Irish Fiscal Advisory Council

Working paper series

The Irish Fiscal Advisory Council at 10 Years

Sebastian Barnes and Elliott Jordan-Doak

Working Paper No. 17

September 2022

Suggested reference:

Barnes, S., and Jordan-Doak, E. (2022). "The Irish Fiscal Advisory Council at 10 Years". Irish Fiscal Advisory Council Working Paper Series No. 17. Dublin.

The Irish Fiscal Advisory Council at 10 Years

Sebastian Barnes and Elliott Jordan-Doak[1]

September 2022

Abstract

The Global Financial Crisis and European sovereign debt crisis led a new wave of independent fiscal institutions (IFIs) to be created in the following years. Reflecting in part the experience of the Irish Banking crisis, the Irish Fiscal Advisory Council was formed in 2011 with a mandate to assess the government's macroeconomic forecasts, assess the public finances, and evaluate the overall fiscal stance. This paper provides both a survey of the contributions made by the Council and its work performed over the 10 years since its establishment, along with an overview of how fiscal and economy policymaking has evolved in Ireland over this period. This paper seeks to perform three tasks: to generate institutional memory for future policymakers and researchers, to employ current tools to historical fiscal and economic questions in Ireland, and to highlight some of the policy implications and lessons learned during an economically volatile period in the economic history of the State.

Keywords: Fiscal Policy, Fiscal Council
JEL No. E62, H3, H6

This report can be downloaded at www.FiscalCouncil.ie

---

[1] The authors are, respectively, the Chairperson and a Research Assistant Economist at the Irish Fiscal Advisory Council. Email: admin@fiscalcouncil.ie. The opinions expressed and arguments employed in this paper do not necessarily reflect the official views of the Fiscal Council. We would like to acknowledge the feedback and kind assistance received from members of the Council and Secretariat of the Fiscal Council.

Introduction

Ireland's economic performance in recent decades has been volatile, characterised by a history of strong economic growth, unbalanced credit-driven overextension, prolonged contraction and the implementation of painful fiscal adjustments. Most recently, the country has faced the Covid-19 crisis and surge in energy prices as the result of the war in Ukraine. Now and in the years ahead, generational challenges like an ageing society and climate change present further challenges for policymakers to overcome.

The Fiscal Council was set up in 2011 with the aim to improve fiscal policymaking and provide better outcomes for the Irish citizens, beginning on a statutory footing in December 2012. Formed as part of the international bailout agreement in 2010 between Ireland and the EU/IMF and responding to earlier domestic debate (Lane 2010), the Fiscal Council has a mandate to assess the budgetary forecasts produced by the government, endorse the macroeconomic forecasts where appropriate, assess the wider fiscal stance, and monitor compliance with the budgetary rule as set out in the Fiscal Responsibility Act.

A recent independent review found that in the 10 years since its inception, the Fiscal Council has played an important role in influencing both public and parliamentary debate on fiscal policy, along with a crucial role in encouraging enhanced transparency and improvements to management of the public finances within government (OECD, 2021). The Fiscal Council was designed to ensure that the mistakes of the pre-financial crisis era in Ireland were not repeated, and that fiscal policy was guided by best practice.

In the context of the Council's 10th anniversary, this paper has two objectives. First, we provide a critical overview of how fiscal policy has evolved in Ireland over the past two decades, both prior to and following the Council's creation, and we use our current suite of tools to assess issues like the fiscal stance and the output gap over this period. Secondly, we take stock of the assessments the Council has provided over the period since its inception, drawing on previous publications and commentary released by the Council, along with a recent OECD (2021) review of the Council's performance.

The paper aims to make three main contributions:

1. At this landmark moment for both the Council at 10 years and the economy as it recovers from the Covid-19 crisis, creating institutional memory of fiscal policy over the past decade is important for future advice issued by the Council.

2. By revisiting past developments with newer tools, we can draw insights into the impact that fiscal policies have had on the economy over a longer timeline.

3. The Irish economy faces several crucial generational challenges in an ageing population, climate change, and the need to move towards a more digitised economy. This will make the future of economic management in Ireland more challenging than the past. Drawing lessons from the recent past can help ensure that these challenges are met effectively.

This paper proceeds as follows. Section 1 focusses on the period 2000-2010 and the creation of the Council in 2011, detailing the years of extraordinary growth and subsequent economic collapse, with particular attention paid to the role of revenue buoyancy, discretionary easing, and the broader cyclicality of fiscal policy over this time.

Section 2 covers the consolidation period in the immediate years following the financial crisis: the loss of market access, and the subsequent adjustment requirements under the EU/IMF programme. This section also reviews the formation of the Council and its support and emphasis in its early years on restoring creditworthiness of the Irish State.

In Section 3, we discuss the recovery period from 2014-2019 and the Covid crisis, during which the Irish economy exceeded expectations to recover robustly on the back of strong external demand. The public finances regained a healthier position during this time, although not as rapidly as the wider macroeconomy rebounded. Government spending was not firmly anchored, notably in health, which was primarily offset by overperformance in key revenue sources, contributing to Ireland becoming steadily over reliant on corporation tax receipts from multinationals. While the Covid crisis led to significant budget deficits in 2020 and 2021 following dramatic declines in activity and the implementation of large-scale policy supports, the recovery was strong until the surge in energy prices in early 2022. Having entered the Covid crisis with a budget surplus, a return to budget balance is planned in the coming years, despite the increase in public investment under current spending plans and cost-of-living pressures, although helped in large part by higher corporation tax receipts.

Section 4 reviews progress made towards institutional budgetary reform over the 10 years since the creation of the Council. The Council itself was one element of a package of reform measures to be implemented by government in the years that followed the crisis. Despite regular calls from the Council for these reforms to be fully implemented or extended, many of them, particularly those relating to medium-term budgeting frameworks, were never effectively put into practice.

Section 5 offers an overview of the Irish economy and Irish fiscal policy in the wake of Covid-19 and the on-going cost-of-living crisis. This section of the paper draws particular attention to this time as a potential inflection period in the Irish economy as it moves towards the future and considers how the advice of the Fiscal Council might be received in a more challenging environment for policymakers.

These reflections are born out of the fact that, while the mistakes of the pre-global financial crisis may be less likely to be repeated due to institutional changes, longer-term challenges remain unmet, and overall progress towards improvements in fiscal institutions and medium-term budgeting remains mixed.

This paper suggests that, on balance, the advice offered by the Council since its inception has broadly been vindicated by the Irish macro-fiscal performance, external reviews, and the adoption of both changes in policy and specific technical changes by the Department of Finance to assessing and forecasting the Irish economy. Looking ahead, the question remains about whether the Council's guidance will be followed and allow Ireland to remain on a fiscally sustainable path while addressing major societal challenges.

Section 1: Economic Boom, Bust, and creation of the Council

Ireland experienced a remarkable period of boom and bust beginning from the mid-1990s until the 2008 banking crisis. This section is not intended as an exhaustive overview of Ireland's economy prior to the great recession, many of these details are now well known. Instead, we review some of the factors that led to Ireland's economic performance in the late 1990s and early 2000s. This period of expansion represented one of the strongest of any advanced economy, only then for Ireland to experience one of the worst reversals in economic history. We draw particular attention to the role of fiscal policy during this period.

The Celtic Tiger years

Ireland's rapid economic growth in the 1990s and early 2000s was the result of a confluence of domestic and international factors. The 1980s had seen the country weather a prolonged recession and debt crisis on the back of an inflationary and stagnant period for the global economy. The gap between government spending and revenues was tackled primarily with tax-raising measures initially, leading to foregone output as money was drawn out of the economy. However, a broad political consensus reached in 1987 on reorienting the economy towards export-oriented production and foreign investment, along with a shift towards reining in government expenditure, led the Exchequer in the direction of a more balanced position towards the end of the decade (e.g. Whelan, 2014; Lane, 2011; Fitzgerald, 1999).

At the same time, factor inputs in Ireland increased through favourable demographic trends and capital investment funded in part by the

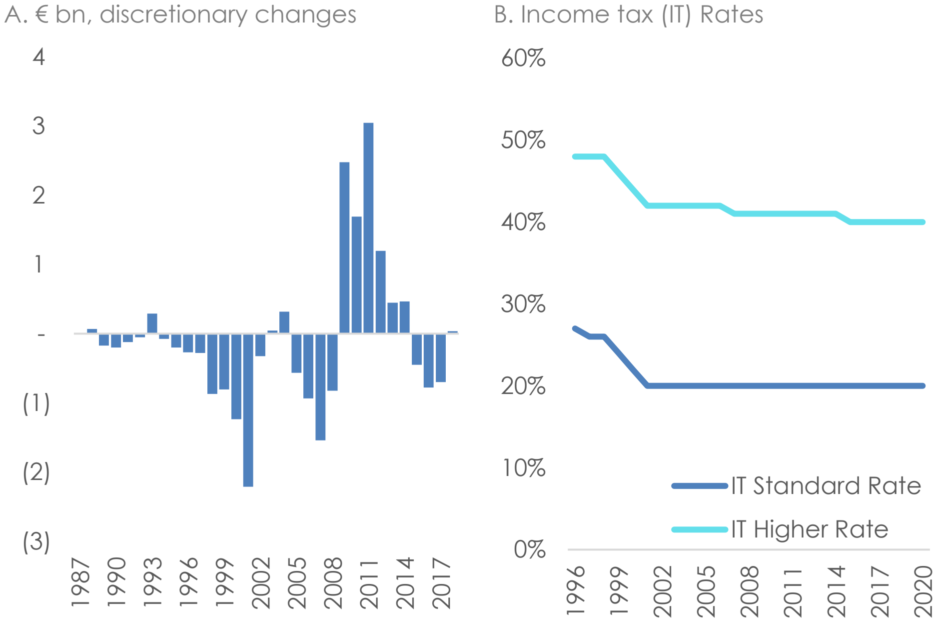
European Union. Ireland's labour force growth was supported by a later boom in births and the entrance of female workers into the labour force. It also had the added benefit of increased participation rates in education, leading to higher levels of human capital in the workforce.

External developments provided strong economic tailwinds during this time. Technological shifts towards a more digital global economy, the effects of globalisation on production costs and trade, and institutional developments in the European Union boosted Ireland's ability to attract foreign direct investment as a base to export to major markets. Large scale investments from multinational corporations (MNCs) led to positive spill overs in the domestic market as employment growth supported other sectors of the economy.

Taken together, productivity and output of the Irish economy increased rapidly, growing at an annual rate of around 5.6% from 1995-2007 in terms of real modified gross national income (real GNI*), one of the strongest performances of any advanced economy in the world since the Second World War, with Ireland becoming known as the "Celtic Tiger".

As a result of strong growth from the mid-1990s, the budget balance returned to surplus from 1997 and the debt ratio fell sharply as nominal growth increased the size of the economy, while interest rates on government debt continued to fall. Government expenditure grew at an average rate of over 12% on an annual basis but still fell as a share of national income. As can be seen in Figure 1.1 below, income taxes along with rates of social contributions were steadily reduced over the late 1990s and early 2000s. Although rates were incrementally cut, revenue remained buoyant and gradually increased as the economy expanded and employment continued to grow.

Figure 1.1: Income Tax Burdens Were Reduced In The Late 1990s and Early 2000s



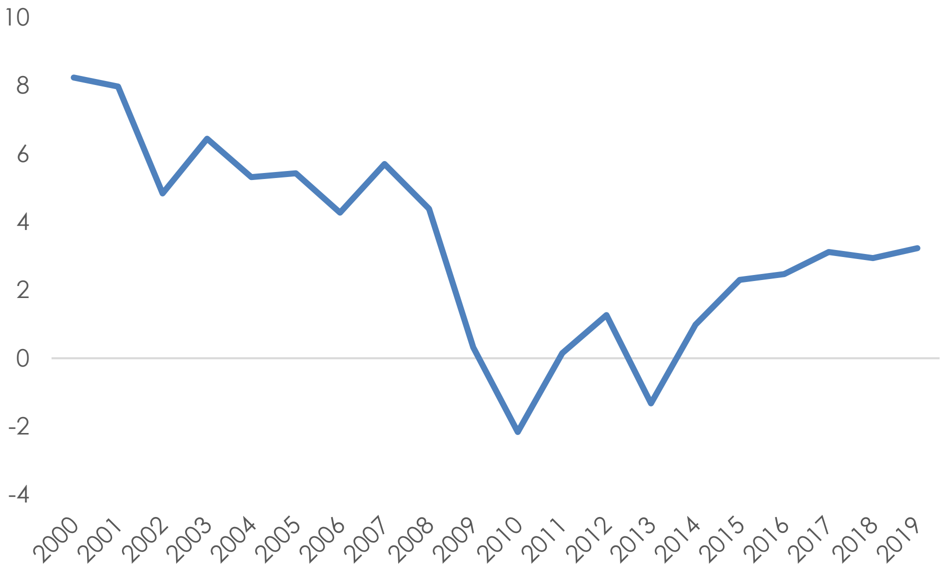
Source: Conroy (2021); Carroll (2021)

The Boom Years

The Irish economy rebounded quickly from the 2001 global recession with a return to growth and a balanced budget. However, the period from here until the slowdown in 2008 was characterised not by accelerated convergence to a steady state growth path as in the previous period, but of overextension, divergence from other European economies and a housing boom. With full employment effectively reached by this time, upward pressure on wages and prices became evident. While this boosted revenues, competitiveness had been eroded and labour productivity declined, which became reflected in the gradual reduction of net exports contributions to growth.

Figure 1.2: Wages increased as the economy reached full employment in the early 2000s

Annual % change non-agricultural wages per head



Source: CSO and Fiscal Council workings.

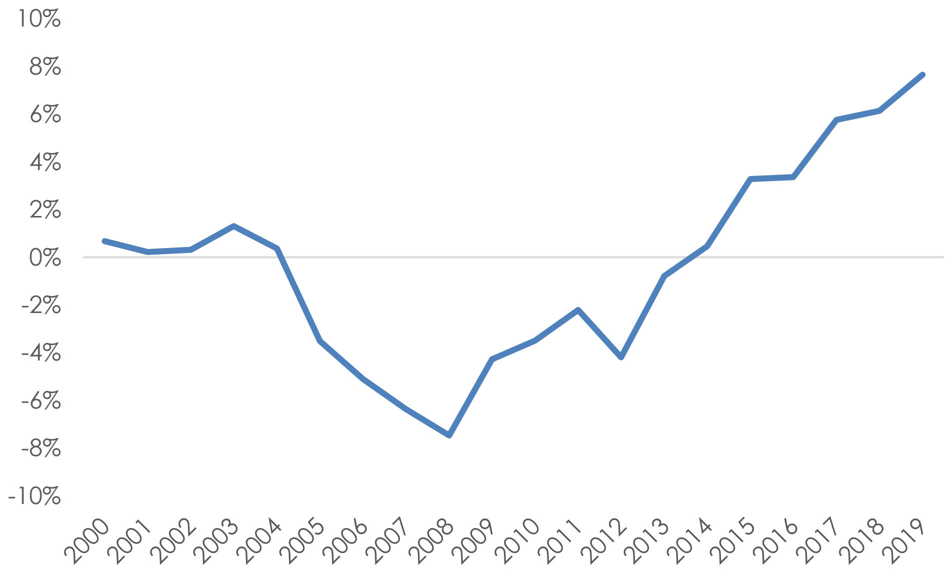
With Ireland now part of the Eurozone and without the ability to use monetary policy to moderate these developments, real interest rates drifted lower as inflation increased. Further to this, low nominal interest rates by historical standards on foot of Ireland joining the EMU led to banks lending at correspondingly lower rates to both households and firms, while they became heavily reliant on short-term market financing to fund the boom.

These factors contributed to credit growth and house price inflation. While first justified on valuation, income, and demographic factors, house prices began to spiral upwards, creating other imbalances in the economy. Employment became disproportionally funnelled into construction, with the investment boom boosting therefore labour related taxes while the wealth effect of rising house prices also lifted consumption.

Given the strength of these forces, broader domestic inflationary pressures increased but were perhaps surprisingly muted due to the inflow of capital and inward migration that helped to meet the strong demand, although wage pressures also increased somewhat in the early 2000s (Figure 1.2). Despite this, the domestic economy began to overheat quickly. The Council's estimates for Ireland show now that the economy was broadly running at capacity at the turn of the century, but by 2007 had a positive output gap of around 5.3 per cent of potential national income, with the upward trend broken only briefly by the recession in 2001. In addition, the current account (adjusted for distortions related to the multinational sector) deteriorated towards a large deficit, consistent with excess demand relative to the economy's ability to supply (Figure 1.3).

Figure 1.3: The Current Account balance deteriorated significantly running up to 2008

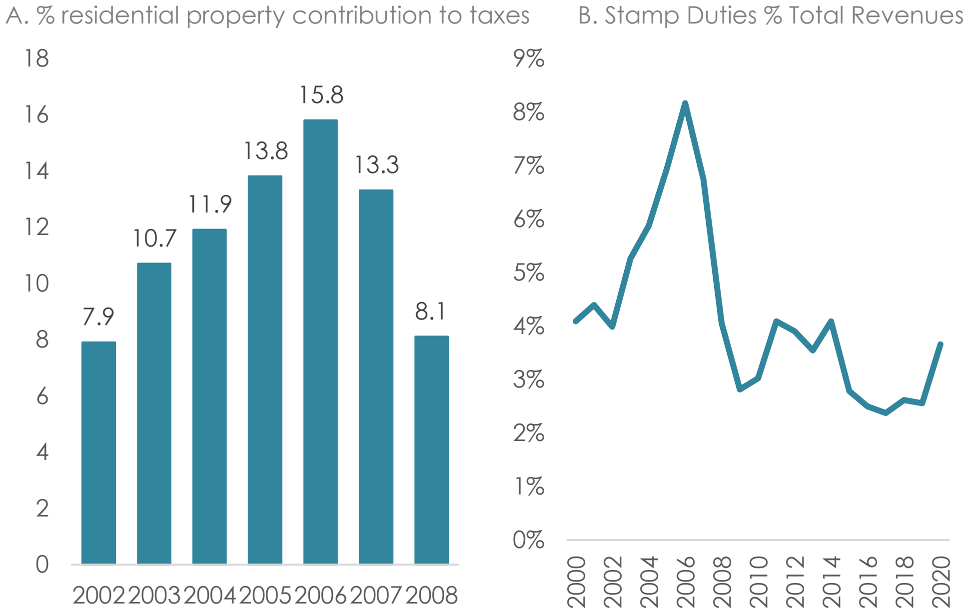
Modified current account %GNI*



Source: CSO and Fiscal Council workings.
Notes: The modified current account (CA*) adjusts for depreciation on R&D service imports and trade in IP, aircraft leasing depreciation, redomiciled incomes, R&D related IP exports, and adds back net aircraft related to leasing, R&D related IP imports, R&D service imports.

The cyclical richness of tax revenues was further boosted by the housing boom in areas such as stamp duties, where the share of total revenue intake from this source surged, increased VAT from the sale of new houses, and other asset related revenues. These windfalls were used to make discretionary tax cuts and to increase expenditure sharply, while still allowing for average headline budget surpluses of 1.7 per cent over from 2000-2007.

