has recovered in nominal terms but remains well below 2008 levels when adjusted for inflation (Figure 19). The shortfall in real capital investment implies that higher capital spending will be needed over the coming years if the investment targets of the NDP are to be realised. Delivering this in an economy that is operating at close to capacity, however, is challenging. Policymakers will need to balance investment needs with demand conditions in the real economy.

Real investment is lower than planned

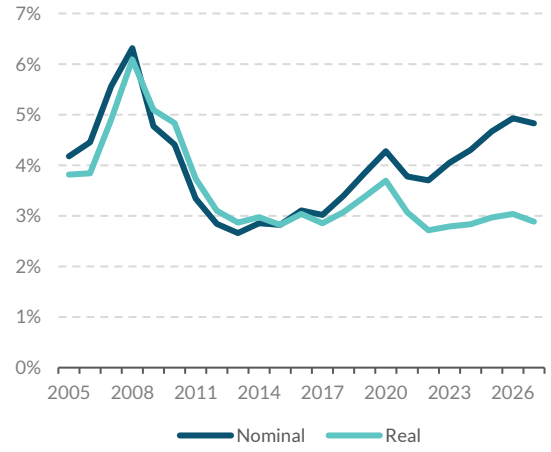
Figure 16
€ million



Source: *SPU 2024*, author's calculations.

Public investment approaching 5 per cent of national income

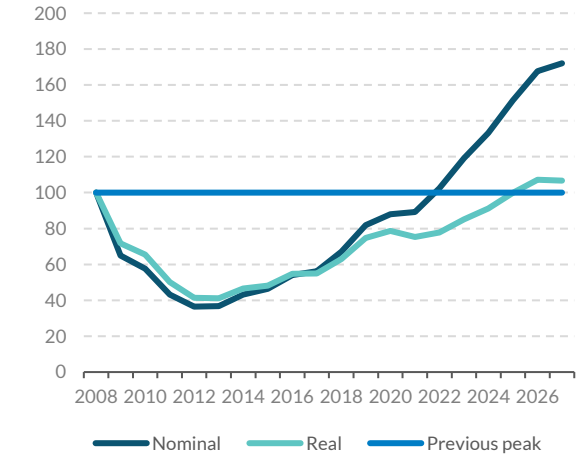
Figure 17
per cent of GNI*



Source: *SPU 2024*, author's calculations.

Real public investment to surpass its 2008 level by 2026

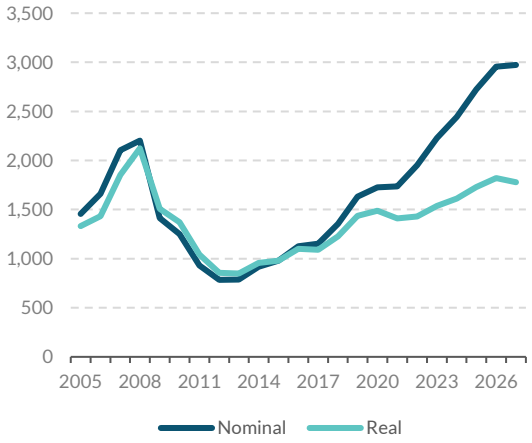
Figure 18
per cent of 2008 investment



Source: *SPU 2024*, author's calculations.

Investment per Capita (€)

Figure 19
€



Source: *SPU 2024*, author's calculations.

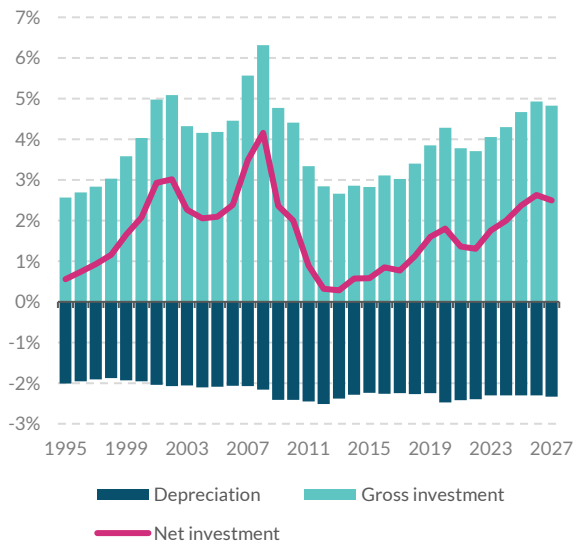
Another factor to consider is the impact of depreciation on the existing public capital stock. Net investment – which excludes depreciation – declined sharply in the period of fiscal consolidation that followed the financial crisis, but has posted a strong recovery in the past five years (Figure 20). Further increases are anticipated over the medium term, but net investment is expected to remain below the peaks recorded in the early 2000's. More broadly, taking account of these developments in net investment, we can estimate the

evolution of the public capital stock (Figure 21). Following the approach of Hickey et al. (2018)[15] we use adjusted non financial assets (NFA) of the government as a proxy for the public capital stock. This removes the impact of valuation changes, which are not particularly relevant when it comes to determining the impact that public capital stock will have on future growth. Doing so we see that the public capital stock is estimated to have grown significantly – by 19 per cent - since 2018.

Net investment is re below pre-2008 peak rate is increasing

Figure 20

per cent of GNI*



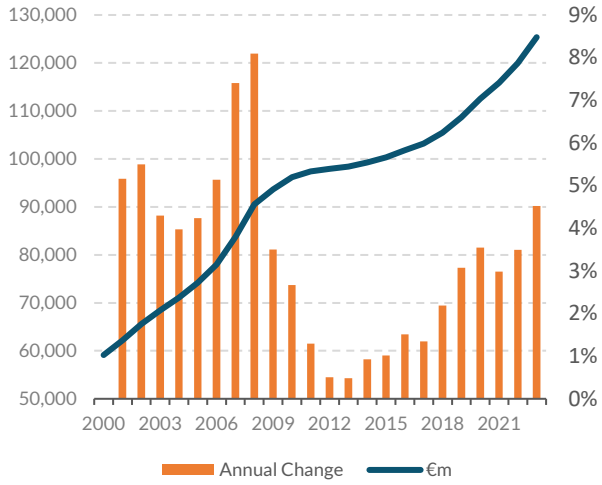
Source: CSO, Department of Finance .

