The Economic and Social Review, Vol. 56, No. 1 Spring 2025, pp. 49-76

PANEL RESPONSE: FISCAL POLICY

What to do about the Surplus?

John McHale
University of Galway

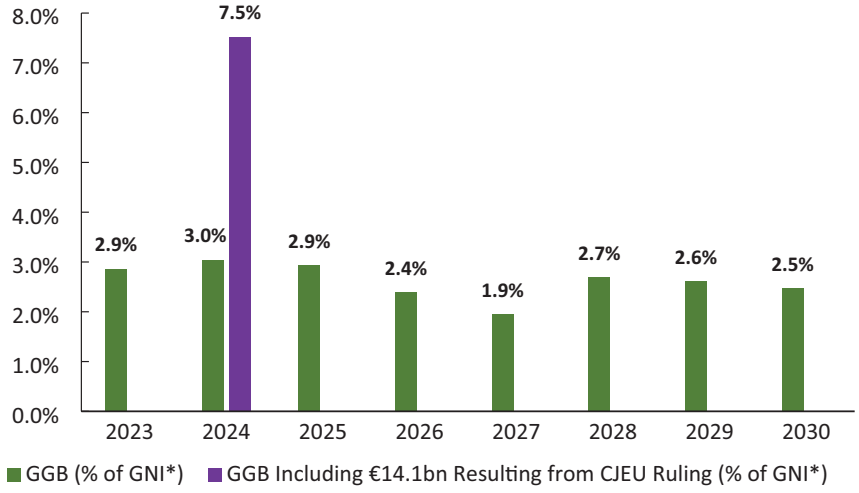
I INTRODUCTION

It is a privilege to be part of the panel honouring Patrick Honohan's contributions to Irish fiscal policy. Through his work as an academic, policy advisor and policymaker, Patrick has undoubtedly been one of the most practically influential economists – indeed perhaps *the* most influential – in the history of Irish economics. The word that most comes to mind in thinking of these contributions is wisdom. Ireland has been fortunate that this wise economist played such a central role during not one but two fiscal crises, first as advisor to the Taoiseach during the crisis of the 1980s and then as Governor of the Central Bank during the more recent sovereign debt crisis. Hopefully as a complement to the more micro-focused analyses of the other papers on this panel, not least Bara Rowntree's excellent lead paper, I will take a macro perspective on fiscal policy, and in particular address the very live question about the appropriateness of current fiscal policy. Although the stakes are not as high as they were in the crisis management situations Patrick faced, fiscal policymaking today faces the difficult challenge of balancing countercyclical, sustainability and risk management concerns at a time where there is also strong pressure to use the surplus to meet real societal needs. Hopefully that balancing can be done in a way that ensures that future advisors and policymakers do not have confront new crises in the years ahead.

Disclaimer: The author is solely responsible for the content and the views expressed. Thanks to Eddie Casey, Thomas Conefrey and John McCarthy for extremely useful feedback on an earlier draft.

Corresponding author: john.mchale@universityofgalway.ie

Figure 1: Actual (2023) and Projected Budget Surpluses (2024-2030) as a Share of GNI* in Budget 2025



Source: Department of Finance (2024b); Budget 2025: Economic and Fiscal Outlook.

My starting point is the sizable budget surplus that has arisen in the Irish economy, driven significantly by the surge in corporation tax revenues but also by the broader strength of the economy. Indeed, as other countries struggle with sizable deficits, the Irish fiscal picture is the envy of other European governments. Figure 1 shows the actual and projected surpluses set out in Budget 2025 (including and excluding the Apple windfall). Interestingly, even after the measures announced in Budget 2025, the size of the actual and projected surplus remained roughly constant between 2023 and 2025.

It is difficult to characterise the current fiscal stance from a complex budget in a single number, but a useful approach is to ask how much bigger the projected budget surplus would have been for 2025 if the Government had adhered to its 5 per cent net expenditure rule, which would have implied a budget package of approximately €6.0 billion instead of the actual package of €8.3 billion. The difference of €2.3 billion is roughly 0.7 per cent of projected GNI* in 2025, which (ignoring fiscal feedback effects) can be taken as a reasonable measure of the impact of the additional measures on the budget surplus in 2025. In addition, the Government undertook one-off measures that were mainly implemented in the remaining months of 2024 that equalled €2.2 billion, also roughly 0.7 per cent of GNI* in 2024.[1]

[1] While ostensibly temporary measures, their reoccurrence across budgets makes it reasonable to assume they are effectively permanent compensations for the price level increase that resulted from the temporary post-pandemic inflation surge. However, besides their political attractiveness, their temporary status can be seen as giving the Government some flexibility in the case that the corporation tax revenue performance deteriorates.

The Government's strategy in relation to the surplus – or at least the net implication of the myriad of measures implemented – can then be taken to be one of keeping the surplus essentially constant as a share of national income despite the surging corporation tax revenues. Clearly cognisant of medium- and longer-term fiscal challenges and risks, the Government defended their strategy as an appropriate balancing of these challenges and risks with significant spending needs, including the need to invest in infrastructure and housing, in addition to helping households and businesses deal with the permanent cost-of-living and cost-of-operating effects of the post-pandemic inflation surge.

I think the main issue with the post-pandemic budgets is less that they have been too expansionary but rather, having effectively lost the anchor of the net expenditure rule, the budgets have appeared reactionary – and, indeed, at times somewhat chaotic. From a macroeconomic perspective, fiscal policy has to achieve a difficult balancing between countercyclical management, long-term sustainability management and risk management. In the remainder of my contribution, I briefly consider three broadly macroeconomic arguments for sustaining the surplus that are motivated by these overlapping fiscal management tasks. I also tentatively propose a reformulated net expenditure rule that might provide the needed anchor to achieve a workable balance between these different fiscal management objectives.

II OVERHEATING AND COUNTERCYCLICAL MANAGEMENT

In this section, I first explore what notion of overheating is appropriate to the conduct of countercyclical fiscal policy in the context of a small country that is part of a large monetary union, where monetary policy is set based on achieving an inflation target for the union as a whole. Given the appropriate measure of overheating, I also consider how a net expenditure might be designed to produce an appropriate fiscal stance.

The idea of macroeconomic overheating is commonly invoked in discussions of the fiscal stance. But there can be some vagueness in the nature of the dangers that are being invoked and variation in the indicators of overheating that are used, especially for an economy that does not have its own independent currency. In general, the term suggests unsustainability in the current level of aggregate demand given the underlying supply potential of the economy. The possible effects of such overheating include a gradual loss of competitiveness as domestic prices and costs rise faster than those in competitor countries, or an embedding of high inflation in expectations of future inflation. The fear is that the period of overheating will necessitate a period of sub-potential performance as the imbalances built up during the overheating period are unwound, with the boom-bust dynamics producing inferior overall outcomes compared to a growth rate of aggregate demand that matches the underlying potential growth rate of the economy.

Both the form that overheating can take and the best indicators of overheating can vary with the structure of the economy and the policy regime. In the Bretton Woods era of fixed exchange rates and limited capital mobility, an emerging trade deficit and loss of reserves provided a direct signal of overheating. While operating in a very different international capital flows regime, the sharp rise in the current account deficit and appreciation of the real exchange rate were also strong indicators of overheating in the late Celtic Tiger economy. More generally, signs that unemployment rate is below the estimate of the natural rate of unemployment, or actual real output is above the estimate of potential output, indicate the unsustainability of the current growth rate in aggregate demand, although estimation of the natural rate/potential output are fraught with difficulties. Measures of sectoral imbalances may also provide useful indicators, such as rapid rises in construction price or house price inflation, both of which provided warning signals in the lead up to the economic and financial crisis of 2008-2013.[2]

The central feature of Ireland's macroeconomic policy regime since 1999 has been membership of the euro area. The overall macroeconomic policy stance is a combination of the monetary policy set the European Central Bank (ECB) and the fiscal policy set by the Irish government. The target of ECB's monetary policy is an inflation rate of 2 per cent over the medium term, with the inflation measure taken as the annual rate of growth in the Harmonised Index of Consumer Prices (HICP). In this regime, while monetary policy is the prime mover of aggregate demand management, fiscal policy plays a critical role in ensuring that Ireland's inflation rate does not deviate significantly from the inflation rate for the euro area as a whole.[3] This approach to macroeconomic management implicitly adopts the 2 per cent inflation target as appropriate to Ireland and a level of trust in ECB monetary policy to achieve that target for the euro area as a whole.

This suggests a division of responsibility, where the euro area's monetary policy focuses on the gap between euro area inflation and the inflation target, and domestic fiscal policy focuses on the gap between the domestic inflation rate and the euro area inflation rate.[4] Of course, actual policy will need to take into account

[2] Imbalances in the financial sector can also provide important warnings of an unsustainable macroeconomic situation, which was certainly the case in the lead up to the most recent Irish crisis. However, just as with monetary policy, there is a debate about whether such imbalances are best dealt with by adjusting the macroeconomic stance of fiscal policy (as opposed to adjusting particular fiscal measures such as stamp duties on property transactions or developer levies). Alternatively, more focused measures such as macro-prudential measures may provide the appropriate tools for dealing with such imbalances.

