



BANK OF ENGLAND

# Speech

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## **It's not easy being green – but that shouldn't stop us: how central banks can use their monetary policy portfolio to support orderly transition to net zero**

Speech given by

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At Bloomberg

21 May 2021

This speech launches, and draws heavily on, the Discussion Paper '[Options for greening the Bank of England's corporate bond purchase scheme](#)'. That paper was produced by an internal team led by Matt Trott, and I am hugely grateful to him, Sadia Arif, Andrew Bailey, Ryan Barrett, Beth Blowers, Sarah Breedon, Jon Bridges, Rohan Churm, Eleanor Eden, Chris Faint, Bianca Ginelli Nardi, Maggie Illingworth, Zane Jamal, Josh Jones, Rebecca Maher, Nick McLaren, Tom McLaren, Rhys Philips, Dave Ramsden, Francine Robb, Philip Temme, Thomas Viegas and Sebastian Walsh for their input both to the Discussion Paper and this speech

## Introduction

I am delighted to be with you here today to launch our Discussion Paper on greening central bank asset portfolios. The Paper sets out our analysis and proposals in detail. I want to use these remarks to explain why we are doing this, covering four main topics:

- First, why achieving net zero requires action from everyone, including central banks;
- Second, how a clarified remit, coupled with market mispricing of climate risk, gives the Bank the green light to adjust the composition of our Corporate Bond Purchase Scheme to support net zero in ways that don't compromise its monetary policy goals;
- Third, why those adjustments should aim to improve firms' incentives for delivering net zero, not simply minimise the current carbon footprint of the Scheme; and
- Fourth, how we will turn our words into action, starting with the next scheduled reinvestment operations this autumn.

The framework we are setting out today is a first for central bank monetary policy operations. But, as a famous frog once sang, it's not easy being green.<sup>1</sup> Some worry central banks will go too far, straying into territory best left to government. Others worry they will be too timid, under-using their influence for change. So we need your help. Do our proposals get that balance right? Have we missed anything? And how do we work with others to amplify our impact, recognising that central banks' voices and influence are at least as powerful as our buying power? Our draft framework already draws heavily on emerging best practice. But today marks the start of an intensive period of listening and learning, framed by the questions set out in the Discussion Paper. We look forward to hearing your views.

### **Why achieving net zero requires action from everyone, including central banks**

2020 was a global catastrophe. 3 million lives tragically lost to Covid.<sup>2</sup> The worst decline in output since World War 2 globally, and the Great Frost of 1709 in the UK.<sup>3</sup> Working hours slashed by the equivalent of 255 million jobs.<sup>4</sup> And children's education cut by at least a quarter.<sup>5</sup>

Even hardened optimists would struggle to find a silver lining in all of that. But, unintentionally, 2020 did achieve at least one extraordinary thing: it showed us just how big the challenge of tackling climate change

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<sup>1</sup> [Sesame Street: It's Not Easy Being Green \(Kermit's Song\) - YouTube](#)

<sup>2</sup> [WHO Coronavirus \(COVID-19\) Dashboard | WHO Coronavirus \(COVID-19\) Dashboard With Vaccination Data](#)

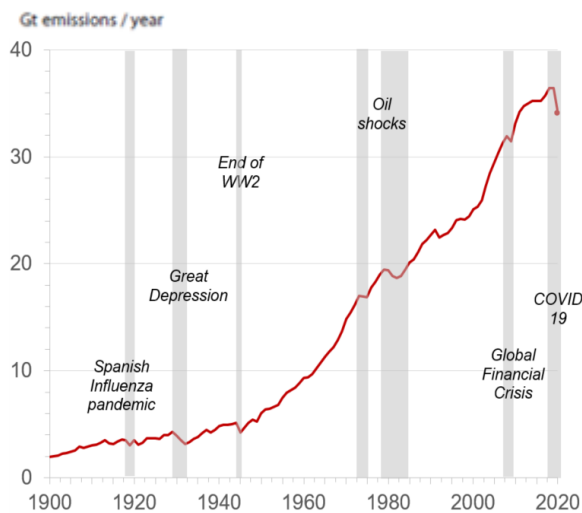
<sup>3</sup> <https://www.imf.org/-/media/Files/Publications/WEO/2021/April/English/Ch1.ashx> and <https://www.bankofengland.co.uk/-/media/boe/files/statistics/research-datasets/a-millennium-of-macroeconomic-data-for-the-uk.xlsx?la=en&hash=73ABBF603A709FEEB1FD349B1C61F11527F1DE4>

