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# Getting back on track: Strengthening the accountability and delivery of the UK's carbon budgets

Policy insight

Andy King

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## About the author

**Andy King** is a Senior Visiting Fellow at the Grantham Research Institute and CETEx and a Specialist Partner at Flint Global.

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# Summary

## Why look to fiscal budgeting to provide lessons for emissions budgeting?

The UK has cut emissions by more than half since 1990, at the same time as public debt as a share of GDP has risen almost fivefold. The legal and institutional framework around decarbonisation in the UK is, in many ways, at the forefront of international best practice, whereas the fiscal framework has been subject to growing criticism from many quarters. It may therefore seem eccentric to look to the fiscal budgeting process for lessons that could be applied to emissions budgeting. But, as the transition to net zero becomes ever more challenging, it is a concern that successive governments have failed to correct course when their climate plans have been formally assessed as inadequate, off-track, or subject to significant risks.

Comparing and contrasting the fiscal and emissions budgeting processes can be used to find ways to strengthen the process around emissions to improve the ability of relevant authorities to hold the Government to account on setting policy to meet its emissions targets.

## Similarities and differences between the fiscal and emissions budgeting processes

In 2019, the UK legislated for a net zero emissions target for 2050 under the amended 2008 Climate Change Act. Every five years, the Government sets legally binding carbon budgets covering the period 12–16 years ahead, which establish a path for emissions to meet the 2050 target. The Climate Change Committee (CCC) is required under the Act to advise the Government on the level of those carbon budgets. It is also responsible for assessing the Government's progress against its targets each year, to which the Government is legally required to respond.

The CCC uses a set of indicators to capture the many aspects of progress required to transition successfully to a low-carbon economy. Every year, it assesses progress against these indicators and uses this to produce its flagship *Progress Report to Parliament*. Its assessment is conveyed using risk-based judgements about different components of the transition, including an aggregated 'policy gap' chart that summarises the degree of risk around emissions reduction plans. The Committee has repeatedly assessed the Government's plans as insufficient to achieve the legislated targets. Despite this, the Government has not corrected course to get back on track to meet those targets.

In a process not dissimilar to the carbon budgets, fiscal targets are required by legislation, the Government aims to meet those targets within a five-year forecast period, and the Office for Budget Responsibility (OBR) is tasked with monitoring progress against those targets. The OBR was established under the Budget Responsibility and National Audit Act of 2011. But unlike the Government's response to CCC *Progress Reports* on climate targets, at the end of a fiscal budget process the Government has typically adjusted fiscal policy to meet its targets on the OBR's latest forecast – i.e. in fiscal budgeting, it is the norm for the Government to course-correct in the light of new evidence from its independent forecaster.

The fiscal budgeting process is far from perfect. As many commentators have discussed, rules have been gamed, tax and spending policies are changed too frequently, and short-term considerations can trump long-term thinking. But it does act as a focal point for Ministers and civil servants – coordinated within the Treasury – focused on achieving an overarching aim, supported by institutional underpinnings that have evolved over decades. In so doing, it creates the conditions for policy trade-offs and choices to be made – and for course-correction when that proves necessary.

See Table S1 below for a further summary comparison of the two processes.

## Applying learning from the fiscal process to the emissions process – recommendations

There are potential adjustments to the emissions budgeting process that would help to increase its salience in wider government decision-making, so that government is better held to account on progress towards emissions targets. These changes would also help to better integrate emissions and fiscal budgeting, so that the impact of different policy choices on the outlook for the public finances *and* emissions can be assessed and traded off more effectively.

This report's comparison of the fiscal and emissions budgeting processes concludes that the process around setting policy to meet carbon budgets and to be on a pathway to net zero would benefit from an **annual set-piece event in Parliament, with equivalent status to the Budget for fiscal policy, to improve the salience of the CCC's *Progress Report* assessment and focus policy effort where delivery gaps have been identified**. In doing so, it would not be appropriate to match the rapid 10-week process of a fiscal budget, and it would be essential to avoid the excessive focus on a single measure of headroom that has come to characterise UK Budgets. But there would be much value in the salience of a higher-profile, policy-focused Ministerial response to the CCC's *Progress Reports* that was debated in Parliament.

**To ensure that such a change had the desired positive impact, there are several ways in which the institutional set-up that supports the emissions budgeting process can be enhanced, in particular the use of quantitative forecasting to inform the policymaking process.** This would span the entire analytical and policymaking cycle, from assessing recent developments to producing forecasts, analysing both to understand policy implications, and acting on the latest evidence to remain on track to meet targets.

We recommend:

- **Improving the availability and comparability of emissions data.** This would facilitate integrated analysis of the underlying economic, technological and other drivers of emissions, and thereby enable the quantification of reasons why emissions reductions are off course, if that is the case. This would be equivalent to the present analysis of economic and fiscal developments, where the first step is often to determine whether something is cyclical, structural or a one-off, since different policy responses are appropriate in each case.
- **Improving emissions forecasting.** Forecasts provide an organising framework for considering whether current policies and plans are sufficient to meet targets and in determining whether and how policy should respond. To guide a policymaking process successfully, they must present an objective and unbiased judgement of likely future outcomes, requiring the latest assumptions for important drivers of emissions, rather than focusing more narrowly on the consequences of emissions-reducing policies (as is largely the case at present). Two potential approaches to making these improvements include upgrading the Government's energy and emissions projections to a full forecast, or quantifying the implications for emissions that follow from the CCC's existing risk-based assessments.
- **Improving the emissions policy costings process and associated 'scorecard'.** Government should consider the implications for emissions of all policies. An emissions scorecard to capture the effect of policy changes could also be used as part of the annual event to facilitate policy development and trade-offs. Government could also consider giving the CCC a formal role in scrutinising the analytical, delivery and other assumptions underpinning the estimated emissions impacts of policy changes.
- **Introducing a 'forecast evaluation report'-style process for emissions.** The assessment of what causes outturn figures to differ from expectations – and the equivalent analysis of what explains revisions from one forecast to the next – are essential ingredients in the policymaking process. Formalising the requirement for such a process would be a natural extension of enhancing forecasting itself.

**Table S1. Comparison of the fiscal and emissions budgeting processes**

Stage	Fiscal budgeting	Emissions budgeting	Key takeaways from comparison
Overview	A Treasury-led whole-of-government process, focused on set-piece 'fiscal events' in Parliament with OBR involvement, produced over a 10-week period.	Led by DESNZ, with input into key sector strategies from MHCLG, DfT and Defra. Advice on overall targets plus monitoring of progress by the CCC, with targets set by government and legislated by Parliament.	Emissions budgets are managed more as a line ministry issue than a whole-of-government issue. There are likely to be benefits from a greater role for the centre of government (i.e. the Treasury), potentially given greater salience via a set-piece parliamentary event like the Budget.
Independent bodies	The OBR, legally established in 2011, has the duty to examine and report on the sustainability of the public finances and each year produces two forecasts, a sustainability report, and a forecast evaluation report. The OBR cannot consider alternative policies or comment on the merits of policies.	The CCC, legally established in 2008, holds advisory roles on the 2050 emissions target, five-year carbon budgets, and emissions from international aviation and shipping. It has a duty to report on progress against carbon budgets and the 2050 target.	A key difference is that the CCC is an advisory committee, whereas the OBR is prohibited from considering alternative policy or the merits of policy. A key similarity is that the CCC's 'report on progress' is, in effect, the same as the OBR's assessment of whether fiscal targets are on course to be met based on its forecasts. The CCC is not required to evaluate its past projections.
Data	Economic and fiscal data are built around the UN System of National Accounts. Data are published monthly, quarterly and annually in varying degrees of detail. Fiscal data are integrated with economic data.	Emissions data are published using three different definitions from DESNZ, Defra and the ONS. Emissions data are not readily reconcilable with economic or fiscal data, except at high-level aggregation.	Economic and fiscal data are fully integrated and comparable through the National Accounts, whereas emissions data are difficult to integrate with economic and fiscal data. Economic and fiscal data releases have far higher salience in news and the political debate.
Forecasting	The OBR's fiscal forecasts are independent, best-endeavour predictions conditioned on current government policy. The OBR is required to be transparent about its forecasts and processes.	There are no equivalent emissions forecasts. DESNZ Energy and Emissions Projections are lower profile and heavily caveated as "not forecasts". The CCC produces pathways (i.e. scenarios) rather than forecasts. The CCC is highly transparent about its own work, but the Government's modelling is less so.	Forecasts provide a central means for taking account of all relevant determinants of whether a target is on course to be met or missed. OBR forecasts are explicitly tasked with performing that role conditioned on current policies.