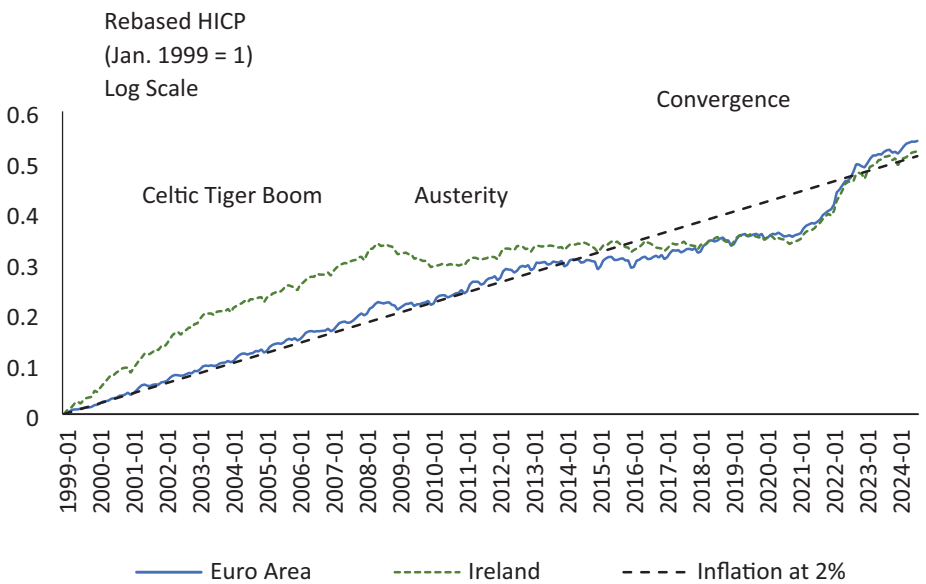
[3] Fiscal policy can take on additional importance where monetary policy faces a lower-bound constraint on its policy interest rate and unconventional measures such as quantitative easing and forward guidance are only partially effective in raising inflation to the target.

[4] Ignoring accumulated imbalances, a measure of excess inflation is simply $\pi - \pi^*$ where π and π^* are the Irish (or more generally domestic) and the target inflation rates respectively. This can be written as the sum of two components: Excess Inflation = $(\pi^{EA} - \pi^*) + (\pi - \pi^{EA})$, where π^{EA} is the euro area inflation rate. The proposed inflation-based measure of overheating is then simply the second component.

accumulated divergences in the two price levels and not simply the divergence in the inflation rates.[5] Moreover, judgement needs to be used in evaluating the causes of gaps in the second component, which could be due, for example, to cyclical divergence between the Irish and euro area economies (measured say by output gaps) or by different supply-side inflation shocks.

In this regime, a central – though certainly not the only important – diagnostic is how the HICP index (and its rate of change) for Ireland deviates from the equivalent index for the euro area as a whole. Figure 2 shows this index from January 1999 (the launch date for the euro) and August 2024. Both indexes are normalised to 1 in January 1999 and the natural log of each index is shown on the vertical axis. (The advantage of looking at the log of an index is that the slope of the line is informative about the inflation rate.) The figure also shows how the log of the index would have evolved if the 2 per cent inflation target was consistently met.

Figure 2: Overheating Diagnostic: Comparison of HICP for Euro Area and Ireland (January 1999 to August 2024)



Sources: Eurostat and author's calculations.

[5] This analysis implicitly assumes that there is no desired change in the real exchange rate which is set equal to 1 on January 1999. Given the fixed nominal exchange rate, if there were desired changes in the real exchange rate, then the target price level in period t would be: $P_t^{Ire} = e_t^* P_t^{EA}$, where e_t^* is the desired real exchange rate. If looking at a target inflation rate rather than a target price level, then the target domestic inflation rate would be: $\pi_t^{Ire} = \Delta lne_t^{*} + \pi_t^{EA}$. I do not think a convincing argument can be made that the appreciation of the real exchange rate that took place during the Celtic Tiger period was a desired outcome or that the real depreciation that followed during the adjustment period was unnecessary.

The figure shows three distinct periods. First, the Celtic Tiger period is associated with a growing deviation of the Irish index from that of the euro area as a whole, which was mirrored in the loss of competitiveness of the Irish economy in the years before the crisis. An important test of this diagnostic is whether it would have provided a strong warning signal during the Celtic Tiger period, for which the answer is a clear "yes".[6] Second, the Austerity period saw Irish inflation below the euro area, with the gap between the price indexes being gradually eroded (i.e. a real exchange rate depreciation).[7] Third, the recent period shows the indexes have converged and then broadly moved in lockstep, with this convergence being maintained (perhaps surprisingly) through both the pandemic and the post-pandemic inflation surge. As of this writing (early October 2024), the Irish inflation rate had actually fallen below that of the euro area as a whole, although no significant gap between the indexes had yet opened up.[8]

Taken over the entire period since the launch of the euro, one puzzling feature of Figure 2 is that it seems at odds with cross-country comparisons of prices level differences based on international prices (or purchasing power parities, PPPs). These comparisons indicate an Irish price level that is more than 40 per cent higher than the European Union average, with a modestly smaller gap between Ireland and the euro area. Part of the explanation is the gap in price levels that already existed at the time the euro was launched; but another part reflects the difference in the goods and services included in the two indexes. However, the PPP measure is designed for international comparisons at a point in time. The design of the HICP

[6] As previously noted, a divergence in inflation rates need not be due to a divergence in cyclical positions. Honohan and Lane (2003) provide evidence that differing responses to the post-monetary union depreciation of the euro against the dollar is an important explanatory factor for the divergence in Irish and euro area inflation rates. In other words, the depreciation was the source of differing inflation shocks for the Irish and broader euro area economies, possibly because of Ireland's relatively high dependence on the US economy. Much of this effect dissipated with the subsequent appreciation of the euro (Honohan and Lane, 2004). However, even where such shocks are the cause of the divergence, fiscal policy may need to respond to the inflation gap, especially where there is a danger of higher inflation becoming embedded in domestic inflation expectations.

[7] I follow Wren-Lewis (2017) in conceptualising austerity as contractionary fiscal policy in a recession – on its face, a major failure of countercyclical fiscal policy. Such pro-cyclical policy could only be justified by the danger of even greater fiscal contractions that would be likely to follow a sovereign debt default (see e.g. McHale, 2017).

[8] Views on the drivers of Irish inflation have changed over time. Historically, the received view was that Irish inflation was almost completely determined by external factors. More recently, economists have found evidence to support a Phillips curve interpretation of the drivers of Irish inflation, and in particular that domestic demand conditions (as captured, say, by some measure of the output gap or labour market slack) has explanatory power for Irish inflation (see, e.g. Bermingham *et al*., 2012; Byrne and Zakipour-Saber, 2020; Gerlach *et al*., 2016). It is useful then to think of fiscal policy as affecting the size of the output gap and the output gaps then impacting on inflation. Bénétrix and Lane (2009) and Ivory *et al*. (2020) provide evidence on the size of Irish fiscal multipliers. Byrne and Zakipour-Saber (2020) provide evidence on how measures of domestic slack are transmitted to inflation. Using a semi-structural model of the Irish economy, Conefrey et al. (2024) estimate that deviations from the net expenditure rule added 0.5 percentage points to annual inflation for 2022 and 2023; however, the finding that fiscal policy is effective in moving inflation does not necessarily mean that the fiscal policy was inappropriate from a cyclical management perspective.

makes it more suitable for comparisons across time. If the focus of countercyclical fiscal policy is on the gap between domestic and euro area inflation, the HICP-based diagnostic would appear to be the best metric to look at, in particular since it allows for a more integrated approach between setting of fiscal policy and the monetary policy that is independently set by the ECB.

Looking to the performance of the ECB in achieving its 2 per cent inflation objective, while it has struggled during certain sub periods – notably the sustained undershoot following the 2008-2013 crisis and the post-pandemic inflation surge – overall the figure shows the broad success of their monetary policy, suggesting reasonable trust is warranted in giving monetary policy the lead role in countercyclical management, with domestic fiscal policy focused on ensuring damaging divergences do not again open up between the euro area and Ireland's inflation performances.

Examining conditions in the lead-up to Budget 2025, this diagnostic did not suggest an overheating problem given the stance of fiscal policy – notwithstanding much commentary that the Irish economy was overheating. On its face, this indicates that the then cyclically adjusted primary budget surplus of approximately 3 per cent of GNI* was not obviously inappropriate from the aggregate demand perspective given the monetary policy stance of the ECB and projections that its 2 per cent inflation target would be met over the medium run. Moreover, it suggested it was unlikely that a modest easing of the fiscal stance would lead to a serious overheating problem, although care needs to be exercised given potential lags between the setting of fiscal policy and the full impact of that policy on inflation.

Of course, no single diagnostic is sufficient to definitively assess the cyclical stance of fiscal policy given the anticipated conduct of monetary policy. In addition to measures of the output gap and labour market slack it is important to look at sectoral indicators. Sectoral indicators such as construction and housing price inflation have been giving warning signals for some time. However, it is open to debate as to whether such sectoral signs of overheating are best addressed with sectoral solutions – e.g. improving the supply capacity of the construction sector – or the overall stance of fiscal policy.

It is also important to note that although the ECB pursues a headline inflation target over the medium term, understanding the likely path for inflation involves a multi-level set of analyses, involving close examination of various indicators of underlying inflation, model-based approaches to inflation forecasting and deep dives into the workings of the underlying transmission mechanisms between the monetary policy stance and ultimate inflation. With the diagnostic as a starting point, a similar set of complex analyses are required to understand and forecast the evolving gap between the domestic and euro area inflation rates.[9]

[9] The ECB has recently stressed the importance of looking closely at measures of underlying inflation in addition to model-based forecasts of future inflation. In both the Irish and broader euro area contexts, particular attention has been given to services inflation, which may prove more "sticky" than the headline rate.

In terms of the question of whether the budget surplus should be sustained or even increased given the anticipated conduct of monetary policy, my preliminary assessment as of early October 2024 was that fears of overheating did not provide a strong argument against modest reductions in the surplus compared to a policy of following the net expenditure rule and better targeting of one-off measures.

While understandable given the inflation surge, failure to follow the net expenditure rule has led fiscal policymaking to become unanchored in recent years. The net expenditure rule has the virtue of simplicity when compared to the complex rules under the Stability and Growth Pact (SGP) and by extension the rules in Ireland's Fiscal Responsibility Act (FRA). Unfortunately, recent experience has underlined that there is no perfect rule or set of rules. The great advantage of the net expenditure rule is in how it prevents potentially unsustainable surges in tax revenue being used to fund permanent increases in spending. The Achilles heel of the rule, however, turned out to be its difficulty coping with an externally driven surge in inflation above the ECB's 2 per cent inflation target.