<sup>4</sup> [wcms\\_767028.pdf \(ilo.org\)](#)

<sup>5</sup> <https://www.imf.org/-/media/Files/Publications/WEO/2021/April/English/Ch1.ashx>

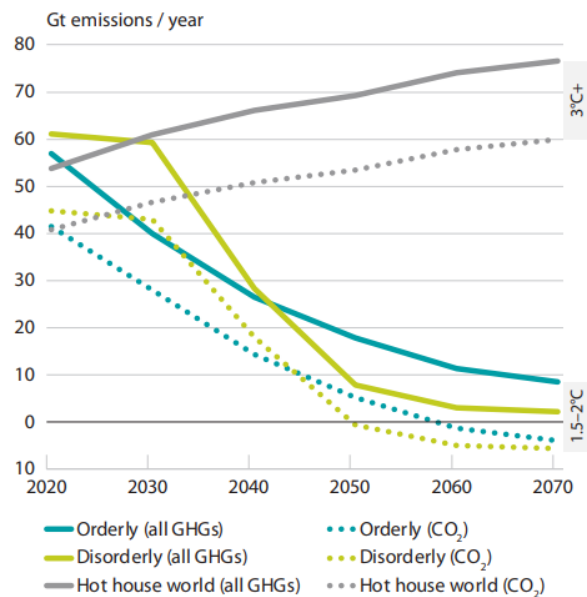
really is. Last year, as a result of all of that turmoil – air travel down by two thirds;<sup>6</sup> road miles halved<sup>7</sup> – global fossil CO<sub>2</sub> emissions fell by 7%.<sup>8</sup> That may not sound like much. But it’s the biggest fall for over a century (**Chart 1**). And it’s a sign of what needs to come – because, according to the UN, emissions need to fall by a similar amount every single year for the next decade if we are to avoid the disastrous consequences of global warming.<sup>9</sup>

**Chart 1: Global CO<sub>2</sub> emissions**



Source: Global Carbon Project  
<https://www.globalcarbonproject.org/index.htm>

**Chart 2: Orderly vs disorderly transition**



Source: IIASA NGFS Climate Scenarios Database, using marker models. ‘GHGs’ = greenhouse gases.

That won’t happen easily – or on its own. It turns out that the only previous material reductions in global emissions have been by-products of disasters like Covid, the financial crisis of 2008-9, World War 2, or the Great Depression (**Chart 1**). But relying on future disasters to force adjustment is not a plan. Orderly transition requires concerted efforts across every sector and country in the global economy. Start late, and the best case is severe economic disruption, at least as bad as in 2008-9 (**Chart 2** – yellow line). Leave it completely and temperatures will soar, causing untold physical, human and economic damage (**Chart 2** – grey line).

Responsibility for making the hard political choices to bring about orderly transition lies with governments. In the UK, greenhouse emissions have already halved in the past thirty years (**Chart 3**), one of the best performances in the G7. To get to net zero, we need the same again – and that’s why the Government has committed to reduce emissions to 78% of 1990 levels by 2035, and net zero by 2050.

<sup>6</sup> [IATA - 2020 Worst Year in History for Air Travel Demand](#)

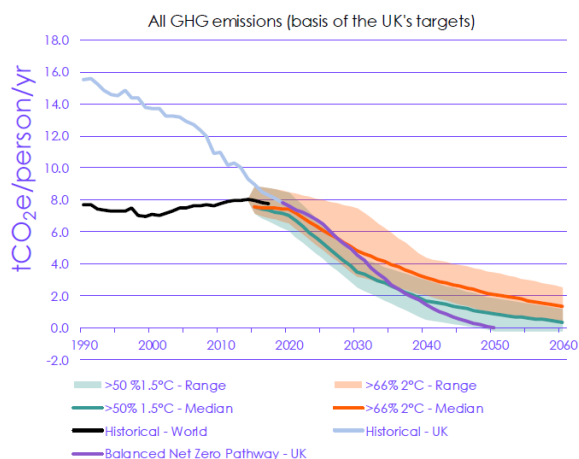
<sup>7</sup> [Changes in transport behaviour during the Covid-19 crisis – Analysis - IEA](#)

<sup>8</sup> [ESSD - Global Carbon Budget 2020 \(copernicus.org\)](#)

<sup>9</sup> [Cut global emissions by 7.6 percent every year for next decade to meet 1.5°C Paris target - UN report \(unep.org\)](#)