Note: Depreciation is assumed to grow at its 10-year average for the period 2024-27

Public Capital Stock growth

Figure 21

€m % change



Source: CSO, authors' calculations.

Note: Adjusted government non financial assets (NFA) is used as a proxy for the public capital stock. This adjusts NFA to remove the impact of valuation changes

[15] Hickey, R., Lozej, M. and Smyth, D. (2018) Irish Government Investment, Financing, and the Public Capital Stock *Quarterly Bulletin Article 03/July 18*

Box A: Government Housing Expenditure

Having declined sharply in the years immediately after the financial crisis, Government spending on housing has followed a strong upward trend over the past decade (Figure A). This has been driven by a recovery in capital spending, reflecting not only large increases in Exchequer funding but also, in more recent years, the use of State supported non-Exchequer spending by agencies such as the Land Development Agency (LDA). There has also been consistent increases in current housing spending.

Significant increase in Government Housing expenditure in recent years

Figure A
€ billions

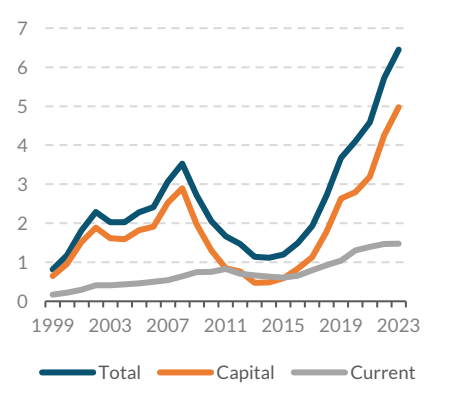
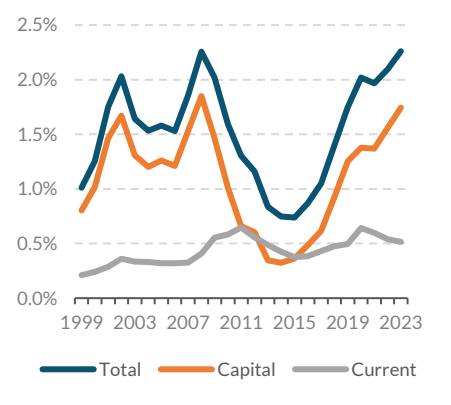


Figure B
% GNI*



Source: Authors' calculations (see Footnote 16 for details)

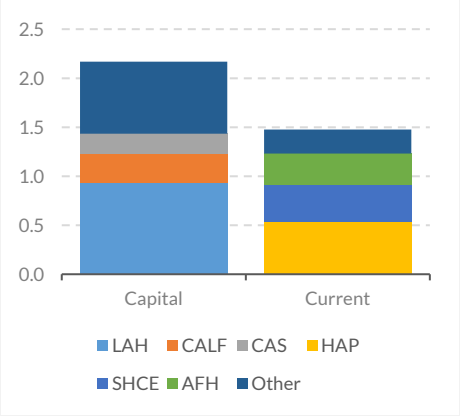
Reflecting these developments, we estimate that Government housing expenditure recorded a new nominal high of €6.5bn last year, with capital and current spending also reaching new highs of €5bn and €1.5bn respectively.[16] Budgetary plans point to a further increase in 2024 with a housing budget package of €7bn announced in Budget 2024.[17] In relation to

[16] Government housing expenditure is calculated as the sum of: (i) Exchequer spending on housing by the Department of Housing, Local Government and Reform (source: Department of Public Expenditure and Reform Databank); (ii) Exchequer spending on rent supplement by the Department of Social Protection (source: Department of Social Protection Annual Statistic Reports); (iii) non voted spending on local authority and social housing (source: Expenditure Reports, Budgets 2012-24 and Estimates for Public Expenditure, Budgets 2000-11); (iv) investment by the Land Development Agency (source: Expenditure Report, Budgets 2020-24); (v) gross lending by the Housing Finance Agency per annum (source: Housing Finance Agency Annual Reports 1999-2022 and Corporate Plan 2023-27); (vi) new lending per annum by Home Building Finance Ireland (source: Home Building Finance Ireland year end updates)
[17] See Expenditure Report, Budget 2024

the overall size of the economy, Exchequer housing expenditure returned to its previous 2008 peak of 2.3 per cent of GNI* last year (Figure B).[18]

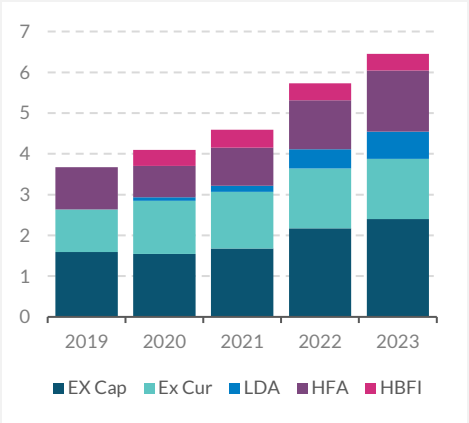
Composition of Government Housing expenditure

Figure C
€ billions



Source: DPER Databank
Notes: LAH – Local Authority Housing, CALF – Capital Advanced Leasing Facility, CAS – Capital Assistance Scheme, HAP - Housing Assistance Payment, SHCE – Social Housing Current Expenditure, AFH – Accommodation for Homeless