Identifying gaps against targets given current policies and adjusting policy to close them	The OBR provides the Chancellor with a single figure for headroom relative to fiscal targets (in billions of pounds) ahead of each Budget or other fiscal statement. The Government's response to the OBR's assessment is delivered through a fiscal statement in Parliament by the Chancellor, supported by accompanying documentation.	The CCC's <i>Progress Report</i> is thorough and comprehensive, but more qualitative in its analysis of gaps: quantified emissions savings are assigned qualitative risk assessments. The Government responds to the report via its own report laid by the Secretary of State.	Gaps in progress to fiscal targets are typically addressed through policy changes and announced at a major Parliamentary event, whereas gaps to emissions targets are noted in a lower profile report to Parliament. Emissions gaps tend not to be addressed through policy changes for some time. That said, fiscal gaps are sometimes addressed through policy 'fictions' (notably, assumed cuts to public services spending that are unlikely to be delivered).
Policy costings	OBR forecasts incorporate the fiscal impact of all non-negligible policy changes. The OBR scrutinises and certifies the fiscal estimates associated with each measure.	The DESNZ emissions projections include a detailed 'scorecard' of emissions policies, but the coverage is largely (though not wholly) confined to climate policies that reduce emissions, so it is not comprehensive. There is no formal independent scrutiny of estimated impacts on emissions.	The process for assessing the effect of policy changes on the fiscal budget is designed to be comprehensive, unbiased and with independent oversight from the OBR, whereas the process for emissions is largely confined to assessing favourable climate-focused policies, with no formal role for independent oversight.
Set-piece event	The whole process of fiscal analysis, forecasts and costings feeds into a major Parliamentary fiscal event that sets policy to meet targets.	Despite the CCC's <i>Progress Report</i> being laid in Parliament, there is no equivalent emissions budget statement or 'event' in Parliament.	The UK's policymaking system has evolved to focus on set-piece moments in Parliament. The lack of an equivalent to the Budget statement for emissions appears to limit the salience and impact of the CCC's <i>Progress Report</i> and, more importantly, the Government's response to it.

Abbreviations of government departments: DESNZ = Department for Energy Security and Net Zero; MHCLG = Ministry of Housing, Communities and Local Government; DfT = Department for Transport; Defra = Department for Environment, Food and Rural Affairs.



# 1. Introduction

This report compares and contrasts the UK's fiscal and emissions budgeting processes and recommends ways to strengthen the process around emissions to improve the ability of relevant authorities to hold the Government to account on setting policy to meet its emissions targets. In particular, it recommends establishing an annual parliamentary event and surrounding processes to improve the salience of the *Progress Report* assessments produced by the Climate Change Committee (CCC) and to focus policy effort where delivery gaps have been identified.

## Managing emissions has much in common with managing the public finances

### Net zero

The UK has a legislated net zero emissions target for 2050 under the Climate Change Act of 2008, as amended in 2019. To achieve this target, government sets legally-binding five-year carbon budgets in the intervening period based on the advice of the CCC, also established under the Act. The institutional arrangements for monitoring progress against these targets, assessing whether they are on track to be met, and setting and adjusting policies to achieve them, have built up since the Act was passed.

### Public finances

The UK has a legislated requirement to set fiscal targets that are consistent with achieving fiscal sustainability in a Charter for Budget Responsibility under the Budget Responsibility and National Audit Act of 2011. The Government must deliver a Budget each year covering a five-year period. The forecasts underpinning those budgets are produced by the Office for Budget Responsibility (OBR), also established under the 2011 Act. In the pre-election Charter, the previous government had selected measures of public sector net debt and public sector net borrowing for its fiscal targets, while monitoring wider measures of the public balance sheet. The new Labour government will update the Charter in due course so that it reflects the changes it makes to the fiscal targets.

### Crossovers

From even this high-level overview it is clear that managing emissions to meet net zero and managing the public finances to achieve fiscal sustainability share many attributes. From a technocratic perspective, the task in both cases is to define a desired end-point – be that net zero emissions in 2050, the interim five-year carbon budgets, or the fiscal targets that must be met within the five-year horizon of a Budget – and then establish how to set policy to get there. Of course, they differ in detail: importantly, emissions targets are legally binding; fiscal targets are not.

## Differing origins

It is worth acknowledging the differences in origin for these two processes. Formal fiscal rules around public finance aggregates such as borrowing, spending and debt are designed to guard against the incentive for politicians to increase borrowing (through raising spending and/or reducing taxes) by more than is optimal for the economy and future generations (known as 'deficit bias' [Alesina and Tabellini, 1990; Calmfors and Wren-Lewis, 2011]). Ultimately, adherence to fiscal rules is one way for governments to maintain credibility with financial markets that they are prudently exercising fiscal policy so that borrowing costs remain affordable.

Fiscal councils have become a popular complement to fiscal rules (IMF, 2024). In the UK, the OBR was created with a remit to assess the fiscal impact of government policies and to produce official economic and fiscal forecasts. It was established to ensure that politicians



must change policy, not forecast assumptions, to comply with their fiscal rules.<sup>1</sup> While there is a lively debate on the effectiveness of the fiscal rules (particularly given they have been changed so often in the UK [Tetlow et al., 2024]), it is generally accepted that the OBR has improved the process around fiscal policy in the UK (OECD, 2020; HM Treasury, 2015a).

In comparison, targets on climate and emissions stem from the UK's adoption of the global, science-led target on achieving net zero emissions to stabilise global temperatures. Specifically, the UN's Intergovernmental Panel on Climate Change (IPCC) published a *Special Report* detailing a need to reach 'net zero' by around 2050 in order to meet the aim of the Paris Agreement to limit global warming to 1.5°C (IPCC, 2018). The adoption of the 2050 target was recommended by the CCC in response to a request from government for updated advice following the IPCC's *Special Report*. The adoption enjoyed cross-party political support (Priestly, 2019), with 2050 (or sooner) backed as the target date by all opposition parties at the time. The CCC was established in 2008 to act as the independent advisor on setting carbon budgets during the intervening period, and to provide *Progress Reports to Parliament* on prospects for meeting these legislated target. It is typically viewed as providing a trusted, depoliticised and expert assessment of emissions reductions (Chan et al., 2024).

That the UK government has always accepted the core advice of the CCC on carbon budgets illustrates the extent to which the CCC's voice on climate is authoritative. One area that has been lacking, however, is government's willingness to correct course when the CCC assesses that emissions reductions are not on track to meet carbon budgets or the ultimate net zero target. To date, the main consequence of this has taken place in the courts (see below).

## Key steps in each process

Both climate and fiscal budgeting processes begin with the latest data, which provides the starting point to assess future prospects given current government policies, to identify gaps relative to the desired end-points, and then – for the fiscal side in particular – to adjust policy sufficiently to close those gaps and be on course to meet targets.

For net zero, the desired end-point is expressed in terms that are somewhat simpler conceptually compared with fiscal targets:

- Emissions are an absolute concept; in contrast, fiscal targets are expressed as a ratio to GDP.
- The target date for net zero is 2050 whereas fiscal targets are set for an ever-retreating future. This is because, if it is successful, net zero represents a one-time transition to clean technologies and activities, whereas the pursuit of fiscal sustainability is continuous.
- 'Net zero greenhouse gas emissions' is a precise target that is widely accepted, whereas there will never be an agreed numerical definition of fiscal sustainability (Fall et al., 2015).

Against this conceptual simplicity, the uncertainties around how to achieve the net zero target are arguably greater than those around fiscal targets because of the role of rapid technological progress, reinforcing feedback between deployment and costs, the risk of tipping points, and the transformational change required to move from a fossil fuel-based economy to a net zero emissions one.

As highlighted, there are several similarities across the two processes, including the critical role of an authoritative independent organisation. But one important difference relates to how the outputs of those organisations are used in the policymaking process. When the OBR produces an updated economic and fiscal forecast conditioned on current policies, it informs

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<sup>1</sup> When setting up the OBR, Chancellor Osborne described this in the following terms: "I am the first Chancellor to remove the temptation to fiddle the figures by giving up control over the economic and fiscal forecast. I recognise that this will create a rod for my back down the line, and for the backs of future chancellors. That is the whole point. We need to fix the budget to fit the figures, not fix the figures to fit the budget" (Osborne, 2010).

the Chancellor of the Exchequer what that forecast implies for meeting or missing the fiscal targets, and the Chancellor invariably responds by changing policy in a Budget or other fiscal statement. When the CCC produces an updated assessment of progress against carbon budgets, the government responds within four months with a report to Parliament that typically restates existing policies and strategies rather than adjusting policy. In part, this is likely to reflect the greater perceived consequences from missing fiscal targets relative to climate targets – the salience of pounds and pence for voters naturally being greater than that of tonnes of greenhouse gas emissions. But there are features of the emissions budgeting process that appear to reduce its bite in holding the Government to account.

## Recent developments and commentary

The UK has already made the big decision to legislate for net zero as the ultimate emissions goal and has made considerable progress in reducing emissions to date, particularly thanks to removing coal from the electricity generation mix. The next stages of decarbonisation are likely to be more challenging, including full decarbonisation of electricity generation and the process of switching from fossil fuel technologies to those that use zero-emission electricity (notably from gas boilers in homes and petrol or diesel vehicles to heat pumps and electric vehicles powered by renewables). During this next phase of decarbonisation, the ability to test policies and adjust them as their effects become known, and as technology costs and deployment evolve, is likely to become more important. The value of the Government responding substantively to the CCC's *Progress Report* assessments will therefore rise.

Both the fiscal and emissions budgeting processes have received criticism in recent years. Criticisms of the UK's fiscal framework include repeated changing of fiscal rules, excessive short-termism, and the frequent policy changes that seem to result from trying to retain a precise (and typically small) degree of headroom against targets (Tetlow et al., 2024). There has been particular concern about the ability to assume unfeasibly tight departmental spending totals to claim to meet fiscal targets (Johnson, 2024).