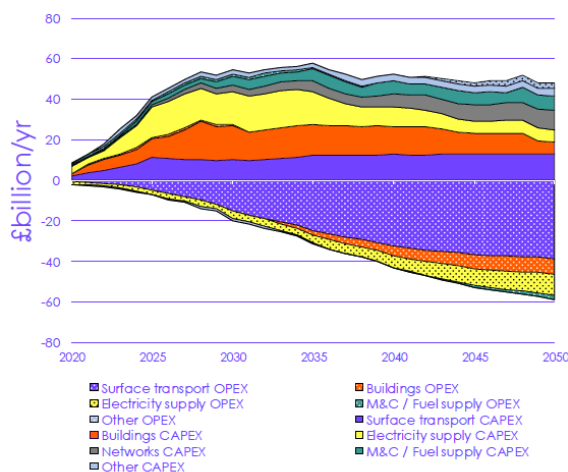
Governments may be responsible for the policies to achieve net zero. But much of the emissions reduction itself has to come from the corporate sector. And that requires investment – and lots of it. In the UK alone, spending on low-carbon technologies and infrastructure will need to rise five-fold, from £10bn to £50bn a year (**Chart 4**), or 2½% of GDP. Globally that number is more like 8% of GDP.

**Chart 3: UK balanced path to net zero**



Source: [Sixth Carbon Budget - Climate Change Committee \(theccc.org.uk\)](https://theccc.org.uk)

**Chart 4: UK sectoral investment needs**



Source: [Sixth Carbon Budget - Climate Change Committee \(theccc.org.uk\)](https://theccc.org.uk)

Much of the job of financing this investment programme falls to the financial sector: to banks, and to investors in companies' equity and debt. The scale of that task would be challenging even if the path to net zero were certain. But it is not – so investors must also manage the potential for significant losses on their assets, as and when more aggressive policies to reduce emissions come on stream, or physical climate events grow in intensity. These are known as 'transition risk' and 'physical risk' respectively. In response, investors are increasingly keen to see those responsible for managing their savings take more forceful actions to support transition to net zero – channelling their holdings away from firms whose activities are seen as incompatible with that transition, and towards those whose are.<sup>10</sup>

For much of its history, the Bank of England has not itself been a direct investor in corporate assets. And, more recently, our primary engagement with the financial sector on climate issues has been to ensure that banks and insurers can manage their large transition and physical risks effectively, and in ways that do not threaten system-wide stability. In 2019 we became the first supervisory body globally to set formal expectations in this area. And this year we are conducting a system-wide exercise to assess its resilience to the sorts of climate scenarios shown in **Chart 2**.<sup>11</sup>

<sup>10</sup> I discussed these trends in more detail in <https://www.bankofengland.co.uk/-/media/boe/files/speech/2020/from-hot-air-to-cold-hard-facts-speech-by-andrew-hauser.pdf?la=en&hash=5D73B8F9748EC41ECFFAD676A6D1D71A93703E15>

<sup>11</sup> For more extensive information on the Bank's work on climate change, see [Climate change | Bank of England](https://www.bankofengland.co.uk/climate).

In 2016, however, the Bank's Monetary Policy Committee (MPC) voted to purchase £10bn of sterling corporate bonds in the secondary market as part of a package of measures designed to ease monetary conditions following the referendum on leaving the European Union. This so-called 'Corporate Bond Purchase Scheme' (CBPS) was increased to £20bn in 2020, in response to the economic impact of Covid. It's therefore fair to ask: as an investor in corporate assets in our own right, should we be taking steps to support the achievement of net zero?

### **The Bank as investor: reconciling monetary policy goals and market mispricing**

The first point to underscore is that the CBPS began as, and will remain, a monetary policy tool. That means that the overall target stock will continue to be set by the MPC to achieve its inflation objective. So, in due course, when the economic outlook allows, the fund will unwind. We do not expect to be a permanent investor. To achieve the policy goals of the Scheme, eligible bonds must be issued by non-financial companies making a material contribution to UK economic activity. And to protect public money, the Bank imposes controls on credit quality, portfolio concentration and other financial risks.<sup>12</sup> These elements of the scheme will not change.