Figure D
€ billions



Source: Authors' calculations
Notes: EX Cap – Exchequer Capital, Ex Cur - Exchequer Current, LDA – Land Development Agency, HFA – Housing Finance Agency, HBFI – Home Building Finance Ireland

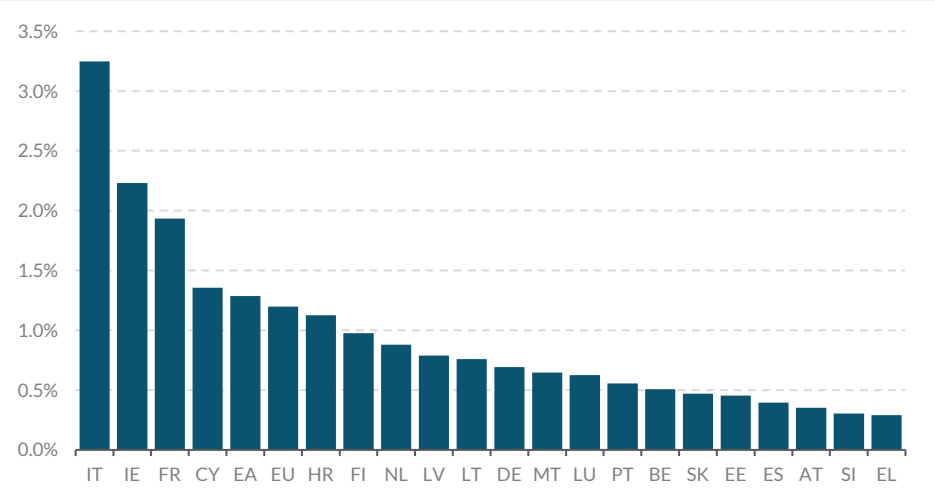
On the Exchequer side, local authority housing was the largest contributor to housing capital spending last year, costing €930m or 40 per cent of total capital housing spending. The other largest capital contributions came from the Capital Advanced Leasing Facility and the Capital Assistance Scheme, bodies established to provide funding to Approved Housing Bodies (Figure C). In terms of current expenditure, the Housing Assistance Payment Scheme made the biggest contribution, costing €537m or one-third of the total. This component of current housing expenditure has risen by 40 per cent since 2019. The Social Housing Current Expenditure Programme – which funds the current payments for properties leased for social housing – and accommodation for the homeless were the next largest contributors. Together these three categories represented 80 per cent of all current

[18] The housing sector also receives fiscal support through a number of tax reliefs. In Budget 2024, for example, the Government introduced a temporary mortgage interest tax relief scheme that it is estimated will cost €125m. A previous scheme, at its peak, cost €700m in 2008. The Help to Buy scheme and Rent Tax Credit are other examples. The cost of these tax reliefs represents additional fiscal support for the housing sector on top of the expenditure measures we outline in this Box.

housing expenditure. Outside of the Exchequer, capital expenditure has increasingly been supplemented through investment activity by the LDA and loan activity by Housing Finance Agency (HFA) and Home Building Finance Ireland (HBFI). These State bodies are estimated to have financed an additional €2.6bn in new investment and loans in 2023 (Figure D).

Irish Government housing expenditure high relative to euro area

Figure E
% of GDP



Source: Eurostat, CSO
Note: Irish figure is percentage of GNI*

While we can use Exchequer data to compare housing expenditure across time in Ireland, we need to use the broader General Government accounting system to compare expenditure across countries.[19] The COFOG (classification of functions of government) data series is considered by Eurostat to be 'the appropriate basis to examine the structure of government expenditure'. Developed by the OECD, it separates General Government spending into ten broad 'Divisions', with each Division further broken down into between six and nine smaller 'Groups'.[20] For the purposes of this Box, we use the Housing and Community Division (excluding Group 6.3 Water

[19] See Eurostat.
[20] The ten Divisions are: 1. General Public Services; 2. Defence; 3. Public Order and Safety; 4. Economic Affairs; 5. Environmental Protection; 6. Housing and Community; 7. Health; 8. Recreation, Culture and Religion; 9. Education; 10. Social Protection.

Supply)[21] and the Housing Group in the Social Protection Division[22] to calculate housing expenditure. This shows that Ireland recorded the second highest housing expenditure in the euro area in 2022, the latest year that data is available (Figure E). The only country to surpass Irish expenditure was Italy, where the introduction of the 'Superbonus' tax credit scheme has seen a surge in housing related capital transfers (Italian housing spending increased from 0.4 per cent of GDP in 2019 to 3.2 per cent of GDP in 2022 highlighting its impact). Excluding Italy, housing expenditure in Ireland was twice that in the Euro area in 2022 (2.2 per cent of GNI* compared to 1.0 per cent of GDP). It should be noted that expenditure by State agencies such as the LDA and HFA are not included in the COFOG data.

Summing up, overall government expenditure in the housing area has increased rapidly since 2015 – returning to its previous 2008 peak as a percentage of GNI* - and is high when compared to other euro area countries. The recent report of the Housing Commission showed that Ireland's overall housing need is likely to be higher than previously estimated reflecting strong population growth. If estimated overall housing need is revised up compared to the projections that underpin the existing NDP, this could imply a need for additional public expenditure in housing above current plans. With overall spending in this area having already increased above 2 per cent of national income (GNI*) in 2023, any decision to further increase expenditure in this area would need to consider whether there are options to more effectively allocate existing spending in the context of the current-capital mix, as well as improving the efficiency with which investment is being delivered (see section 3). How additional housing related investment would be accommodated and financed in the context of overall budgetary plans –without aggravating overheating pressures and weakening the public finances – would need careful assessment.