The 5 per cent net spending rule was premised on 3 per cent underlying real growth plus 2 per cent inflation (with the latter in line with the ECB's inflation target). In general, excess inflation over the target would lead to an unplanned tightening of the fiscal stance.[10] While it was clear that the rule would need to be modified given the extent of the inflation surge, it was important that this was done in a principled way.[11] One approach would have been to replace the 2 per cent inflation target with the euro area inflation rate in the net expenditure rule (see footnote 11 and Appendix). While this would have led to a notable easing of the rule during the inflation surge, it arguably would have been superior to the combination of ad hoc adjustments to the rule and one-off compensatory payments.

[10] As shown in the Appendix, it is useful to write expenditure rules as: $\%\Delta NE = g^* + \pi - z$, where NE is net expenditure, g^* is the real growth rate of potential output, π is the domestic inflation rate and z is any factor that causes a deviation from a rule that would have net expenditure growth at the underlying rate of growth of nominal potential output. If we take the standard expenditure rule based on 3 per cent real potential output growth and 2 per cent target inflation ($\pi^* = 2\%$), we can write the net expenditure rule as: $\%\Delta$ *Net Expenditure* $= g^* + \pi^* = g^* + \pi - (\pi - \pi^*)$, so that $z = \pi - \pi^*$. I show in the Appendix that following this expenditure rule would lead to a contractionary fiscal stance when $\pi > \pi^*$.

[11] One (undesirable) approach would have been to modify the rule to be based on actual inflation (say the expected inflation rate for year t at the time of the budget for $t + 1$ which takes place at the beginning of the final quarter of year t). The problem with using actual inflation is that to the extent that inflation is domestically generated, following the rule would not lead to an appropriate countercyclical fiscal stance. An alternative that should be broadly consistent with diagnostic discussed above would be to use the ECB's forecast for the inflation rate for the euro area in place of the 2 per cent inflation target. The rule would then become: $\%\Delta NE = g^* + \pi^{EA} = g^* + \pi - (\pi - \pi^{EA})$, where z is now $\pi - \pi^{EA}$. Here again trust is required in the ECB's determination to respond to demand-driven rises in inflation; trust that I believe is warranted given its record. For externally driven inflation affecting the euro area as a whole, the rate of increase in net spending would then be adjusted in a way that recognises the significant cost of living/doing business impacts of such externally driven inflation shocks, but still keeps fiscal policy anchored in a way that should be consistent with domestic inflation moving in line with euro area inflation without it becoming unintentionally contractionary.

Of course, this analysis of overheating is just a point-in-time assessment. Careful ongoing monitoring of this and other diagnostics are required to ensure effective countercyclical management consistent with the monetary policy stance of the ECB.

Although I do not think overheating concerns raised undue alarm about a modest relaxation of fiscal policy as of Budget 2025, I next turn to other arguments for sustaining or indeed increasing the surplus – arguments I believe will retain their force for some time. I begin with the implications for fiscal sustainability of an ageing population and then turn to the challenging issues of risk management as they relate to corporation tax revenues.

III AGEING AND LONG-RUN SUSTAINABILITY MANAGEMENT

While identifying the appropriate fiscal stance from a countercyclical demand management perspective will be specific to the short-run macroeconomic conditions, the need to run budget surpluses to prepare for the inevitable fiscal costs of an ageing population will undoubtedly be an enduring feature of the fiscal debate over the coming decades. Detailed fiscal projections have been produced by both the Department of Finance (see e.g. Department of Finance, 2024a) and the Irish Fiscal Advisory Council (see, in particular, Irish Fiscal Advisory Council, 2020). There is some variation in the long-run projections based on precise demographic change and fiscal structure assumptions as well as the coverage of additional costs (e.g. the Fiscal Council has included fiscal costs associated with climate change as well as narrow demographic factors). However, all projections point to a significant fall in the primary budget balance, assuming other parameters of the fiscal system (including tax rates and the relative generosity of welfare payments) remain unchanged. The important conclusion is that the current fiscal system may be in short-run surplus but it is in substantial long-term deficit.[12]

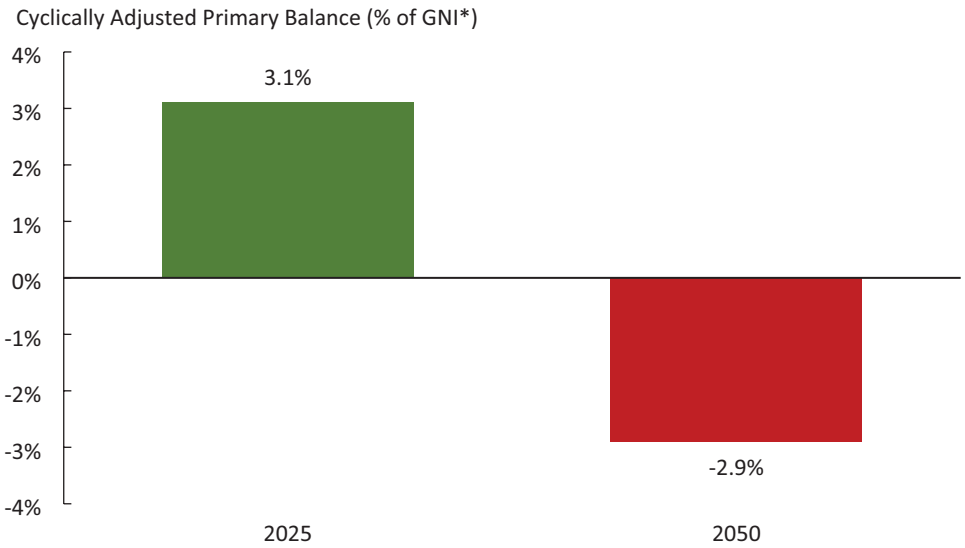
For illustration, I focus on the more conservative projections of the Department of Finance, which also limit attention to the direct fiscal implications of demographic change. The Department forecasts that demographic change under the current fiscal system will add 6 percentage points of GNI* to the cost of that system.[13] The current cyclically adjusted primary budget surplus is approximately 3 per cent of GNI*. For simplicity, I assume that the cost of running the fiscal

[12] I hasten to add that though the ageing of the population is often discussed as a fiscal problem, the fact of ageing – and in particular effects of increased healthy life expectancy at older ages – is in itself very good news. Indeed, the relatively large increase in healthy life expectancy compared to other European countries should be considered a success story of Irish public policy, notwithstanding the significant challenges that remain in the health system and the fiscal challenges that come with an ageing population.

[13] This estimate includes a reduction of approximately 1 percentage point of GNI* in the cost of running the education system for a less youthful population.

system (appropriately indexed) would also be approximately 3 per cent of GNI* in 2050 if the demographic structure remained unchanged. Figure 3a shows the large implied swing in the budget balance from a surplus of 3 per cent of GNI* in 2024 to a deficit of 3 per cent of GNI* in 2050.

Figure 3a: The Fiscal Implications of Ageing: Hypothetical Effect of Demographic Costs

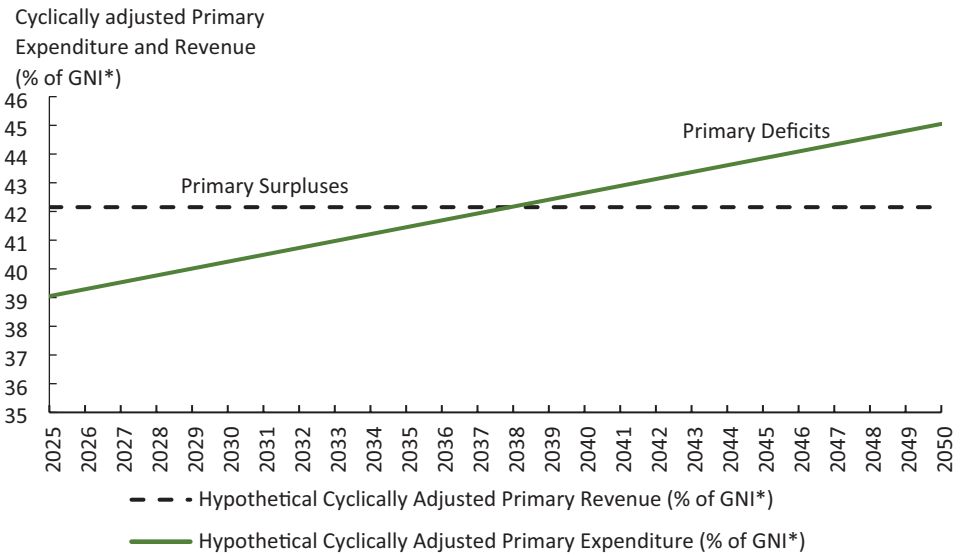


Sources: Department of Finance (2024b), Budget 2025: Economic and Fiscal Outlook, for cyclically adjusted primary balance in 2025; Department of Finance (2024a), Stability Programme Update, for estimated ageing costs of 6 percentage points of GNI* by 2050; and author's calculations.
Note: Hypothetical effect of demographic costs equal to 6 percentage points of GNI* on the cyclically adjusted primary, holding cyclically adjusted revenue and non-ageing-related General Government Expenditure constant as a percentages of GNI*

The case for running medium-term surpluses to prepare for the inevitable higher costs of running a given fiscal system draws on the idea of fiscal smoothing. On the tax side, given that tax distortions tend to rise non-linearly with tax rates, theory suggests that the tax rate should be constant and set a rate consistent with meeting the intertemporal budget constraint (see e.g. Barro, 1979).[14] Matters are less straightforward on the expenditure side, but especially in the context of

[14] The intertemporal budget constraint dictates that the present discounted value of future primary budget surpluses must equal the current value of the net debt. However, this budget constraint is premised on the assumption that the real interest rate (r) is greater than the real growth rate (g). I further consider the implications of $r < g$ below.