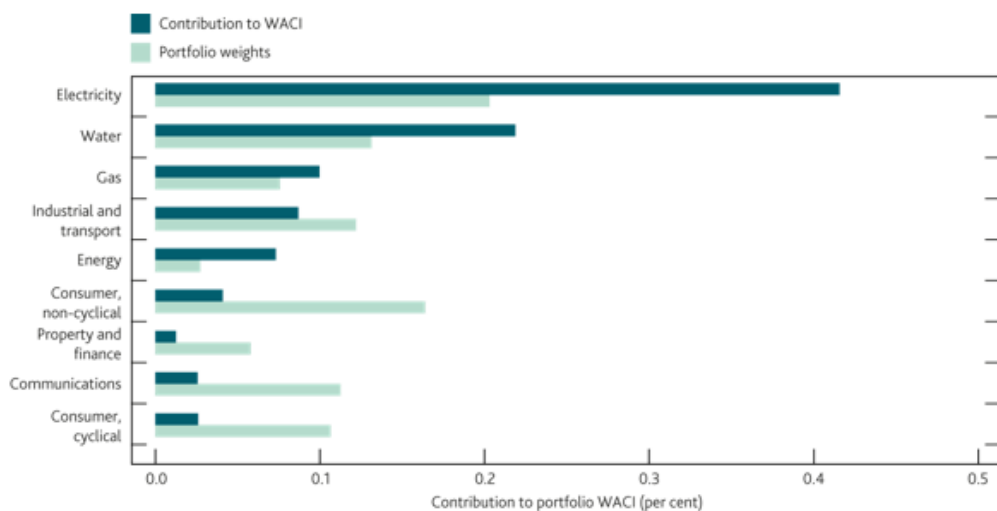
A more interesting question relates to the composition of the CBPS. Up to now, we have aimed to replicate the structure of the sterling corporate bond market itself. We do that by dividing up our purchases across sectors according to the amount of debt outstanding; and within sectors using competitive reverse auctions. The rationale for allocating purchases in this way has been to minimise the impact of the CBPS on relative borrowing costs across sectors and firms.

This approach, sometimes called 'market neutrality', has obvious attractions for central banks charged with setting monetary policy for the economy as a whole. But it has quite a striking implication for the carbon footprint of the CBPS portfolio. **Chart 5** compares the proportion of the CBPS held in each sector with the contribution of that sectoral holding to the total carbon footprint of the portfolio. And you can immediately see that some sectors – notably the utilities: electricity, water and gas – contribute more to the CBPS' carbon footprint than their portfolio share might suggest. Others by contrast contribute substantially less – eg the consumer, communications, property and finance sectors.

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<sup>12</sup> A full set of eligibility criteria can be found here: <https://www.bankofengland.co.uk/markets/market-notices/2016/asset-purchase-facility-corporate-bond-purchase-scheme-market-notice-september-2016>. Financial risks on the CBPS, like the Asset Purchase Facility as a whole, are indemnified by HM Treasury.

**Chart 5: CBPS sectoral composition and carbon footprint<sup>13</sup>**



Source: Certain information ©2021 MSCI ESG Research LLC. Reproduced by permission, and Bank calculations.

There are at least two reasons for this apparent bias.

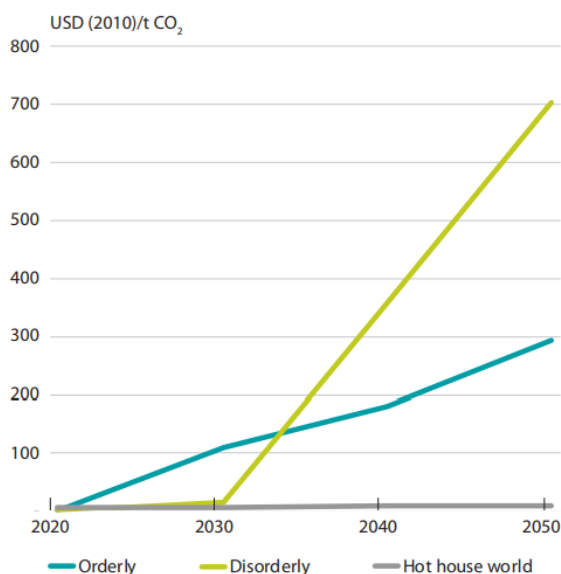
The first is that – for reasons unrelated to emissions – investment grade corporate bond issuance tends to be better suited to companies with big fixed long-term capital investment needs (and on average larger carbon footprints). By contrast, smaller companies (with on average lower carbon footprints) are more likely to rely on funding from banks or other sources. Debt issuance therefore tends to be skewed towards sectors with higher carbon footprints, relative to their shares of GDP.