3.4 Macroeconomic and fiscal effects of climate-related investment

As outlined in Section 3, while the path for public investment is high in nominal terms, future growth in real investment is projected to be relatively modest.

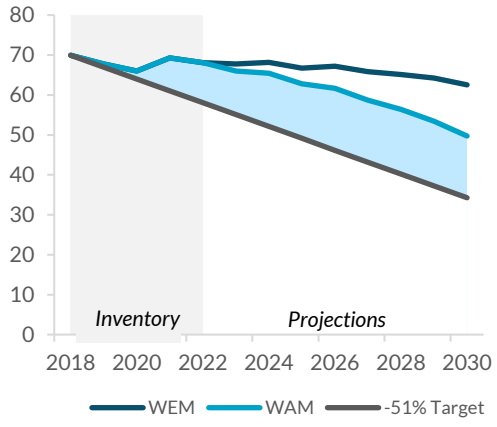
[21] Division 6 Housing and Community includes Groups 6.1 Housing Development, 6.2 Community Development, 6.3 Water Supply, 6.4 Street Lighting, 6.5 R&D Housing and Community, 6.6 Housing and Community n.e.c.
[22] Division 10 Social Protection includes the groups 10.1 Sickness and Disability, 10.2 Old Age, 10.3 Survivors, 10.4 Family and Children, 10.5 Unemployment, 10.6 Housing, 10.7 Social Exclusion n.e.c, 10.8 R&D Social Protection, 10.9 Social Protection n.e.c.

One area where investment will need to increase is to support the transition to a low-carbon economy. Accordingly, in this section, we outline how much additional investment would be needed over the coming years in order for Ireland to meet its decarbonisation objective given the progress achieved to date. We then use the Bank's semi-structural model of the Irish economy to assess the macro-fiscal implications of that necessary additional investment.

The *Climate Action and Low Carbon Development (Amendment) Act* 2021 established the legal framework for Ireland to achieve net zero greenhouse gas emissions by 2050. As part of the Climate Amendment Act, Ireland has a set an interim target of achieving a 51 percent reduction in emissions relative to 2018 by 2030. It has also introduced five-yearly carbon budgets, along with sectoral emission ceilings consistent with these carbon budgets.

GHG Emissions Projections

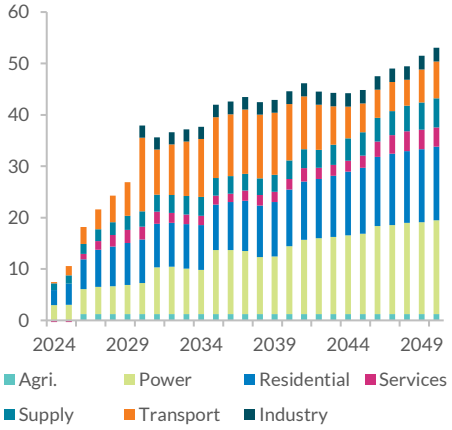
Figure 22
$MtCO_2e$



Source: EPA (2024)

Cumulative Additional Investment

Figure 23
€bn deviation from BAU scenario



Source: TIM model and author calculations

Notes: Figure includes LULUCF sector emissions

Ireland is currently on course to significantly undershoot its 2030 emissions reduction target with the EPA's "With Existing Measures" (WEM) and "With Additional Measures" (WAM) scenarios projecting reductions of 11 and 29 percent (on 2018 levels), respectively (Figure 22).[23] Moreover, almost all sectors apart from commercial and public buildings are projected to exceed their emissions ceilings. This suggests that further measures will be required if Ireland is to meet its emission reduction objectives.

[23] The WEM scenario in Figure 23 includes all domestic polices and measures that had been implemented by end of 2022 (the latest inventory year). The WAM scenario assumes implementation of the WEM scenario in addition to further implementation of planned government policies and measures, including those outlined in Climate Action Plan 2024. See EPA (2024) for details.

To achieve Ireland's emission reduction targets will require significant 'green' investment over the next decade. To calibrate the size and sequencing of the investment shock we use projections from the TIM energy systems model (Balyk et al, 2022) for the 'cost optimal' level of energy-related investment that is consistent with Ireland meeting its climate objectives.[24]

Figure 24 illustrates the cumulative increase in energy-related investment that would be required to achieve Ireland's climate objectives by 2050.[25] Additional investment of over 50 billion euro would be needed over the period up to 2050, with around 70 per cent of this incurred over the next decade (Figure 23). The chart also highlights how investment in the power, transport and residential sectors will primarily drive the reduction in fossil fuel dependence in the energy system. As TIM does not model investment in energy infrastructure, we scale estimates for the required investment in the energy grid and transport infrastructure from European Commission (2020) and OBR (2021).[26]

The additional required investment amounts to close to two percentage points of modified GNI each year over the next decade. It is also likely to lead to a significant increase in the demand for construction labour, which could lead to overheating pressures arising from that sector. For example, ESRI (2024) estimates that around 24,000 new construction workers would be needed to meet Ireland's renewable energy targets (including retrofitting). This is in addition to over 26,000 new construction workers that would be needed to meet the housing targets outlined in the current National Development Plan – which as noted previously are likely to be revised upwards.[27]

[24] TIM is an energy systems model developed by UCC's MaREI energy policy and modelling group. We use the '300mt-BAU' scenario, which comprises a 300 million tonne CO2 carbon budget with energy demands growing at historical (business as usual) trends. We note that while this scenario focuses on the carbon budget that is consistent with a particular global temperature increase, it is also broadly aligned with Ireland's medium- to long-term decarbonisation targets.
[25] The Supply sector in TIM incorporates the production, trade and transformation of primary and secondary energy commodities, while the Power sector refers to the generation of power such as electricity from energy sources.
[26] One caveat to our approach of imposing the additional investment estimated by TIM as shocks in the semi-structural model is that it necessarily abstracts from potential spillovers or spillbacks between the cost-optimal investment path and the macroeconomic impact of these shocks.
[27] IFAC (2024) examines the potential sources of labour supply that could be available to meet the expected additional demand for construction workers in the coming years.