Figure 3b: Hypothetical Scenario Where Cyclically Adjusted Revenue Stays Constant as a Percentage of GNI*

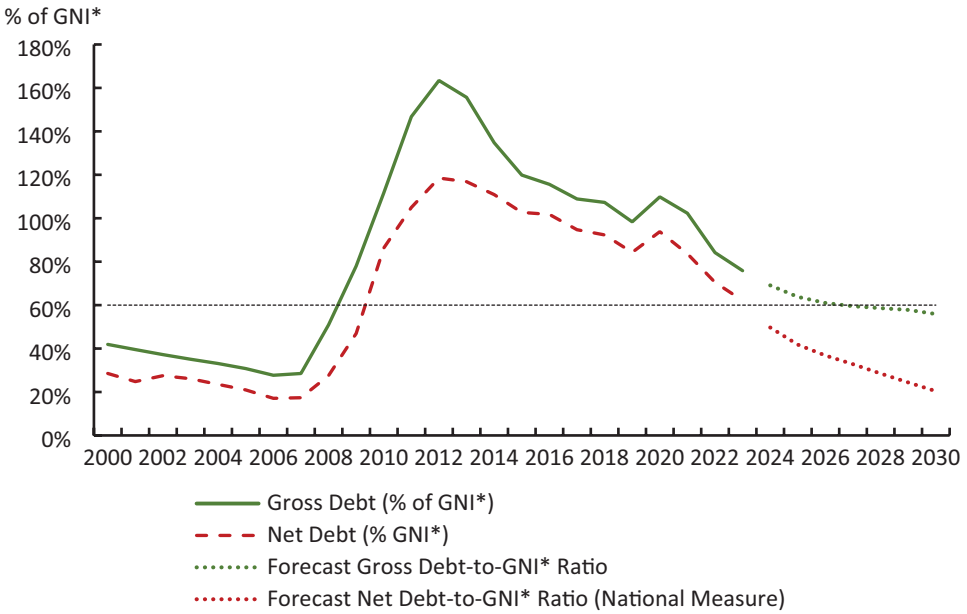


Source: Department of Finance (2024b), Budget 2025: Economic and Fiscal Outlook; and author's calculations.
Note: Hypothetical scenario where cyclically adjusted revenue stays constant as a percentage of GNI* at its forecasted 2025 level and cyclically adjusted primary expenditure (% of gni*) rises linearly to achieve a cyclically adjusted primary deficit of 3 per cent of GNI* by 2050. The cyclical adjustment of 0.9 per cent of GNI is divided equally between primary revenue and primary expenditure.

intergenerational systems such as the state pension system; intergenerational fairness requires that the generosity of systems is maintained over time, although this can imply large changes in the costs of the system as the demographic structure changes (see McHale, 2001, for a discussion in the context of pension systems). More broadly, the recent experience with austerity underlines that people place disproportionate disvalue on cuts compared to the value they place on equal-sized gains, reflecting the difficulties of adapting to reductions in income.

Figure 3b shows a simple illustration anchored on the current fiscal system and a 6 percentage point increase of demographic-related costs by 2050. For simplicity, the figure assumes that the tax share as a percentage of GNI* remains constant as does the generosity of the current expenditure system. It also makes the simplifying assumption that the cost of running the expenditure system rises linearly over time due to ageing. Although only covering a limited slice of time, the figure reinforces how surpluses are required in the present to cover later deficits in a way that sustains the fiscal system.

Figure 4: Actual and Forecast Evolution of the Debt-to-National Income Ratio, 2000-2030



Sources: CSO for historical data; and Department of Finance (2024b), Budget 2025: Economic and Fiscal Outlook for debt ratio forecasts.
Note: The national net debt measure is a broader measure than EDP (excessive deficit procedure) debt instrument assets that includes fund assets – Future Ireland Fund and Infrastructure, Climate and Nature Fund – that can consist of equity investments.

An implication of medium-term surpluses is a fall in net debt, which can be viewed as the mechanism used to make it possible to sustain the fiscal system in later years. Figure 4 shows the recent trajectory of both gross and net debt (as shares of GNI*) and also Department of Finance projections for the rest of the decade. Overall, the projections are reasonably encouraging, with a projected fall in net debt towards roughly 20 per cent of GNI* – although it is telling that a similar level was achieved just before the crisis.[15] What is most important is that coming governments follow through on the projected surpluses – or even increase them beyond what is shown in Figure 1 – to ensure the sustainability of the fiscal system.[16] Moreover, to the

[15] However, if $r > g$, to be consistent with fiscal sustainability, a mid-century primary deficit would require a net asset position. However, even if Ireland does not get all the way to a net asset position, achieving a low net debt position through a period of sustained surpluses would ease the challenges of sustaining the fiscal system when primary deficits reach their peak. See the next footnote for more detail on the importance of the sign of $r - g$.

[16] One important but technical factor is the sign of $r - g$ (see Blanchard, 2019, for an excellent discussion). As noted earlier, the standard intertemporal budget constraint assumes that $r - g > 0$. When this condition

Continued overleaf

extent that future governments want to enhance the expenditure programmes, it will be essential that these improvements are funded through increased revenues. I return to briefly discuss the recommendations of the Commission on Taxation and Welfare for options to efficiently increase revenues in the concluding comments.

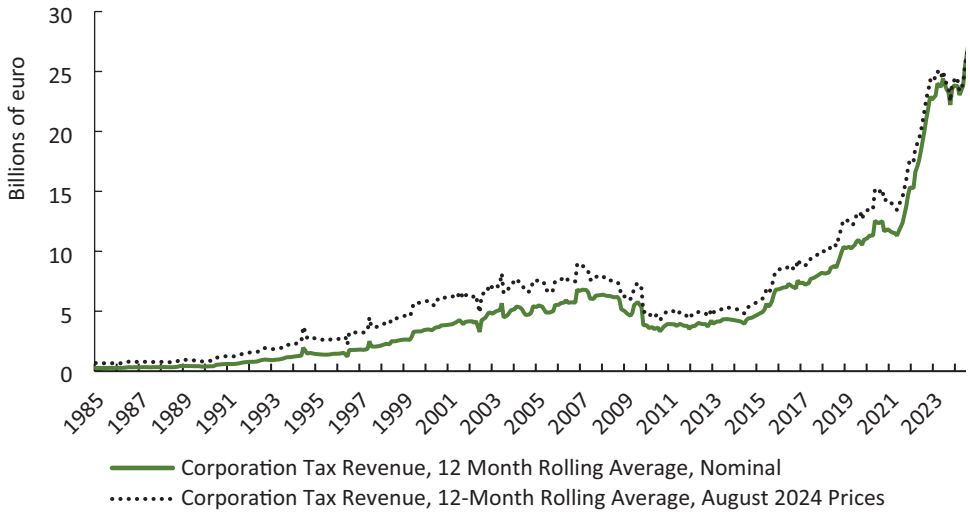
IV CORPORATION TAX REVENUES AND RISK MANAGEMENT

I finally consider risk as an argument for prioritising the surplus under current economic conditions. As the economic and financial crisis underlined, Ireland faces a wide variety of fiscal risks – from the volatility of growth and interest rates to risks associated with the sovereign acting as a backstop for the financial system. However, I focus here on risks to the future flow of corporation tax revenues; risks that have been widely discussed since corporation tax revenue first began to surge in 2015 and went into overdrive as the economy recovered from the pandemic. Moreover, some of the same factors that underpinned the sharp rise in corporation tax revenues – notably the booming multinational sector – have also supported strong growth in revenues from income taxes, so that any turnaround in corporation tax revenue is also likely to be associated with a broader downturn in the tax take. The risks around corporation tax in particular are highlighted by the high concentration of those revenues in taxes paid by just a small number of "superstar" multinational firms, with the Irish Fiscal Advisory Council estimating that one-third of revenues are paid by just three multinational firms, and ten firms accounting for more than 50 per cent of total corporation tax revenue (Cronin, 2023). Moreover, the revenues are heavily concentrated in a small number of sectors (notably pharmaceuticals and IT) and in a single politically volatile source country (the US).[17]

[16] *Continued:* holds, the government is required to run a given primary surplus as a share of GNI* to sustain any starting net debt-to-GNI* ratio, where that starting ratio is an unstable equilibrium. This places a severe fiscal constraint on fiscal policy. However, if $r - g < 0$ then any constant primary deficit as a share of GNI* will lead to convergence to a stable debt-to-GNI* ratio. Effectively, the government can violate the intertemporal budget constraint (as the net debt is growing at a faster real rate (g) than the real interest rate (r)). The implications for the fiscal constraint facing the government are quite dramatic, as the government could run a significant primary deficit today and possibly even increase that deficit later to cover the fiscal costs of ageing, albeit at the cost of a high steady-state net debt-to-GNI* ratio (see McQuinn, 2021, for an illuminating discussion in the Irish context). Of course, the downside of this strategy is one of risk. If the economy moves from a situation of $r - g < 0$ to one of $r - g > 0$ at a time where it has reached a high net debt-to-GNI* ratio, the extent of the fiscal adjustment (i.e. austerity) could be severe, further complicated by a likely contemporaneous rise in the risk premium of the debt. In recent years, with the exception of the crisis years, Ireland has fortunately been in a regime where $r - g < 0$. While the likelihood is that Ireland will stay in this regime over the medium term, the risks of a reversal are such that it would be dangerous to exploit the relatively relaxed implied fiscal constraint. While views on this issue can reasonably differ, my conclusion is that, taking account of the historic volatility of the Irish economy and uncertainties about future equilibrium interest rates, that the current strategy of running primary (and overall) surpluses and consequent reductions in net debt as a share of GNI* is the correct one.