Figure 1.4: Revenue intake became increasingly reliant on property related activity



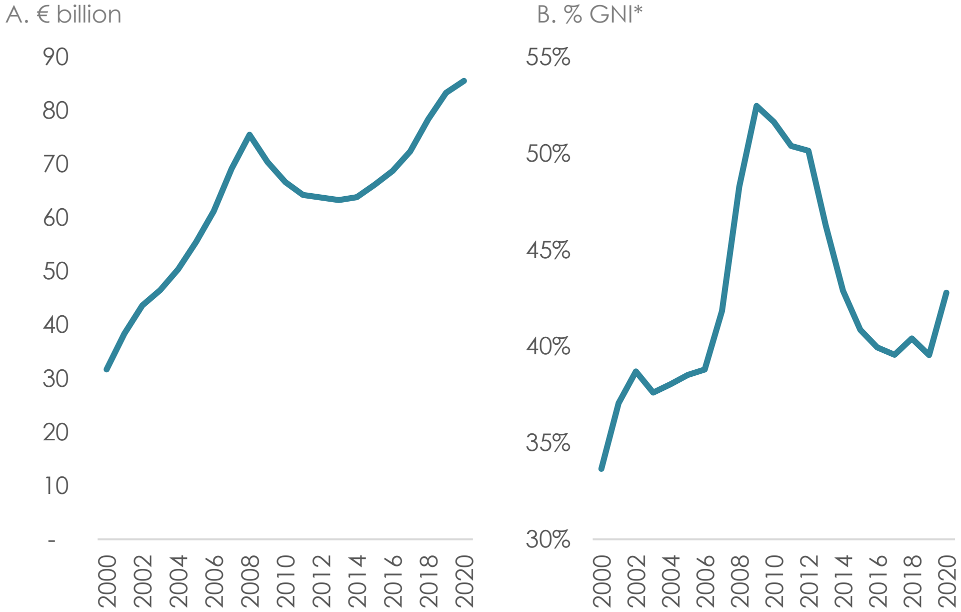
Source: Addison-Smyth and McQuinn (2010), Department of Finance and Fiscal Council workings.

While gross government debt fell from 42 per cent of national income in 2000 to 28.5 per cent in 2007, government spending almost doubled in cash terms from the early 2000s to the peak of the boom in 2007. Over this time, structural expenditure measured as total expenditure minus the sum of interest, cyclical and one-offs, is now estimated to have climbed from 33.7 per cent of modified national income in 2000 to 41.8 per cent in 2007.

One positive development over this time was the ongoing exchequer contribution to the National Pension Reserve Fund (NPRF), which by 2007 had accumulated over €15 billion (9 per cent of 2007 GNI*), which would ultimately be drawn down to help fund the deficit over the following years.[2]

[2] The NPRF had amassed at market value, an amount equal to over €21bn through annualised returns of around 6 per cent from 2001 to 2007.

Figure 1.5: Structural expenditure grew strongly in the 2000s



Source: Department of Finance, Department of Public Expenditure and Reform, CSO, and Fiscal Council workings.
Notes: Structural expenditure is defined as total expenditure minus the sum of interest payments, payments associated with the position of the economy in the business cycle, and one-off payments.

In short, while accumulated budget surpluses and growth helped to bring down the debt burden, these were based on unsustainable economic developments and tax revenues that masked the underlying narrowing of the tax base and strong spending growth. Improvements in the debt ratio due to higher nominal incomes were partly illusory.

By running a budget balance, the government was taking out more money from the economy in taxes than it was putting in through spending, consistent with a counter-cyclical policy. However, this was taking place on a scale far too small to fully counteract the effects of the boom. There was no marked tightening of the budget balance over this period. Moreover, the surplus was partly funded through windfall revenues linked to the property market. The reliance on transactions taxes meant that some of the financing to pay taxes was effectively being borrowed from abroad.

The 2008 banking crisis and the great recession

While the initial slowdown in the Irish economy and the peak of asset prices appears to have occurred in 2007, the global financial crisis and the associated turmoil in financial markets sent the country into a sharp and prolonged period of contraction.

The same virtuous circle that helped the economy grow in the previous years turned vicious, fuelling negative feedback loops through both the financial sector and the real economy. Credit provision and commercial funding in the financial system dried up, with private investment and demand for housing retreating sharply. Unemployment soared as construction related activity declined, shrinking both labour and income tax revenues, transaction taxes such as stamp duties collapsed and VAT shrank as consumption and housebuilding waned. The costs of social welfare claims soared quickly as the economy shed jobs. Prices also fell as aggregate demand contracted, increasing the real interest rate burden and further dampening tax revenues.

Figure 1.6: Employment was concentrated in the construction sector before 2008

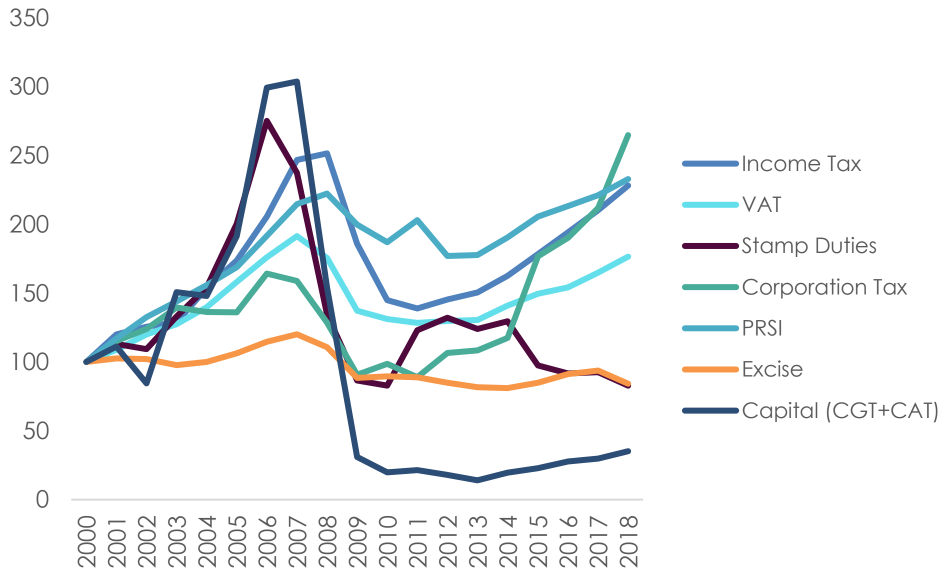
Construction Employment % Total Employment

Source: CSO and Fiscal Council workings.

This led to a massive swing in the government's budget balance, which went from being broadly balanced in 2007 to a deficit of over 17.5 per cent in 2009, despite emergency adjustments. Key revenue sources such as income tax and VAT fell by 13 and 26 per cent respectively over this period. Taxes that had benefited from the bubble in construction demonstrated an even greater collapse – intake from stamp duty fell by almost 71 per cent, while capital taxes dropped over 77 per cent. On a policy-adjusted basis, which accounts for tax adjustments made by government, the revenue falls would have been even greater with higher revenues being stronger prior to the crash (when taxes were being cut) and falling by more had it not been for some emergency revenue-raising measures (Figure 1.7).

Figure 1.7: Revenue from key sources collapsed during the great recession

Underlying Policy adjusted annual revenue, 2000 = 100



Source: Conroy (2019) and own workings.

Notes: Policy adjusted revenue intake accounts for policy changes to the taxation system, and presents an indication of the underlying developments in revenue intake in the absence of such changes.

The government's budget for 2009 included a sharp consolidation, with the initial value to be €2 billion in spending cuts and tax increases. Yet the speed of the deterioration in the public finances was so rapid as to necessitate two further, major contractions in the fiscal stance for 2009. The public sector pension levy was introduced in February of that year, yielding a further €2 billion in revenue. The pace of the economic collapse was then deemed to warrant a further €5.4 billion (4 per cent of GNI*) in adjustments as part of an emergency budget in April 2009, the most contractionary in decades. These consolidations totalled around 7 per cent of GNI* in 2009.

In addition to the fiscal problems associated with the economic imbalances that had been exposed by the collapse in construction, there were very severe problems in the Irish banking system that had been building for many years over the boom. Financial institutions in Ireland had built up loan books that had significant exposures to the construction sector, with both residential mortgages and commercial developer lending comprising a heavy share of financial sector activity. Banks has also become heavily reliant on short-term financing from capital markets, rather than domestic depositors.

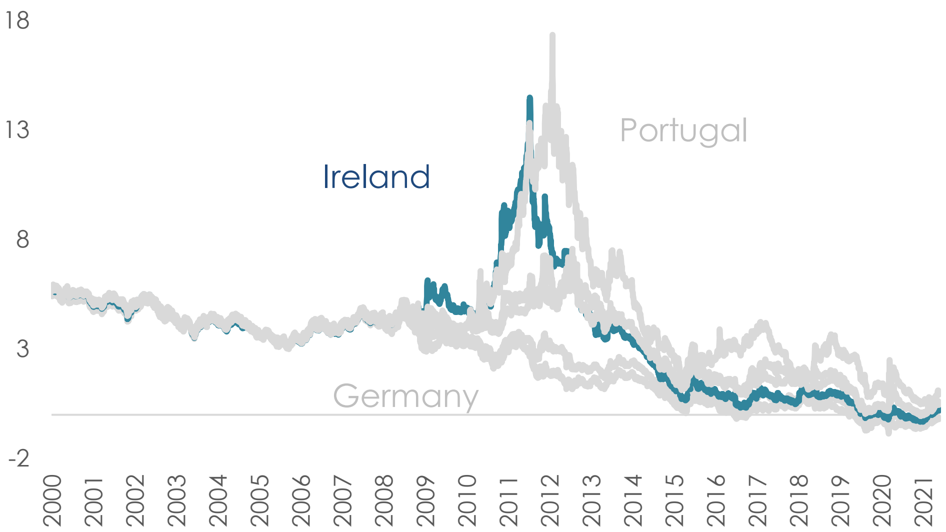
As borrowing conditions for Irish banks deteriorated severely, this had led the government to guarantee liabilities of the sector in 2008 for a two-year period over which time numerous capital injections were insufficient to backstop the losses associated with the banking system. Government in response established the National Asset Management Agency (NAMA) in 2009 to help reduce uncertainty relating to the overall levels of losses in the banking system by allowing NAMA as a 'bad bank' to purchase loans from financial institutions.

Estimates of the recapitalisation for financial institutions ran to around €64 billion in total, including more than €30 billion in promissory notes to strengthen bank liquidity. These were treated as capital transfers rather than acquisitions by the State, and were later replaced with government bonds (Barnes and Smyth, 2013). The 2010 transaction added the full value of the promissory notes to the stock of public debt, greatly increasing the headline budget deficit to around 40 per cent of national income, with around 27 per cent of this related to the liabilities of the banking sector.

By late 2010 when the original banking guarantee from the State had expired, financial institutions in Ireland found themselves unable to roll over maturing debt or stem capital withdrawals. This credit crunch had feedback effects through the well documented 'doom loop' between banks and sovereigns, resulting in Irish banks requiring ECB lending assistance for extraordinary amounts of emergency liquidity. The undermining of confidence in both the sovereign and the financial system continued as yields soared on Irish government bonds to prohibitively high rates, effectively locking the country out of international capital markets. At the peak of the financial market turmoil for Ireland in July 2011, spreads for Irish government bonds were almost 12 percentage points above the German counterpart, at 14.5 per cent for the Irish 10-year benchmark bond, a figure surpassed in the Eurozone only by Portugal and Greece (Figure 1.8). After a series of mixed signals from policy makers, the Irish government eventually entered a bailout agreement with the IMF and EU in November 2010.

Figure 1.8: Irish bond yields soared to one of the highest in Europe

10-Year Government Bond yields %



Source: Eikon

Notes: Greek 10-year bond yields are omitted.

Pre-crisis estimates of the Irish economy were misplaced

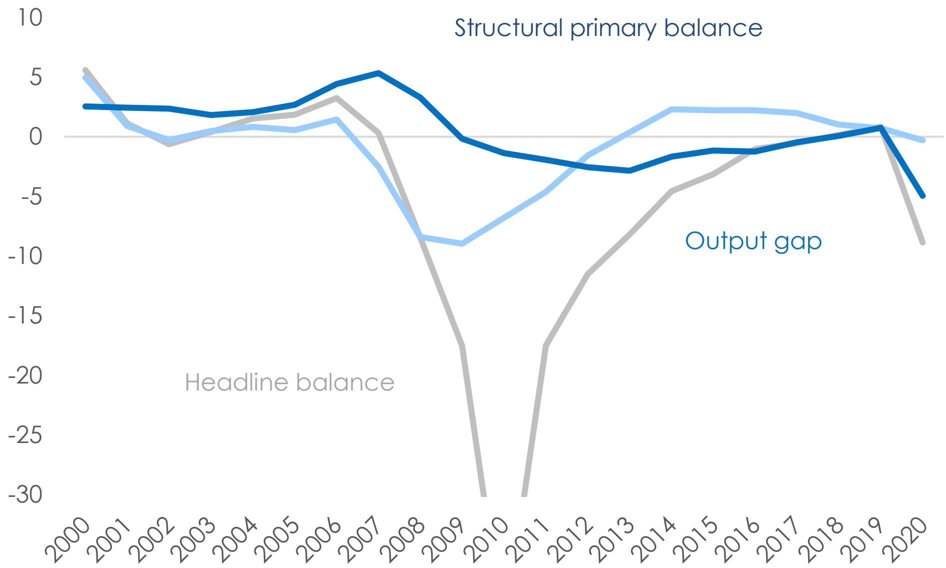
While a number of factors contributed to the boom and bust, particularly the interaction of macroeconomic forces and weaknesses in banking regulation, the lack of reliable real-time estimates of the underlying fiscal position may have contributed to underestimating the degree of overheating and overestimating the soundness of the public finances, contributing to an excessively expansionary and risky policy.

Estimates based on methods developed subsequently by the Council suggest that there was a substantial cyclical component to the budget balance in the run up to the crisis. On average between 2000 and 2007, the headline budget balance was inflated by almost one percentage point relative to the structural primary balance by cyclical factors. However, this was increasing, reaching 2.9 percentage points in 2007. While this may still understate the extent of the cycle, it would have been provided a clear signal of the risks.

One reason why the signal – even with this method – might not have strong enough is that is relies on a "top-down" measure of the underlying budgetary position, which extracts a component related to the output gap from the headline balance. However, this approach fails to take account of revenue buoyancy, particularly the richness of property-based revenues and also attributes any cyclical errors to the structural balance. This provides motivation for the development of bottom-up measures of the structural balance that adjust spending and taxes for discretionary changes (e.g. Hagemann, 1999). Nevertheless, the top-down approach suggests that structural surpluses were smaller and flatter than the headline balance in the run up to the crisis, (Figure 1.9)

Figure 1.9: The banking crisis exposed a large structural deficit and significant one-off fiscal costs

%GNI*

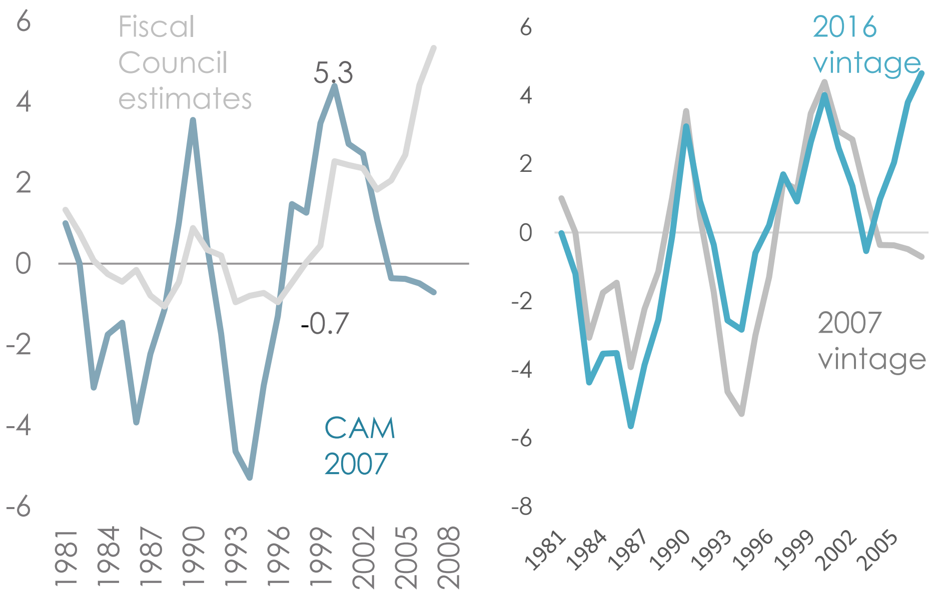


Source: Department of Finance and Fiscal Council workings.
Notes: Headline balance represents the fiscal performance of all arms of government, this will include costs such as banking recapitalisations and interest payments. The primary balance is government net borrowing or lending of government excluding interest payments. One-offs represent temporary discretionary fiscal measures by government, examples of these include temporary income supports or fixed period tax rate cuts. The structural balance is described in further detail in Box E.

Furthermore, estimates made at the time using the EU Commonly Agreed Methodology were even more inaccurate than current methods used above would have been, due to procyclical features of the approach. This method is known to be procyclical for a number of reasons (Casey and Barnes, 2019). In 2007, the CAM estimates suggested that the output gap was slightly negative and cyclical conditions had been slowing, while more recent estimates and other indicators suggest that cyclical overheating was large and had been increasing (Figure 1.10).

Figure 1.10: Real-time estimate of the output gap before the crisis were misleading

% potential output



Source: Department of Finance and Fiscal Council workings.

Creation of the Irish Fiscal Council

As contained in Oireachtas Budgetary Committee Recommendations and in EU/IMF bailout agreement, the National Recovery Plan 2011-2014 published in November 2010 proposed that a "Budgetary Advisory Council" be established to provide independent commentary on the government's economic and fiscal projections, alongside a new Fiscal Responsibility Law. These changes were eventually implemented through the establishment of the Irish Fiscal Advisory Council in 2011 and through the Fiscal Responsibility Act (FRA) in December 2012. By the time of the FRA, EU reforms and the Fiscal Compact Treaty had created roles for independent fiscal institutions in monitoring compliance with certain EU requirements. The FRA (2012) also set a domestic budgetary rule that mirrored EU requirements.[3] In 2013, following new requirements under the EU "two-pack" legislation, the Council's mandate was expanded to include endorsement of the macroeconomic projections.

[3] The Council contributed to this debate through a publication (Hagemann, 2012) on the complexities surrounding the fiscal rules for Ireland.

Box A: Budgetary reform in Ireland since the Financial Crisis

The creation of the Fiscal Council in 2011 was just one feature of a wider package of Irish budgetary reform agreed upon as part of Ireland's entry into the EU/IMF programme in 2010, and also reflected some proposals from the Joint Oireachtas Committee on Finance and the Public Service.[4]

These proposals were broad institutional changes, collectively designed to ensure that the pre-crisis policy mistakes would not be repeated. While the Council has championed many of these over the years, progress towards their implementation has often been slow, and eventual design leaving room for improvement.

This box revisits the scope of these reforms, the extent of their implementation to date, and how considerable scope remains for their ability to improve the budgetary framework in Ireland.