Meanwhile, one pattern that has emerged on the climate side is the Government failing to respond to recommendations from the CCC when they relate to progress against targets, where the CCC has repeatedly warned that the UK is off track.<sup>2</sup> This has coincided with increased activity in the courts, which in effect now act as the ultimate backstop on climate policy in a similar way that financial markets do on fiscal policy. For emissions reduction, the judicial review process has been used to test whether the Government's plans are sufficient to meet the requirements of the amended Climate Change Act. Twice now, that process has concluded that they are not, and while these legal defeats did little to change the previous government's approach to climate policy, they are likely to influence the evolution of the policy process under the new government. Though less dramatic and the subject of fewer headlines, this would have some parallels to how the adverse financial market reaction to the Truss/Kwarteng 'mini Budget' of September 2022 resulted in renewed commitment by the previous government to the fiscal budgeting process and institutions, and then the further bolstering of institutional arrangements by the new government (UK Parliament, 2024).

Given the unavoidable role of public spending in emissions reduction plans, one factor that will influence how the Government responds to these adverse judicial review outcomes will be the commitment of the Treasury, and in particular the Chancellor, to setting out credible and costed net zero delivery plans.

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<sup>2</sup> The OBR and the CCC themselves have also been subject to criticism from some quarters. There are those who believe the OBR's control of the forecast, and thus fiscal headroom, means it wields too much de facto power over policy choices, while the CCC has been criticised for some of the policy assumptions it has made in its decarbonisation pathways, which implicitly become recommendations to policymakers.

## Scope of this report

Fiscal budgets and OBR forecasts have greater weight in government policymaking and delivery than the carbon budgets and the CCC's *Progress Reports*. This reflects many factors, notably the greater salience of incomes over emissions for the public. But one factor is the different institutional arrangements, which this report compares and contrasts, suggesting where existing processes might be strengthened and/or new ones introduced to give carbon budgets and net zero greater weight in policy decision-making. The comparison details the government bodies and independent organisations involved, and assesses each step in the process to identify where emissions budgeting could be enhanced. The steps include the availability and impact of data, the types of forecasts produced and their role, how gaps against targets are identified and evidence is used to adjust policy to get back on track to meet targets, and the process for assessing the effect of policy changes. Sitting above all of this is the set-piece Parliamentary 'fiscal event' at which the Chancellor updates the House on the economic and fiscal outlook and announces new policy measures, and the question of whether an equivalent 'event' would be useful as a focal point for emissions budgeting and policies.

The report finishes with recommendations for where emissions-related institutional arrangements could be enhanced, both at individual stages of the process and for the system as a whole.

## 2. Budgeting comparison – fiscal v. emissions

### i) Approach

#### Fiscal approach

The Treasury coordinates the fiscal policy process via a single ‘fiscal event’: the Budget (plus, over the past decade or so, an additional Autumn or Spring Statement). The fiscal rules for the Budget run over a five-year period (HM Treasury, 2023). The OBR coordinates the forecast process that feeds into each fiscal event. This overarching process is underpinned by many others that focus on individual issues, from baseline ‘pre-measure’ economic and fiscal forecasts, to the microeconomic effects of individual policy measures, and the macroeconomic aggregate effect of all policies combined. This involves interactions between the Treasury and departments on spending allocations and policy development, and coordination between the Treasury and No. 10 to choose policies and craft the political narrative. The process culminates in a major political event – the Chancellor’s Budget Statement in Parliament and the accompanying ‘Red Book’. Following the Chancellor’s Budget Statement, the OBR publishes its *Economic & Fiscal Outlook* document and holds its own press conference to describe its forecasts and answer questions.

While policy development is a continuous year-round process, the core processes for a fiscal event take place during the 10 weeks leading up to it, beginning with the Chancellor commissioning the OBR to produce a forecast. The OBR produces several rounds of forecasts during that period, each time reflecting the most recently available information on the economy and public finances, while in parallel assessing the impact of individual policies, and providing the Chancellor with updates on headroom relative to stated fiscal targets (typically presented as a single figure, in billions of pounds). The Treasury bases its decision-making on the forecasts provided by the OBR, including assessments of the fiscal costs or savings of each policy to be announced.

#### Emissions approach

The Department for Energy Security and Net Zero (DESNZ) leads on emissions budgeting within government and receives input into key sector strategies from relevant departments, including the Ministry of Housing, Communities and Local Government (MHCLG), Department for Transport (DfT), and the Department for Environment, Food and Rural Affairs (Defra), as well as advice from the CCC. These emissions budgets cover five-year periods that are 12 to 16 years in the future when first set. As required by the Act, DESNZ publishes a package of proposals and policies to enable carbon budgets to be met and their associated timescales, most recently in 2023 publishing the *Carbon Budget Delivery Plan* (CBDP) (DESNZ, 2023). The CBDP is based on the Government’s *Energy and Emissions Projections* (EEP), although these do not constitute a formal forecast and they do not extend to 2050 (as detailed further below). The DESNZ Secretary of State oversees overall progress across the UK’s climate portfolio, and matters related to the delivery of net zero, including receiving updates from the CCC on progress against carbon budgets and responding to them via a government report to Parliament under the Climate Change Act.

#### Discussion

Emissions budgets are managed more as an issue for individual departments, in particular DESNZ, rather than the centrally coordinated whole-of-government approach for fiscal budgeting. Crucially, the emissions approach lacks key elements incorporated in the fiscal budgeting process, including significantly less engagement with the Treasury. This makes it harder for DESNZ to deliver policies that ensure carbon budgets will be met, with only limited scope to adjust spending and effectively no scope at all to adjust taxes (although levies on energy bills are within its purview). As a result, there is uncertainty over whether policies

discussed can actually be delivered. This is noted explicitly in the CBDP, which states that “some proposals and policies depend on funding decisions at future Spending Reviews”.

Increasing Treasury integration into the process and buy-in to decisions would help increase the likelihood that policies can be delivered. An opportunity for achieving this could come from the new Labour Government’s mission-led approach, which is intended to support cross-departmental work. The creation of Mission Boards is designed to reduce the delays that can occur within current Cabinet decision-making where Whitehall departments attempt to support common goals while having split budgets and different competing priorities. Securing Treasury buy-in for the Mission Board for the clean energy mission, combined with the support of the kind of processes presented in this report, would be likely to help ensure delivery of the Government’s policies for this mission.

Additional elements lacking in the emissions approach include high-quality emissions forecasts and an annual set-piece Parliamentary ‘event’, as discussed in the relevant sections below. These gaps seem to have hampered progress on the emissions side in recent years, as the success with removing coal from the electricity mix has graduated to more challenging elements of the transition. This can be seen in the increasingly adverse assessments in the CCC’s *Progress Reports* not being matched by increasing policy ambition in the Government’s responses – and from the successful legal challenges to the Government’s plans for reaching its statutory emissions targets.

## ii) Independent bodies

### Independent fiscal institution

The Office for Budget Responsibility (OBR) is the independent fiscal watchdog in the UK, established by Part 1 of the Budget Responsibility and National Audit Act 2011. The OBR’s duty is to examine and report on the sustainability of the public finances. Each year it is required to produce two forecasts (one of which must be for the Budget), one sustainability report and one forecast evaluation report. The OBR is not allowed to consider alternative policies to those committed to or proposed by government, and is not allowed to give normative commentary on the merits of policies. It has a statutory right of access to information from departments and other government entities under Section 9 of the Act. The OBR has a budget of around £4.5 million a year and a staff of around 50 (OBR, 2024).

### Independent climate institution

The Climate Change Committee (CCC) is the independent climate advisory committee to the UK government, established by Part 2 of the Climate Change Act 2008. The CCC provides advice on reaching the 2050 net zero target, setting interim five-year carbon budgets, and managing emissions from international aviation and shipping. The CCC has a duty to report on progress against carbon budgets and the 2050 target in an annual *Progress Report to Parliament*. The Secretary of State for DESNZ is required to lay in Parliament a response to the CCC’s *Progress Report* within four months.<sup>3</sup> The CCC does not have a statutory right of access to information from departments or other government entities; indeed, under Schedule 1, paragraph 25 of the Act, the national authorities have a right of access to information from the CCC. The CCC has a budget of around £6.7 million a year, including around £1.1 million for research, and a staff of around 40 (CCC, 2023).

### Discussion

Both the CCC and the OBR operate from a statutory footing, and have a significant responsibility in scrutinising government policy and providing objective analysis. Both institutions are well-regarded internationally:

- In 2018, the Grantham Research Institute highlighted the “material difference” the CCC has made to the conduct of UK climate policy, and how the CCC’s analysis is “used and trusted” by “all sides of the debate” (Averchenkova et al., 2018). The importance of

<sup>3</sup> Strictly speaking, the CCC’s *Progress Report* must be laid by 15 July each year and the Secretary of State’s response by 15 October.

the CCC's role was again highlighted in the *Independent Review of Net Zero* (the 'Skidmore Review'), indicating that in the CCC, "the UK has a sophisticated and robust scrutiny mechanism" in providing annual reports to Parliament to which government has a statutory obligation to respond (Skidmore, 2023).

- Similarly, external reviews of the OBR have argued that it has established itself as a fixed part of the UK's institutional landscape, delivering high quality publications, reducing bias in official forecasts and bringing greater transparency to the public finances (OECD, 2020; see also HM Treasury, 2015a). The Institute for Government noted that the IMF praised the OBR for its "rigorous, detailed, and highly transparent" approach (Pope et al., 2022).