[17] See O'Connor (2024) for an excellent recent review of the issues surrounding the corporation tax surge.

Figure 5: Corporation Tax Revenues, 12-Month Rolling Average, January 1985 – August 2024



Sources: Department of Finance Databank for Corporation Tax Revenue; CSO for Consumer Price Index.

Figure 5 shows the growth of corporation tax revenue (measured as a rolling 12-monthy sum) in both nominal and real terms going back to the mid-1980s. Such revenues were less important prior to the economic and financial crisis – and not surprisingly dipped during the crisis itself – but rose as the economy recovered. However, the really stunning surge has come post-pandemic; comparing the immediate pre-pandemic period with today (early October 2024), corporation tax revenue is up by 130 per cent.[18] Taken over the entire period, real corporation tax revenue has grown at an average real annual compound rate of roughly 10 per cent.

It has become common to think of the increase in revenue as a "windfall." Analysts have used a variety of techniques to identify the windfall component, including standard revenue forecasting models using appropriate tax bases (e.g. gross operating surplus) or measures of national income (e.g. GNI*) to identify the part of the growth that cannot be explained by standard variables.[19] Typically, the models are estimated over some given historic period to avoid the estimated coefficients becoming contaminated by the more recent surge in revenue. Another approach is to calculate the normal share of corporation tax revenues in total tax revenue based on a given historic time-point and to identify the windfall based on

[18] Given the recent developments, it now seems somewhat quaint that we were worrying on the Fiscal Council about the surge in corporation tax revenues as early as 2015-2016.

[19] See, for example, Department of Finance (2019) and Conefrey *et al.* (2020). Hannon *et al.* (2015) provide a general review of the Department of Finance's tax forecasting models.

the deviation from that share. In general, the standard methods can be seen as an attempt to identify a deterministic trend for corporation tax revenues and to assume that revenues will return to that trend – hence the treatment of the identified excess as an ephemeral windfall.

One advantage in thinking in windfall terms is that it suggests an analogy with the discovery of an exhaustible resource. The challenge facing policymakers is then to identify the portion of the temporary windfall that can be spent consistent with a sustainable rise in living standards given the present discounted value of the revenue stream – in essence an attempt to optimally smooth the spending of windfall revenues over time.

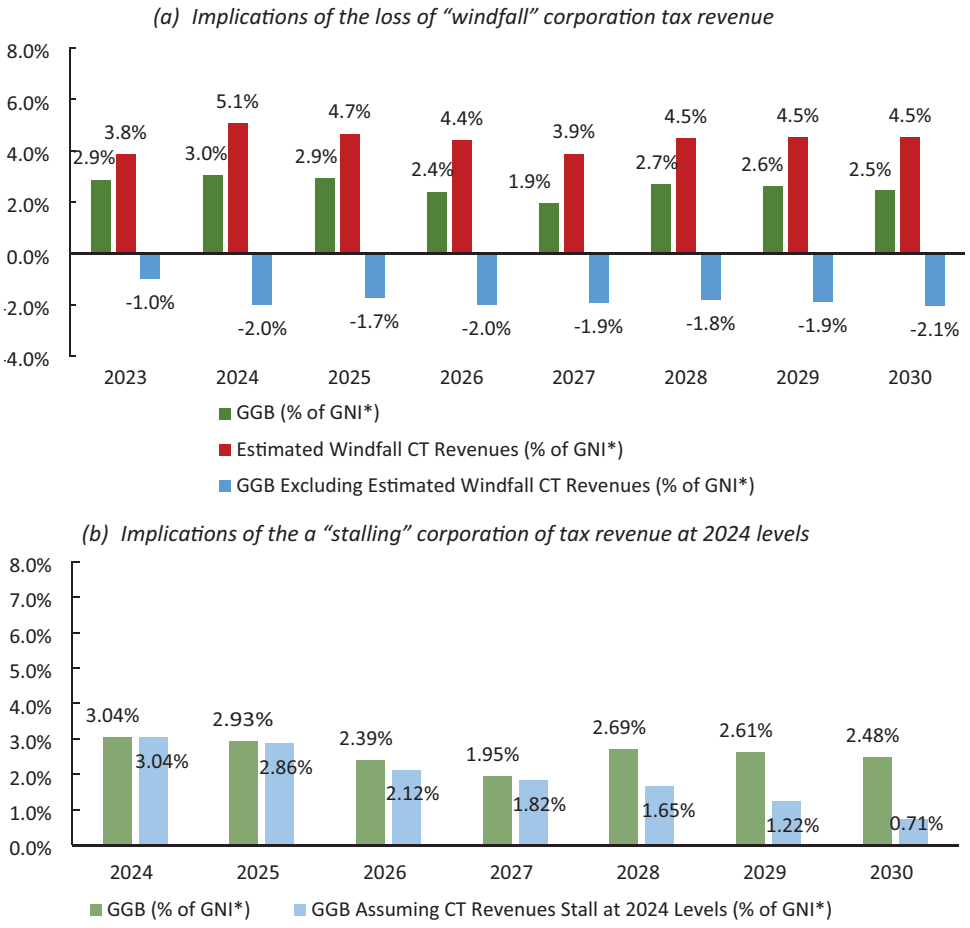
As the surge has intensified, it has become less clear that thinking in windfall terms is appropriate (though it remains reasonable to suppose that the "unexplained" component using standard measures might be disproportionately vulnerable to reversal). Looking to the medium term it seems more likely that revenues will increase than decrease, an expectation that is strengthened by the pending expiration of capital allowances associated with the transfer of intellectual property assets to tax-resident entities. But while the expectation may be for further rises, the dependence on the performance and tax-management decisions of a small number of firms – and potential changes to the corporate tax regime in the US – means there are substantial uncertainties surrounding any baseline forecasts. At this stage, I believe it is more appropriate to think about the surge in corporation tax in terms of fiscal risk management, cognisant of the highly disruptive effects of any reversal of the surge.

Thinking in "revenue-at-risk" terms, one approach is to conduct various scenario analyses to make sure that Ireland can deal with plausible (even if improbable) adverse movements in the revenue flow through a combination of higher starting surpluses and (over time) reduced net debt.[20]

In its Budget 2025 documentation, the Department of Finance considers two useful scenarios. In the first, the Department considers the effects of the elimination of their estimate of the windfall component. While I do not believe that thinking in terms of windfalls is now particularly appropriate, the highly negative scenario does provide a useful adverse case as part of a stress test of the system. Since it is unlikely that a shock to the multinational sector would not affect other tax headings beyond corporation tax, it is probably best to consider it as the combined impact on tax revenue taking all potential channels into account.

[20] A decision has also been made to subtract off the estimated windfall revenues in calculating a national measure of the structural budget balance. The structural balance adjusts the General Government Balance for cyclical factors and one-offs. As discussed above, while there are significant risks surrounding corporation tax revenues, it seems inappropriate to label unexplained windfalls as one-off, particularly when they are repeated over a number of years. This leads to a danger that the meaning of the structural balance will be distorted to an extent that it loses its usefulness in fiscal analysis.

Figure 6: Scenario Analysis of the Effects of Corporation Tax Revenues on the Budget Balance (% of GNI*)



Source: Department of Finance (2024b), Budget 2025: Economic and Fiscal Outlook.
Note: General Government Balance in 2024 excludes revenue equal to 4.5 per cent of GNI* associated with the CJEU ruling.

Figure 6a shows the budget balance, the estimated windfall component and the post-windfall-loss budget balance (all as a share of GNI*) out to 2030. The result of the shock is to move from a sizable surplus to a sizable deficit. In the second, less severe, scenario, the Department instead assumes a stalling of corporation tax revenue at its current level. Figure 6b shows the implied effect on the projected surplus. In this scenario, the economy continues to run a budget surplus, but it substantially reduces as a share of national income over time and is practically eliminated by the end of the decade.

In addition to the traditional approach based on forecasting using tax bases and identifying windfalls as the unexplained component, an alternative approach is to model the univariate time-series properties of the revenue flow and to examine the implied forecast intervals around the projections generated by the model. In particular, there is good reason to model the evolution of corporation taxes as having a stochastic rather than a deterministic trend, notwithstanding the well-known difficulties in distinguishing the two types of trends in relatively short time series. Of course, there is a variety of ways in which this time series could be modelled and any results from a particular approach are best be viewed as illustrative.

Although clearly a simplification, one attractive approach due to its simplicity is to think of corporation tax revenue as evolving as a geometric random walk with a (potentially large) upward drift component and a (potentially high) variance of the error term.[21] This allows recognition of the underlying forces that are pushing corporation tax revenues upwards, but also the substantial shocks that can have lasting effects on the tax base.

Figure 7a shows the results of modelling the log of real corporation tax revenue as a random walk with drift over the period from January 1985 to August 2024, where the monthly measure is a 12-month rolling sum as usefully highlighted each month by the Department of Finance in its Fiscal Monitor. The estimated drift term is 9.8 per cent (annualised) – a significant annual rate of real increase.

The figure also shows forecast intervals around the baseline forecasts based on the estimated standard deviation of changes (or shocks) to the series. Although shocks are assumed to be independent from month to month (a very strong assumption), the upper and lower bands of the forecast intervals around the baseline forecast each change with the square root of the forecast horizon, reflecting the intuitive idea that uncertainties will be greater at longer horizons given that the passage of time allows for a greater accumulation of shocks.