Table 2 Public Shares of Transition-related Investment

	Low (%)	Central (%)	High (%)
Public Share	15	26	36

Source: OBR (2021)

Notes: Shares refer to weighted average shares across all sectors.

The investment Ireland's energy systems will have both a private and a public component. While the share of the investment costs that will be borne by the State is a policy choice, government intervention will primarily be needed to undertake investment that would otherwise not be undertaken by the private sector, such as where the present value of future energy cost savings are insufficient to cover upfront investment costs(IMF, 2023).[28] In terms of calibrating the public share of transition-related investment, performing such calculations would, require a model with granular detail on both operating and investment costs. We instead consider three different scenarios based on OBR (2021), which computes 'high', 'low' and 'central' public shares for the UK (Table 2). The average shares in the central and high scenarios are similar to the average public shares used in Darvas and Wolff (2021) and estimated in Seghini and Dees (2024), while slightly lower than the shares assumed in Pisani-Ferry and Mahfouz (2023).

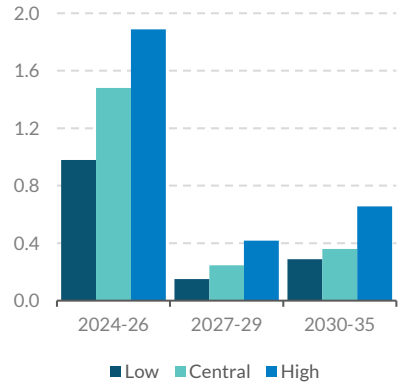
Simulating these public spending shocks in the Bank's semi-structural model, we find that the investment stimulus has a positive effect on total output over the scenario horizon, with the impact ranging from one to 1.9 percent in the short term to 0.3 to 0.56 percent in the longer term, depending the public share variant (Figure 24a).

The increase in investment drives up domestic demand, increasing wages in the non-traded sector and attracting resources away from the traded sector. This leads to a fall in the output of the traded sector as domestic wages and prices rise relative to trading partners. (Figure 24b).

[28] For example, carbon pricing policies can be used to shift transition costs onto the private sector (D'Arcangelo et al (2023), Pisani-Ferry and Mahfouz, 2023).

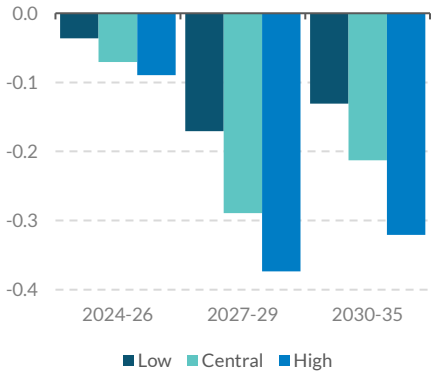
Total Output

Figure 24a
per cent deviation from baseline



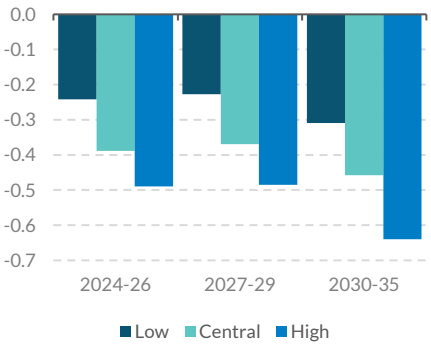
Traded Sector Output

Figure 24b
per cent deviation from baseline



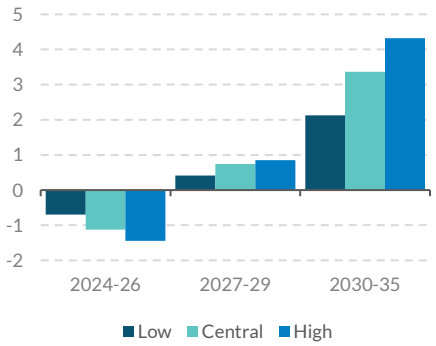
Budget Balance

Figure 24c
deviation from baseline



Public Debt ratio

Figure 24d
deviation from baseline



Source: author's calculations.

The investment increase also has a considerable impact on the fiscal position. The budget balance to output ratio deteriorates continuously over the simulation horizon relative to baseline (Figure 24c). The adverse impact on the budget balance accumulates into rising debt ratios over time. By 2035, the debt ratio is 2.1, 3.4 and 4.3 percentage points above baseline in the low, central and high spending variants, respectively (Figure 24d). While these scenarios are relatively stylised, they highlight how the transition to net zero could have important implications for the public finances.

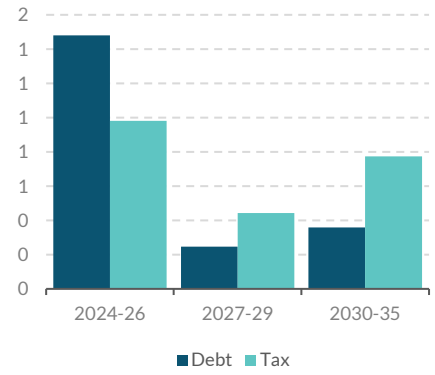
We now repeat the simulation for the case where the additional public investment is financed by raising government revenue rather than through debt issuance. For the purposes for this exercise, we assume that the additional revenue is generated by increasing the effective tax rate on personal income. In reality, a combination of revenue-raising measures could be considered, particularly in the context of trade-offs between efficiency and equity trade-

offs across different fiscal levers.[29] Similarly, while carbon taxation could also be used to fund this investment, these revenues will also need to fund expenditure related to climate adaptation and the 'Just Transition'.[30] Assuming investment is funded by personal tax revenue is therefore a technical assumption that allows us to simplify the calibration of the scenario.