The second is that there are increasingly persuasive reasons to believe that financial markets are materially underpricing the cost of emissions, and hence climate risks.<sup>14</sup> There are several possible reasons for this. At the most basic level, the information on which such prices are based – companies’ disclosures on emissions reduction plans and carbon footprints – is somewhat incomplete and inconsistent. But that is improving steadily. More importantly, carbon producers do not for the most part yet bear the full costs that their emissions impose on the wider economy. A key part of the transition to net zero is to internalise those costs, driving a significant increase in the so-called ‘shadow carbon price’ (**Chart 6**). As that happens, it will put downward pressure on the prices of assets issued by companies who have been least successful in transitioning away from high-emissions activities, increasing their cost of finance.

<sup>13</sup> ‘Electricity’ and ‘gas’ sectors include companies that generate, supply and distribute power; ‘industrial & transport’ includes chemical, construction and transportation companies; ‘energy’ includes companies involved in oil exploration and production; ‘consumer, non-cyclical’ includes pharmaceutical and food and beverage companies; ‘property and finance’ includes housing associations and property development companies; ‘communications’ includes telecommunications and media; and ‘consumer cyclical’ includes automotive companies, retail and tourism. Carbon footprint measured using weighted-average carbon intensity (WACI) measures of tCO<sub>2</sub>e/£m revenue, capturing Scope 1 and 2 emissions. Scope 3 estimates are set out in Section 2 of the Discussion Paper.

<sup>14</sup> The evidence for this is discussed in more detail in Section 2 of the Discussion Paper.

**Chart 6: Shadow carbon price in scenarios shown in Chart 2**



Source: IIASA [NGFS Climate Scenarios Database, using marker models]

The question is not whether the shadow carbon price has to rise – the question is when. To the extent that markets are assuming an unrealistically low or distant pickup – and it seems increasingly clear that they are – financial assets today may be mispriced. An ‘adjusted market neutrality’ principle that took this mispricing into account could suggest a very different asset allocation in investment portfolios, including the CBPS.

Until recently, the Bank of England lacked the mandate to make such adjustments. In March, however, the Chancellor updated the MPC’s ‘remit letter’ to confirm that the economic strategy of the Government – which the MPC is required to support as a ‘secondary objective’ – includes supporting the transition to a net zero emissions economy.<sup>15</sup>

### **Portfolio decarbonisation is not enough: look forward, work together to drive change**

Now comes the tricky bit: translating these conceptual insights into practice.

At first sight it might seem the answer is simple: just sell all our high-emission bonds, and use the proceeds to buy low-emission ones. The carbon footprint of the CBPS would fall sharply. And, to the extent the Bank’s actions were influential, the financing costs of high-emissions firms should rise, sending a powerful wakeup call.

But indiscriminate ‘portfolio decarbonisation’ of this kind cannot be the best strategy for investors like the Bank seeking to incentivise economy-wide transition to net zero, for two key reasons:

<sup>15</sup> [MPC Remit statement and letter and FPC Remit letter | Bank of England](#)

- First, the high-emissions firms whose bonds we would be selling are the ones we most need to be at the vanguard of emissions reduction. But selling their bonds doesn't destroy them as assets, it simply transfers them to other investors. And if investors seeking to incentivise transition are all decarbonising, those left holding the bonds are by definition going to be those with a weaker commitment to net zero;
- Second, simply selling anything with a high carbon footprint penalises those with strong and credible emissions reductions plans just as much as it does those with no such plans.

The net effect therefore is likely to be to reduce, not increase, economy-wide incentives to reach net zero.<sup>16</sup> And our end state portfolio, consisting exclusively of firms with low and stable emissions, would by definition play little material role in driving future emissions reduction.

I draw two conclusions from this. First, engagement beats disengagement. And, second, when ranking firms' contributions to the achievement of net zero, look forward as well as back – giving weight to the calibre of their emissions-reduction plans, and their performance over time against those plans.

Divestment is a powerful tool, and should remain squarely in the toolkit. But it should be used as a credible threat to reinforce incentives, not an indiscriminate 'quick fix'.

A strategy of engagement works best when the message is big, unavoidable and credible. Here we face a slightly different challenge. The Bank of England's voice has influence. But the CBPS is not a huge facility. £20bn may sound like a lot. But it's small in the world of global capital markets – accounting for just 6.5% of the sterling corporate bond market, 0.5% of total sterling traded assets and a vanishingly small share of global holdings (**Table 1**).