Reform Proposals under the National Recovery Plan and EU/IMF Programme

A wide range of reforms were made as part of the Ireland's recovery effort following the financial crisis, proposals for reform to the country's fiscal infrastructure took the following form:

- Annual budget process to include draft medium-term plans submitted in December of each year with the Budget itself, with these subject to consultation before submission to the EU each April, the following Budget would then be framed on the basis of the medium-term plans.
- Introduction of an expenditure framework that would include multi-annual ceilings in each area of spending.
- Creation of a Budgetary Advisory Council to provide an independent commentary on the budgetary plans and forecasts of government.
- Greater detail on public service outputs and the impact of spending programmes in the annual estimates through "performance budgeting".
- Legislation for a Fiscal Responsibility Law to put these reform measures and the principle of sustainable public finances on a statutory basis.

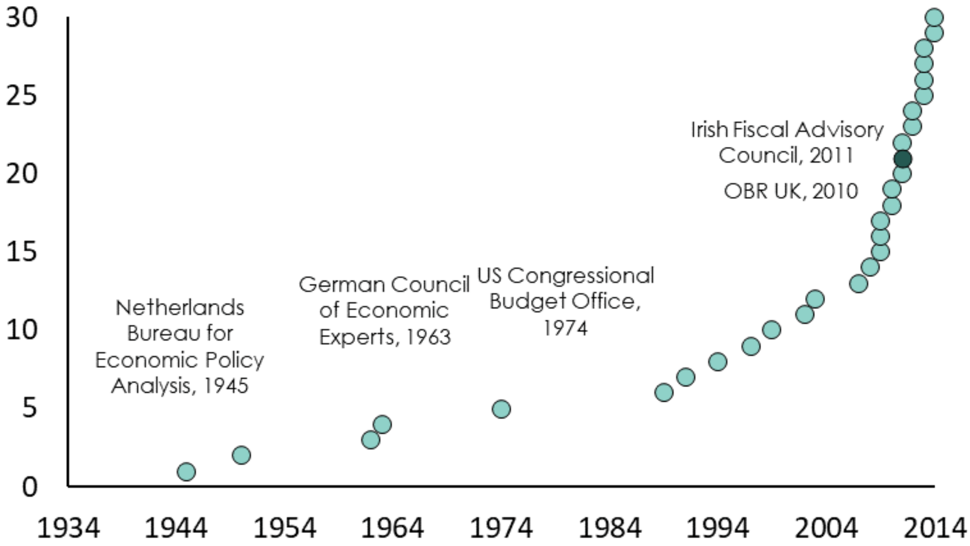
The creation of the Irish Fiscal Advisory Council in 2011 and the signing of the Fiscal Responsibility Act into law in 2012 saw the third and fifth of the above proposals implemented quickly and effectively. However, fundamental reforms to the medium-term budgeting took place more slowly.

The Irish Council was one of many independent fiscal institutions created in the most recent waves following the GFC (Figure 1.11). While this wave of the spread of fiscal councils began in programme countries, it gradually spread more widely as part of broader EU fiscal reforms, although some countries such as the Netherlands, Sweden, and the US had a longer history of relying on such institutions.

[4] This document also drew heavily upon commissioned work by Lane (2010)

Figure 1.11: Fiscal Councils proliferated since the great recession

Number of councils, cumulative



Source: Debrun and Kinda (2017).

In the Irish context however, it was clear that the policy mistakes of the past should not be repeated, with the mandate of the Fiscal Council reflecting this. The initial mandate was for the Council to:

1. Assess the soundness of the economic and budgetary projections and forecasts by government. This was extended in 2013 to include endorsing the macroeconomic projections.

2. Assess the short and medium-term fiscal stance set out by government, and whether this is conducive to prudent economic and budgetary management.

3. Provide an assessment of Budgetary compliance with the fiscal rules.

4. To perform other such functions as may be assigned by the Minister.

A likely contributing factor to development of imbalances in the Irish economy was a relative lack of domestic, independent expertise to scrutinise macroeconomic and fiscal policymaking in the country.[5] This interacted with a number of political and institutional factors that

[5] While the IMF and OECD did raise some concerns over developments prior to the crash, both institutions have been criticised for not adequately drawing attention to the build-up of imbalances in many economies (e.g., Pisani-Ferry, Sapir, Wolff; 2011).

allowed for or encouraged risk task. As argued by Calmfors and Wren-Lewis' (2011) a fiscal council could be expected to address many of these issues (see Box A for a more comprehensive overview of the literature).

Box B: How can fiscal councils improve policymaking

Historically, rationale for fiscal councils was to help governments pursue sustainable fiscal and economic policies. In the same vein as the literature on Central Bank independence and the ability to address inflationary bias, fiscal councils can be seen as institutions designed to minimise the risk of government's mismanaging the economy through inappropriate fiscal policy.[6] This box explores some of the mechanisms through which this possibility can arise, and how fiscal councils can help to mitigate the associated risks.

What Challenges Can Fiscal Council's Address

In their now well-known paper, Calmfors and Wren-Lewis (2011) provide seven fundamental problems inherent in how fiscal policy is conducted by governments and the potential role of councils relating to these issues, to which we add one further:[7]

1. **Electoral Considerations**: Politicians are ultimately accountable to the electorate. Redistributing resources can garner electoral support at election time and this can be more pronounced as an election approaches. Obscuring the true fiscal picture can also influence the way in which opposition parties conduct their electoral campaigns and influences the expectations of voters. Fiscal councils can evaluate whether resources are being used prudently and whether government projections are credible.

2. **Internal Political Considerations**: Similarly, Ministers face internal as well as external competition. Electorally valuable ministers may have more influence on reorientating spending towards their department, or may view the budget constraint as looser than a finance minister that wishes to keep spending in check. Fiscal councils can help stimulate peer and public pressure to encourage prudence and the optimal use of resources.

3. **Time Inconsistency Problems**: Both issues previously mentioned are exacerbated by the reality of the intertemporal budget constraint of the government versus the short-term incentives it faces. Both governments and voters may view the electoral and economic cycles in the same vein, where competitions are often fought every few years. This can lead to policymakers being tempted to eschew important longer-term decisions. Fiscal councils can help to highlight the importance of these issues and stimulate pressure

4. **Generational**: Related to the above, policymakers may wish to delay action on reforms that may incur a cost to the public, a good example of this is an unsustainable pension system or simply deficit financing. By bringing forward consumption and spending from the future, the government transfers the burden

[6] While much of the literature focusses on the topic through a political economy perspective, mismanagement can also be the result of simple human error. Typical examples often cited are deficit bias and procyclical policymaking.

[7] Wyplosz (2005) also explores many of these issues in the context of a potential role for fiscal institutions more generally in aiding fiscal policy.

to subsequent generations. Fiscal councils can draw attention to this and act in the interests of all citizens, both current and future.

5. **Information asymmetries**: It is not practical for voters, market participants, and other stakeholders to collect and analyse the full state of the economy, so they rely on the government to communicate this information. As noted however, politicians may have an incentive to release a certain amount or type of information. Furthermore, the analysis and forecasts they produce may still be subject to errors or the process to improvement. Fiscal councils have no incentive to communicate misinformation to the public and can help improve the forecasting and analytical capabilities of officials. A well-researched channel through which this can be achieved is through moderating the 'optimism bias' in official forecasting (e.g. Jonung and Larch, 2006; Debrun et al. 2012; Flyvbjerg and Bester, 2021). Fiscal councils can also improve how existing information is communicated to the public to promote a more informed public debate.

6. **Macroeconomic management**: Just as in the case of an independent monetary authority watching over inflation in the economy, a fiscal council can watch over the aggregate level of spending and the broader fiscal stance of the economy. While a council would not dictate day-to-day policy in the same vein as a central bank, it can act as an important and independent stakeholder in the broader macro-fiscal debate.

7. **Monitoring Compliance with Fiscal Rules**: A country's fiscal rules may be designed to encourage prudent management of the public finances, but may prove ineffective if they are not put on legislative footing or if the government in question can easily treat them as a 'soft' budget constraint. A fiscal council can operate with a mandate to specifically monitor compliance with domestic or international fiscal rules. Researchers have noted that reforms to fiscal rules, for example in the EU, may necessitate greater involvement of fiscal councils in monitoring compliance going forward.[8]

8. **Deepening economic and fiscal analysis.** Governments have multiple objectives and tasks and officials work to support this work. Creating a specialist, expert body with a mandate to analyse the public finances can help to improve analysis and data around the public finances and fiscal policy.

Overall, key themes running through these potentials are the ability of fiscal councils to increase transparency, hold politicians to account for fiscal outcomes and to develop analysis around fiscal policy.

Maintaining Effective Fiscal Councils

Fundamentally, the nature of most fiscal councils is to offer an independent evaluation of the macroeconomy and the public finances. This comes with reputational risks for the council and the ever-present threat of being undermined, misrepresented, or ultimately censored by government.[9] It is paramount that in order to operate effectively, the independence of fiscal councils must be respected. Hagemann (2011) goes further to argue that while fiscal councils represent a necessary condition for achieving disciplined fiscal performance, this is insufficient for achieving sustained improvements in the overall fiscal performance of a country without political commitment to both a medium-term fiscal goal and the mandate of the council itself.

[8] Blanchard, Leandro, Zettelmeyer (2021) have been prominent supporters of this approach.

[9] Examples of such occurrences were in Hungary, Canada, and Sweden (Calmfors & Wren-Lewis, 2011)

A number of the pillars set out in the Department of Finance Budgetary Reform Document (2011) on the design criteria of fiscal councils, particularly with respect to their mandate of providing robust and independent economic analysis, helped shape the eventual implementation of the Irish Fiscal Advisory Council and highlight these factors.

Independence is at the core of the Fiscal Council's institutional structure and its operations and were strengthened based on feedback from the original Council members before the Council was put on a legislative footing, particularly with regard to the size and safeguarding of its budget. Funding for the Council is non-voted government expenditure, and as such is protected for political interference by law as set out in the Fiscal Responsibility Act (FRA). The independence and expertise of Council members is another key feature. The FAR sets out that they should hold "competence and experience in domestic or international macroeconomic or fiscal matters". This has been well-respected and strengthened as part of wider measures on appointments to State boards. Council members have been drawn from backgrounds in academia, international organisations, government, and think-tanks.

Section 2: The Fiscal Crisis and Early Years of the Council

At the point when the Council was created, Ireland was subject to the budgetary and other economic requirements of the Programme agreed with the Troika of the IMF, the European Commission and the ECB.

Following the emergency measures in 2009 and 2010, the macro-fiscal situation in the State remained perilous, and the broader economic outlook in Ireland and the Eurozone uncertain. The unemployment rate had reached its peak at 15.5 per cent, the stock of public debt exceeded 150 per cent of national income, GNI* had fallen 16.5 per cent in real terms since 2007, coupled with this, prohibitively high interest rates had frozen Ireland out of capital markets.

Against this backdrop, the government now set about implementing a series of contractionary budgets over a number of years designed to restore the creditworthiness of the State and allow it to return to market-based finance. These considerations formed the background of the Fiscal Council's initial meeting in August 2011 and the context in which the first Fiscal Assessment Report was produced that October.

Given the challenging economic and budgetary climate at the time, the Council placed high importance on producing its work quickly, despite limited resources, to fulfil its mandate and to begin to develop experience. The October 2011 Fiscal Assessment Report established the pattern followed by all later reports. This included a basic framework to assess the fiscal stance in terms of a set of competing factors. As the report noted:

> "*Given the challenges posed by the fiscal deterioration experienced in Ireland and the need to put the economy back onto a sustainable growth path, it is imperative that a balance is struck between restoring the public finances, improving the credibility and creditworthiness of the State, and avoiding undue harm to the economy at a time of weak domestic demand.*"

This basic framework, guided by a need to support the economy and incomes, while also ensuring prudent management of the public finances, would help to form the basis for the Fiscal Council's subsequent assessments.

The adjustments to be made as part of the EU/IMF package were estimated in 2011 to run to an average of around €3 billion each year to 2015, which the Department of Finance estimated would bring the primary balance to a surplus of approximately 2.9 per cent of national income by 2015.[10] The consolidation efforts planned as part of the National Recovery Plan (NRP) came in the wake of the already large cuts to spending and tax raises in 2008-2010.

The Council was largely supportive of the planned consolidation, and even argued for stronger adjustments in both its 2011 and November 2021 Fiscal Assessment Reports (FARs). These reports noted that, although the course of action outlined by government was appropriate in each case, the downward path for the debt and deficit was deemed relatively slow, given the elevated stock and uncertain growth prospects. It is important to note two factors with respect to this assessment.

First, arguing for greater adjustment was not done lightly. The Council was acutely aware that the burden of adjustment would have on the domestic economy. It was also aware of the political cost this would entail and the extent to which the adjustment would result in foregone output. The Council considered carefully the risks of a self-defeating consolidation, whereby tightening of policy would have such a severe effect on revenues and incomes as to weaken the public finances. However, while it was recognised that the downward effect on national income of consolidation could boost the debt ratio, fiscal adjustment would narrow the deficit in actual and structural terms and ultimately help to strengthen the public finances. The main risk to rebuilding the public finances was of further larger costs relating to the banking system: while the Council was not in position directly to assess this, the repeated waves of recapitalisation and the transfer of assets to NAMA were viewed as having likely recognised the main losses through these channels.

Second, given the extraordinary circumstances of both Ireland and the Eurozone at large, planning for a greater degree of consolidation than the minimum requirement was aimed at providing a degree of

[10] The National Recovery Plan stated that the annual adjustments were to be front-loaded, with 10% of a €10bn adjustment over 2010-2014 to occur in 2011, the SPU in 2011 included an additional adjustment in 2015 worth €2bn which would contribute to increasing the primary balance to 2.9% of GDP.

insurance that the minimum level of adjustment would still be made even if circumstances were to worsen.[11] This was important to meet Programme targets and maintaining access to financing, including avoiding the risk that Programme targets would be missed and more consolidation would ultimately be required by the official creditors. [12]

Government projections of planned adjustments at the time gave no indication of the macroeconomic mix that they would take, or which areas these spending or revenue changes would come from. This weakness was raised as a concern in the first FAR, and has become an ongoing feature of the Council's work — that medium-term forecasting by government should be improved on the grounds to improve credibility, while also allowing for a greater degree of analysis and hence better policy outcomes.

Box C: The Council's approach to assessing the fiscal stance

The Council has a mandate to "provide an assessment of whether the fiscal stance for the year or years concerned is, in the opinion of the Fiscal Council, conducive to prudent economic and budgetary management, including by reference to the provisions of the Stability and Growth Pact". While many independent fiscal institutions (IFIs) comment on the fiscal stance in some way, it is unusual to have such an explicit mandate to assess the fiscal stance: only three other IFIs in the EU have this mandate and some of these were inspired directly by the Irish model.

While the Council's assessments of the stance have evolved as circumstances changed, the underlying approach has been consistent since the Council's creation.

The Council assesses the appropriateness of policy "within a range of appropriate policies". This reflects that there may be legitimate differences in the assessment of factors feeding into the assessment of the fiscal stance and that budgetary policy is not an exact science. There is a range of policies that could be appropriate, depending on the preference for risk and how competing factors are weighed. However, there are limits to this range, where a point is reached beyond which policy cannot be viewed as appropriate.

The Council has never explicitly defined the "range" of appropriate policies. This reflects both the uncertainties of this assessment and its reliance on judgement,

[11] The 2011 forecasts had also just followed numerous downward revisions to growth, increasing this uncertainty.

[12] While the Council's November 2012 assessment made the case for greater adjustment than Government plans, positive surprises had resulted in the requirements being scaled back from the previous year's FAR.

but also a desire to avoid creating an implicit target for any government to try to run the maximum risks without triggering an adverse assessment. The assessment of the stance is undertaken relative to the government's Budget or SPU plans. While there are usually some margins around this plan in terms of what is appropriate, at times the requirements have been more precise either in terms of Troika requirements or where the government laid out specific plans and the Council assessed that for credibility it was important these specific commitments were delivered. At times, the Council has indicated that tighter/looser policies could be more appropriate, while still assessing the planned policies as being within the range of appropriate policies.

The appropriateness of the fiscal stance is assessed by the Council using judgement, but based on a thorough assessment of the economic and budgetary situation. The fiscal stance is defined in the Fiscal Responsibility Act in terms of the underlying or "structural" primary balance.

The Council's framework weighs a number of factors:

Fiscal credibility and market access. The ability to borrow at reasonable interest rates is crucial to underpin the sustainability of the public finances. For a small open economy in a monetary union, there is an inherent fragility to the ability to raise government debt. Credibility can be achieved both through the policies that are delivered and through mechanisms, such as credible commitments, that provide reassurance to investors. During the crisis years, restoring market access and lowering borrowing costs was a high priority. Interest rates and market financing conditions are key indicators.

Sound economic management. This requires fiscal policy to act in a countercyclical way, taking money out of the economy when there are overheating risks and running larger deficits when demand is weak. During the crisis years, it would have been desirable to support the adjustment towards more sustainable levels of activity but this would have prevented the necessary improvement in borrowing conditions. In the late 2010s, risks of overheating warranted a slightly more cautious approach to the fiscal stance. The output gap, current account and indicators of macroeconomic imbalances and risks are key parts of these assessments.

Fiscal sustainability. Budgetary policies need to be sustainable over time to achieve a predictable environment for spending, taxes and the economy more widely. This has a medium-term focus of at least 5 years and preferably far longer, including recognising sustainability risks from population ageing, climate change and other long-term challenges. Medium-term fiscal projections and the Long-Term Sustainability Reports are key inputs to how the Council assesses fiscal sustainability.

Compliance with the EU fiscal rules. The EU fiscal rules are intended to support sound economic and budgetary management and complying with them is beneficial to Irish fiscal credibility and the effective functioning of the monetary union. As with any commitment device, the rules can be a blunt instrument and may not be precisely optimal. But the Council has assessed that there should be a presumption that the EU rules are at least complied with. At times, the Council has assessed that a tighter stance than the minimum requirements of the EU rules was appropriate. In 2015, the Council assessed that measurement issues in the Expenditure Benchmark would have implied an excessively restrictive stance

(Fiscal Council, 2015), which was resolved by changes at EU level in the measurement of the Benchmark.

These factors have at times implied trade-offs, particularly during the crisis years where consolidation was necessary, given the conditions on financing from the IMF and EU support mechanisms and to restore market access. However, this also implied that fiscal policy was contributing to the downturn. In the late 2010s, these factors pulled in the same direction with a relatively neutral fiscal stance contributing both to sound economic and budgetary management. During the Covid-19 pandemic, the need to support the economy was a priority, but manageable from a fiscal sustainability and market access point of view.

The Council's mandate focusses on the overall fiscal stance in terms of the balance rather than on specific choices around spending and taxation policies. Nevertheless, the Council at times has raised concerns around specific fiscal choices where these had implications for the overall stance. For example, the low level of public investment in the mid-2010s was noted as unrealistic from a forecasting perspective and potentially undermining future economic growth.