Yet two key differences are:

- The CCC is an advisory committee (though not one that can be prescriptive about policy pathways), whereas the OBR is prohibited from considering alternative policy or the merits of policy.
- The Treasury bases its fiscal policy decisions on forecasts provided by the OBR, in contrast to the 'call and response' format of interaction between the Government and CCC when it comes to progress towards targets.

These factors mean the process around CCC *Progress Reports* is more akin to the OBR's annual assessment of fiscal risks, which the Government is required to respond to "at a subsequent fiscal event" – and was initially required to respond to "no later than a year after its publication" (HM Treasury 2023; 2015b). In practice, on fiscal risks this has allowed the Treasury to respond with widely varying rigour – from a 142-page report in 2018, to a brief written statement in 2020, before reverting to a more substantive 26-page report in 2023, for example.

The different statutory bases for the two institutions' right of access to information from departments means that while both institutions are highly transparent in their own work, the OBR has been better placed than the CCC to shine a light on the Government's own modelling of issues within its remit.

### iii) Data

#### Fiscal data

Economic data are built around the UN System of National Accounts via the 2010 European System of Accounts ('ESA10'). Fiscal data are fully integrated within that National Accounts framework via the *Manual on Government Deficits and Debt*, overseen by Office for National Statistics (ONS) classification committees. Both economic and fiscal data are published monthly, quarterly and annually in varying degrees of detail. This enables the Treasury, OBR and others to analyse economic and fiscal developments to understand their drivers within a consistent statistical framework. One important benefit of this for policymakers is to facilitate analysis of whether developments are either one-offs that will not be repeated, timing effects that will unwind, or persistent effects that will last. This is important because different policy responses are appropriate for different causes of the developments visible in the latest data.

#### Emissions data

Emissions data are published using three different definitions: territorial, footprint and residence, and are typically reported in terms of carbon dioxide equivalent (CO<sub>2</sub>e). DESNZ holds responsibility for monitoring and reporting the UK's emissions, and publishes annual 'territorial' emissions estimates – emissions produced and released within the UK only – which are used for net zero and carbon budgets, as well as monitoring progress against these targets (DESNZ, 2024). Defra publishes the carbon footprint, detailing emissions associated with UK consumption, enabling an assessment of the UK's contribution to global emissions through consumption. These are published annually with a three-year lag. The ONS publishes data annually for the UK Environmental Accounts, covering emissions from UK residents and UK-registered businesses (ONS, 2024a). This enables emissions by sector and



households to be compared against key economic indicators including Gross Value Added (GVA) (ONS, 2024b). One challenge with emissions data is the classification of sectors, which can differ across the different producers of data and projections.

## Discussion

Economic and fiscal data are fully integrated and comparable through the National Accounts. Emissions data are more challenging to integrate with economic and fiscal data, making analysis more difficult in some contexts. For example, emissions sectors like ‘buildings’ do not map onto GDP metrics, and sectoral ‘Kaya identities’<sup>4</sup> are not published and cannot be readily computed. This makes it more challenging to integrate emissions budgeting into the broader policy frameworks where linkages should be important, such as growth policy, spending allocations and fiscal budgeting. (The UK is not alone in facing such challenges: Jean Pisani-Ferry’s report for the French Prime Minister on the economics of climate action similarly concluded that “High priority should be given to ongoing work to improve carbon footprint estimates and to widen the scope for cross-referencing emissions and footprint statistics with other economic data” [Pisani-Ferry and Mahfouz, 2023]).

Economic and fiscal data releases have a strong salience in news and political debate, particularly in the headline monthly GDP and public finances data. Part of this salience comes from familiarity as these data have been released for decades and from the close link to people’s livelihoods, but partly it is due to the ability to compare the latest outturn with the latest official forecast (as discussed below). This means those viewing the data – and the media conveying them to the public – can get a sense of whether a number is good or bad news, rather than simply a number. For emissions, the lack of an official forecast means the data release is difficult to place in the broader context of carbon budgets, net zero pathways, and whether it is better or worse than expected.

## iv) Forecasting

### Fiscal forecasting

The OBR’s fiscal forecasts are independent and best-endeavour predictions conditioned on current government policy, produced according to requirements set in primary and secondary legislation. In particular, the OBR’s forecasts must be objective, transparent and impartial. To that end, the OBR publishes the full detail of the forecasting process, including its macroeconomic model (to which assumptions and judgements are added and justified) (OBR, n.d. a). Its reports document forecast judgements and how they have changed from previous reports.

The OBR’s forecasts are integral to every Budget or other fiscal statement, shaping the context in the weeks leading up to the statement. On the day of the fiscal event, the OBR publishes its *Economic and Fiscal Outlook* (EFO), containing a detailed description of its latest forecast, including the impact on the economy and public finances of all announced policy decisions (OBR, n.d. b).

The forecast process is iterative, including several rounds of ‘pre-measures’ forecasts (i.e. based on policy as it stood when the previous EFO was published) which are sent to the Chancellor to inform Budget decision-making. In recent fiscal events this has tended to include three ‘pre-measures’ rounds, each providing an assessment of the margin by which the Government will hit or miss its fiscal targets in the absence of new policy measures.<sup>5</sup> Concurrently, the Treasury develops a draft policy costings ‘scorecard’ of proposed tax and spending measures the Chancellor is considering (see further below).

<sup>4</sup> The Kaya identity is a mathematical identity that splits growth in emissions into four key components: population, GDP per person, energy use per unit of GDP, and the emissions intensity of energy. This provides an analytical framework in which emissions reductions can be considered. See, for example, OECD (2023).

<sup>5</sup> In the March and October 2024 forecasts, this was reduced to only two pre-measures rounds to allow the Chancellor of the day more iterations to adjust policy packages to achieve precise outcomes in the post-measures forecast. This may set a new precedent for future forecasts.



The forecast process then concludes with a post-measures forecast, which provides a similar assessment of headroom relative to fiscal targets, but this time incorporating the impact of the Government's new policy measures, which are contained in the Treasury's final scorecard. Recent forecasts have also included an interim post-measures round, designed to allow the Chancellor to fine-tune their policy response to achieve their desired fiscal outcomes. The EFO then formally reports the OBR's assessment of the Government's performance against its fiscal targets.

The OBR is required to publish an annual assessment of the performance of its forecasts against outturn data (OBR, 2023a). This *Forecast Evaluation Report* (FER) provides an analytical basis for understanding surprises relative to forecasts and, for the Treasury, to determine whether a policy response is appropriate. The OBR has added a formal approach to assessing the performance of fiscal forecasting models to its FERs, providing transparency around model uncertainty and plans for improvements.

### Emissions forecasting

There are no official emissions forecasts produced by the UK: i.e. no official view of what will happen to emissions over the coming years if there were no further changes in policies. The closest equivalent is the projections published by DESNZ in its *Energy and Emissions Projections* (EEP) publication, but these are heavily caveated as "not forecasts". They are considerably lower-profile than OBR forecasts for the economy and public finances. They are also subject to several problems for those wishing to use them as a baseline for analysis. This includes often being out-of-date in terms of energy prices, or the latest government strategies and policies (discussed below): for example, the CCC's July 2024 *Progress Report* used DESNZ's autumn 2022 EEP as its baseline, which in turn was based on long-run fossil-fuel price assumptions from before the Russian invasion of Ukraine. In addition, the projections published in October 2023, more than four years after the net zero target for 2050 entered the statute books, still only extended to 2040.

The CCC's *Progress Report*, drawing on the EEP baseline and the CCC's assessment of the extent to which required emissions reductions are covered by credible plans, also falls short of forecasting UK emissions through to 2050. The CCC references emissions projections from the *Carbon Budget Delivery Plan*, but those are also based on the EEP baseline and include "only the quantified plans" (CCC, 2024). Figure 1.4 in the CCC's 2024 *Progress Report* details historical emissions by sector, and the Government's CBDP pathway, but does not include a forecast that reflects current policies or delivery plans that can be compared against the required CBDP pathway to establish the scale of any gap between plans and targets. The CCC is highly transparent in documenting its analysis and supporting evidence. Given its different role and legal remit to the OBR, it has not been able to shine the light of transparency on the Government's own modelling of decarbonisation in the way the OBR has done for various fiscal issues.<sup>6</sup>

Neither DESNZ nor the CCC is required to evaluate the reasons for projections deviating from outturn emissions.

### Discussion

Forecasts provide a central organising framework for factoring in all relevant determinants of whether or not a target is on course to be met. OBR forecasts are explicitly tasked with performing that role by providing a pre-measures assessment of performance against targets and assessing the impact of new policy measures to provide an updated assessment. DESNZ's EEP projections are not subject to the same statutory requirements that underpin the OBR's forecasts and they are not used in the same way. The CCC's *Progress Reports* are subject to statutory requirements that are quite similar to those for OBR forecasts,

<sup>6</sup> For example, the OBR's analysis of student loan finance ultimately prompted the Department for Education to increase the transparency around its modelling by providing an annual statistical release: <https://explore-education-statistics.service.gov.uk/find-statistics/student-loan-forecasts-for-england>

but the CCC currently meets these requirements without producing a forecast for emissions or their underlying drivers.

As a stepping stone to a full forecast, the CCC's approach of assigning risk status to the plans for emissions reductions could be adapted to apply broad probabilities that could underpin a risk-adjusted forecast for emissions on current policies and plans. A simple illustration of this is provided in the Section 3 below.