Figure 25a below shows that the increase in total output arising from the government investment shock is lower in the short term when it is financed by taxes rather than debt. The extent of this dampening effect on output is partly driven by the particular fiscal instrument used to raise revenue and thus the size of this effect would sensitive to the specific policy method adopted. In particular, distortionary taxes, such as those on capital and labour, generally have the most adverse effect on economic activity.

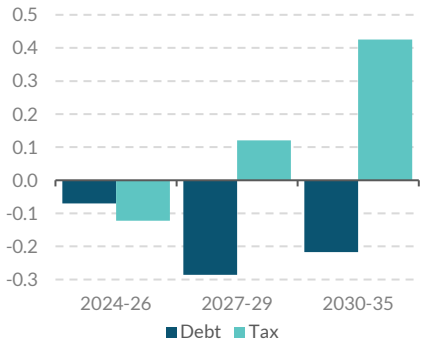
Total Output

Figure 25a
per cent deviation from baseline



Traded Sector Output

Figure 25b
deviation from baseline, averages



Source: authors' calculations.

However, the scenario illustrates how, in the context of injecting stimulus into an economy with binding capacity constraints, offsetting fiscal measures could be used to manage potential overheating pressures. The impact of the investment stimulus on output is greater in the medium-to-long term when the increase in investment financed through tax revenue than through debt. This is mainly a result of the dampening effect of higher personal taxes on domestic demand, which results in lower labour demand and thus in more muted wage growth relative to a scenario where the government stimulus is debt financed.

[29] For example, funding transition-related expenditure through debt issuance raises complex issues of intergenerational equity (De Mooij and Gaspar, 2023)
[30] Transition-related investment could also be partly resourced from the recently announced Future Ireland Fund and Infrastructure, Climate and Nature Fund. However, due to their long-term horizon, these vehicles may be less suitable for financing investment in the decarbonisation of the energy system, which is concentrated in the next decade. From a modelling perspective, financing investment by drawing on these funds would have macroeconomic impact similar to the case where the investment is funded by debt.

This limits the appreciation of the real exchange rate and boosts traded sector output in the long run (Figure 25b). As capacity constraints are less likely to be binding in the longer term, these results therefore highlight how a mix of policy measures could be used to simultaneously achieve Ireland's decarbonisation objectives and ameliorate potential competitiveness concerns.

In terms of the public finances, while the tax-financed increase in investment is revenue neutral, a debt-financed increase leads to a significant increase in the debt ratio. As shown in Figure 24d, using debt to fund the public share of transition-related investment would see a significant spike in the debt ratio. Depending on assumptions regarding the share of the investment comprised by the State, the debt ratio could rise by over four percentage points over the next decade. If other costs related to, for example, investment in climate adaptation or transfers to households most affected by the transition, were included, the financial burden on the State could be materially higher.[31, 32]

Finally, it is important to note that our analysis has focused solely on the costs of decarbonising the economy. A full exploration of the impact of the transition on the public finances would also include an examination of the benefits of climate action in terms of avoiding potentially more severe costs from non-abatement, as well as the numerous co-benefits that accrue from mitigating climate change.

3.5 Combined impact of additional capital and current expenditure

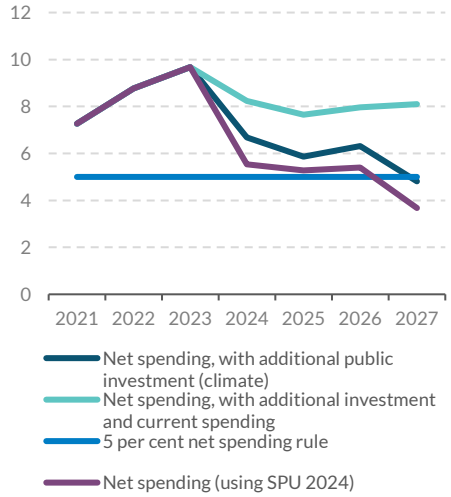
Section 3.2 considered the impact on the economy and public finances of additional current expenditure above existing plans. It is useful to combine this analysis with the scenario in the previous section on the effect of higher public capital expenditure. This combined scenario shows the effect on the economy and public finances if both current and capital expenditure were to be increased above the Government's current plans over the coming years.

[31] Casey and Carroll (2023) estimate that extreme weather events could results in costs of approximately €0.5 billion per year. In terms of climate adaptation measures, the National Adaptation Framework outline the government's approach to addressing the physical risks from climate change. In addition, as part of the NDP, the government has committed to allocating €1.3 billion to flood relief schemes over the period to 2030.

[32] Note that compliance costs are not considered in our analysis as we assume the State meets its emission reduction targets. Based on current EPA emissions projections, these costs could amount to 0.35 billion per year until 2030 before rising to €0.7 billion (Walker et al, 2023) .

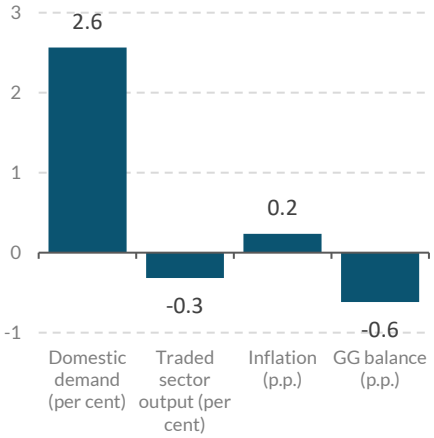
Net spending exceeds 5 per cent with additional expenditure

Figure 26a
per cent



Higher expenditure creates overheating pressures

Figure 26b
deviation from baseline, average 2024-27



Source: authors' calculations.