For illustration I show the 80 per cent forecast interval, implying (under repeated sampling) that there is 10 per cent chance the outcome will be at or below the lower band of the interval. Under this scenario, a series of serious adverse shocks could lead to some decline in corporation tax revenues, but even at the

[21] Denoting the log of real corporation tax revenue as *ctr*, this variable is assumed to evolve as $ctr_t = ctr_{t-1} + \delta + \varepsilon_t$ where δ is the drift term and ε_t is assumed to be a mean-zero, serially-uncorrelated shock. The geometric random walk with drift model is an example of a more general ARIMA model for the log of corporation tax revenues: specifically ARIMA (0,1,0) as first differencing the data is required to produce a stationary series and there are no lags on the error term. While this specification has the advantage of ease of interpretation, other more complex ARIMA specifications may provide better models for the evolution of corporation tax revenue. Even greater flexibility is possible if the time series is modelled using an unobserved components model (UCM). For example, a local linear trend model would allow the "drift" term itself to be stochastic, potentially putting greater weight on recent observations and adding an additional source of variance that will affect the estimation of the confidence intervals around the forecasts. I therefore stress that the geometric random walk with drift specification is only offered as an illustration of a model with a stochastic trend.

Figure 7a: Geometric Random Walk with Drift Model for Corporation Tax Revenues: Historically Estimated Drift Term (January 1985 to August 2024) Continues into the Projection Period (September 2024 to December 2030)

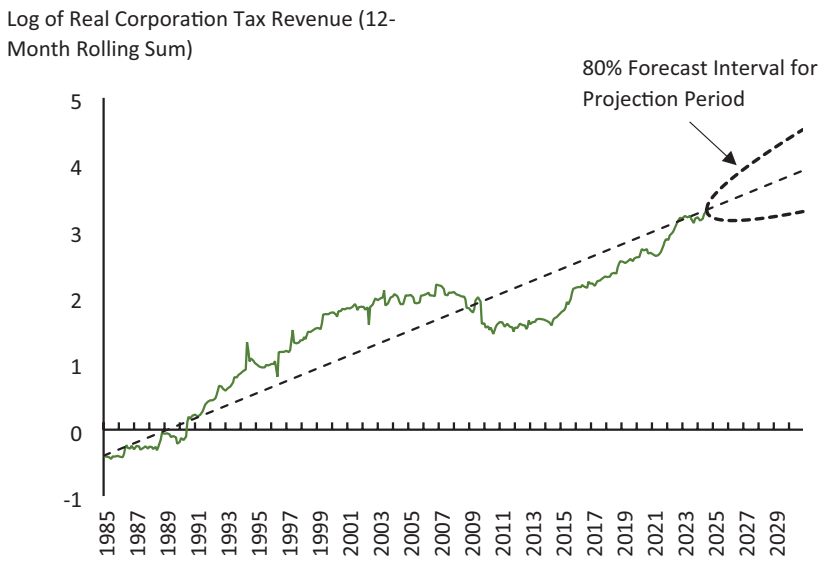
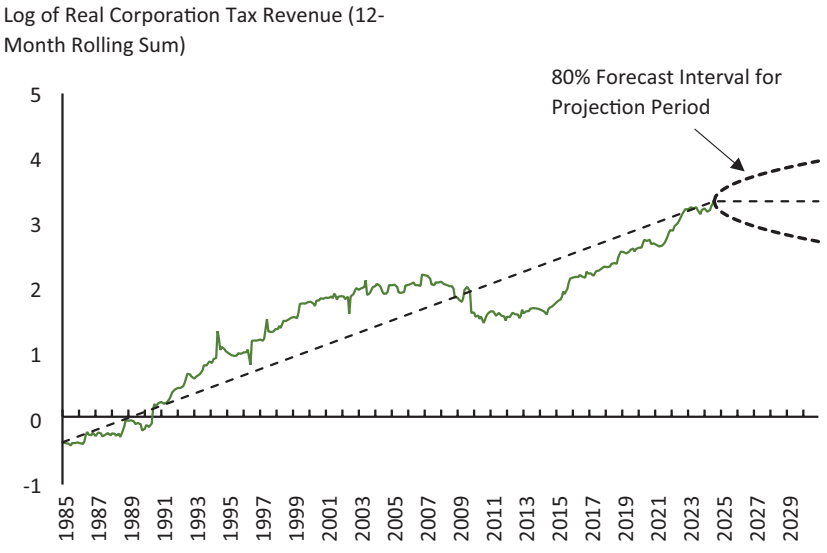


Figure 7b: Geometric Random Walk with Drift Model for Corporation Tax Revenues: Estimated Drift Term Stalls at the End of the Estimation Period (January 1985 to August 2024); Projection Period is September 2024 to December 2030



Sources: Department of Finance Databank; author's calculations.

10th percentile, the forecast for corporation tax revenue in December 2030 is just 2.5 percentage points below its level in August 2024.[22]

The shift from thinking in terms of stochastic rather than deterministic trends in turn suggests a shift in thinking in terms of smoothing windfalls to the managing of downside risks. Notwithstanding the strong rise in permanent spending, it would seem that the windfall framing has engendered some restraint (as evidenced by the emergence of sizable surpluses). The danger, however, is that this framing will lose its power if – as seems likely – corporation tax revenues continue to grow.

Drawing on an analogy with the macroeconomics of consumption (see e.g. Deaton, 1991), a more enduring sense of caution might result from framing the issue in terms of the need for precautionary saving as opposed to the need to smooth the spending of the windfalls. This alternative framing would highlight two components: the volatility of corporation taxes and the economic costs (and public's extreme dislike) of forced austerity in the event of a sharp reversal.[23] While admitting that corporation taxes are more likely to rise than to fall, there is a significant risk of sharp reversals and those reversals – especially if they involve cuts to "permanent" expenditure – will be extremely damaging.

It is important to note that a drawback with a pure time-series approach is that it implicitly assumes the future stochastic process driving revenue will mirror the historic process. Given the known vulnerabilities surrounding corporation tax, it makes sense to incorporate these vulnerabilities in some way in considering downside risks. One approach to doing this is to combine the scenario analysis involving structural breaks in corporation tax revenue series undertaken by the Department of Finance with a modelling of the stochastic process underlying corporation tax revenue based on historic data.[24]

As an example, Figure 7b illustrates a more negative scenario where it is assumed that the underlying upward drift in corporation tax revenue stalls (i.e. the

[22] Looking more to the lower tail, using a 95 per cent confidence interval indicates a 2.5 per cent probability of a loss of revenue of at least €8.2 billion (a percentage decline of at least 30 per cent).

[23] In the consumption literature, when a precautionary motive is present, the volatility of income and the shape of the utility function interact to determine that level of precautionary saving. While it difficult to derive closed-form solutions in this general class of models, one tractable specification assumes a constant absolute risk aversion utility function and a random walk income process (see Blanchard and Fischer, 1989; Blanchard and Mankiw, 1988; Caballero, 1999; and Deaton, 1991). All else equal, current consumption is reduced (and thus saving increased) by an amount that depends on the product of the coefficient of absolute risk aversion and the variance of shocks to the income series. That is, both the volatility of income and the degree of risk aversion matter in determining precautionary saving. Zeldes (1989) shows using simulations that similar qualitative conclusions follow when the more reasonable assumption of constant relative risk aversion is used in place of constant absolute risk aversion.

[24] An additional limitation with the random-walk-with-drift specification is that it assumes a constant variance of shocks, and in particular that the estimated historic variance will continue into the future. In addition to a stochastic trend, volatility is also likely to be stochastic, and indeed there is evidence that there has been an increase in volatility in recent years. This suggests the appropriateness of additionally allowing for time-varying volatility in modelling the corporation tax revenue series.

underlying annualised growth in revenues goes from near 10 per cent to zero) and revenues are also subject to shocks with the same variance as what has been seen historically.[25] Now the lower bound of the confidence interval is associated with a much larger decrease in corporation taxes. Under repeated sampling, there is a 10 per cent chance that the fall is corporation taxes will be greater than or equal to €12.6 billion (a fall of at least 46 per cent) by 2030. This is still less than Department of Finance's estimated "windfall" for 2030 of €19 billion, but would more than erase the €10.4 billion surplus projected for that year.[26]

The underlying message is clear whether we think in terms of unexplained windfalls or drift/shocks – potential reversals of corporation tax revenue growth represent a large source of fiscal risk. Both these analyses suggest the need for caution in using increases in corporation tax revenue to fund (hard to reverse) increases in spending. Clearly, the Government has recognised this danger and has allowed the surplus to rise to reasonably significant levels with the proceeds partially invested in two longer-term funds.

The contrasting motivations for the two funds is interesting. The Future Ireland Fund is naturally viewed as an attempt to deal with the inevitable costs associated with an ageing population. The Infrastructure, Climate and Nature Fund can be seen as an attempt to deal with the uncertainties around future revenues. In particular, it is hoped that even in the face of potentially long-lasting shocks to revenues, the accumulated funds will allow planned capital investments programmes to be sustained, and thus avoid the damaging historical pro-cyclical pattern where capital spending is severely cut back in the face of revenue shocks. The choice to invest the funds as opposed to reducing gross debt may also have some advantages in terms of portfolio/liquidity management and also enhance the political sustainability of budget surpluses. However, the first-order issue is to generate the surpluses and reduce net debt, with the composition of the government assets and liabilities an important but second-order consideration.

As noted in the introduction, however, the increases in the budget surplus as a share of GNI* have effectively stalled, whereas they would have risen further if it had adhered to its net spending rule for core expenditure and had scaled back its one-off measures using a more targeted approach. The extent of fiscal risk – however measured – provides an important argument for the more risk-averse approach to the use of corporation tax revenues to fund permanent increases in net spending even where there is a limited overheating threat. In this context, following

[25] Note that shocks should be viewed as proportional shocks since our underlying time series is in logs. Looked at in proportional change terms, Figure 7a suggests that the most recent period is not as exceptional as looking at absolute changes in revenues might suggest. Indeed, plotting the proportional changes over the entire sample does not show evidence of an upward trend. Neither is there any clear evidence that the variance of the shocks has increased over time.

[26] Again looking to the lower tail, using a 95 per cent confidence interval now indicates a 2.5 per cent probability of a loss of revenue of at least €16.8 billion (a percentage decline of at least 61 per cent).

a net expenditure rule where the growth in corporation tax revenues in excess of the economy's potential output growth are saved rather than used for increases in permanent spending is sensible from a fiscal risk management perspective (see the Appendix for further discussion).