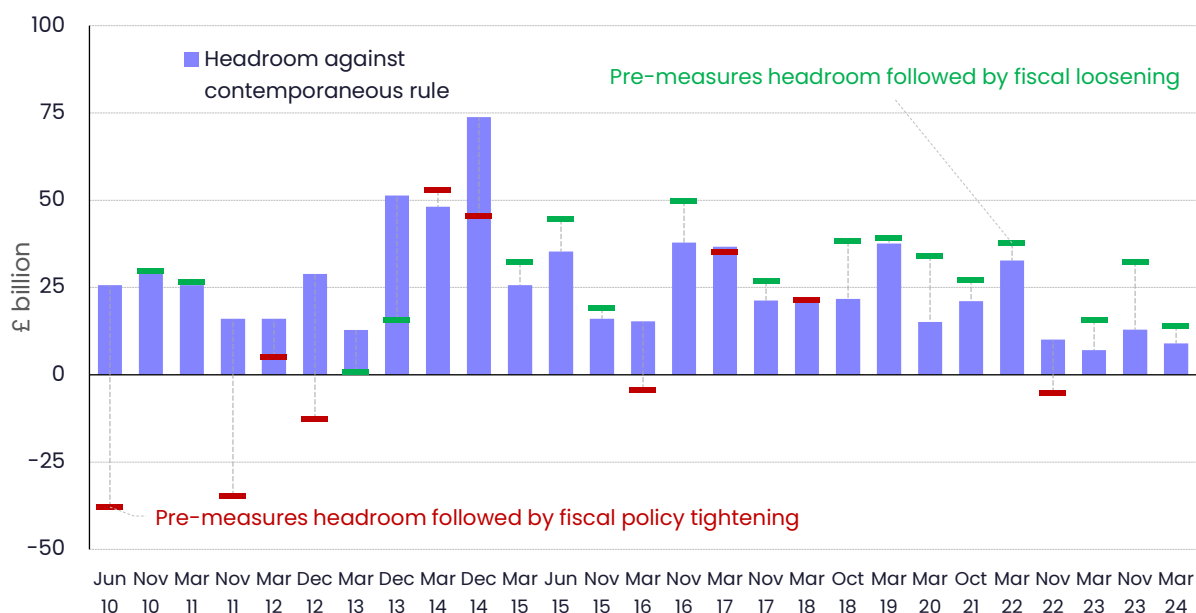
The lack of a formal forecast evaluation process around emissions means there is no official record of why they deviated from past projections and no official analysis of the impact on emissions of surprises relative to expectations for policy impacts, technology costs or other factors that influence the path of emissions over time. A formal process can be particularly useful when shocks have hit and their lasting effects are uncertain, as has been the case in recent years with transport emissions during the COVID-19 pandemic and energy use after prices surged.

#### iv) Identifying gaps v. targets given current policies – and adjusting policy to close them

##### Fiscal gap analysis and policy adjustments

As part of the forecasting rounds in the weeks leading up to the Budget, the OBR provides the Chancellor with its assessment of headroom relative to the fiscal targets (typically in the form of a figure in billions of pounds in the target year). This assessment of available headroom is a key factor determining which policies the Chancellor chooses to announce in a fiscal event. In practice, the Treasury typically adds, removes and adjusts policies throughout the Budget process before settling on a final package of measures to achieve a desired amount of headroom in the published forecast (see Figure 2.1).

**Figure 2.1. How government policy has responded to the OBR's pre-measures assessment of headroom (2010–2024)**



Source: OBR, Flint calculations

**Table 2.1. CCC Progress Reports v. UK Government responses**

Year	CCC Progress Report	UK Government response
2024	Published on 18 July, shortly after the UK General Election, the 2024 <i>Progress Report</i> set out 10 priority actions for the new government.  A key assessment was that “the previous Government’s policies and plans were insufficient to achieve the UK’s targets in the 2030s” and that “rapid action is needed to get things back on track”.	<i>Yet to be released.</i>
2023	The 2023 <i>Progress Report</i> was published on 28 June, following publication of the <i>Carbon Budget Delivery Plan</i> in March 2023. The report included 27 priority recommendations, with 300 in total. Overarching assessments were that “[...]policy development continues to be too slow”; “confidence in the UK meeting its medium-term targets has decreased in the past year”; and “action is needed in a range of areas to deliver on the Government’s emissions pathway”.	The Government’s 2023 response was published on 26 October, four months after the <i>Progress Report</i> . The document provided responses to the CCC’s priority and other recommendations, largely detailing and restating actions underway. The summary response was that the “Government acknowledges the challenges of meeting future carbon budgets but is working hard to ensure delivery”.
2022	The 2022 <i>Progress Report</i> was published on 29 June, and was the first report after the publication of the UK’s <i>Net Zero Strategy</i> . It provided priority and other recommendations (a total of 327). Overarching assessments were that “ambitions are credible, in line with the required pace and scale of change”, but “tangible progress is lagging the policy ambition” and “there are currently significant risks in the plans for meeting the UK’s 2030 NDC under the Paris Agreement process”.	The Government’s 2022 response was not published until 30 March 2023, nine months after the CCC’s report. It included responses to each of the 327 CCC recommendations, largely restating existing actions. It stated that responses “sit as the [...] annex to the Net Zero Growth Plan, which should be considered together. Responses detail the actions that are being taken [...], as well as outlining next steps in specific areas”.
2021	The 2021 <i>Progress Report</i> was published on 24 June, and provided 200 recommendations. The report noted the upcoming <i>Net Zero Strategy</i> .  Overarching assessments were that “[...] it is hard to discern any comprehensive strategy in the climate plans we have seen in the last 12 months”; “there is a large policy gap”; and “policy progress is being made, but it is not yet happening at the necessary pace”.	The Government’s 2021 response was published on 19 October, just under four months after the CCC’s report. The response was published alongside the Government’s <i>Net Zero Strategy</i> . It stated that responses “detail the actions that are being taken [...], as well as outlining next steps in specific areas”, and that other government publications, such as the <i>Net Zero Strategy</i> , addressed several of the CCC’s recommendations.
2020	The 2020 <i>Progress Report</i> was published on 25 June. It addressed the impact of COVID-19 and the recovery, making 92 recommendations. A key assessment was that “Important new parts of the policy framework have been introduced [...]. Most have not yet delivered, however, so must progress in the coming year.”	The Government’s 2020 response was published on 15 October, just over four months after the CCC’s progress update. The document included specific responses to the CCC’s recommendations for individual departments as well the priorities identified for all departments. Summary responses were that government “have heard the strong message from the CCC that progress has been greater in some areas than others. [...] we recognise that more needs to be done if we are to meet the size of our net zero and carbon budgets ambitions”, and that it had set out “in detail the progress we have made so far in pursuit of the decarbonisation of the UK economy as well as further actions that we will undertake to deliver net zero and meet our carbon budgets”.

Sources: CCC’s annual *Progress Reports*: [2024](#), [2023](#), [2022](#), [2021](#), [2020](#)

Government responses: [2023](#), [2022](#), [2021](#), [2020](#)

## Emissions gap analysis and policy adjustments

The CCC's *Progress Reports* are comprehensive in their assessment of progress towards emissions reductions, assessing the credibility of plans and risks to delivery across relevant areas. Relative to the OBR's EFOs, they are more qualitative in their analysis of the gaps relative to carbon budgets and net zero pathways that are identified. The Government responds to the CCC's report in Parliament via a report laid by the Secretary of State. It typically provides a reasonably comprehensive rundown of government policies and strategies, but rarely contains new or amended policies to get back on track where gaps have been identified (see Table 2.1). The Government's response to the CCC report is not a major Parliamentary event.

Figure 2.1 illustrates how the fiscal forecasting process enables the Chancellor to use the OBR's pre-measures forecast when determining their fiscal policy response (the chart excludes the forecasts most affected by the pandemic). The blue bars show the amount of fiscal headroom in the published forecast against each contemporaneous fiscal target, while the dashes show the equivalent headroom on a pre-measures basis. The difference between them therefore represents each Chancellor's policy response to the underlying, pre-measures, fiscal position. The five red dashes that lie below zero represent those events where the OBR's pre-measures assessment was that the Government was on course to miss its fiscal target. In each case the Government tightened fiscal policy sufficiently to ensure it was back on track. Most of the green dashes lie above the bars, representing those events when the Government responded to a positive pre-measures assessment by spending some of the headroom. By contrast, Table 2.1 shows that there is a less direct link between CCC *Progress Reports* and government policy responses.

## Discussion

The OBR and CCC both identify gaps in progress relative to legislated targets, but the Government's response to those assessments are materially different. Gaps in relation to fiscal targets are typically addressed through policy changes and announced at a major Parliamentary event. Gaps in relation to emissions targets are noted, but more rarely addressed, via lower-key reporting to Parliament.

The CCC's recommendations have been overlooked in several cases, including in the 2023 *Progress Report to Parliament*, which indicated that "no progress appears to have been made on seven of the priority recommendations we made in last year's progress report". Despite this, the *Skidmore Review* noted the robust and sophisticated scrutiny mechanism in place through the CCC, while emphasising the need to strengthen parliamentary scrutiny of net zero, and highlighting risks to delivery. The Institute for Government has stated this in more direct terms, describing parliamentary scrutiny of government performance on climate change as "weak", highlighting that the CCC "has less impact when it reports that the government is off course", and that, despite the authoritative voice of the CCC, "warning shots have been repeatedly ignored" (Sasse et al., 2020).