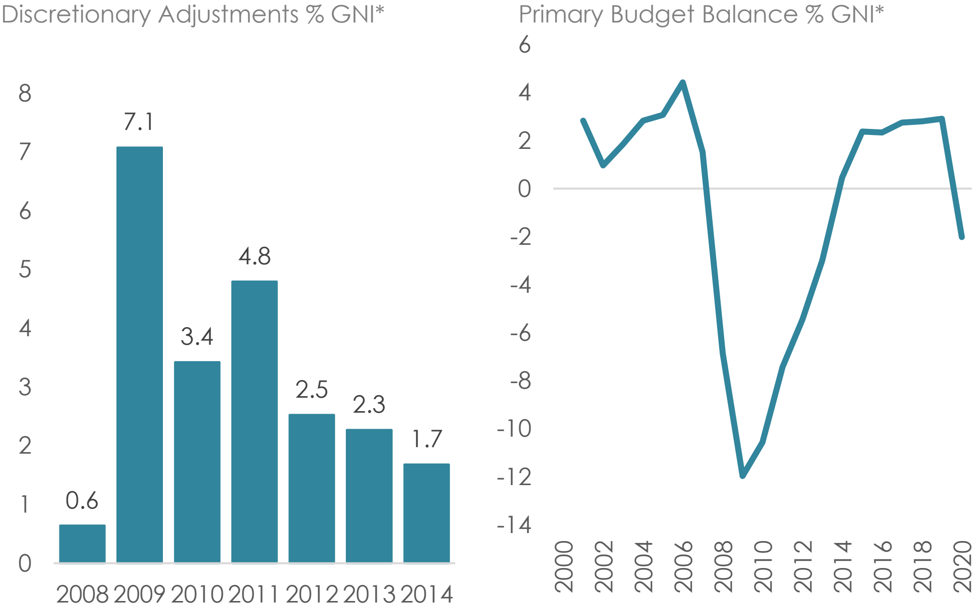
A changing landscape

By November 2013 when the Fiscal Council released its fifth FAR, the economic context had already begun to evolve, with policymaking responding to this. Interest rates had fallen considerably from their 2011 peak of almost 15 per cent, to around 3.5 per cent at the time of publication, the prospects for growth were more favourable that previously expected, and progress on reducing the budget deficit had been significant.

Years of contractionary fiscal policy, stronger than expected external demand, and the reduction of existential uncertainty in Europe had seen the Irish government succeed in reducing the budget deficit and restoring the public finances towards a more credible position. Important institutional developments at home and abroad had also contributed to and enhanced budgetary framework in Ireland and the fiscal architecture in the EU more generally.

On the fiscal side, the cumulative adjustment effort from policy to reduce the budget deficit over the period 2008-2014 reached around €30 billion, worth approximately 20 per cent of 2014 national income (Scott and Bedogni, 2017) (Figure 2.1). These sustained rounds of consolidation and structural reform also improved the structural balance (Figure 2.2) and allowed the country to exit the EU/IMF programme worth a total of €65.5 billion in loans, leading to a return to market-based finance by the end of 2013. Additionally, it helped contribute to the budget deficit falling below the 3 per cent ceiling as outlined in the Excessive Deficit Procedure, by 2015.[13]

Figure 2.1: Strong adjustments helped reduce the deficit



Source: CSO, Department of Finance, Scott and Bedogni (2017) and Fiscal Council workings.
Notes: One-offs including bank recapitalisations are removed from the years prior to 2020 in panel B to show the comparable underlying budgetary balances being run.

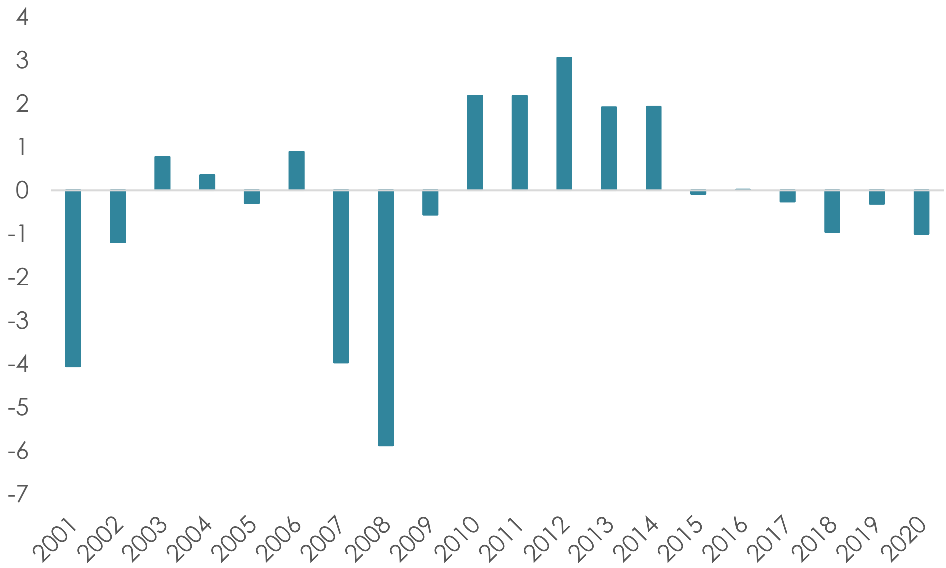
The economy ultimately also rebounded despite the contractionary nature of the fiscal stance over seven years.[14] Following the initial collapse in output, which saw the economy shrink by an average of 7 per cent over 2008 and 2009, modified gross national income recorded three further years of contraction to leave the peak to through swing at over 18 per cent. From here, the economy rebounded rapidly in both 2013 and 2014, with an average growth rate of 7.6 per cent, leaving the

[13] The well documented surges in multinational activity in Ireland, particularly with respect to intangibles, intellectual property and research and development contributed significantly to large increases in GDP in 2015, boosting the denominator and flattering the budget deficit figure when scaled against GDP.
[14] SPU 2014 had actually initially outlined further consolidation beyond this period through targeting a balanced structural budget by 2018, an aim which went beyond the minimum requirements of the EU framework.

unemployment rate at 10.8 per cent by the end of 2014, down from its 2012 peak of 16.1 per cent.

Figure 2.2: The structural balance gradually improved after adjustments began

Annual changes (% GNI*)



Source: Department of Finance and Fiscal Council workings.

These developments marked key inflection points for the Irish economy and fiscal policy. While the budget deficit had narrowed considerably to 4.6 per cent of national income and Ireland gradually began to borrow on international markets again from 2014, uncertainty about the future path of the economy remained high, potentially leaving a large structural gap between spending and revenues.

A new role for the Council

The Council's mandate for was extended in a significant way with a new endorsement function. Prior to July 2013, the Council had been tasked with "assessing" the forecasts produced by government, with policymakers under no obligation to act upon the output of the Council.

However, EU's 2013 "Two Pack" required that official macroeconomic forecasts submitted to the EU should either be undertaken independently or, as in Ireland, produced by the Department of Finance but with the Council responsible endorsing the forecasts. This was intended to improve the accuracy of forecasts, particularly to reduce "optimism bias" where governments in some EU countries produced too optimistic forecasts that would make the public finances look healthier than they really are. While there is not strong evidence that this was a systematic problem in official Irish forecasts, the unpredictability of the Irish economy has long been a challenging to economic policy (Casey and Smyth, 2015; Quill, 2008; McCarthy, 2004).

The endorsement mandate led the Council to rapidly upgrade its macroeconomic forecasting capability by using a suite of models approach, a strategy that has been both widely used by other institutions to inform policymaking (e.g. Burgess et al. 2013, OECD, 2011), and is noted as being particularly suitable where there is an urgent need for the development of foundational expertise (e.g. OECD, 2021). While the Council's work initially closely followed the approach using by the Department of Finance, ESRI and central bank, this has enriched over time as new tools have been developed. The objective is to ensure that the Council has a solid understanding of economic developments and the relevant issues to each forecast.

The Council's approach to the endorsement function is built upon three pillars. First, its Secretariat produces a set of benchmark macroeconomic projections over the medium-term, against which the Department of Finance's forecasts are assessed and those of other bodies. While the benchmarks are not official forecasts from the Council and are not published until the subsequent FAR, developing the projections is key to building the Council's understanding of economic developments and understanding the official forecasts.

The second pillar involves the Council and Secretariat giving consideration to the methodologies used to produce these forecasts. This aims to ensure that the official forecasts are soundly based, even if the point forecasts happen to be close to those of the benchmarks. This includes looking carefully at the assumptions and judgements used by the Department of Finance. Importantly for Ireland, the relative role of the domestic economy to that of the non-national sector is more important for Ireland's fiscal and macroeconomic outturns, and also as a more representative way to capture the tax base and assess repayment capacity, the Council has made considerable strides to produce new methodological tools and to champion moves towards using metrics more closely aligned with the underlying economy in an attempt to improve the accuracy of forecasting in the country.[15]

The third pillar is reviewing the Department's past forecast errors for evidence of systematic bias. While forecast errors are inevitable, systemic patterns of error can signal a bias or weakness in the forecasting methods. A key issue across many endorsements has been the composition of growth between external and domestic factors, where there have been some differences between the benchmarks and the official forecasts and where in some areas there have been persistent errors in the same direction, notably around the forecasts for government spending.

Collectively, given the credibility at the Council being at stake as part of the endorsement function, the necessity to generate the Council's forecasts to a high standard, and the subsequent manner in which this has driven improvements around forecasting within government itself, has been cited as one of the most important contributions of the Fiscal Council to date (OECD, 2021).

One of the main outcomes of the endorsement process has been the adoption by the Department of Finance of an alternative approach to measuring the output gap. This reflects in part a long-standing effort by the Council. Analysis by the Council carefully documented the weaknesses in the EU Commonly Agreed Methodology (CAM) approach, the fact that many other EU countries used alternative methods and developed methods that were more appropriate for Ireland. While recognising the limitations of any measure of potential output, the Council has always underlined the importance of good measures of potential output both to understand the cyclical position of

[15] One notable example of this has been the emphasis placed by the Council on moving towards greater usage of GNI*, a measure of national income that attempts to remove the distortions of the international sector on traditional measures like GDP.

the economy and the public finances, and as part of the narrative guiding the forecasts more widely. In June 2017, the Council noted that "future endorsements would be at risk" if the Department of Finance did not use an appropriate methodology for estimating potential output. This was consistent with the methodological pillar of the Council's approach to endorsement, while recognising that development of a new method would take some time. In April 2018, the Department of Finance produced the first alternative measures that have since become the main measure in official documents with the EU method being retained where required by the EU rules.

Box D: Measuring Potential output in Ireland

Estimating the economy's current level of activity relative to its 'steady state' is highly important for assessing the appropriate fiscal stance and macroeconomic policies. As part of the European fiscal framework, the CAM has been employed by the European Commission and EU Member States EU to estimate potential output and the associated output gap since the early 2000s. While fiscal surveillance in the EU of the output gap and the structural balance is potentially helpful, it has still been subject to repeated rounds of criticism since its implementation.

In the Irish context, the Department of Finance had highlighted its concerns regarding the utility of the CAM for estimating Ireland's potential output as far back as 2003.[16] Similarly, the Council has on many occasions outlined its own reservations regarding the approach, and has devoted considerable efforts to the development of more appropriate ways in which Ireland's potential output could be measured. This box presents an overview of the main limitations of the CAM with respect to the Irish economy and discusses some of the work that has been produced by the Council to improve how potential output can best be measured for Ireland.

Limitations of the CAM

The central feature of the CAM is that it relies on a production function approach to estimating potential output. With a constant returns to scale assumption the representation takes the standard form:

$$PO = AL^{\alpha}K^{1-\alpha}$$

Where potential output is a function of both trend labour and capital inputs, and a technological/productivity multiplier.

1. Estimating the natural rate of unemployment: one of the key variables that forms the labour input into the expression above is the non-accelerating

[16] See Fiscal Council (2018).

wage rate of unemployment (NAWRU). This essentially is a conceptualisation of the natural rate of unemployment in the economy. While supply side shocks may result in structural changes in the economy that lead to a changing NAWRU, the rate should intuitively be relatively stable in the short run. In effect however, what is obtained by the CAMs estimate of the NAWRU is clearly overly procyclical (Figure D.1).

2. Full employment of Capital: Estimations produced by the CAM assume that when the economy is at potential, the capital stock is fully utilised. This is uncontroversial from a macroeconomic theory viewpoint, but has some idiosyncratic weaknesses when applied to the Irish economy. The main one being the well documented distortions made to the capital stock by the multinational sector (e.g. ESRG, 2016).

3. Inaccurate measurement of TFP: One of the most common ways to assess the contribution of TFP to output is to simply calculate this as the residual between output and the contributions made by labour and capital. However, it should be clear from the above that were these inputs to be inaccurately measured, the eventual residual characterised as TFP would be mismeasured too.

4. Enforced closure of the output gap: While an optional feature of the CAM, some applications of the approach require that the output gap be mechanically closed over the medium term, implying that the economy returns back to its equilibrium over this time. Practically speaking, this often involves assuming that growth reverts back to trend levels and therefore results in an output gap closure over a three year period from $t + 1$ to $t + 5$.[17] While this approach can be useful for essentially assuming away the uncertainty regarding demand shocks over a short period, similarly, there are clear instances which may suggest that the economy could consistently perform above or below its potential output level for a period of 5 years for example.[18]

5. Inappropriate scaling: National output is measured across EU members by using GDP for all countries. As has been well documented, this approach is unsuitable for the Irish economy. In the context of the estimation of potential output, it is similarly inappropriate in that the distortions of the multinational-dominated sectors are incorrectly employed as drivers of employment and domestic activity in the real economy.

Efforts to Improve Measurements of Potential Output

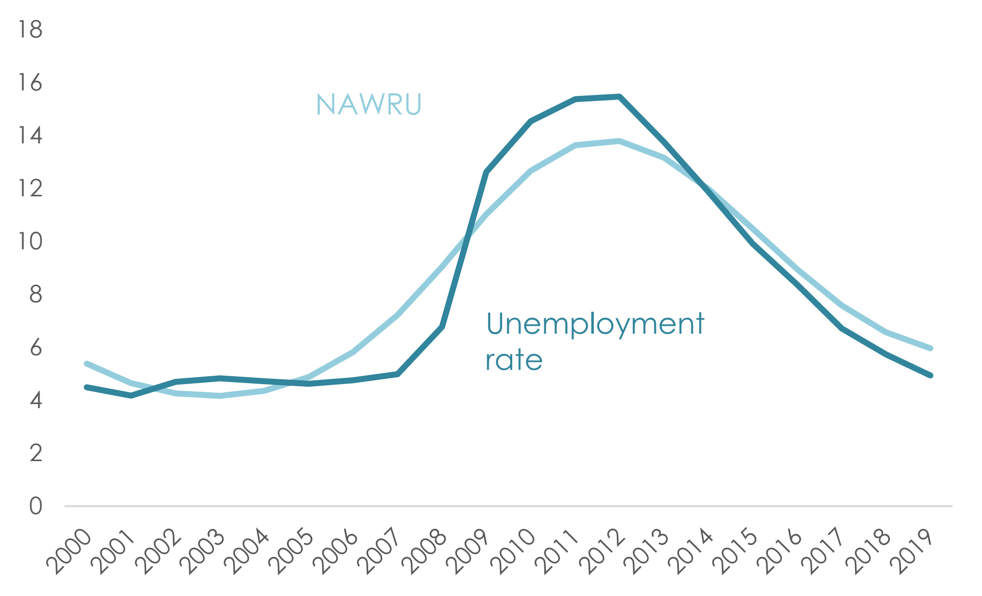
Both the Council and the Department of Finance have devoted considerable resources to towards improving the measurement of potential output. From the

[17] This approach has been used recently by the Department of Finance in their application of the CAM for example.
[18] This was the case most recently in the calculations made as part of SPU 2019, where the output gap was forecast to remain positive over the period 2019-2023.

Council's perspective, there are six criteria that we look for in estimates that are produced of potential output. These criteria have been the focus of the improvements we have attempted to make in respect of measuring potential output of the Irish economy. To avoid procyclicality in the estimates, perform well at inflection points, provide consistent signals, demonstrate less variation, have stability of estimates over time, and lastly to be consistent with a plausible narrative.

Figure D.1: CAM estimates of the NAWRU are procyclical

% of labour force



Source: CSO and Fiscal Council workings.

To this end, the Council has developed a range of alternative estimates, using various indicators of output, including GDP, GNP, and domestic GVA. Furthermore, the latest research developed by the Council in conjunction with the EU's independent fiscal institutions group (EUIFI, 2022) indicates that this may be the optimal approach, given the difficulties surrounding measuring potential output, particularly in a comparative international context.

EUIFI (2022) show that output gap estimates remain characterised by considerable uncertainty in their precision, both in real-time and ex-post. This uncertainty stems from uncertainty in the model itself, the inputs, and end-point impacts. Furthermore, procyclicality in the estimates remains problematic across the main approaches used to estimate the output gap.[19] However, their results also show that when reflected against the criteria outlined above, the multivariate approach outperforms the standard production function estimation discussed earlier.

However, their findings also indicate that rather than a unilateral way of estimating potential output, a "suite of models" approach appears more suitable. This is in line with the Council's preferred way of estimating short term

[19] These are the multivariate, bivariate, and production function approaches.

forecasts of the Irish economy.20 One of the most telling takeaways from this research is that both policymakers and practitioners should proceed with caution and an open mind when analysing and estimating potential output for the Irish economy, this is particularly important in the context of the EU's fiscal rules and the growing consensus towards the need for development in this area.

Section 3: Recovery and Expansion

Spending Revisions Begin

Budget 2014 marked a turn from the successive rounds of unaltered tightening implemented by the government as the government decided to reduce the planned level of fiscal adjustment for 2014. The Council had advised in its May 2013 FAR that the adjustments as outlined for the following years as part of the SPU should not be deviated from.

Budget 2014 effectively planned to eliminate the margin of safety (relative to the SGP target of a 3 per cent deficit and previous plans) by increases in expenditure.[21] However, two factors still provided some margin: first, interest payment costs had been systematically overestimated as bond yields fell; secondly, non-tax revenues had also been consistently underestimated.

The spending revision in particular began a series of budgetary developments that saw regular in-year deviations from planned levels of expenditure, while it also led to an upward drift in spending even as the

[20] See Fiscal Council (2017) for a review of the Council's approach to short-term estimates, and Fiscal Council (Casey, 2018; EUIFI, 2022) for more comprehensive overviews of these approaches to estimating potential output.

[21] This aggregate revision of €1.5bn over two years could be decomposed into contributions from a weaker macroeconomic outlook boosting unemployment spending, and also increased funding in exogenous areas such as health.

target remained a balanced budget as the economy recovered more strongly than expected.[22] The period from 2014-2019 would see spending plans consistently revised as the recovery continued (Figure 3.5).

Upward revisions to spending being offset with positive revenue surprises would characterise many outturns for the public finances in the following years.