V CONCLUDING COMMENTS

To sum up the arguments presented, my conclusion is that the fiscal costs of ageing provide the strongest argument for sustaining substantial surpluses (and will for some time), reinforced by the risks around tax revenue; and (more tentatively) overheating not providing a particularly strong argument for increasing the surplus at the time of writing (although that could certainly change).

Economists have always pushed back against what they see as the politically driven expansionist tendencies of governments in good times. But it is important to apply the different arguments in a context-dependent way. In my time on the Fiscal Council (2011-2026), while certainly not hoping for a recession, I felt it would be good for the credibility of the Council that there would be a time when it was advising the government to be *more* expansionary for countercyclical management reasons. That opportunity did not come during my tenure, but it certainly did come with the pandemic, where the Council provided strong advice on the need for a supportive policy stance.

During the conference, Patrick Honohan made the insightful remark to me that the challenge the Council faces is that it "can't give an inch" given the understandable political bias towards excessively expansionary policies. But a delineation of the distinct arguments for running surpluses has helped the Council provide context-specific advice and in particular to retain an emphasis on the importance of countercyclical policy along with a nuanced treatment of what countercyclical policy requires.

In closing, I will make brief remarks on two issues: the implications of the Apple tax windfall and the design of a reformulated net expenditure rule. On the Apple windfall, the question is whether it changes the optimal trajectory of fiscal policy. At 4.5 per cent of GNI*, the windfall is certainly significant. But compared to the (conservative) estimate of *annual* ageing costs of 6 percentage points of GNI* by 2050, it should have only a marginal effect on optimal policy calculations. The right thought experiment is to ask how the optimal policy would be different if the net debt were lower by 4.5 per cent of GNI*. I think the reasonable conclusion is that, while the extra cushion would be welcome, the effect on the optimal policy trajectory would be small. Economically (if not politically) that conclusion is no different when the source of the net debt reduction is coming through the Apple windfall.

I started by noting that the setting of fiscal policy from a macroeconomic perspective involves a difficult balancing of countercyclical, long-term sustainability and risk management objectives. And that, while perhaps not surprising given the extent of the post-pandemic inflation surge, recent fiscal policymaking has seemed reactionary and somewhat chaotic. I think the main problem with recent fiscal policymaking is that it has lost its anchor. While some lip service continued to be paid to the net expenditure rule, it was largely abandoned through ad hoc upward adjustments in the allowed rate of growth of core expenditure and multiple one-off measures. The great strength of a net expenditure rule is how it deals with potentially unsustainable revenue growth in excess of the growth of the economy's nominal potential output. But a simple rule based on a target inflation rate will lead fiscal policy to be contractionary in the face of an externally driven inflation surge. I have argued that a reformulated rule that replaces the target inflation rate with the euro area inflation rate may strike a better balance between the overlapping objectives in setting fiscal policy.[27]

Given continuing surges in corporation tax revenues, the reformulated rule has the potential to achieve a "sweetspot" in fiscal policymaking (see the Appendix for an elaboration). The rule would ensure that growth in these revenues beyond potential output growth would be saved, reflecting sensible risk management in the face of volatile corporation tax revenues. The resulting improvement in primary budget surplus would enhance the long-term sustainability of the fiscal system given the large fiscal costs of ageing. And the replacement of the 2 per cent target rate with the euro area inflation rate should allow fiscal policy to retain a countercyclical orientation when viewed in conjunction with the monetary policy being set by the ECB.

Of course, the running of sizable budget surpluses is difficult to defend politically when there are pressing spending needs, particularly related to housing and infrastructure. But given that the fiscal system is actually in long-run deficit, the appropriate response is to sustainably increase revenues rather than run down the surplus. In his lead paper for the fiscal policy panel, Bara Rowntree provided an excellent summary of the evolution of Ireland's fiscal system (Roantree, 2025, this volume). Niamh Moloney also provided an insightful overview of the aims and recommendations of the Commission on Taxation and Welfare (Moloney, 2025, this volume), of which Barra was also a member. The Commission's report made the case for an increase in fiscal revenues and outlined a wide menu for efficiently

[27] Of course, with the design of fiscal rules there is always a danger that you end up "fighting the last war." The difficulties with the national net expenditure rule came with the externally driven inflation surge. It seems reasonably likely that we will be returning to a world of low inflation, and it is possible that the main challenge will again be that inflation is too low rather than too high. A compromise position might be to retain the existing rule provided $\pi^{EA} \leq \pi^*$, but to replace π^* with π^{EA} in the rule when $\pi^{EA} > \pi^*$, or some other reasonable trigger. This has the advantage of requiring a minimal change to the current rule, while still avoiding a repeat of the problems that emerged with the post-pandemic inflation surge.

raising those revenues. It provides an invaluable platform for the discussion of fiscal policy from both microeconomic and macroeconomic perspectives in the years ahead.

REFERENCES

Barro, R., 1979. "On the Determination of the Public Debt", *Journal of Political Economy*, 87(6): 940-971.

Bénétrix A. and Lane, P., 2009. "The Impact of Fiscal Shocks on the Irish Economy", *The Economic and Social Review*, 40(4): 407-434.

Bermingham, C., Coates, D. Larkin, J. O'Brien, D. and O'Reilly, G., 2012. "Explaining Irish Inflation During the Financial Crisis" (No. 09/RT/12), Central Bank of Ireland.

Blanchard, O. and Fischer, S., 1989. *Lectures on Macroeconomics*, Cambridge: The MIT Press.

Blanchard, O. and Mankiw, G., 1988. "Consumption Beyond Certainty Equivalence," *American Economic Review Papers and Proceedings,*" (May) 173-177.

Blanchard, O., 2019. "Public Debt and Low Interest Rates", *American Economic Review* 109(4): 1197-1229.

Byrne, S. and Zakipour-Saber, S., 2020. "Evaluating the Determinants of Irish Inflation", Economic Letter, Central Bank of Ireland, 2020(1).

Caballero, R., 1990. "Consumption Puzzles and Precautionary Savings", *Journal of Monetary Economics*, 25: 113-136.

Casey, E. and Cronin, B., 2023. "Ireland's Spending Rule and the Third Wave of the EU's Fiscal Rules", Analytical Note No. 20, Irish Fiscal Advisory Council.

Conefrey, T., Hickey, R. and Walsh, G., 2020. "Developments in Corporation Tax – An Update", Box D, *Central Bank Quarterly Bulletin*, Quarter 1, Central Bank of Ireland.

Conefrey, T., Hickey, R., Lozej, M., McInerney, N., Staunton, D. and Walsh, G., 2024. "Fiscal Priorities for the Short and Medium Term", *Central Bank of Ireland Quarterly Bulletin*, 2024(2): 108-146.

Cronin, B., 2023. "Understanding Ireland Top Corporation Taxpayers." Working Paper, No. 20, Irish Fiscal Advisory Council

Deaton, A., 1991. *Understanding Consumption*, Oxford: Clarendon Press.

Department of Finance, 2019. *Modelling Recent Developments in Corporation*. Department of Finance, November.

Department of Finance, 2024a. *Stability Programme Update*, Department of Finance, April.

Department of Finance, 2024b. *Economic and Fiscal Outlook*, Department of Finance, October.

Gerlach, S., Lydon, R. and Stuart, R., 2016. "Unemployment and Inflation in Ireland: 1926-2012", *Cliometrica*, 10(3): 345-364.

Hannon, A., Leahy, E. and O'Sullivan, R., 2015. "An Analysis of Tax Forecasting Errors in Ireland", Working Paper No.3 (September), Irish Fiscal Advisory Council.

Heffernan, E., McHale, J. and Moore-Cherry, N. (Eds), 2017. *Debating Austerity in Ireland: Crisis Experience and Recovery*, Dublin: Royal Irish Academy.

Honohan, P. and Lane, P., 2003. "Divergent Inflation Rates in EMU", *Economic Policy*, 18(37): 357-394.

Honohan, P. and Lane, P., 2004. "Exchange Rates and Inflation Under EMU: An Update." IIIS Discussion Paper, 31.

Irish Fiscal Advisory Council, 2020. *Long-term Sustainability Report: Fiscal Challenges and Risks 2025-2050*. Irish Fiscal Advisory Council, Dublin.

Ivory, K., Casey, E. and Conroy, N., 2020. "Ireland's Fiscal Spending Multipliers", *The Economic and Social Review*, 51(1): 133-172.

McHale, J., 2001. "The Risk of Social Security Benefit Rule Changes: Some International Evidence", in Campbell, J.Y. and Feldstein, M. (Eds). *Risk Aspects of Investment-Based Social Security Reform*,. Chicago: The University of Chicago Press.

McHale, J., 2017. "Why Austerity?", in *Debating Austerity in Ireland: Crisis Experience and Recovery*, Dublin: Royal Irish Academy.

McQuinn, K., 2021. "With 'g' Greater than 'r', Should We Be Borrowing to Increase Irish Housing Supply?", ESRI Special Article, *Quarterly Economic Commentary*, June.

O'Connor, P., 2024. "An Analysis of Corporation Tax Revenue Growth", Parliamentary Budget Office Analytical Note, Publication 20 (2024), Parliamentary Budget Office.

Wren-Lewis, S., 2017. "A General Theory of Austerity", in *Debating Austerity in Ireland: Crisis Experience and Recovery*, Dublin: Royal Irish Academy.

Zeldes, S., 1989. "Optimal Consumption with Stochastic Income: Deviations from Certainty Equivalence", *The Quarterly Journal of Economics*, 104(2): 275-298.