This comparison suggests that there would be value in the emissions budgeting process leading to a more systematic course-correction element within the Government's responses. The fiscal regime has this, but there are known flaws in the process by which policy is adjusted in response to changes in estimated fiscal headroom. Indeed, there has been much criticism of what is seen as excessive tinkering with tax and spending policies for the purpose of "fiscal fine-tuning" (Tetlow et al., 2024). A system for emissions budgeting would therefore ideally provide a more direct link from identified gaps to policy adjustments, without going as far as has been the case for fiscal budgeting over the past decade-and-a-half.

One proposal for a more direct link between the CCC's assessments and the setting of emissions policy highlighted by the IfG comes from former CCC Chair Adair Turner, who suggested that "the CCC could be given a more direct instrument to help the government get back on track if it deviates" (Sasse et al., 2020). Specifically, he proposed that the CCC could be made responsible for recommending a carbon price profile for the next 15 years, and adjusting this up or down annually. If ministers did not follow the CCC advice, they would then have to explain why. In our view, this would involve too material a change to the CCC's

advisory role, risking the wider benefits of its role by dragging it into the politics of setting taxes. It would be akin to giving the OBR the power to recommend how income tax rates should be adjusted to achieve fiscal targets. The fact that emissions budgeting focuses on periods further in the future, and the fact that the problems caused by pursuit of wafer-thin fiscal headroom are well known, should allow policymakers to find an appropriate balance between more systematic course-correction and excessive policy tinkering.

## **v) Policy costings process**

### **Fiscal policy costings**

Each fiscal event is accompanied by a scorecard of the impact of each new policy measure's fiscal cost or yield in the Budget Red Book. The OBR scrutinises and certifies the estimated fiscal impact of each measure proposed by the Treasury in an iterative process that typically continues until the OBR provides its independent endorsement of the estimate as "reasonable and central". The certified costings that make up the scorecard are then incorporated in the OBR's post-measures forecasts (discussed above) and its assessment of whether the Government is on track to meet its fiscal targets. The OBR provides an assessment of the uncertainty around every policy costing, with commentary in the EFO for those deemed highly or very highly uncertain, and a database of rankings on its website.

The primary and secondary legislation allow the OBR and Treasury to agree to disagree over costings, in which case the OBR would describe the alternative costings it had used within the EFO. In the OBR's 14 years of forecasting, this has not been invoked (although occasionally the process for individual costings has not been completed, so the OBR has used uncertified Treasury costings and completed the certification process at the subsequent EFO).

### **Emissions policy costings**

The DESNZ EEP projections incorporate policies already implemented or planned policies "where funding has been agreed and the policy design is near final". This does not include policy proposals set out in the CBDP. Instead, EEP projections are used as the baseline against which the impact of new net zero policies are assessed, including by the CCC. The annexes to the DESNZ projections include a detailed 'scorecard' of emissions policies, but the coverage is largely (though not wholly) confined to climate policies that reduce emissions, so the scorecard is not comprehensive or unbiased. For example, the effect of freezing fuel duty or reforms to vehicle excise duty are not quantified. It is also the case that policies introduced by devolved or local governments are not included.

While DESNZ and other departments discuss the estimated effects of policies on emissions with the CCC, there is no formal role for independent scrutiny by the CCC or public certification that estimates are reasonable and central.

## **Discussion**

The process for assessing the effect of policy changes on the fiscal budget is designed to be comprehensive and unbiased, with independent oversight, public certification and commentary from the OBR. This differs from the process for assessing the effect of policies on emissions, which is not comprehensive and, in aggregate, is not unbiased since it is largely policies with favourable effects on emissions that are captured in the EEP. There is also no formal role for independent oversight in the emissions process, although departments do engage with the CCC and benefit from its expertise in a similar way to analysts working on fiscal costings with the OBR.

Relative to the fiscal scorecard, a greater proportion of the policies that affect emissions will stem from regulations rather than changing parameters of the tax system or amounts allocated to public spending. This could result in a more complex process as the evidence base for the impact of regulations on emissions continues to develop.

## vi) Set-piece event

### Fiscal event

The whole process of macro-fiscal analysis, forecasts and costings feed into a major Parliamentary event, which sets policy to meet targets and receives widespread media coverage. The UK's policymaking system has evolved to focus on such set-piece moments in Parliament, with policy and analytical teams within departments focused on developing options and advice for Ministers to feed into packages of announcements on Budget day.

### Emissions event

There is no emissions budget statement or 'event' in Parliament. In contrast, the Government's response to the CCC's *Progress Report* is typically a low-key moment within the political calendar.

### Discussion

Many have criticised the way in which two fiscal events a year have led to excessive policy tinkering to maintain precise amounts of headroom (Tetlow et al., 2024), but there is still considerable value in having a focal point for the many analytical and policymaking processes that feed into fiscal events. By bringing all fiscal policy decisions together in a single event, trade-offs between different priorities and the different policy levers available to deliver those priorities are brought to the fore. On the analytical side, focus on preparing a new forecast means that the most up-to-date data and analysis are used across the many departments and agencies that are involved.

In the emissions context, the publication of the *Net Zero Strategy* was probably the closest equivalent to an 'emissions budget statement'. This is not true of the CCC's *Progress Report* or the Government's subsequent response, which are closer in process terms to the OBR's assessment of fiscal risks and the Treasury's typically low-key responses that follow after several months. The similarly low-key nature of the DESNZ EEP projections may be one factor behind the apparent lack of concern about the fact that they are often conditioned on out-of-date assumptions.

Arguably, the lack of such an event has hampered delivery of policies to enable the UK to reach net zero – particularly as decarbonisation becomes more challenging. One way this could be addressed is if the CCC's annual *Progress Report* were built around an emissions forecast that fed into an emissions budget statement in Parliament setting out the latest developments and prospects for meeting legislated targets, and the new policy measures (or changes to existing ones) that the Government deemed necessary to remain on track to meet carbon budgets and get to net zero. This could be the joint responsibility of the Chancellor and the Secretary of State for DESNZ, so that funding levers and trade-offs between tax, spending and regulation could be considered in the round. This is discussed further in the Recommendations section that follows.



### 3. Recommendations and practical implications

The comparison between the fiscal and emissions budgeting processes points to several areas where the emissions process could be enhanced – and, equally importantly, some problematic outcomes of the fiscal process that should be avoided. This is particularly true in the context of emissions reductions moving from the successful removal of coal from the electricity generation mix to more challenging processes of removing oil and gas from the overall energy mix – especially in transport and buildings: people's cars and homes.

#### Recommendations

**The overarching conclusion is that the processes around setting policy to meet carbon budgets and to be on a pathway to net zero would benefit from an annual set-piece 'event' in Parliament with equivalent status to the Budget for fiscal policy.** This would provide a focal point for policymakers responding to the CCC's *Progress Reports* and would elevate the importance of keeping policies and strategies under review to respond to changing external conditions and evolving assessments of where the net zero transition is off track and where policy has been more or less successful than expected in reducing emissions.

To make that work, it would be helpful to:

- **Improve the availability and comparability of emissions data.** This would facilitate integrated analysis of the drivers of underlying economic, technological and other emissions outturns and how they relate to economic and fiscal trends. It would enable the CCC and the Government to quantify the reasons why emissions reductions are off course when that is the case, and thereby inform decisions over whether and how it would be appropriate for policy to respond. This would be equivalent to the analysis of economic and fiscal developments at present, where the first step is often to determine whether something is cyclical, structural or a one-off, since different policy responses are appropriate in each case. The Office for National Statistics, with its overarching statistics role, would likely need to lead progress on improving the data, which is required to integrate emissions-related analysis into the fiscal setting, facilitating trade-offs between different policy levers and mainstreaming emissions consequences into fiscal budget decisions. The use of sector-specific Kaya identities could be particularly helpful for integrated analysis by helping data-users to pinpoint the underlying drivers of overall developments in emissions.
- **Improve emissions forecasting.** Forecasts provide an organising framework for considering the extent to which current policies and plans are sufficient to meet stated targets, for analysing the future implications of recent developments, and for determining whether and how policy should respond. To achieve this, they need to reflect an objective and unbiased judgement of likely future outcomes conditioned on current policies. This means using the latest assumptions for important drivers of emissions, like the economic outlook, energy prices and all relevant policies, rather than focusing more narrowly on the consequences of emissions-reducing policies. Two potential approaches to this would be: (i) upgrading the Government's Energy and Emissions Projections to produce a central forecast (plus alternative scenarios), rather than projections based on often outdated and partial assumptions; or (ii) quantifying the implications for emissions of the CCC's existing assessment of the credibility and risks around emissions-reduction plans in provided in its *Progress Reports* (see Figure 3.1 below).
- **Improve the emissions policy costings process and associated 'scorecard'.** The existing emissions scorecard in the EEPs is partial, in that it is largely confined to emissions-reducing policy measures. The Government should consider the



implications for emissions of all policies. If an emissions scorecard were being used to capture policy changes made at annual set-piece statements in Parliament, it could also be used to facilitate policy development and trade-offs between different policy levers and objectives, rather than being compiled in retrospect. The Government should also consider giving the CCC a formal role in scrutinising the analytical, delivery and other assumptions underpinning emissions costings, mirroring the role played by the OBR in assessing whether the Treasury's fiscal policy costings are reasonable and central.<sup>7</sup> One example of an innovative approach to assessing climate policies is Denmark's GreenREFORM model, which is at the international frontier of integrated approaches to modelling, and the institutional structure around it (see the Appendix for discussion of Denmark's broader approach).