Soft Ceilings

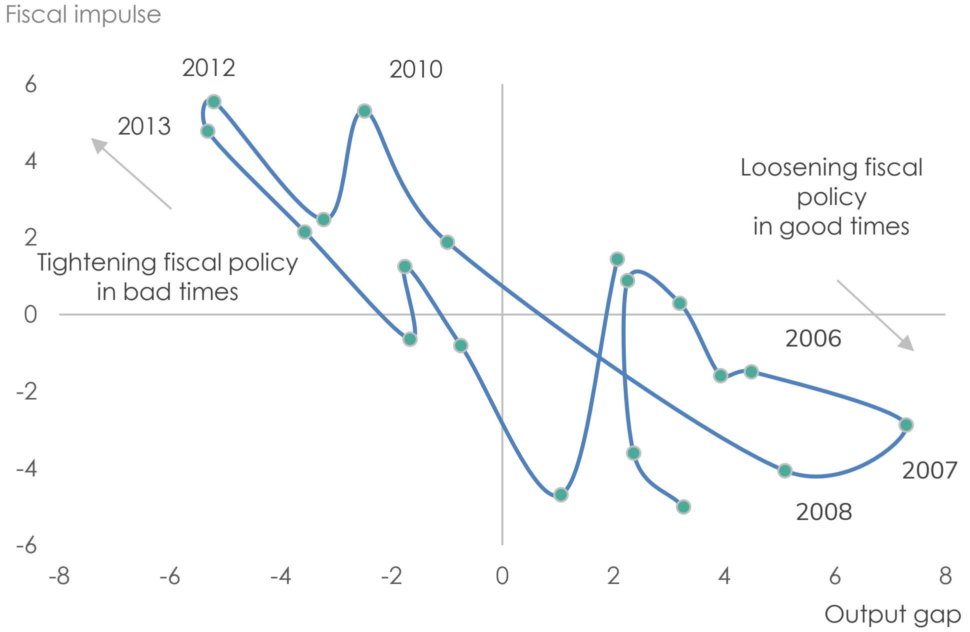
The November edition of the 2014 FAR from the Council paid particular attention to several key elements of a medium-term strategy that would help build upon the hard decisions undertaken to restore credibility since the crisis, and also ensure the recovery was both broad and robust.

One of the most important pieces of fiscal infrastructure championed by the Council during this time was that of effective expenditure ceilings to regulate spending and help guide medium term fiscal targets. These were introduced in Ireland on an administrative basis in 2012 under the Comprehensive Expenditure Report 2012-2014, with legislative backing following thereafter. Fundamentally, the purpose of imposing ceilings for multi-annual expenditures is to guard against pro-cyclical fiscal policy, the likes of which had contributed to the size of the crash in 2008 (Figure 3.1) by fixing nominal spending plans in advance rather than setting them in each Budget as potentially cyclical revenues come in. Additionally, the imposition of the ceilings should allow for a more coherent strategy for the allocation of scarce resources over "reaction to day-to-day pressures" that arise.[23]

[22] In that particular case, the upward revisions would have broken the rules established by the Department of Public Expenditure and Reform regarding the escape clauses of the expenditure ceilings (as detailed in 2013's November FAR).

[23] Department of Finance (2014: 21).

Figure 3.1: Procyclicality in fiscal policy



Source: CSO, Department of Finance, and Fiscal Council workings.
Notes: The "fiscal impulse" is defined as the change in the structural primary balance (percentage points), with the Council's bottom-up estimates used and the Department's preferred estimates of the output gap.

Similarly, adherence to these ceilings also signals credibility to financial market participants, which should all equal, result in lower borrowing costs, therefore providing policymakers with fiscal room to manoeuvre, if required. Ignoring the expenditure ceilings means that the probability of pro-cyclical spending allocations resulting in a higher budget deficit and borrowing costs than necessary is more likely.

In the circumstances, this was a particularly important issue for a number of reasons. First, any economy emerging from a severe financial crisis faces policymaking challenges that are different to those in the pre-crisis period. The structure of the economy is different, and the impact of the crisis usually has a long half-life. Adequate planning as to how policymaking might evolve and adapt to these changing circumstances is vital.

Secondly, as noted previously, it was already clear that spending plans by the government might be subject to soft budget constraint as they had been in the pre-crisis years. The Council noted this occurrence, and the possibility of the revisions impacting on the plans for future deficit reduction as a clear risk.

Thirdly, the background to the November 2014 FAR was one in which had already seen a considerable shift in the fiscal stance from SPU 2014 to Budget 2015. While certain fundamentals had changed, the scale of the adjustments were such that an updated credible medium-term plan budgetary was clearly warranted. This was not included in Budget 2015 and instead projections and ceilings were set on the basis of no policy changes to tax sources, despite budget commitments, with spending levels held constant nominally over the forecast period. This was unrealistic and at odds with a plausible path or the government's own stated policies, failing to provide a credible plan for the years ahead.

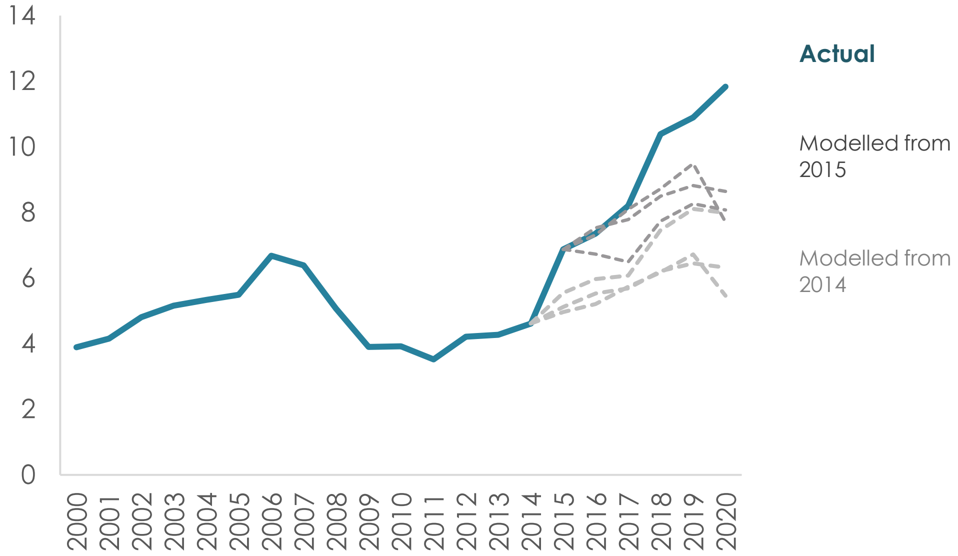
Recovery Takes Hold Rapidly and CT surges

The headline improvement in the public finances over this period occurred more strongly than expected. The economic recovery was rapidly taking hold as FDI-led growth trickled down to the domestic economy, unemployment fell continuously and increased employment boosted revenue intake. Output increased at a strong pace, averaging around 4 per cent over the period 2014-2019 in modified gross national income terms, a metric which the Council championed strongly during this period as a more reliable measure of underlying economic activity in the country.

One characteristic of this period was the positive performance of revenue over expectations, and particularly the rapid increase in corporation tax intake. This was not a new feature of the Irish economy: prior to the 2008 crisis, corporation tax in Ireland had increased strongly from an annual intake of €3.9 billion in 2000 to a peak of €6.7 billion in 2006. It bottomed out in 2011 with an annual intake of just €3.5 billion.

However, the strong bounce back in external demand and also the leading growth of the US sector, which largely dominated the investment drive in Ireland, saw CT surge over the next years. The 2020 intake defied Covid-19 predictions and came in at a record €11.8 billion, with the 2021 exceeding even this by almost 30%, taking the total to over €15.3 billion.

Figure 3.2: Corporation Tax receipts represented positive surprises
€ billion

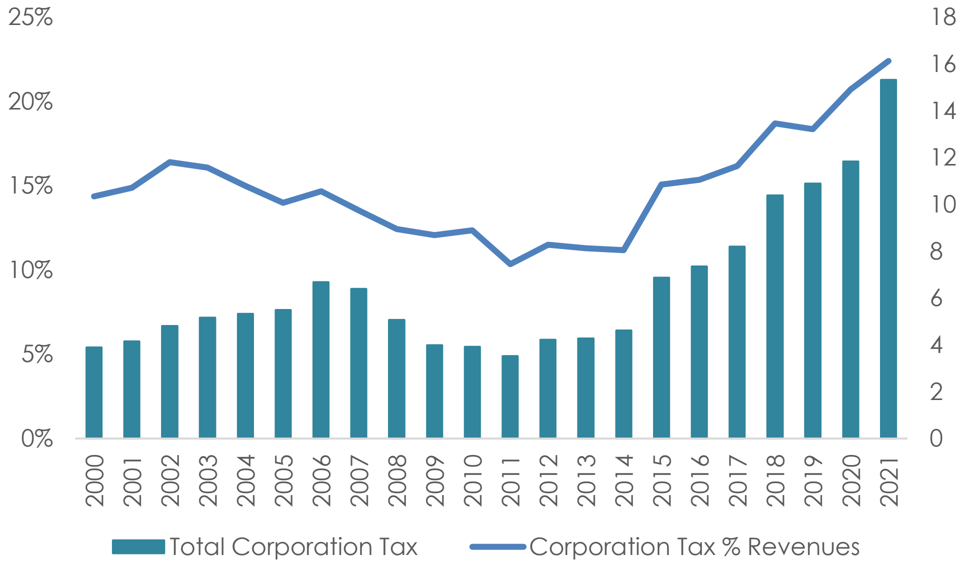


Source: Department of Finance and Fiscal Council workings.
Notes: Model estimates based on ordinary least squares and error correction models of corporation tax receipts using Domestic GVA and Modified Gross National Income to predict receipts from 2014 and 2015.

The Council has consistently since 2015 raised concerns about the growing dependence on this volatile and unpredictable (Figure 3.2) tax source, which is dominated by a small number of international firms. The amount of total revenue represented by CT intake in 2021 was over 22 per cent, demonstrating a clear overreliance on a relatively volatile revenue source largely exogenous to the underlying economy (Figure 3.3).

Figure 3.3: Reliance on Corporation Tax has increased

€bn (RHS), % total exchequer tax revenues



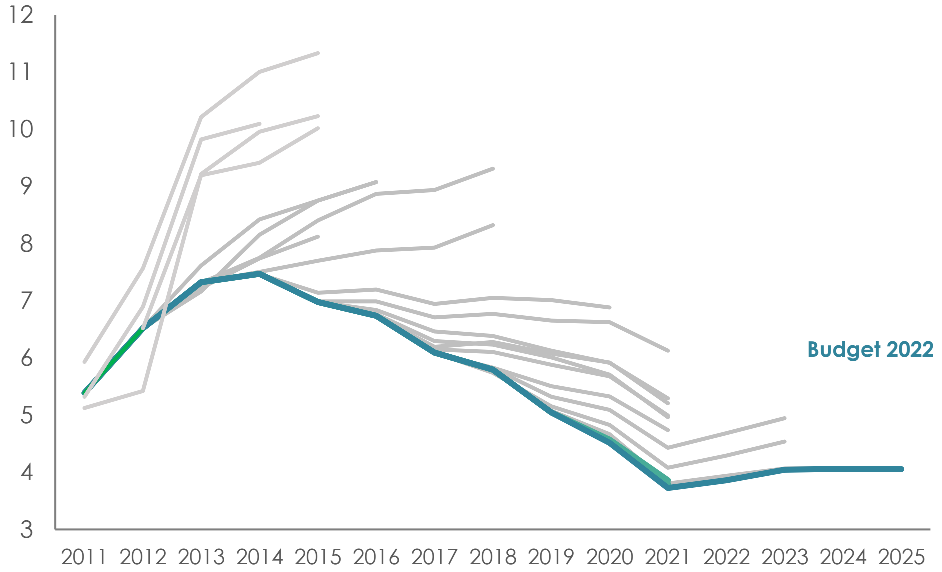
Source: Department of Finance and Fiscal Council workings.

On the expenditure side, interest repayments on government bonds regularly fell below expectations at the time of major publications. As can be seen in Figure 3.4 below, forecast expenditures on interest were consistently overestimated, leading to positive surprises for total expenditures by the end of each year. Similarly, the labour market recovered more quickly than expected during this time, with gains in FDI feeding through to employment generation in the domestic economy. This led to social protection spending often undershooting forecasts as fewer people claimed unemployment benefits.

Figure 3.4: Interest Expenditures were lower than expected

Interest spending profiles from successive government projections

€ billion



Source: Department of Finance and Fiscal Council workings.

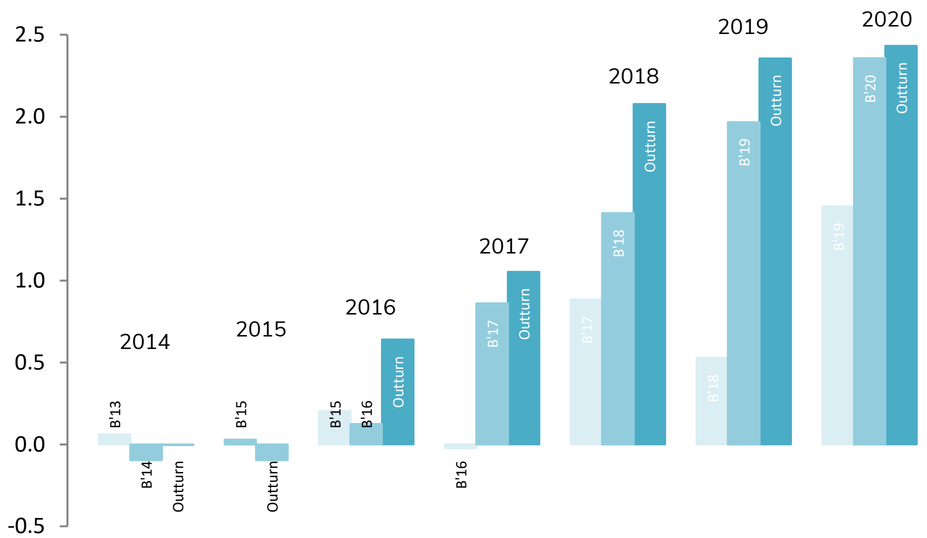
Despite these positive developments on both the revenue and spending sides, along with a very favourable external environment, progress to improve the structural balance of the public finances stalled and halted almost entirely after 2015. There was some improvement in the headline budget balance up to 2016, but this was explained by better cyclical conditions and the headline balance was then also relatively flat in the following years.

Revenue surprises fuelled spending increases

While revenue surprises from CT were both substantive and frequent, these did not improve the budget balance. Instead, these windfalls were matched regularly by expenditure increases through both spending overruns, particularly in the Department of Health. These overruns became emblematic of poor budgeting in the post-crisis period and health continued to demonstrate persistent overruns in recent years. Government funding for health spending has grown considerably as a share of total expenditure, rising from around 6 per cent in the 1960s to almost a third a total government spending in recent years, outpacing economic growth. Of the total spending overruns described above in recent years, healthcare accounted for 56 per cent, with current spending representing the overwhelming bulk of this (Casey and Carroll, 2021). Between 2015 and 2019 for example, the average overrun each year in health spending amounted to around €590 million.

Figure 3.5: Revisions to the Health expenditure ceilings are evidence of the soft budget constraint

€ billion



Sources: Various Expenditure Reports; and Department of Public Expenditure and Reform databank.

Note: Figures relate to gross voted current expenditure for the Health vote. Bars show the change in ceiling from various budgets followed by outturns, versus the earliest budget ceiling for that year (e.g., B'15 = expenditure ceiling in Budget 2015 minus the earliest ceiling for the specified year). Data for the 2020 outturn are adjusted for Covid-19 spending. Between Budget 2014 and year-end 2014, more than €500 million was transferred from the Health vote to the Children and Youth Affairs vote. As the bars in the graph indicate the change from the earliest budget forecast to the outturns, this transfer means the outturns shown for 2014, 2015 and 2016 are approximately €500 million lower than would otherwise be the case.

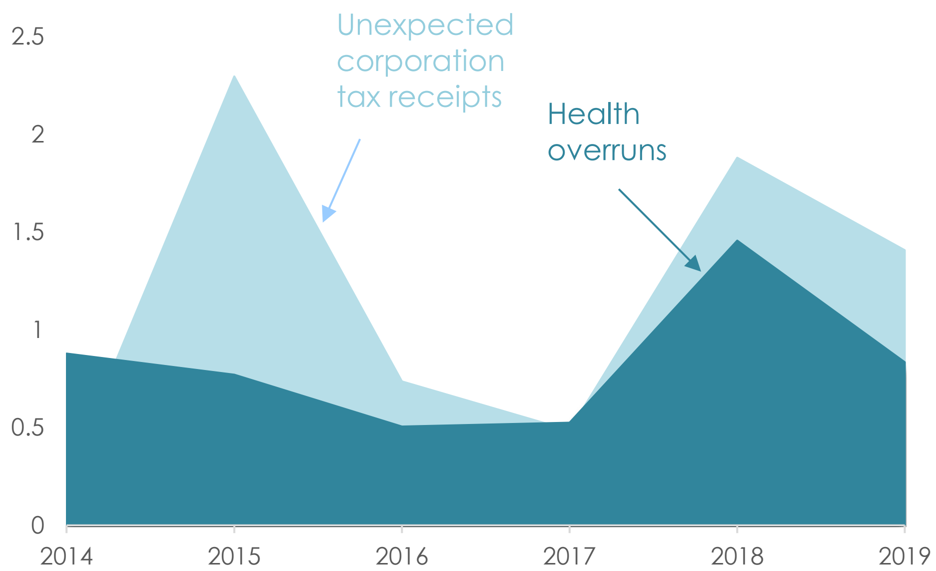
The Council outlined its concerns regarding such overruns consistently in respect of both the poor forecasting used to estimate health spending, and also regarding the weak controls on spending in the sector.[24] It did this through both references to the issue as part of its core work in Fiscal Assessment Reports, as well as producing a more in depth-research on the topic in 2015 (see Howlin, 2015). In recent years, the Council has continued to caution around both the magnitude of spending overruns in the area and their size relative to excess CT receipts received by the exchequer, with a worrying correlation developing between the two

[24] See Casey and Carroll (2021) for a more comprehensive overview of health spending in Ireland.

(Figure 3.6). In essence, if the health ceiling had been set at a credible level and then respected within the same headline budget objectives, the budget balance would have improved more rapidly and much of the increase in the overreliance on corporation tax would have been avoided.

Figure 3.6: Unexpected corporation tax receipts have masked health overruns in recent years

€ billion

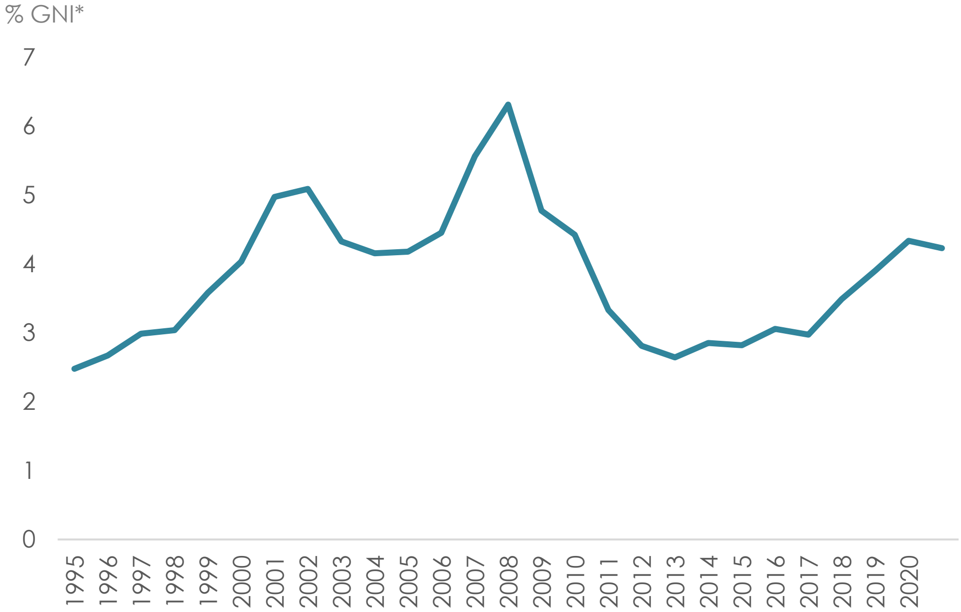


Sources: Budgets 2014-2019; Expenditure reports 2014-2019; Department of Finance databank; Department of Public Expenditure and Reform databank.
Notes: Figures show gross voted current spending overruns of the Health vote, as well as corporation tax receipts in excess of forecast.