Additional public capital investment without offsetting discretionary revenue-raising measures would result in net spending growing at an annual average rate of just under 6 per cent from 2024-2026, above the 5 per cent rule. Taking the additional climate investment along with the current expenditure scenario from Section 3.2 would see annual average spending growth rise to 8 per cent from 2024-26 (Figure 26a). This rate of increase in net spending would be significantly above the current estimated sustainable nominal growth in the economy, as reflected in the 5 per cent rule. Expenditure growth faster than the rate of sustainable economic growth would imply a significantly expansionary fiscal stance and would lead to the emergence of a structural imbalance in the government accounts. This indicates that a path for public expenditure along the lines envisaged in this combined scenario would necessitate offsetting revenue raising measures to avoid creating a structural gap in the public finances.

Moreover, increasing current and capital expenditure at the same time as assumed in this scenario would result in a large additional stimulus to domestic demand over the period 2024 to 2027 (Figure 26b). This would lead to higher inflationary pressures and a loss of competitiveness giving rise to a decline in traded sector output, relative to a baseline without the additional expenditure. The underlying General Government deficit would be 0.6 percentage points of GNI* larger per annum out to 2026. This implies that revenue-raising measures equivalent to this amount would be needed to offset the deterioration in the

budget balance, prevent the debt from rising and bring net spending growth back to 5 per cent.

4. Delivering Public Investment Efficiently: Model-Based Analysis

Ideally, the delivery of higher capital spending would be conducted in an efficient and timely manner in order for the economy and society to benefit fully from such investment. However, investment in public infrastructure can experience delays. One source of friction is related to the time needed to go through the planning process. Projects can be stalled due to the slow speed of getting planning approval, as well as potential court challenges to the proposed plans. This is referred to as "*time to plan*" frictions.

A second source of friction arises because many public infrastructure projects by their nature are large in scale and require an extended period of time to complete before they come on stream, for instance large scale road or rail projects or hospitals. Here, the duration of construction itself cannot be readily expedited even if all resources needed were available. For the purpose of this analysis this is referred to as "*time to build*".

During the *time to plan* phase, the direct stimulus to the economy is typically very small, as planning does not involve large outlays by the government. In contrast to planning delays, during the *time to build* phase the stimulus to the economy is significant, as goods and services are purchased or contracted by the government, which is typically a relatively large outlay that can have macroeconomic consequences. Additional bottlenecks may arise during the construction phase if there are constraints in terms of the availability of workers, equipment, or materials.

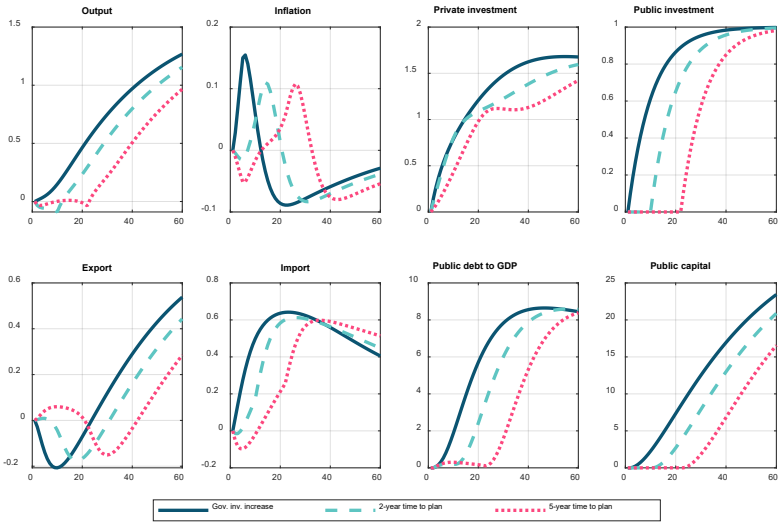
The reason why *time to plan* and *time to build* are considered as frictions is that all of them delay the benefit that accrues from having public infrastructure in place. As emphasised by the National Competitiveness and Productivity Council (NCPC, 2023),[33] the delay in the delivery of public infrastructure can act as a constraint on economic activity, can lead to an increase in prices of goods that are provided and can have negative impact on the quality of life. This applies to all types of government investment, regardless of whether it is infrastructure, water supply, energy or housing.

[33] National Competitiveness & Productivity Council (2023) Ireland's Competitiveness Challenge 2023, September 2023

We attempt to quantify these issues by analysing the consequences of delays in planning and building times.[34] To do so, we use a model of Ireland as a small open economy, embedded in a monetary union and the rest of the world, with a rich fiscal sector (see Clancy, Jacquinot, and Lozej (2016)[35] and Hickey, Lozej, and Smyth (2018)).[36] We consider the ideal scenario with no time delays as the benchmark and compare the consequences of delays in planning and delays in building with this ideal scenario. In all cases, we consider a one-percentage point of output permanent increase in government capital expenditure above the level envisaged in *SPU 2024*. To account for the fact that it is likely that not all resources will be readily available due to capacity constraints, we consider a gradual increase of government investment expenditure over several years to the new level.

Macroeconomic consequences of delays in planning

Figure 27
Deviations from baseline



Source: author's calculations.