**Table 1: The CBPS in context**

<b>Asset types</b>	<b>Size (£bn)</b>	<b>CBPS as a share of...</b>
CBPS	19.8	
Gilt Asset Purchase Facility	795	2.5%
Total sterling corporate bonds	306	6.5%
All sterling traded assets	4,189	0.47%
Total assets of global financial institutions	288,643	0.01%

Sources: Bloomberg, Statista and Bank calculations

<sup>16</sup> A worked example is given in Section 3 of the Discussion Paper.



What's more, we are not currently making active purchases, because the MPC's target stock for the CBPS was reached last year. That means the only scheduled purchases are reinvestments, averaging around a billion pounds a year in the near term.

So it's clear we can't rely on buying power alone.

**Table 2: Selected investor frameworks<sup>17</sup>**

<b>Framework</b>	<b>Membership</b>	<b>Key features</b>
<i>Net Zero Investment Framework of the Institutional Investors Group on Climate Change (IIGCC)<sup>51</sup></i>	<i>Over 300 European asset owners and asset managers with €37tn Assets Under Management (AUM)</i>	<ul style="list-style-type: none"> <li>• Commitment to an investment strategy and portfolio-level targets consistent with net zero portfolio emissions by 2050;</li> <li>• Rebalancing of portfolios by weighting according to climate performance;</li> <li>• Active engagement with issuers, including escalation strategies</li> </ul>
<i>2025 Target Setting Protocol of the Net Zero Asset Owner Alliance (NZAOA)<sup>52</sup></i>	<i>A UN-convened group of 35 asset owners representing over \$5.6tn AUM</i>	<ul style="list-style-type: none"> <li>• Commitment to transitioning portfolios to net zero GHG emissions by 2050, with interim targets for 2025;</li> <li>• Use of science-based measures to assess issuers' behaviour;</li> <li>• Sectoral emissions targets aligned to sector-specific decarbonisation pathways</li> </ul>
<i>Framework for financial institution asset portfolios from the Science Based Targets initiative (SBTi)<sup>53</sup></i>	<i>Carbon Disclosure Project, UN, World Resources Institute and World Wide Fund for Nature</i>	<ul style="list-style-type: none"> <li>• Portfolio wide science-based targets incorporate sectoral decarbonisation pathways approach and temperature ratings;</li> <li>• Framework for communication of financial institutions' targets;</li> <li>• Actions for achieving targets and tracking progress</li> </ul>
<i>Glasgow Financial Alliance for Net Zero (GFANZ).</i>	<i>Over 160 financial firms together responsible for assets in excess of \$70 trillion.</i>	<ul style="list-style-type: none"> <li>• Commitment that all members will set science-aligned interim and long-term goals to reach net zero no later than 2050</li> <li>• Member-determined short-term targets and action plans will supplement these goals</li> <li>• Catalyse strategic and technical coordination to align with net zero</li> </ul>

But we can still use our position to take a lead, working closely with other like-minded central banks and investors. That movement is strong and growing. Earlier this year, the Network for Greening the Financial System (NGFS), a group of 90 central banks and supervisors which the Bank helped to found, published a

<sup>17</sup> [https://www.parisalignedinvestment.org/media/2021/03/PAIL-Net-Zero-Investment-Framework\\_Implementation-Guide.pdf](https://www.parisalignedinvestment.org/media/2021/03/PAIL-Net-Zero-Investment-Framework_Implementation-Guide.pdf); <https://www.unepfi.org/net-zero-alliance/resources/alliance-2025-target-setting-protocol/>; <https://sciencebasedtargets.org/sectors/financial-institutions>

menu of practical options for central banks looking to green their monetary policy operations.<sup>18</sup> The recent podcast by ECB Executive Board members Isabel Schnabel and Frank Elderson makes very similar points to my speech today.<sup>19</sup> And in the private and non-profit sectors, comprehensive frameworks for investment strategies to support net zero have been developed by owners and managers of assets worth tens of trillions of dollars (**Table 2**).

Now that is real money.





We've drawn heavily on this thinking in designing our own framework. We hope our approach can, in turn, influence, encourage and promote the efforts of others.

### Turning our words into action: greening the CBPS

So what are we going to do?