Capital investment, which had been cut to worryingly low levels during the crisis, then began to recover a strong rate. This continued to exhibit the procyclicality in investment spending (Figure 3.7) that has typically been the case in Ireland.

The Council consistently highlighted the problems of health overruns. The November 2016 FAR deemed that, considering together both the in-year revision in the expansionary stance of policy along with the use of unexpected CT to fund current spending, the government's plans were not conducive to prudent management of the public finances. This was the first time that the Council assessed that the fiscal stance was not appropriate.

Figure 3.7: Capital spending has been procyclical



Source: Department of Finance, CSO, and Fiscal Council workings.
Notes: Series represents general government gross fixed capital formation (exchequer and non-exchequer funded).

The reasoning behind the Council's assessment was that the absence of a credible medium-term framework for expenditure had essentially left the public finances, and particularly spending, unanchored. The Council had argued that without credible expenditure ceilings for example, that fiscal policy mistakes seen in the pre-crisis era could be repeated with spending become more reliant on unreliable sources and insufficient progress during favourable cyclical conditions to strengthen the public finances.

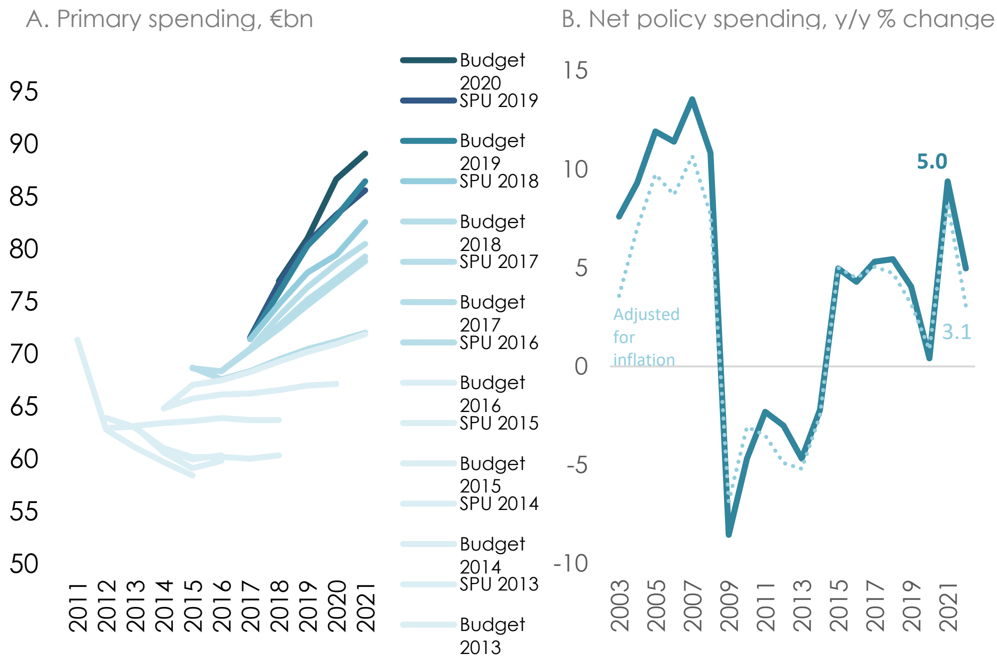
Furthermore, the Council was particularly concerned about the fact that excess CT receipts, which are largely a net injection into the Irish economy, were primarily funding current spending increases. A key concern remained weaknesses in medium-term fiscal projections, that were unrealistic, and contributed to the expenditure ceilings being revised up each year. In the November 2018 FAR for example, medium-term spending ceilings were essentially flat, implying large falls in non-interest spending as a share of GNI* over the forecast period, a development which would have been wholly inconsistent with developments in previous years and would have represented broad cuts to spending in real terms.

This approach of forecasting the medium term was at odds with stated government plans in the near term, including the on-going costs of providing existing services and welfare payments, giving no credible indication of the path for government policies and priorities (Figure 3.8). The Council raised these concerns about large, seemingly unplanned permanent spending increases that were often upwards revisions on the back of better-than-expected fiscal outturns from insecure funding sources. Given that overruns were built into the base for the subsequent year, this led to consistent shifts up in the level of public spending. This increases the risk of procyclical policies through spending higher cyclical revenues that cannot be sustained. The lack of credible medium-term forecast meant that underlying choices about the public finances were avoided with health spending insufficiently factored in and then met through unplanned increases, allowing for more additional fiscal measures than would have been the case if health had been brought within the same overall budget ceiling. In the November 2018 FAR, the Council noted this strategy was a "worrying echo" to past fiscal policy mistakes, and that both 2018 and 2019 plans were "not conducive to prudent economic and budgetary management".

The Council noted that part of this reason was the pace of spending increases on a year-on-year basis, which at 5.6 per cent was beyond the sustainable growth rate of the economy, and on a net policy basis the rate was "right at the limit of what is considered sustainable". Additionally, the Council became increasingly concerned over the fact that much of the spending increases were seen in non-exchequer areas of government, with this lack of transparency adding a further layer of complexity in trying to understand the path of the public finances.

Despite the strong recovery in the economy and the budget balance reaching surplus in 2018, the structural balance had largely stagnated since 2015 as policy drifted and the balance was reached later than if the government had stuck to its earlier forecasts. The Council assessed in its Fiscal Feedbacks model that had the in-year spending increases described above not occurred, the public finances would have achieved balance three years earlier than actually observed.

Figure 3.8: Primary spending drift



Source: Department of Finance, CSO, and Fiscal Council workings.
Note: Primary expenditure excludes interest payments. Prior to Budget 2017, spending forecasts were made on the unrealistic assumption of fixed nominal spending for most items. Since then, forecasts have been made on a more realistic basis, and so are a more representative of upward spending drift. € billion (light blue = older vintages; darker blue = more recent vintages)

By 2019, the domestic economy was over 15 per cent above its 2007 level in real terms. Gross debt as a share of national income had fallen from its crisis peak of over 165 per cent to around 95 per cent, while modest surpluses were being recorded. The expansion had seen the unemployment rate fall to a 12 year low of 4.7 per cent. This raised the question of cyclical overheating. While the Council never perceived this as an imminent threat to economic stability, it did caution that the economy was likely running at or slightly above its potential in 2019, and that modest overheating could emerge in the year ahead.

Covid-19, The Fiscal Response, and the Council's work during the crisis

The Covid-19 crisis represented a massive shock to the Irish economy. The dynamics of the crisis represented a novel challenge to policymakers in Ireland and across the globe. Large sections of the economy were closed and a considerable portion of the labour force were made unemployed as the spread of the virus was curtailed. In response, government deployed an unprecedented amount of fiscal support in the economy through broad suite of measures.

To limit the fall in household incomes impacted by the restrictions, emergency unemployment benefits were made available to unemployed workers, while businesses were offered both cash transfers, loans, guarantees, and subsidies for retaining workers. Tax payments of VAT and income taxes by impacted firms and self-employed earners were allowed to be temporarily 'warehoused', while others such as PRSI contributions were foregone under other schemes.

These efforts by government while notable for their magnitude alone, collectively represented a rare counter for economic policymaking in Ireland, where fiscal interventions successfully 'leaned against the wind' to sustain demand and limit the impact of public health restrictions on the economy.[25] The Council was supportive of this approach from early on in the crisis, setting its views out in an op-ed in March 2020 and in its flagship publications (Fiscal Council, 2020). Technically, the nature of the crisis warranted an alternative approach to the forecasting methodologies used by the Council and others. During this period, particularly in the earlier days of the crisis, the Council relied more on producing scenario-based analysis rather than its usual forecasts and associated ranges, a similar thinking guided professional forecasters in other agencies such as the IMF, OECD, and the Department of Finance itself.

[25] The fiscal 'impulse' from tax and spending Covid-19 supports in 2020 alone was approximately 10% of national income.

While much of the focus at the time of the crisis was on the immediate outlook for the economy and the public health environment, the Council consistently emphasised the importance of maintaining a forward-looking perspective on the economy and the public finances in particular. It criticised the lack of medium-term planning in the Department of Finance's forecasts in this regard through the publication of one-year-ahead forecasts the 2020 SPU and Budget 2021, while SPU 2021 contained only technical assumptions for expenditure, and did not reflect the government's policy priorities in the coming years, there was also little detail given on plans to address corporation tax receipt overreliance.

The Council was acutely aware of the complexity surrounding the dynamics at the time with the crisis likely to push up debt levels very rapidly in a context of already f high debt but also low interest rates. The Council tried to ensure it that it had a clear understanding of these issues through organising a conference on this topic with leading economists and policymakers from around the world such as Olivier Blanchard, Charles Wyplosz, Philip Lane, and others, it also produced its own research that explored these intricacies in detail (Barnes, Casey, and Jordan-Doak, 2021). This confirmed that low interest rates provided some room for manoeuvre in the short run, including to finance the Covid policy response, but that high debt levels magnify fiscal risks and need to be addressed over the time.

Section 4: Institutional Developments

The Council has consistently taken a leading role in identifying gaps in the budgetary architecture and institutions that have contributed to the patterns of upwards revisions to spending, including in-year revisions for health, and proposing reforms that would help to address these issues. These include improvements to the spending review process to identify where efficiencies can be made, strengthening of the spending rule process and associated ceilings, the ringfencing of excess revenue receipts to avoid their funding incremental spending increases, and the anchoring of the public finances through medium-term objectives like debt targets.

While there has been some notable progress especially in Budget 2022 including the introduction of the 5% spending rule in 2021, many issues have not been satisfactorily addressed. The Council has also shifted to a new approach to the assessments of compliance with the domestic fiscal rules.

Spending Rules and Reviews

The budgetary framework and system of expenditure ceilings introduced after the crisis failed to keep spending in line with plans and on a steady path and over the recovery period. Furthermore, realistic costings of budgetary decisions carrying into the future was largely absent. The Council noted these weaknesses on many occasions, and recommended the introduction of more accurate projections of spending, and a new expenditure rule.[26]

To help public discussion, the Council developed the "stand-still approach" approach to estimating expenditures, a process which takes into account the cost of holding existing levels of service at their current levels, while account for price and demographic pressures.[27] In response to repeated calls from the Council for the implementation of the "stand-still approach", the Department of Finance has recently begun to adequately build these types of estimate into their spending forecasts

[26] See for example Fiscal Council (2018:29)

[27] A similar approach has been employed by other IFIs in generating both medium-term spending forecasts (e.g. OBR, 2020), and projecting longer-term costs associated with demographic changes for example (see European Commission, 2021). Realistic fiscal forecasts that take account of these factors also form a core part of the IMF's (2018) fiscal transparency recommendations.

over the medium-term, including accounting for the cost of maintaining the "Existing Level of Service". [28]

Figure 4.1 shows consecutive vintages of spending projections by the Department of Finance - it is clear that forecasts for spending were often made on the basis of technical assumptions for spending growth, which did not reflect the policy priorities over the government over the medium-term. More inaccurate still, certain years saw budgetary projections of spending held fixed at their current nominal level over the forecast period, a process that resulted in implied spending levels falling to implausible levels over time.

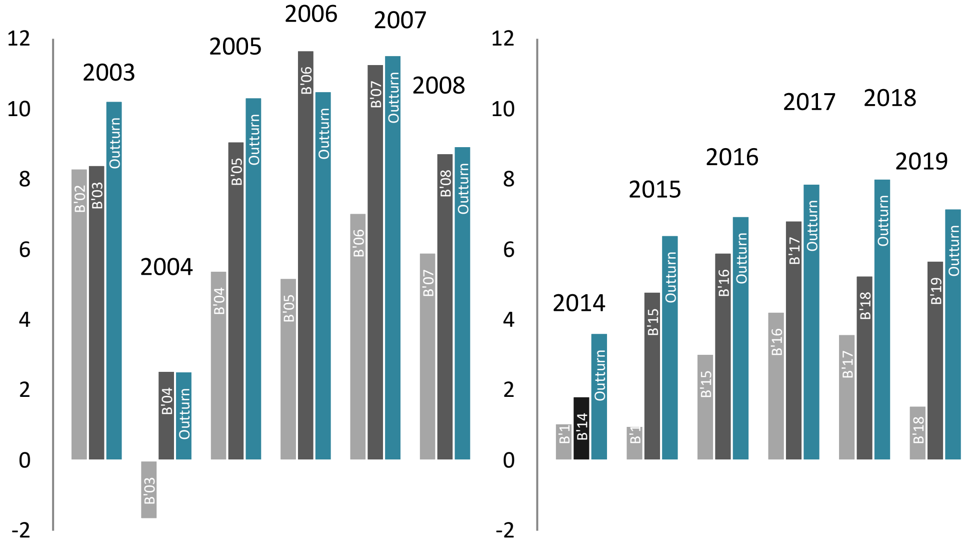
The move to realistic medium-term budgetary forecasts would provide the basis for genuinely multi-year spending ceilings that do not need to be revised every year: spending ceilings generated by government were exceeded by an average of 7.3 per cent (€3.7 billion) from 2015-2019, through both within-year increases and discretionary budgetary measures, rendering the multi-annual ceilings set by government for expenditure levels as part of the introduction of the Medium-term Expenditure Framework in 2013, and both the Medium-Term Fiscal Strategy and Comprehensive Expenditure Report before, largely not credible. The Council noted these weaknesses as far back as 2013, with the pattern similar to that observed in the run up to the great recession, where the average annual overspend by the government was around 9 per cent (€3.5 billion) (Figure 4.1). Additionally, the recovery period also saw a persistent pattern of within-year spending increases, a pattern not clearly observable prior to the crisis, while safeguards such as noted in the CER (2011), that government departments which exceed their "binding", allocated ceiling, would need to offset that amount in the following year were not adhered to.

[28] For the first time in 2021, as part of the Summer Economic Statement, annual allocations to account for demographics, existing levels of service, and contributions towards capital formation in the NDP, collectively described as being "budgetary decisions", were provided for over the forecast period. The OECD's (2021) analysis of the Council's stand-still approach has noted its utility in drawing attention to systematic bias in the government's spending plans.

Overall, there has remained a disproportionate focus on decisions for the year-ahead in each Budget, while medium-term spending ceilings continued to be seen as "seen as indicative, non-binding and subject to future budgetary process".[29]

Figure 4.1: Revisions to expenditure ceilings have been of a similar magnitude to those prior to the Great Recession

% deviation from baseline



Sources: Department of Finance; Department of Public Expenditure and reform; and Fiscal Council workings.
Note: Bars show the change in forecasts from various budgets followed by outturns, versus the earliest budget forecast for that year (e.g., B'15 = expenditure forecasts in Budget 2015 minus the earliest forecast for the specified year).

The quality of the public finances in terms of economic efficiency and broader prioritisation helps to support the sustainability of the public finances and is also supported by good medium-term planning. While the current suite of spending review papers is useful in principle, an excessive focus on past trends in spending rather than an analysis that integrates strategic aims and policy priorities has been largely absent. On the revenue side, evaluations like that of the recently established

[29] The current Minister for Finance (and former Minister for Public Expenditure and Reform) said as much, when speaking to the Oireachtas Committee on Budgetary Oversight on the matter: "I take a different view. If that is the path we go down, we will get to a point where a Minister for Finance in the future will be making decisions on tiny parts of his or her budget. It is the preserve of Ministers…. to be able to decide how they allocate a degree of funding at budget time. Expenditure growth in the future will be higher than the figures to which the Deputy is referring but that will be the result of budget day decisions" (Committee on Budgetary Oversight debate -Thursday, 18 Apr 2019).

Commission on Taxation and Welfare can help in this regard, and the Council welcomed its creation.

The Summer Economic Statement (SES) in July 2021 contained the outline of a new rule for expenditure that represents a good opportunity to restore credibility to medium-term budgeting in Ireland. The rule stated that out to 2025, core expenditure would grow at a rate of around 5 per cent, broadly consistent with the Department of Finance estimate of the economy's trend output growth. This is a welcome development to move towards a medium-term fiscal framework with a strong focus on expenditure. The government also moved to forecasting spending on the basis of assumed costs for a number of different drivers, including demographic and price pressures, along with provisions for public pay arrangements and net improvements to services.[30] Taken together, the rule and the approach to forecasting provide a sounder basis for managing expenditure.

The Council in the December 2021 FAR recommended ways in which the rule could be strengthened. These included enshrining the rule in legislation, including the incorporation of legally binding departmental expenditure ceilings and the procedure for overruns, thus leaving the rule as a more binding mechanism for future governments.[31] Also by introducing non-exchequer spending and the impact of tax changes in the calculation, the rule would more accurately capture the full breath of the public finances. Lastly, consideration towards a more forward-looking estimation of the growth rate for potential output was noted by the Council.[32]Despite these concerns, the rule represented a

[30] A comprehensive breakdown of the budgetary package for 2022 along these dimensions was presented in budget day documentation, with assumed costs for these areas as percentages of overall core current spending allocations for the following years thereafter.
[31] One way this could be outlined is to specify that as part of the spending rule, overruns in one year must be offset by either a lower growth rate of expenditure the following year, corresponding revenue raising measures, or a combination of the two. Furthermore, the expenditure rule would be in terms of expenditure levels (adjusted for revenue raising measures) rather than growth rates as is currently specified.
[32] For example, recent work by the Council estimates that Ireland's trend growth rate is to slow considerably over the coming years (Fiscal Council 2020).

considerable advancement for anchoring spending plans over the medium term and was welcomed by the Council.

Ireland has remained subject to the EU fiscal rules, although for long periods during the recovery these were not a binding constraint on government policy in the sense that budgetary outcomes were not at the EU limits. EU-wide application of the "exceptional circumstances" clauses has waived numerical requirements since the Covid crisis. Given the complexity of the EU fiscal rules that has also limited their traction in the domestic policy discussion, the Council developed a Principles-Based approach to its assessment of compliance with the rules through the FRA (Box E).

Box E: A Principles-based approach to assessing compliance with the fiscal rules

As part of its mandate, the Council provides an annual assessment of whether the government is in compliance with the Domestic Budgetary Rule as set out in the *Fiscal Responsibility Act 2012*.