APPENDIX

THE RELATIONSHIP BETWEEN A NET PRIMARY EXPENDITURE RULE AND THE FISCAL STANCE

The new EU fiscal rules emphasise a net (structural) primary expenditure rule as a main operational target for fiscal policy. Given the importance of (stochastic) debt sustainability under the new framework, a critical link in the framework is how the expenditure rule maps to the change in the structural primary balance and thus to the evolution of the debt-to-output ratio. This appendix sets out some mechanics of this link. Understanding this link is also useful for understanding how replacing the actual inflation rate in the national net expenditure rule with some other measure (say the ECB's target inflation rate or the euro area's actual inflation rate) changes the implications of the net expenditure rule for the fiscal stance when actual inflation differs from the inflation rate used in the rule.[28]

We first consider how the structural primary balance (PB^*) as a share of nominal potential output (PY^*) changes over time:

$$\begin{aligned} d\left(\frac{PB^*}{PY^*}\right) &= \frac{1}{PY^*}\,dPB^* - \frac{PB^*}{P^2Y^*}\,dP - \frac{PB^*}{PY^{*2}}\,dY^* \\ &= \frac{PB^*}{PY^*}\frac{dPB^*}{PB^*} - \frac{PB^*}{PY^*}\frac{dP}{P} - \frac{PB^*}{PY^*}\frac{dY^*}{Y^*} \\ &= \frac{PB^*}{PY^*}\left(\frac{dPB^*}{PB^*} - \pi - g^*\right), \end{aligned} \tag{1}$$

where π is the inflation rate and g^* is the growth rate of potential output.

Letting the required change in the structural primary balance as a share of nominal potential output be denoted compactly as x, we can write the required proportional change in the primary balance as:

$$\frac{dPB^*}{PB^*} = g^* + \pi + x\,\frac{PY^*}{PB^*}. \tag{2}$$

We next define as the structural primary balance as the difference between structural revenue (R^*) and structural primary expenditure (E^*). We can thus write the change in the structural primary balance as:

$$dPB^* = dR^* - dE^*. \tag{3}$$

[28] See Casey and Cronin (2023) for an excellent discussion of the new EU fiscal governance framework and its likely implications in an Irish context. They also set out the argument for the importance of a well-designed national expenditure rule given that the EU framework is unlikely to provide binding constraints on Irish fiscal policy. Central to this argument is the limitation of GDP as a measure of the aggregate performance of the Irish economy and thus as an appropriate denominator for the key fiscal ratios.

The growth rate of the structural primary balance is then:

$$\frac{dPB^*}{PB^*} = \frac{dR^*}{R^*}\frac{R^*}{PB^*} - \frac{dE^*}{E^*}\frac{E^*}{PB^*}. \tag{4}$$

We assume that the growth rate of revenue is equal to $g^* + \pi$, excluding discretionary changes in revenues, which are instead captured in the rate of growth of *net* expenditure. We next conveniently write the net primary expenditure rule:

$$\frac{dE^*}{E^*} = g^* + \pi - z. \tag{5}$$

where z is reduction in the growth rate of net primary expenditure below the rate of nominal potential output. We can then write the growth rate of the structural primary balance as:

$$\frac{dPB^*}{PB^*} = \frac{R^* - E^*}{PB^*}(g^* + \pi) - \frac{E^*}{PB^*}z = g^* + \pi + \frac{E^*}{PB^*}z. \tag{6}$$

Our two expressions for growth rate of the structural primary balance are shown in Figure A.1 for a given value of z. Solving the pair of equations (2) and (6) allows us to identify the value of x associated with a given value of z in the net expenditure rule (see Figure A.1).

$$x = \frac{E^*}{PY^*}z = S^E z, \tag{7}$$

where S^E is structural primary expenditure as a share of nominal potential output (or simply the expenditure share). It is also easy to see that value of z required to bring about a given x is:

$$z = \frac{x}{s^{E^*}} \tag{8}$$

We can now see the implications of using the ECB's target inflation rate (π^*) in place of the actual inflation rate in the expenditure rule, which can be conveniently rewritten as:

$$\frac{dE^*}{E^*} = g^* + \pi^* = g^* + \pi - (\pi - \pi^*), \tag{9}$$

So that the implied value of z is $(\pi - \pi^*)$ and the implied value of x is $s^E(\pi - \pi^*)$. Actual inflation in excess of the target inflation rate will thus result in a tightening of the fiscal stance (i.e. $x > 0$), where the fiscal stance is defined as the change in

the structural primary balance as a share of nominal potential output.[29] This produces a countercyclical fiscal stance if the cause of the excess inflation is excess demand growth in the domestic economy, and thus would produce a "qualitatively" appropriate fiscal stance from a countercyclical demand management perspective. However, this expenditure rule may be problematic if the inflation is caused by external factors common to the euro area as a whole.

In the context of a division of labour where the ECB through its monetary policy is responsible for dealing with any gap between the inflation rate in the euro area and its target inflation rate ($\pi^{EA} - \pi^*$), with domestic fiscal policy then responsible for the gap between the domestic inflation rate and euro area inflation rate ($\pi - \pi^{EA}$), a more appropriate domestic expenditure rule might be:

$$\frac{dE^*}{E^*} = g^* + \pi^{EA} = g^* + \pi - (\pi - \pi^{EA}), \tag{9′}$$

Now $z = (\pi - \pi^{EA})$, and the expenditure rule will only lead to a contractionary fiscal stance when domestic inflation exceeds the euro area inflation rate. (Note that it is useful to always reformulate the right-hand-side of the rule in the form of $g^* + \pi - z$, letting the form that z takes determine the actual structure of the rule).[30]

An interesting extension in the Irish case is to allow for revenue growth above the growth in nominal potential output due to a growth rate of corporation tax revenue above the nominal potential output growth of the economy. We label this excess revenue growth as c. We can now rewrite (6) as:

$$\frac{dPB^*}{PB^*} = \frac{R^* - E^*}{PB^*}(g^* + \pi) + \frac{E^*}{PB^*}z + \frac{R^*}{PB^*}c = g^* + \pi + \frac{E^*}{PB^*}z + \frac{R^*}{PB^*}c. \tag{6′}$$

Using the same solution procedure as before, the implied fiscal stance is now given by,

$$x = \frac{E^*}{PY^*}z = s^E z + s^R c \tag{7′}$$

where s^R is the share of structural revenue in nominal potential output. Not surprisingly, a positive value for c is associated with additional improvements in

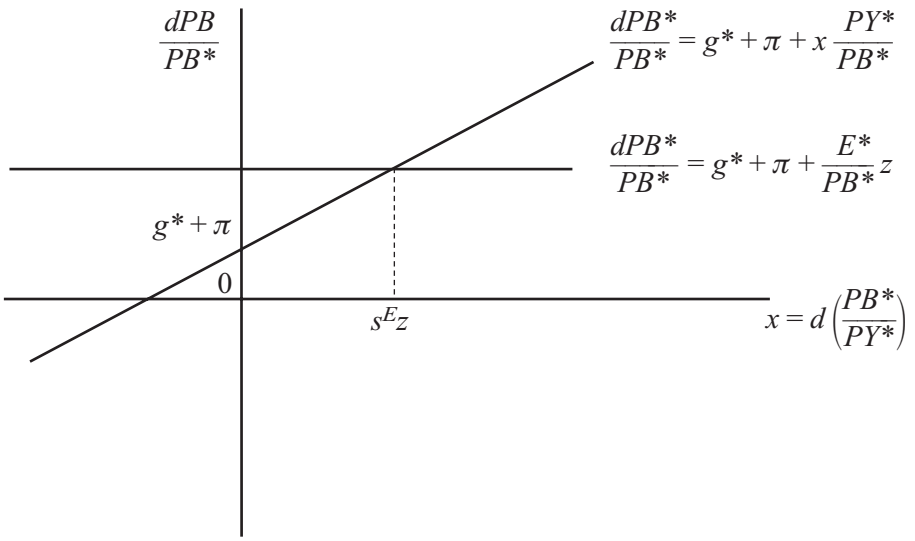
[29] In general, for a given growth rate of nominal potential output, the fiscal stance is determined by the combination of the net expenditure rule (say, $dE/E = g^* + \pi^* = g^* + \pi - (\pi - \pi^*)$) and an appropriate measure of economic conditions (in this case the value of $\pi - \pi^*$). I consider the implications of other net expenditure rule designs below.

[30] To the extent that this revised rule is viewed as too permissive, it could be amended to allow for a weighted average of the euro area inflation rate and the ECB's target rate, with the weight on euro area inflation equal to α where $0 \leq \alpha \leq 1$. The net expenditure rule would then become: $dE/E = g^* + \alpha n^{EA} + (1 - \alpha)\pi^*$. This can be written more informatively as: $dE/E = g^* + \pi^* - \alpha(\pi - \pi^*) = g^* + \pi - [\alpha(\pi - \pi^{EA}) + 1 - \alpha)(\pi - \pi^*)]$, where the term in square brackets is z, which makes clear the modification to the current rule and highlights the importance of the policy choice of α.

the structural primary balance as a share of nominal potential output. If we assume that such excess revenue growth is not associated with a contractionary effect on the domestic economy, there a possibility of a "sweet spot" for fiscal policy management assuming the amended expenditure rule given in (9′) is employed.

The amended rule would lead the revenues due to the excess growth to be saved and therefore to an increase in the structural primary balance as a share of nominal potential output. This would have obvious benefits in terms of fiscal *risk* management, where the excess revenue growth may not be sustainable, and also benefits in terms of long-term fiscal *sustainability* management as it will speed the reduction in net debt as a share of output.[31] If, as previously suggested, (9′) is also broadly appropriate from the perspective of *countercyclical* fiscal management, its use may produce broadly appropriate outcomes along all of the three macro-economic dimensions of fiscal management considered – countercyclical, sustainability and risk.

Figure A.1: The Net Primary Expenditure Rule and the Determination of the Fiscal Stance



Source: Author's analysis.

[31] Of course, long-term sustainability management will itself have an important risk management component, especially given the uncertainty over future growth and interest rates.