- **Introduce a 'forecast evaluation report'–style process for emissions.** This would help to build the evidence base for what drives emissions trends, the role of factors within or beyond the control of government in those trends, and how policy interventions are performing relative to expectations. Given the relative newness of emissions forecasting, an evaluation process would also enable the testing and improvement of forecasting approaches over time. The assessment of what causes outturn figures to differ from expectations – and the equivalent analysis of what explains revisions from one forecast to the next – are essential ingredients in the policymaking process.

## Practical implications

### An annual set-piece event in Parliament

The most significant practical implication of the above proposals would be to change the way emissions-reduction policy is made, with greater focus on the implementation of strategies and the updating of policies in the light of news about the economy, emissions and the effectiveness of policy measures. The key enabler would be the introduction of a focal point in the year via a set-piece Parliamentary event reporting on progress and any steps to correct course.

The direct practical implications of introducing such a set-piece event in Parliament would be relatively modest, although the indirect implications via the processes necessary to make it a success would be more significant. Perhaps the key decision is when in the year it should be held. One option would be alongside a fiscal event, so that all trade-offs between policy levers and between net zero and other objectives could be taken in the round. But it seems very likely that this would be impractical: Ministers and officials are already heavily burdened during a fiscal event, so adding further complexity could result in worse not better decisions being taken.

An alternative would be to hold it in the summer, factoring in the OBR's spring forecast and any Spring Budget or Spring Statement on fiscal policy, but separated from the fiscal event. This would have the added benefit of meshing with the existing June timing of the CCC's *Progress Reports*. It would be sensible to fix a date in the calendar to avoid the uncertainty that exists around the dates of fiscal events, which are at the discretion of the Chancellor, subject only to the non-binding requirement to give the OBR 10 weeks' notice of the date when it is announced. This would also mean that the process would not need to be squeezed

<sup>7</sup> Parliament has indicated its support for improvements in this area and in particular for an 'emissions scorecard'. In an exchange of letters in 2022 between the Chair of the Environmental Audit Committee and Treasury Ministers, the Chair stated that, "In the Committee's view, an emissions scorecard of this nature would assist in a proper assessment of the climate impact of fiscal policies. While we acknowledge the work already being undertaken within Government to assess and model the climate impact of policies, we consider that independent monitoring of policy decisions for climate effects would improve the robustness of the policy development process, and we shall discuss with the CCC whether it is a task that the Committee would be well placed to undertake."

The *Skidmore Review* highlighted the need to show the impacts of fiscal events on net zero: "We recommend the Treasury builds on the recent reporting of Spending Review carbon implications by working with the Office for Budget Responsibility (OBR) and CCC to set out a process for how it will ensure the climate impacts of fiscal decision making are considered. It should commit to publishing the climate impacts of future spending reviews" (Skidmore, 2023). This is not designed to capture all government policies, as many come forward outside of the spending review cycle and/or do not require public spending." It further stated that "Government should work with OBR and CCC to set out a process for how it will ensure the climate impacts of fiscal decision making are considered. It should commit to publishing the climate impacts of future spending reviews" (Skidmore, 2023).

into 10 weeks, which would be detrimental to the approach the CCC has successfully taken in its work, drawing extensively on a wide range of expert input.

An annual event could interact beneficially with Labour's mission-led approach to government. The Mission Board for the clean energy mission could capitalise on having such a focal point visible across government, and from the information and analysis produced by the underlying processes recommended above, to achieve greater progress on its mission objectives. In particular, if an event secured greater Treasury buy-in to the overall process and its objectives, this would raise the probability of success in reducing emissions and getting back on track for net zero.

### **Improving the availability and comparability of emissions data**

A wealth of emissions data is published already and efforts are made to help users to understand the different metrics and to bridge between them. But beyond the aggregate whole-economy level, it is difficult to map emissions data onto economic and fiscal variables. This is a challenge that the OBR faced when trying to map emissions onto its tax forecasts (OBR, 2023b) and it limits the extent to which the drivers of trends in emissions from year to year can be analysed. More could be done to facilitate such analysis, for example through publication of sectoral Kaya identities (linking emissions to sectoral output via sectoral use of different sources of energy and their emissions intensity) or by mapping emissions sectors (like buildings or waste) onto the expenditure categories of GDP that they relate to. Finally, more could be done to integrate emissions into standard GDP reporting: again, the Kaya identity provides a framework for doing so, by adding energy use and the emissions-intensity of that energy to the standard suite of metrics reported on GDP release days.

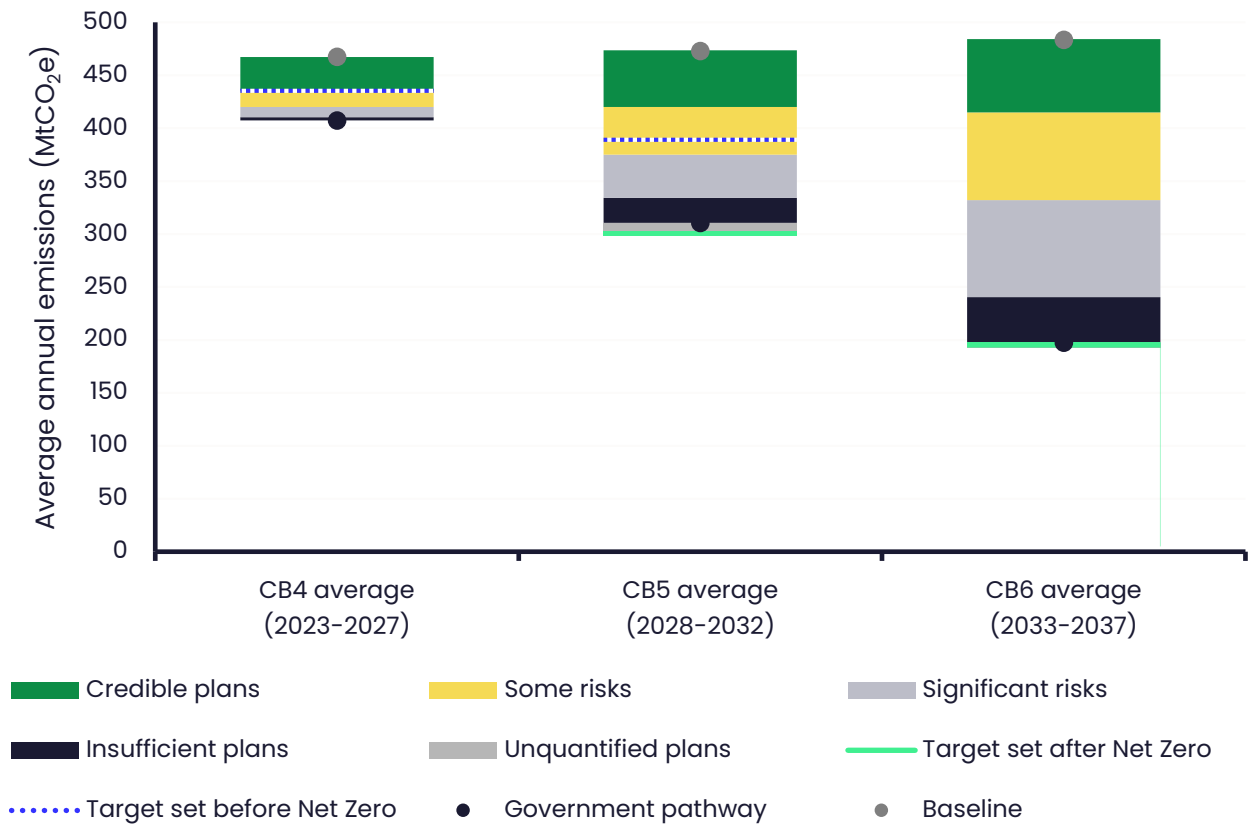
### **Improving emissions forecasting**

There are several options for improving emissions forecasting. One would be to upgrade the DESNZ EEPs to incorporate up-to-date conditioning assumptions (such as the latest OBR economic and fiscal forecasts and the latest energy prices) and a comprehensive treatment of current policies (including the impact on emissions of policies beyond the climate sphere). Another would be for the CCC to take further steps to quantify the likely path of emissions on current policy given its assessment of the credibility and risks around particular interventions.

The resource implications of enhancing either process would be material. The OBR's economic and fiscal forecast process involves hundreds of analysts at its peak (particularly the disaggregated fiscal forecast process, where analysts from HM Revenue and Customs [HMRC], the Department for Work and Pensions [DWP] and other departments run forecast models on the OBR's behalf using OBR assumptions). To the extent that an enhanced emissions 'scorecard' process was also put in place, there would be further practical implications from incorporating the latest policies into forecasts via that scorecard process.