Compliance with this rule, which states that the budgetary position be either balanced or returning a surplus, is in practice achieved by having the structural balance meet, or be on a path towards meeting the Medium-Term-Objective (MTO). The structural balance is given by the equation below:

$$SB_t = GGB_t - (\varepsilon \times OG_t)$$

Where the structural balance SB_t is derived as the general government balance GGB_t, stripped of one-off measures, minus the impact of the point of the economy in the business cycle on the fiscal balance.[33]

While the Council initially sought to make an assessment of compliance that closely followed the approach taken by the European Commission to avoid inconsistencies, it became apparent that this was problematic in two important respects: the measurement of potential output and the complexity of the EU rules.[34]

This led the Council to adopt a principles-based approach to interpreting the rules under the Fiscal Responsibility Act from 2019.[35]

---

[33] All terms bar the semi-elasticity parameter are measured in per cent of GDP.

[34] The preventive arm of the Pact became applicable in 2016.

[35] A broadly similar approach has been advocated for in respect of the Eurozone fiscal rules by, among others Blanchard, Zettelmeyer and Leandro (2020), who argue in favour of fiscal 'standards'. Wyplosz (2005) work frames the debate in terms of fiscal institutions versus rules, where he argues that the former would be more

Challenges in the measurement of potential output

As discussed in Box D, measuring potential output, and the corresponding distance from which the economy at a point is from this level is difficult to measure with complete confidence. This challenge is particularly acute in a small and open economy such as Ireland, where generalised frameworks such as the commonly agreed methodology (CAM) are less reliable. This problem is reflected in both the use of GDP, and also the historical fluctuations of the Irish economy. This has led to large swings and revisions in the estimates of potential output and the necessity to employ a number of different methodologies over time in trying to overcome these problems.

Similarly, to assess the performance against the expenditure benchmark, designed to safeguard against increases in spending outpacing revenue generation, we rely on accurately interpreting the *reference rate* – the growth rate at which potential output of the economy evolves.

Complexity of the EU rules and their implementation

The EU rules and their implementation by the Commission also involve a lot of complex calculations, including the mixing of different vintages of data. This is further complicated by the fact that calculating the reference rate requires averaging estimated potential output growth rates over a 10-year period, widening the scope for introducing errors to the estimation.[36]

Related to this, the selection of a deflator that is either held constant or allowed to vary over the period following t-1, and the consistency of this with respect to the adjustment requirement and convergence margin is a further element of complexity. It should also be clear from the equation above that the semi-elasticity of the balance with respect to the distance of output from potential is vital in determining the structural budgetary position, with Carroll (2019) finding a broader range of plausible values for this term than under previous estimates used as part of the CAM.

When finally providing a verdict on compliance with the MTO after deriving estimates of the structural position of the budget, there exists an acceptable level of deviation as part of the CAM framework, at 0.25 per cent of GDP from the MTO.

Principles-based Approach

Given these difficulties, the Council moved to assess compliance with the domestic Budgetary Rule using a "principles-based approach". This follows the basic framework of the EU rules, which are sound, but interprets certain elements differently. The aim of this approach is to allow for a simpler and more intuitive way to assess compliance from an Irish perspective.

Regarding the output gap and corresponding reference rate for sustainable expenditure growth, the Council assesses that a more appropriate measure than the Commission's CAM estimates are the latest available supply-side estimates

effective in helping to reduce problems like deficit bias. See New Zealand treasury (2015) for an example of how standards have shaped the construction of domestic fiscal 'rules' in the country.

[36] The reference rate at any time t is given as the average of the estimated potential output growth rates over the sample period *t-6* to *t+3*.

provided by the Department of Finance. The Department's preferred estimation is the mid-point of their suite of domestic GVA-based estimates.[37] One obvious drawback of this approach is that these estimates are usually subject to revision, potentially leading to policy choices appearing suboptimal ex-post when revised estimates of potential output are released.

To further simplify the application of the rules, the Council assesses that no margin of tolerance be available for deviations between the MTO and the derived structural balance. The intuition here is that the arbitrary application of the CAM's 0.25 per cent of GDP offers little in the way of clear merit, while its relative size to the budget balance is also not taken into account.[38] Furthermore, in providing flexibility regarding the impact of revised output gap estimates on the structural balance, the utility of the margin of tolerance is even less clear. Similarly, regarding the expenditure benchmark, the Council does not facilitate a negative convergence margin in assessing compliance.[39] These features are assessed to add too much complexity without necessarily resolving all the underlying issues. While the Council assesses that there is a presumption to set policy within the rules, some discretion may be needed in specific circumstances as to the implication that is drawn.

Despite the benefits of the principles-based approach, it does not resolve all the issues. The most obvious example of this is the way in which elements of the rules, just as in the EU framework, are stipulated in GDP terms, such as the structural balance. The Council has for many years also noted that while changing this would require legislative reform, a direct substitution for the use of modified national income in the FRA for those variables currently expressed as a share of GDP would allow for the rules to be more relevant for Ireland.

Rainy Day Fund

The use of a Rainy-Day Fund has been proposed as relevant to Ireland since the late 1990s.[40]Given the volatile nature of the economy and the likelihood of large economic cycles in the absence of national monetary policy, accumulated additional reserves during economic good times to cushion the severity of downturns is a sensible approach. This could allow greater stabilisation than the automatic stabilisers alone and help to manage revenue windfalls or buoyancy. The National Pension Reserve Fund was set up in 2001, initially to hold the proceeds of

[37] See Box D for a more comprehensive overview of the challenges relating to estimating potential output.

[38] The margin of tolerance operates as a soft budget constraint in that it can be applied every year regardless of context.

[39] This relates to the potential of a 'buffer' for spending in year *t*, if there has been overachievement in meeting the MTO at *t-1*.

[40] Lane (1998) for example argued that a fiscal "reserve fund" should be established in Ireland to provide additional fiscal capacity in advance of entry into the EMU.

the Eircom sale and then with a contribution of 1 per cent of GNP each year with the option of supplementary payments approved by the Dáil. This was then invested with a view to addressing future pensions costs. These funds were eventually used as part of the Ireland Strategic Investment Fund (ISIF) to support the recovery.

The Council first argued for a new Rainy-Day Fund in 2016, partly as a tool for macroeconomic management but particularly given the risks associated with an overreliance on corporation tax to fund current spending. In May 2016, as part of the Programme for Government, the creation of a dedicated fund that gathered excess CT receipts was proposed. The Council agreed that a well-designed and well-managed RDF could help alleviate some of the risk of recurring pro-cyclical fiscal policy through saving windfalls in good times, allowing for stimulus in a downturn, and to reduce the likelihood of temporary revenue windfalls funding current spending.

While the Council continued to support the creation of a Fund, the eventual establishment of the fund was relatively slow to arrive, with legislation passing in June 2019. The Council estimates that by this time, excess CT receipts had cumulatively reached around €15 billion over the period 2016-2019 (Figure 3.2). Furthermore, the design of the "National Surplus (Reserve Fund for Exceptional Contingencies)" was not in line with the recommendations of the Council for a number of reasons.[41]

The Fund that was created would receive a lump sum transfer from the Irish Strategic Investment Fund of €1.5 billion, with the intention of government that an annual allocation of €1 billion would be made each year. This transfer amount itself even appeared to demonstrate a bias to the economic cycle, where it was twice reduced despite improved economic prospects. The proposed transfers to the RDF were suspended before they began, in light of Brexit related uncertainty, having already been halved to €0.5 billion, and the fund has since been

[41] There is little international precedent for 'best practice' in the establishment of such funds, but some practical and theoretical examples are considered in greater detail in Fiscal Council (2018b) and Casey et al. (2018).

drawn down to help fund the fiscal response to Covid-19. The Council continued to argue for contributions to be made to the RDF and for its design to be improved (e.g. Casey et al. 2018).

Prudence Account

Given that increases in spending had often occurred mid-year, a further mechanism that could be used to link real-time revenue windfalls could have helped to reduce the cycle of corporation-tax funded expenditure overruns. With this in mind, the Council proposed a 'Prudence Account' (PA).[42] The PA would simply allow for the in-year differences between revenue forecasts and actual receipts to be set aside for turnover to the Rainy-Day Fund at year end. This would allow for the temporary windfalls from revenue sources that are typically volatile, like corporation tax, to be removed from the headline receipts figures, and hence the budgetary calculus would remain unchanged.

Similarly, such an approach would have important implications for the budget balance. The Fiscal Council illustrated the impact a PA would have had on the deficit reduction path for the public finances in Ireland over the years 2015-2018. Had spending increases not been masked by excess corporation tax receipts over this period, the budget balance would have been significantly worse than was realised. The logic here is that a PA would have simply deducted the positive surprises of corporation tax and allowed the in-year spending increases to impact the deficit. Cumulatively, this process would have allowed for over €12 billion in excess corporation tax receipts to have been saved by the exchequer over 2015-2018.[43]

While the RDF continues to be in place, it was depleted in 2020 as resources were used to fund the fiscal response to the Covid-19 crisis. The Council continues highlight the concentration risks associated with

[42] The time-inconsistency in the RDF related to the fact that deposits would be made annually and based on pre-determined amounts, limiting the ability of the fund to effectively moderate the impact of cyclical upswings in revenue on expenditure developments during the year.

[43] See Box B of the November 2019 FAR.

corporation tax receipts in Ireland, and their use in funding current spending. Furthermore, the Council also continues to advise policymakers that the use of a PA could help in constraining the government's ability to build expenditure bases on uncertain revenue sources.

Debt Targets

A medium-term oriented fiscal policy requires clear medium-term objectives. While the EU fiscal framework sets ceilings for debt and the budget balance, these are typically assessed year by year rather than in the context of a longer-term objective, allowing fiscal policy potentially to drift from year to year. At the same time, these GDP-based objectives do not accurately reflect Ireland's situation given the large difference between GDP and a more relevant indicators of the size of the domestic economy and tax base.

The Council has argued for a medium-term debt target as the overall medium-term goal of fiscal policy with other measures used to operationalise this[44]. Such an approach would help in anchoring both expectations of households and firms, along with the broad direction of the path of the public finances.

The government in Ireland has made several moves towards implementing a 'steady-state' target for the national debt over the years since the crisis.[45] On the day of Budget 2017, then Minister for Finance Michael Noonan announced a national debt target more ambitious than that set under the EU's SGP of 45 per cent of GDP, with

[44] There is a broad literature on the effects of debt thresholds, Reinhart and Rogoff (2010), Kumar and Woo (2015), Baum et al. (2013) represent some of the more notable examples. From a policy perspective, debt-related fiscal rules have received extensive coverage - Blanchard and Cottarelli (2010) for example advocate that the medium-term debt target should seek to steadily reduce the debt to national income ratio rather than stabilise it at the level it reaches after a shock for example. Baum et al. (2013) argue similarly but find that the growth maximising debt target in the Eurozone would be lower than even the fiscal rules dictate, at around 50% of GDP.

[45] See for example Blanchard (2019) and Rachel and Summers (2019) for a generalised overview, and Casey, Barnes, Jordan-Doak (2021), Casey and Purdue (2021) in the Irish context.

this to be reached by the late part of the following decade. The debt target was publicised in a new document produced by the Department to be released each year – "The Annual Report on Public Debt in Ireland". The first edition of this release in 2017 contained detailed information on projections for the debt stock under different scenarios, and was billed as a release that would provide updated progress towards the 45 per cent target. However, the Council was sceptical about specifying the target in GDP terms: based on GNI*, the target would have been close to 65%, less demanding than the EU measure. This target largely coincided with what was implied under existing medium-term projections. There was also very little detail about the timing of when the objective would be achieved and the nature of the government's commitment. The target rapidly disappeared from new budgetary documents.

In December 2019 however, the Minister for Finance announced the introduction of a new target for the public debt stock, which was to be brought down gradually to 60 per cent of GNI* at a "suitable pace", with an interim target of around 85 per cent of GNI* by 2025, and both contingent on economic conditions. This brought greater specificity and was better measured. Since the onset of the Covid-19 crisis, while the stock of debt has increased, there has been limited clarity as to what level public debt in Ireland is being targeted over the medium term, if at all. The 2020 edition provided no indication as to whether the debt target launched in 2019 was still applicable to medium-term plans for the public finances.

Section 5: Lessons from the first decade and looking to the Future

In the 10 years since the inception of the Council, it has played an important role in encouraging a more active debate on fiscal policy in Ireland, along with an influential advocacy role regarding best practice in the application of fiscal policy. It has developed and promoted analytical tools to further enhance the collective understanding of the Irish economy, while also championing institutional reforms designed to improve the budgetary process in the country. The journey from the establishment of the Council on an interim basis, to one that is embedded in both the political and public fabric of the fiscal architecture in the country has been considerable.

There are many lessons that can be drawn from the Council's experience over the past 10 years that should be of interest to policymakers, economic practitioners, and the general public. These relate to both the institutional design of IFIs, and also the ways in which fiscal policy has been conducted in Ireland.

In the early years of the Council, much time was spent navigating the complexities and uncertainties of Ireland's public finances during the global financial crisis and European sovereign debt crisis. Indeed, early editions of the FAR noted the uncertainty and speed at which developments occurred regarding the path for the Irish economy and the Eurozone more broadly.

Over the course of the economic recovery, the Council evolved from its closer focus on short term sustainability during the crisis period towards representing a new source of more generalised scrutiny on the public finances and the macroeconomy. One of the key workflows during this time was drawing attention to risks and highlighting ways in which the public finances could be better analysed and more realistically forecast.

In terms of the mandate held by the Council to assess the fiscal stance, these verdicts were largely supportive of the policies outlined by government during both of these periods. However, the Council levelled regular criticisms in the aftermath of the crisis over the ways in which budgetary projections were made, along with the frequency and substance of government deviations from their own plans.

The later recovery and expansionary period following the budget deficit being closed saw consistent concerns about loosening of fiscal restraints when excess revenues became available and the unhealthy cycle of health spending overruns funded by corporation tax windfalls. At the same time, progress was slow on implementing reforms to the process for budgeting, particularly regarding both technical and institutional reforms for medium-term plans for the public finances and including decisions on the debt target and rainy-day fund's processes. These together carried worrying echoes of the past, with growing concerns about corporation tax overreliance, although the scale of the risks was far less than prior to the banking crisis. The Council made clear its concerns and what measures needed to be taken.

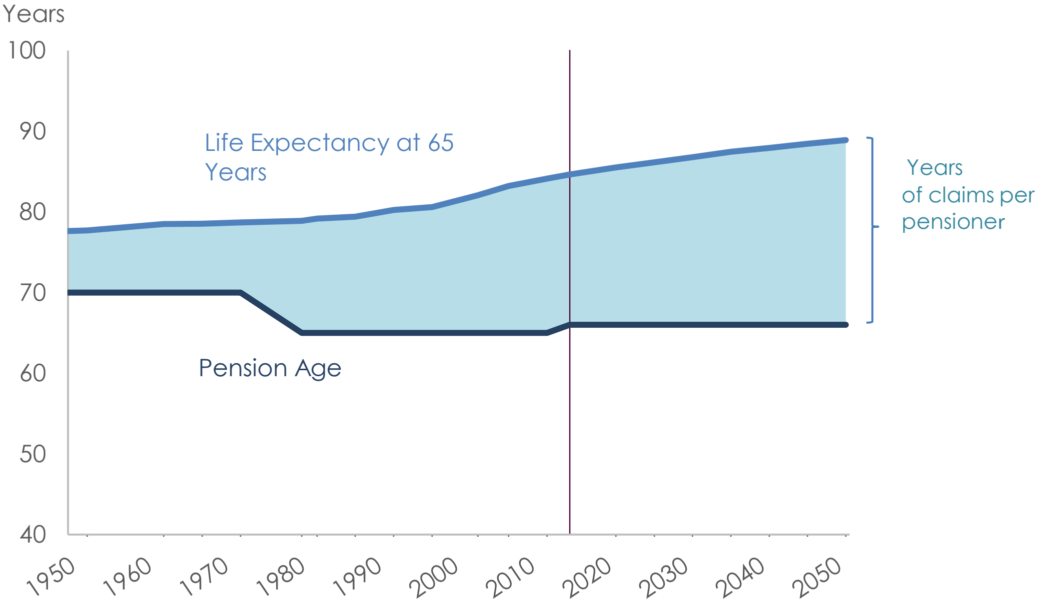
Most recently, Brexit, the Covid-19 crisis and the Russian invasion of Ukraine and surge in energy prices have represented unprecedented challenges for fiscal policymakers. In the Irish context, the Council was again largely supportive of the government's counter-cyclical approach to support aggregate demand in the economy over this period, although the policy responses will need to different between the massive supporting of incomes in the Covid crisis and the need to balance carefully supporting people and the economy in the face of higher energy prices without triggering second-round inflation.

The government's plans as part of the Budget 2021 and in the Summer Economic Statement 2021 to sustain a period of pronounced deficits over the medium term to fund increases in both current and capital spending represented a considerable swing in the forecast path of the public finances and was a significant concern to the Council as it would have implied little progress towards bring the public debt ratio down over a prolonged period.

However, Budget 2022 contained welcome developments on the outline of a credible medium-term strategy for the economy and public finances. The introduction of the spending rule, improvements in forecasting spending along the lines of the Council's "stand-still" approach, and the publication of the updated capital plan all helped to anchor expectations and fiscal targets over the medium term. Overall, the plan clearly set out existing commitments and higher public investment would be managed over the medium term, while restoring the health of the public finances.

However, significant long-term pressures have not been fully addressed, including healthcare, pensions costs from an ageing society at the forefront and climate change.

Figure 5.1: Increases in life expectancy have not been met by pension age changes



Source: Government of Ireland, CSO, and Fiscal Council workings.

These concerns were made more acute by the decision to cancel two legislated pension age increases and a continued commitment to the implementation of the universal healthcare programme Sláintecare.[46] Furthermore, government had also committed to ruling out increases to vast swathes of taxes while also indexing credits and bands to rising incomes.

Coupled with this, commitments made towards reaching European wide climate action objectives by 2030 were also set to weigh heavily on the exchequer. While these too had yet to adequately quantified by government when the commitments were made, there remained a broad consensus that the fiscal impact of such measures would be considerable.

The Council's Long-term model indicates difficult choices lie ahead

Given the Council's mandate to assess the fiscal stance in Ireland, its focus is drawn therefore to thinking not only about how these decisions would impact the public finances in the short and medium term, but also how fiscal policy should be conducted as the economy structurally shifted over the long run. While the Council has never taken an explicit view on individual measures, it was clear that these decisions were being made in the context of a period of structural change both domestically and abroad.

As part of the Council's mandate to assess the fiscal stance, it had produced its own Long-Term Sustainability Report (2020), which had focussed heavily on factors that would impact the government's finances in the years ahead.47The report represented one of the few long-term evaluations of the public finances in Ireland to 2050, shedding important light on the challenges facing policymakers from an lower output growth, increased costs from healthcare and pension provisions,

[46] While cancelling the pension age increases was expected to cost approximately €575 million each year in additional pension costs, with this figure rising over time, the commitment to Sláintecare was one that unaccompanied by any realistic costing of the project at all.
[47] The UK's Office for Budget Responsibility (2020) and Congressional Budget Office (2021) in the US have both produced similar assessments as part of their work.

and an ageing society with fewer workers.[48] The Council had long planned to undertake an analysis of long-term sustainability to inform nearer-term assessments, but this required a significant effort to develop the required analytical framework.