Our proposed framework is made up of four key tools: targets; tilts; eligibility; and escalation (**Table 3**). Let me describe each briefly

**Table 3: Proposed tools for greening the CBPS**

 <p><b>Targets</b></p>	<ul style="list-style-type: none"> <li>• Set target paths for emissions properties of the CBPS.</li> <li>• Explore scope for targeting instrument that directly finance 'green' activities (eg. green bonds) as they become available.</li> </ul>
 <p><b>Eligibility</b></p>	<ul style="list-style-type: none"> <li>• Link eligibility to criteria which reinforce Government timeline towards mandatory climate disclosures.</li> <li>• Place tight restrictions on involvement in activities which robust, broad-based scientific evidence or UK government policy suggest are inconsistent with transition to net zero.</li> <li>• Explore scope to link eligibility to credible transition plans.</li> </ul>
 <p><b>Tilting</b></p>	<ul style="list-style-type: none"> <li>• Rebalance bond purchases towards issuers with stronger climate performance.</li> <li>• Explore ways to combine forward and backward looking indicators (eg. via a 'scorecard' approach).</li> </ul>
 <p><b>Escalation</b></p>	<ul style="list-style-type: none"> <li>• Tighten requirements over time right across our approach.</li> <li>• Introduce a specific escalation strategy, setting out a path to making bonds ineligible and/or selective sales of bonds, for issuers that fail to keep pace with rising standards.</li> </ul>

<sup>18</sup> [ngfs\\_monetary\\_policy\\_operations\\_final.pdf](#)

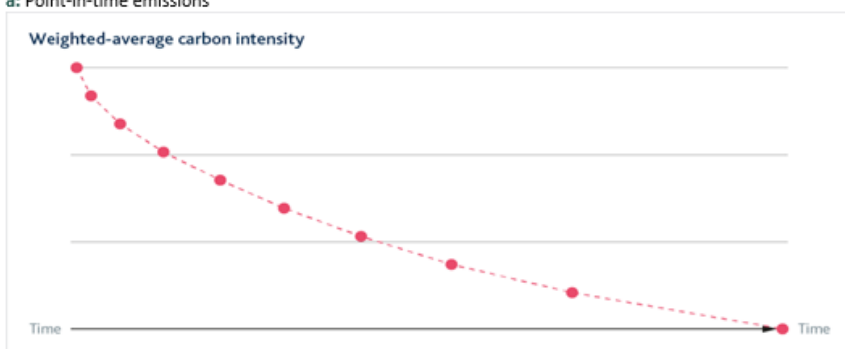
<sup>19</sup> [Tackling climate change as a central bank: Between motivation, obligation and limitation \(europa.eu\)](#). See also [François Villeroy de Galhau: The role of central banks in the greening of the economy \(bis.org\)](#) and [Speech Klaas Knot - "Getting the Green Deal done: how to mobilize sustainable finance" \(dnb.nl\)](#) for other recent examples.

Setting a **target** for the overall climate properties of the portfolio will help shape and steer our investment decisions, and provide transparency and accountability. At first sight, the framing of this target seems obvious: to achieve net zero by 2050. But 2050 is well beyond the likely lifespan of the CBPS. And ‘achieve net zero’ does not tell our staff which bonds to trade. So we need a nearer-term, intermediate, goal – in measurable units.

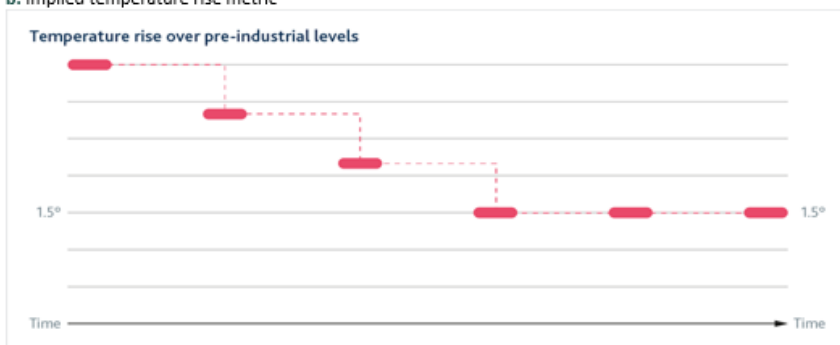
The Discussion Paper considers a number of options (**Chart 6**). The first, a declining path for the carbon footprint of the portfolio, is simple to state and measure, and can be aligned with the Government’s target path to net zero. Implementing it at a more granular level is however complicated by the limited availability of appropriate sectoral pathways to net zero.