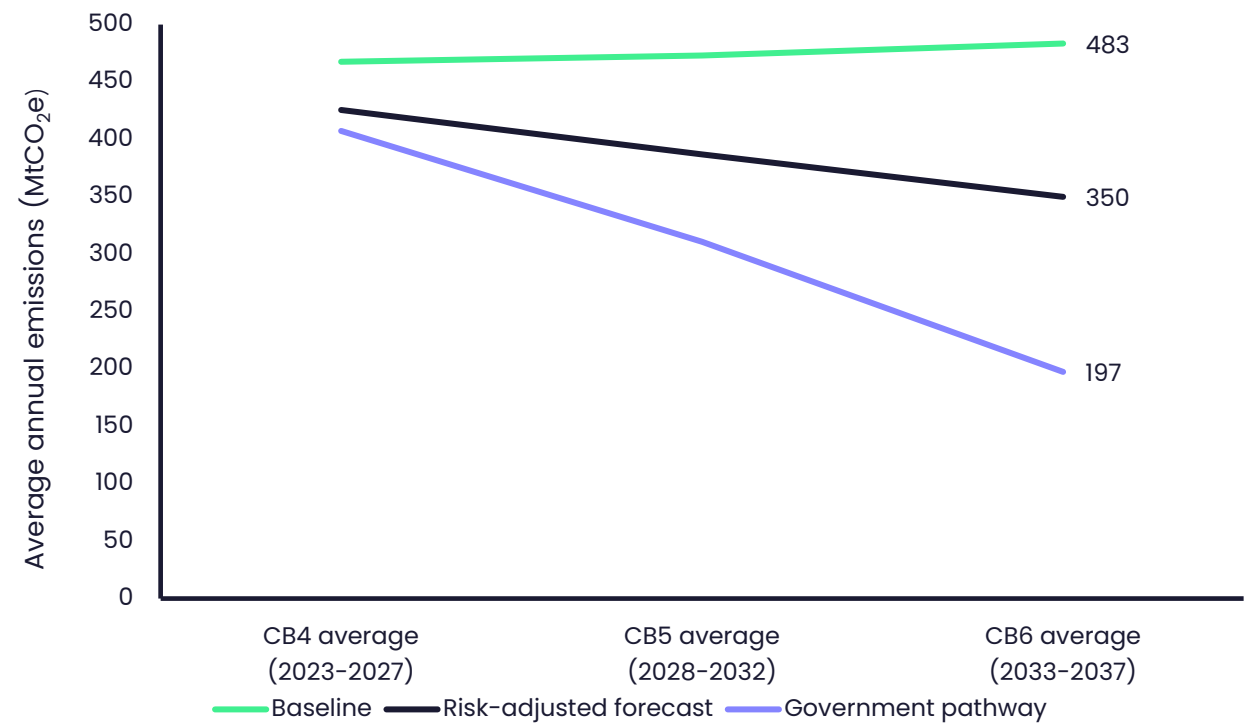
One possible stepping stone to a fully-fledged emissions forecast would be for the CCC to convert its existing risk-based assessment of progress (shown in Figure 3.1) into a probability-based one, which would mean that a risk-adjusted forecast for emissions could be produced. This could be done alongside, rather than in place of, its existing approach, which is well-known by users. A purely illustrative version of this is shown in Figure 3.2 by giving weights of 100% to emissions reductions with 'credible plans', 50% to those with 'some risks', 25% to those with 'significant risks' and zero to those with insufficient or unquantified plans. On this basis, the CCC's conclusion that "the previous Government's policies and plans were insufficient to achieve the UK's targets in the 2030s" (CCC, 2024) could be quantified as implying a delivery gap of 153 MtCO<sub>2</sub>e of emissions in the years covered by the Sixth Carbon Budget (a huge shortfall relative to a target of 197 MtCO<sub>2</sub>e for those years).

Figure 3.1. The CCC’s 2024 assessment of policies and plans



Note: CB = Carbon Budget. Source: CCC (2024)

Figure 3.2. Illustrative risk-adjusted emissions forecast using the CCC’s 2024 Progress Report



Source: CETEx analysis based on CCC (2024)

**Improving the emissions policy costings process and 'scorecard'**

The fiscal policy costings process that underpins scorecards for Budgets and other fiscal statements is a resource-intensive one. The 2014 *External Review of the OBR* found that the costings process involved 66 full-time-equivalent staff outside the OBR over the course of a year, with that resourcing concentrated in time around fiscal events (Page, 2014). Each costing is accompanied by a 'costing note' that sets out the policy background, the baseline level of spending or tax that is involved, plus the costing itself, including any associated behavioural responses. Costing notes are produced by analytical teams based in the Whitehall department responsible for the policy, while the overall process is coordinated by teams in the Treasury, HMRC and DWP, who work closely with the relevant team in the OBR. The 'scorecard' process works alongside the costing note process and is another cross-Whitehall and OBR collaboration. This process extends well beyond the dozens of measures that are announced at each fiscal event, with many more policy costings developed for ministerial consideration before being dropped in favour of other measures or due to lack of fiscal headroom. Building an equivalent emissions 'scorecard' process for an annual set-piece Parliamentary event would therefore be a significant undertaking, requiring input from across government and coordination teams within key institutions (e.g. DESNZ, CCC and Treasury).

Given the repeated judicial reviews of the adequacy of plans for achieving net zero, there is clearly value in the investment that would be necessary to run a comprehensive emissions scorecard process each year to ensure that policy settings are consistent with legislated emissions targets. The greater the integration between the emissions process and the existing fiscal budgeting process, the greater the scope to use this to make trade-offs between different policy levers in meeting emissions goals and between net zero and other priorities within overall budgets.

**Introducing a forecast evaluation process**

Much of the analysis required to assess the performance of forecasts against outturn data is a natural byproduct of the forecast process itself (which involves understanding why outturn has differed from forecast in order to update judgements about the future). The main practical implications of introducing a forecast evaluation process therefore relate to the formal requirements to report on this publicly and to undertake specific analysis at a particular point in the year. This would have modest resource implications for the entity that had been tasked with the process (which could be either a government department or the CCC, depending on where forecasting responsibilities lay) and for any departments that were required to feed analysis into that process.

# Appendix: International examples – Denmark and the Netherlands

## Denmark: Ministry of Finance

Denmark's integrated institutional set-up with regard to emissions budgeting and course-correction has led to the delivery of several policy initiatives that contribute to reaching its climate goals.

### Background

In 2019 Denmark adopted a climate law targeting 70% emissions reductions by 2030 (v. 1990 levels), with sectoral policy measures to achieve the target. This involved tasking an independent expert commission to develop models for a higher and more uniform carbon tax.

### Tax reforms

Based on the work of the commission, the Government reached an agreement in June 2022 on a tax reform “that will reduce the country's emissions by 4.3 million tCO<sub>2</sub>e by 2030, representing the largest single policy contribution to Denmark's 2030 climate target” (Coalition of Finance Ministers for Climate Action, 2023). The Danish expert commission was also influential in developing the model for a greenhouse gas tax in agriculture, announced in June 2024. Agricultural emissions are expected to account for nearly half of Denmark's total emissions by 2030, with the tax expected to cut 1.8 million tonnes of emissions in 2030, enabling Denmark to meet its 2030 target.

### Key features

There are several features of Denmark's institutional set-up that have enabled successful tax proposals to be developed and agreed between key stakeholders. These include:

- 1. Reforming the vision and mission of the Ministry of Finance (MoF).** When adopting the climate law in 2019, Danish Minister of Finance Nicolai Wammen made clear that delivery required the MoF to take on a stronger role. The Ministry's mission statement “was adapted to include sustainable climate and environmental development as a top-level objective, along with traditional fiscal and economic priorities” (Coalition of Finance Ministers for Climate Action, 2023).
- 2. Coordinating the whole-of-government response to climate change.** The MoF chairs a Climate Task Force to prepare and coordinate submissions to Cabinet committees on major, cross-cutting climate policy proposals. The delivery of several political agreements on a significant number of climate policy packages in recent years attests to the importance of MoF buy-in.
- 3. Continued innovation.** Denmark's GreenREFORM Model aims to provide a one-stop-shop for assessments of the economic and fiscal impacts of climate policies and the climate impact of economic policies, along with traditional budgetary and fiscal objectives (DREAM, n.d.). The model's projections through to 2100 “allow an assessment of the effect of future economic developments on the climate and environment and whether these developments are consistent with climate and environmental targets” (IMF et al., 2021). Supported by the MoF, the model is at the frontier of such modelling approaches internationally, and facilitates bringing analysis and policy development together within the Danish institutional set-up.

## The Netherlands

A joint paper by the IMF, OECD and European Commission (2021) highlights how the Dutch Multi-Year Programme for Infrastructure, Spatial Planning and Transport (MIRT) provides guidance to analyse the potential effects of proposed public investments on areas including climate change mitigation and adaptation. It notes that the Dutch government draws on independent knowledge institutions such as the PBL Netherlands Environmental Assessment Agency and the CPB Netherlands Bureau for Economic Policy Analysis (the Dutch climate and fiscal councils).

Similarly to the UK's CCC, the PBL evaluates government policies and produces climate estimates used by the Advisory Division of the Council of State, which is tasked to assess whether the Government is on track to reach its emissions targets. The CPB assesses the fiscal, macroeconomic and distributional impacts of climate policies.

The Dutch Government has also completed several spending reviews that are linked to climate adaptation, mitigation and environmental policy. These are used to identify policy options that increase efficiency of existing policy and also to generate new policy. Unlike the UK's 'Spending Reviews', these thematic reviews allow the Government to dig more deeply into particular issues. The Dutch model is therefore one that could inform the design of an annual Parliamentary 'event' in the UK, as recommended in this report.

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