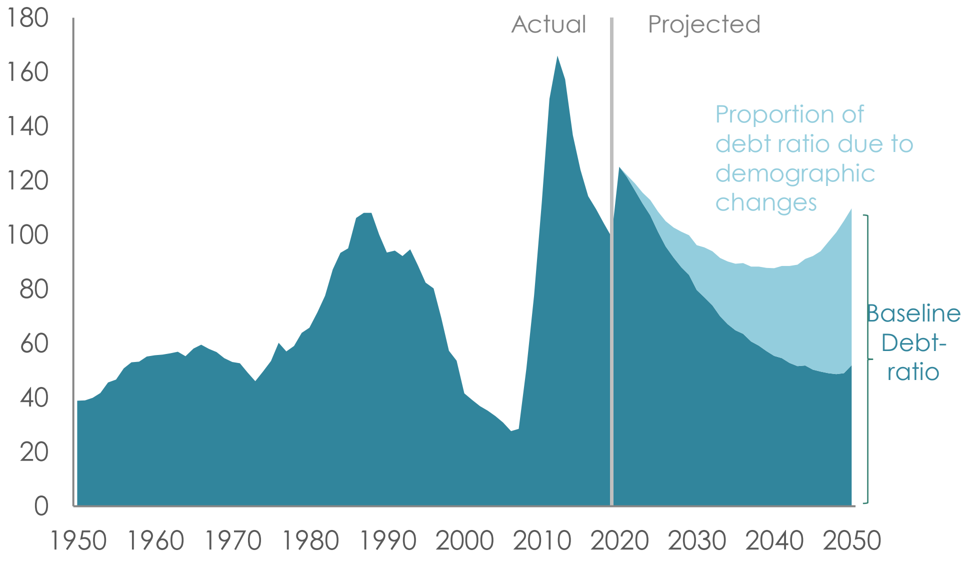
One of the key findings from this paper was that Ireland's demographic profile would deteriorate considerably from one of the EU's most favourable to around the mean level of dependency, exerting downward pressure on the growth rate of potential output.

This demographic deterioration would also lead to significantly higher costs for the provision of healthcare and pensions payments as average life expectancy increased (Figure 5.1). The Council's estimation was that demographic pressures would add to the public debt by around 60 percentage points by 2050 under unchanged policies (Figure 5.2). Taken together, these incrementally rising 'standstill' costs associated with an ageing society will therefore gradually erode the potential for unexpected growth to cover any shortfall in the budget balance year on year.

[48] As part of this work, the Council produced its own demographic profiles for the country, along a solow growth model to forecast economic activity over the long-run, the "stand-still approach" to estimate expenditures, and an interest rate model to project payments from government bond issuance.

Figure 5.2: Ageing costs set to add considerably to the debt burden

Gross debt ratio, % GNI* general government basis



Source: Fiscal Council workings.

Notes: The blue shaded region shows the proportion of the baseline gross general government debt ratio that can be attributed to an ageing population relative to 2020 demographics.

This is important to consider from a historical perspective for the Irish economy. Recall that a large portion of Ireland's impressive economic performance in both the pre-crisis and recovery period could explained relatively simply by structural supply side shocks to the labour market as demographic factors, along with education reforms and increased female participation dramatically increased the supply of labour and human capital in the available stock of workers.

These developments essentially led an accelerated catch up for the Irish economy on its advanced industrial counterparts in Europe. In the recovery period, the Irish economy and the public finances in particular were boosted by what were essentially unexpected inflows of FDI and exogenous factors such as extraordinary monetary policy interventions by the European Central Bank.

Taken together, these two periods were characterised by growth rates that were far higher than those estimated as the long run steady state of potential output growth in the State. Implying a favourable period of the economy overall relative to what might be expected as the country convergences on a more moderate growth rate typically exhibited by advanced economies.

This also implies that a more thoughtful approach to public spending and taxation may be warranted in the coming years compared to what has gone before. Room for manoeuvre could be limited by lower growth, the legacy of high debt and the major challenges around health, pensions and climate. This will test the fiscal framework, including the Council, perhaps more than has been the case during the first decade since the crisis.

References

Addison-Smyth, D., and McQuinn, K. (2010). "Quantifying Revenue Windfalls from the Irish Housing Market," The Economic and Social Review, Economic and Social Studies, 41(2), p. 201-233. Available at: http://www.tara.tcd.ie/bitstream/handle/2262/58705/04-Addison.pdf?sequence=1&isAllowed=y

Barnes, S., and Casey, E. (2019). "Overcoming Procyclicality in the EU Spending Rule." In European Fiscal Board Workshop (2019), Independent Fiscal Institutions in the EU Fiscal Framework. Available at: https://ec.europa.eu/info/sites/default/files/2019_04_30_efb_workshop.pdf

Barnes, S., E. Casey and E. Jordan-Doak (2021). "Managing government debt at high altitude: velocity, instability and headwinds". Irish Fiscal Advisory Council Working Paper Series No. 15. Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2021/03/Managing-government-debt-at-high-altitude-velocity-instability-and-headwinds-.pdf

Barnes, S., and Smyth, D. (2013). "The Government's Balance Sheet after the Crisis: A Comprehensive Perspective." Irish Fiscal Advisory Council Working Paper Series No. 1. Dublin. Available at: https://www.fiscalcouncil.ie/the-governments-balance-sheet-after-the-crisis-a-comprehensive-perspective/

Baum, A., Checherita-Westphal, C., Rother, P. (2013). "Debt and growth: New evidence for the euro area. "Journal of International Money and Finance, 32(C), pp. 809-821. Available at: https://econpapers.repec.org/article/eeejimfin/v_3a32_3ay_3a2013_3ai_3ac_3ap_3a809-821.htm

Blanchard, O., and Cottarelli, C. (2010). "Ten commandments for fiscal adjustment in advanced economies." VOXEU CEPR. Available at: https://cepr.org/voxeu/columns/ten-commandments-fiscal-adjustment-advanced-economies

Blanchard, O. (2019). “Public Debt and Low Interest Rates.” American Economic Review, 109(4), April 2019, pp 1197-1229. Available at: https://www.aeaweb.org/articles?id=10.1257/aer.109.4.1197

Blanchard, O., Leandro, A., and J. Zettelmeyer. (2021). “Redesigning EU fiscal rules: from rules to standards.” Economic Policy, 36(106), April 2021, p. 195-236. Available at: https://academic.oup.com/economicpolicy/article/36/106/195/6122701?login=true

Burgess, S., Fernandez-Corugedo, E., Groth, C., Harrison, R., Monti, F., Theodoridis, K., and Waldron, M. (2013). “The Bank of England's forecasting platform: COMPASS, MAPS, EASE and the suite of models.” Bank of England Working Paper, No. 471. Available at: https://www.bankofengland.co.uk/working-paper/2013/the-boes-forecasting-platform-compass-maps-ease-and-the-suite-of-models

Calmfors, L., and Wren-Lewis, S., (2011). “What Should Fiscal Councils Do?” Economic Policy, 26(68), pp. 651-695. Available at: https://www.jstor.org/stable/41262007

Carroll, K. (2019). “Estimating Ireland’s Budgetary Semi-Elasticities.” Irish Fiscal Advisory Council, Analytical Note No. 12. Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2019/07/Fiscal-Council-Analytical-Note-12-Estimating-Irelands-Budgetary-Semi-Elasticities-Killian-Carroll.pdf

Casey, E. (2018). “Inside the “Upside Down”: Estimating Ireland’s Output Gap.” Irish Fiscal Advisory Council, Working Paper Series No. 5. Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2018/01/Casey-E-2018-Estimating-Irelands-Output-Gap.pdf

Casey, E. and Purdue, D. (2021). “Maq: A Fiscal Stress Testing Model for Ireland”. Irish Fiscal Advisory Council Working Paper Series No. 13. Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2021/02/Maq-A-Macro-Fiscal-Model-for-Ireland.pdf

Casey, E., and Carroll, K. (2021). "The Path for Ireland's Health Budget." Irish Fiscal Advisory Council, Analytical Note Series No. 14. Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2021/11/The-path-for-Irelands-health-budget.pdf

Casey, E., and Conroy, N. (2017). "Producing Short-Term Forecasts of the Irish Economy: A Suite of models Approach." Irish Fiscal Advisory Council, Working Paper Series No. 4. Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2015/03/Producing-Short-Term-Forecasts-of-the-Irish-Economy.pdf

Casey, E., Conroy, N., Timoney, K., and A.O. Arranz. "Designing a Rainy Day Fund to Work Within the Fiscal Rules." Irish Fiscal Advisory Council, Working Paper Series No. 6. Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2018/06/Designing-a-Rainy-Day-Fund-to-Work-Within-the-Fiscal-Rules-1.pdf

Committee on Budgetary Oversight. (2019). Committee on Budgetary Oversight Debate: Stability Programme Update. Houses of the Oireachtas. 18 April 2019. Dublin. Available at: https://www.oireachtas.ie/en/debates/debate/committee_on_budgetary_oversight/2019-04-18/3/

Congressional Budget Office. (2021). "The 2021 Long-Term Budget Outlook." Congressional Budget Office. Washington D.C. Available at: https://www.cbo.gov/publication/56977

Conroy, N. (2019). "Estimating Ireland's Tax Elasticities: A Policy Adjusted Approach." Irish Fiscal Advisory Council Working Paper Series, No. 10. Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2019/06/Estimating-Irelands-Tax-Elasticities-Niall-Conroy-Irish-Fiscal-Advisory-Council-Working-Paper.pdf

Conroy, N. (2021). "The Role of Elasticities in Forecasting Irish Government Revenue." Irish Fiscal Advisory Council Working Paper Series, No. 14. Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2021/02/Elasticities_Working_Paper_Final.pdf

Debrun, X., and Kinda, T., (2017). "Strengthening Post-Crisis Fiscal Credibility: Fiscal Councils on the Rise – A New Dataset." The Journal of Applied Public Economics, 38(4), pp. 667-700. Available at: https://onlinelibrary.wiley.com/doi/abs/10.1111/1475-5890.12130

Department of Finance. (2011). "Reforming Ireland's Budgetary Framework: A Discussion Document." Department of Finance, Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2014/06/RIBF_March11.pdf

Debrun, X., Gérard, M., and Harris, J. (2012). "Fiscal Policies in Crisis Mode: Has the Time for Fiscal Councils Come at Last?". Paper Presented at OECD Parliamentary Budget Officials and Independent Fiscal Institutions 4th Annual Meeting. Available at: https://www.oecd.org/gov/budgeting/49777890.pdf

Department of Finance. (2014). "Medium Term Budgetary Framework." July 2014. Available at: https://www.gov.ie/pdf/?file=https://assets.gov.ie/6007/240119121551-c34becd6752c4dcc898620c323afe59c.pdf#page=1

Economic Statistics Review Group. (2016). "Report of the Economic Statistics Review Group." CSO: ESRG, December 2016. Available at: https://www.cso.ie/en/media/csoie/newsevents/documents/reportoftheeconomicstatisticsreviewgroup/Economic_Statistics_Review_(ESRG)_Report_Dec_2016.pdf

EUIFI. (2022). "Testing output gaps: An Independent Fiscal Institutions' guide." EU Independent Fiscal Institutions Publications. Available at: https://www.euifis.eu/publications/24

Fiscal Council. (2015). "The EU Expenditure Benchmark: Operational Issues for Ireland in 2016." Analytical Note No. 7. Irish Fiscal Advisory Council: Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2012/01/ExpenditureBenchmarkNote_310315_Final_1.6.pdf

Fiscal Council. (2018). "Fiscal Assessment Report: November 2018." Irish Fiscal Advisory Council. Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2018/06/IFAC-Fiscal-Assessment-Report-June-2018.pdf

Fiscal Council. (2018). "Stand-Still Scenario for Government Spending in the Medium Term, 2019–2023." Irish Fiscal Advisory Council: Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2019/07/Fiscal-Council-Stand-Still-Scenario-May-2018.pdf

Fiscal Council. (2020). "Long-term Sustainability Report: Fiscal Challenges and Risks 2025-2050." Irish Fiscal Advisory Council. Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2020/07/Long-Term-Sustainability-Report_Website.pdf

Fiscal Council. 2018. "Box D: New Alternative Supply-Side Estimates", in Fiscal Assessment Report June 2018. Irish Fiscal Advisory Council. Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2018/06/IFAC-Fiscal-Assessment-Report-June-2018.pdf

Fitzgerald, J. (1999). "Understanding Ireland's Economic Success." ESRI Working Papers, 111. The Economic and Social Research Institute, Dublin. Available at: https://www.esri.ie/system/files/media/file-uploads/2015-07/WP111.pdf

Flyvbjerg, B,. and Bester, D., (2021). "The Cost-Benefit Fallacy: Why Cost-Benefit Analysis Is Broken and How to Fix It." Journal of Benefit-Cost Analysis, pp. 1-25. Available at: The Cost-Benefit Fallacy: Why Cost-Benefit Analysis Is Broken and How to Fix It

Jonung, L., and Larch, M. (2006). "Improving fiscal policy in the EU: the case for independent forecasts." Economic Policy, 47(1), pp. 492-534. Available at: https://academic.oup.com/economicpolicy/article-abstract/21/47/492/2918738?redirectedFrom=fulltext

Hagemann, R. (1999). "The Structural Budget Balance the IMF's Methodology." *IMF Working Paper, No. 99/95*. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=880622

Hagemann, R. (2011). "How Can Fiscal Councils Strengthen Fiscal Performance?" OECD Journal: Economic Studies, Vol. 2011/1. Available at: https://www.oecd.org/economy/growth/fiscal%20councils%20fiscal%20performance.pdf

Hagemann, R. (2012). "Fiscal Rules for Ireland." Irish Fiscal Advisory Council. Dublin. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2011/12/Fiscal-Rules-for-Ireland.pdf

Howlin, J. (2015). Controlling the Health Budget: Annual Budget Implementation in the public health area. Irish Fiscal Advisory Council, Analytical Note No. 8.

Lane, P. (2010) "Report on Macroeconomic Policy and Effective Fiscal and Economic Governance", Houses of the Oireachtas Joint Committee on Finance and the Public Service, Dublin.

Lane, P. (2011). "The Irish Crisis", in Beblavy, M., Cobham, D., and O. L'udovit (ed.)*The Euro Area and the Financial Crisis*. Cambridge: Cambridge University Press, pp. 59-80. Available at: https://www.cambridge.org/core/books/abs/euro-area-and-the-financial-crisis/irish-crisis/F468DBF37490ED00D4BE4B848D60E4B133

Irish Fiscal Advisory Council (2013). Fiscal Assessment Report, November 2013. Dublin: Irish Fiscal Advisory Council. Available at: http://www.fiscalcouncil.ie/publications/

Irish Fiscal Advisory Council (2014). Fiscal Assessment Report, November 2014. Dublin: Irish Fiscal Advisory Council. Available at: http://www.fiscalcouncil.ie/publications/

Irish Fiscal Advisory Council (2015). Fiscal Assessment Report, June 2015. Dublin: Irish Fiscal Advisory Council. Available at: http://www.fiscalcouncil.ie/publications/

Irish Fiscal Advisory Council (2016). Pre-Budget 2017 Statement, September 2016. Dublin: Irish Fiscal Advisory Council. Available at: http://www.fiscalcouncil.ie/publications/

Lyons, R. (2017). "The Daft.ie House Price Report", January 2017. Available at: http://www.daft.ie/report/q4-2016-daft-house-price-report-2016.pdf

McCarthy, C. (2004). "Volatility in Irish Quarterly Macroeconomic Data". Special Article, Quarterly Economic Commentary, Spring 2004, Dublin: The Economic and Social Research Institute. Available at: https://www.esri.ie/pubs/QEC2004Spr_SA_McCarthy.pdf

New Zealand Treasury. (2015). "An Introduction to New Zealand's Fiscal Policy Framework." New Zealand Government. Available at: https://www.treasury.govt.nz/sites/default/files/2015-03/nzfpf-A5.pdf

OECD. (2011). "Forecasting methods and analytical tools." Available at: https://www.oecd.org/economy/outlook/forecastingmethodsandanalyticaltools.htm

OECD. (2021). "OECD Review of the Irish Fiscal Advisory Council." OECD Independent Fiscal Institutions Review. Organisation for Cooperation and Economic Development. Paris. Available at: https://www.fiscalcouncil.ie/wp-content/uploads/2021/02/oecd-review-of-the-irish-fiscal-advisory-council.pdf

Office for Budget Responsibility. (2020). "Fiscal Sustainability Report." Office for Budget Responsibility. London. Available at: https://obr.uk/fsr/fiscal-sustainability-report-july-2020/

Pisani-Ferry, J., Sapir, A., and Wolff, G.B. (2011). "An Evaluation of IMF Surveillance of the Euro Area." Bruegel Blueprint Series, 14. Available at:

https://www.bruegel.org/wp-content/uploads/imported/publications/BP_14_IMF_website.pdf

Quill, P. (2008). "An Analysis of Revisions to Growth Rates in the Irish Quarterly National Accounts," Quarterly Economic Commentary: Special Articles, Economic and Social Research Institute, 3, Autumn. Available at: https://ideas.repec.org/a/esr/qecsas/2008autumnquill.html

Rachel, L. and Summers, L. (2019). "On Falling Neutral Real Rates, Fiscal Policy, and the Risk of Secular Stagnation." Brookings Papers on Economic Activity, BPEA Conference Papers, March 7-8, 2019. Available at: https://www.brookings.edu/wpcontent/uploads/2019/03/On-Falling-Neutral-Real-Rates-Fiscal-Policy-and-the-Riskof-Secular-Stagnation.pdf

Reinhart, V., Reinhart, C., Rogoff, K. (2012). "Growth in a time of debt."American Economic Review: Papers and Proceedings, 100, May 2010, pp. 573-578. Available at: https://scholar.harvard.edu/files/rogoff/files/growth_in_time_debt_aer.pdf

Scott, R., and Bedogni, J. (2017). "The Irish Experience: Fiscal Consolidation 2008-2014." Irish Government Economic & Evaluation Service: Department of Public Expenditure and Reform, Staff Paper 2017, May 2017. Available at: https://igees.gov.ie/wp-content/uploads/2017/06/The-Irish-Experience-Fiscal-Consolidation-2008-2014.pdf

Tooze, A. (2019). "Output gap nonsense: How a false exactitude in economics has led to a terrible politics in the EU." Social Europe, November 1 2019. Available at: https://newforum.org/en/europe/output-gap-nonsense-how-a-false-exactitude-in-economics-has-led-to-a-terrible-politics-in-the-eu/

Whelan, K. (2014). "Ireland's Economic Crisis: The Good, the Bad and the Ugly." Journal of Macroeconomics, 39(B), pp. 424-440. Available at:

https://www.sciencedirect.com/science/article/abs/pii/S0164070413001304

Woo, J., and Kumar, MS. (2015). "Public Debt and Growth." Economica, 82(328), pp. 705-739. Available at: https://onlinelibrary.wiley.com/doi/abs/10.1111/ecca.12138

Wyplosz, C. (2005). "Fiscal Policy: Institutions Versus Rules." National Institute Economic Review, 191, pp. 64-78. Available at: https://www.jstor.org/stable/23876949