Planning (*time to plan)* delays (2-year and 5-year) cause a delay in government investment, which in turn causes public capital to increase later in the future (Figure 27). The delay transmits into delays throughout the economy, as output, private investment and trade also increase later, the longer is the delay in planning. Similarly, inflation increases further in the future, when

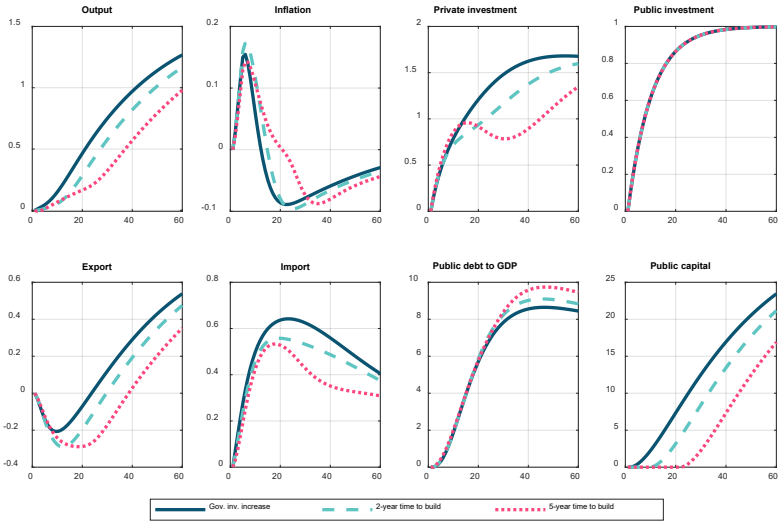
[34] We do not consider the uncertainty related to the duration of various delays, which is a friction in its own right.
[35] Clancy, D., Jacquinot, P., and Lozej, M. (2016). Government expenditure composition and fiscal policy spillovers in small open economies within a monetary union. *Journal of Macroeconomics*, *48*, 305-326.
[36] Hickey, R., Lozej, M. and Smyth, D. (2018) Irish Government Investment, Financing, and the Public Capital Stock *Quarterly Bulletin Article 03/July 18*

government investment takes place. More importantly, the benefits from higher public capital also accrue later in the future. For instance, the increase in output and the decrease in inflation that improves the external competitiveness of the economy when there are no frictions are now shifted further into the future. From the social welfare perspective, the benefits that occur far in the future are lower, because they are discounted for a longer period of time.

In addition to reaping the benefits later, the delays in public investment complicate the demand management of the economy, as the economy may be in a different stage of the business cycle when planning hurdles have been overcome. For instance, there could be a risk that, due to delays, the strongest economic stimulus from the projects in the pipeline materialises when the economy is already at the peak of the business cycle.

Macroeconomic consequences of delays in building (construction)

Figure 28
Deviations from baseline



Source: author's calculations.

Figure 28 shows the consequences of the delays in the building (construction) phase of public investment (*time to build)*. This includes unavoidable delays due to the technology involved in construction but also the impact of capacity constraints which slows down the increase in investment. Overall, the consequences are similar to the delays in planning. When there are construction delays, output increases later and more slowly, while the public debt increases for a longer period of time, because the benefits of higher public capital (and therefore higher tax revenues) are shifted farther into the future.

Inflation now occurs earlier (during the investment phase, as there are no delays in planning), and lingers on for longer, which damages the external competitiveness of the economy while the construction lasts. This can be seen in the stronger and more protracted decline in exports compared to the benchmark during the initial periods. While imports also increase by less when there is a delay in time to build, this is not sufficient to offset the difference in the decline in exports.

It is realistic to expect that delays related to planning, construction, and capacity constraints occur concurrently. It would therefore be prudent to minimise the delays that can be minimised and implement investment plans quickly. This would bring the benefits of public infrastructure closer and would make the management of the business cycle less uncertain to the extent that fluctuations further in the future are more difficult to predict.

5. Conclusions

The economy is at full employment in 2024 and, based on current projections, is expected to grow broadly in line with its estimated potential rate over the medium term. Although the headline budget balance has moved into surplus, when excess corporation tax receipts are excluded, the public finances would remain in deficit out to 2026. The underlying structural balance – a measure of the budgetary position excluding the effect of the economic cycle and windfall CT – is projected by the Department of Finance to remain broadly unchanged between 2024 and 2027, consistent with a neutral fiscal stance over this period.

The cost of maintaining existing public services in future years and the planned increases in capital spending are estimated to absorb a substantial proportion of the projected increases in overall core government expenditure out to 2027, consistent with the 5 per cent net spending rule. Our analysis shows that if the recent pattern of net spending growth exceeding the 5 per cent rule was to be repeated in future years, this would result in a stimulatory fiscal stance at a time when the economy is already growing at or above full capacity and would leave the public finances more exposed to adverse risks. This implies considered choices and tradeoffs will be faced in managing the public finances over the coming years. In particular, based on current projections there is limited scope for additional new expenditure increases or tax cuts in the absence of offsetting changes elsewhere in the budget.

Existing projections envisage strong growth in public capital spending over the coming years. This investment is needed to alleviate infrastructure deficits in housing and other parts of the economy and to enable compliance with emission reduction targets. In relation to the latter, Ireland will miss its legally binding 2030 targets based on EPA projections and additional investment will be needed to deliver compliance. Our scenario illustrates how, in the context of injecting stimulus into an economy with binding capacity constraints, offsetting fiscal measures could be used to manage potential overheating pressures while at the same time delivering needed additional investment in the green transition.

With the economy at full employment and the related need to mitigate overheating risks, along with known expenditure pressures linked to ageing and climate investment, it would be prudent to introduce measures that would contribute to increasing government revenue as a share of national income and broadening the tax base, in line with the recommendations of the Commission on Taxation. In the short run, this could help to ease inflationary pressures while public capital spending is being ramped up. Longer term, with material uncertainty over the sustainability of current revenue from corporation tax and concentration risks in other revenue sources, new revenue-raising measures would help to create a more sustainable tax revenue base and more resilient public finances with which future fiscal challenges can be addressed. To help guide fiscal policy in a sustainable direction, the Government should commit to a credible anchor for medium-term expenditure growth net of tax changes.

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