**Chart 6: Options for intermediate portfolio targets**

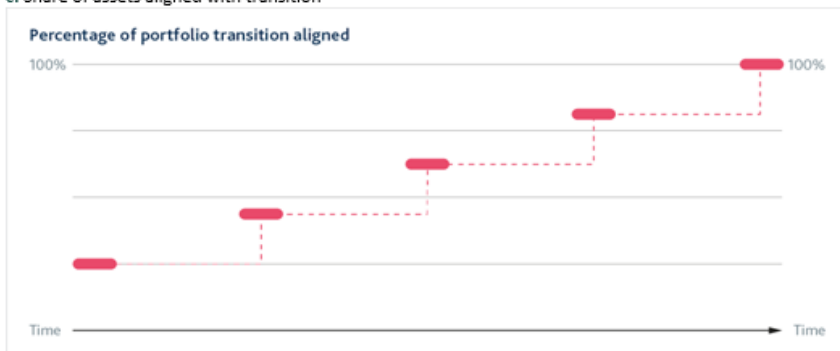
a: Point-in-time emissions



b: Implied temperature rise metric



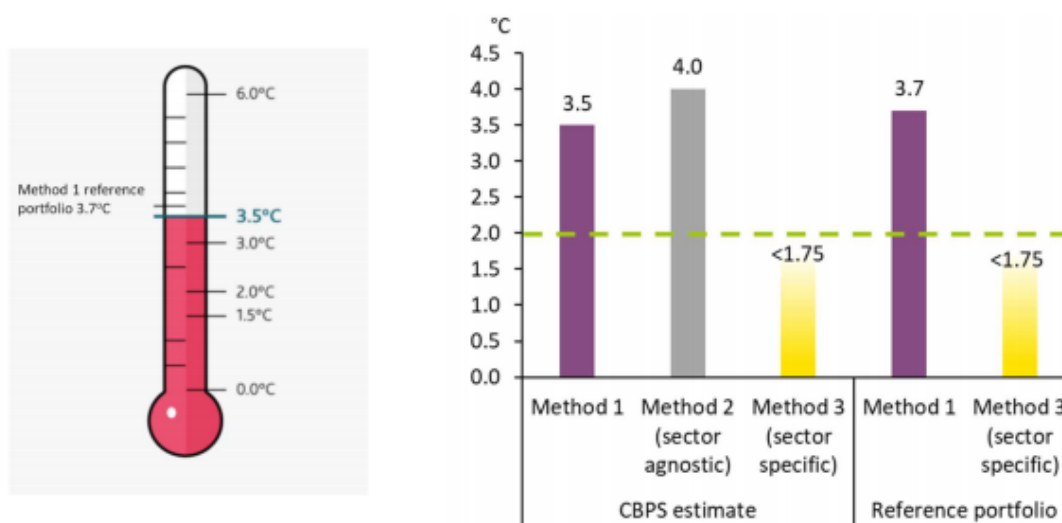
c: Share of assets aligned with transition



A second, more forward-looking, approach would be to use an ‘implied temperature rise’ metric to target a declining temperature path. These convert data and projections of the current and future emissions of companies held in the portfolio into estimated future temperature levels, using assumptions about how those emissions compare to target paths.

We published one such measure in our 2020 TCFD<sup>20</sup>-aligned climate disclosure report<sup>21</sup>, which suggested that the CBPS – like the sterling corporate bond market it echoes – is aligned with an unsustainable 3.5°C. These metrics are promising, but very sensitive to their underlying assumptions: alternative measures for the same portfolio ranged from <1.75°C to 4°C (Chart 7). This degree of variation complicates their practical use for target setting.

**Chart 7: Uncertainties over implied temperature rise metrics**



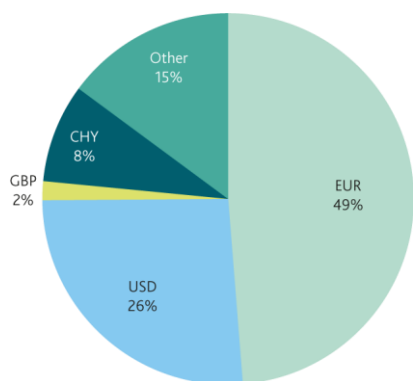
Source: [The Bank of England's climate-related financial disclosure 2020](https://www.bankofengland.co.uk/financial-disclosure/2020/04/2020-climate-related-financial-disclosure-report)

Some frameworks also advocate reserving a share of the portfolio to ‘green bonds’, or other assets linked directly to emissions-reducing activity. The market for sterling green bonds is currently small (Chart 8). But the planned launch of a new green gilt issuance programme should catalyse new corporate issuance, broadening the range of instruments available to sterling investors, including the CBPS.

<sup>20</sup> Task force on Climate-Related Financial Disclosures: <https://www.fsb-tcf.org/>

<sup>21</sup> <https://www.bankofengland.co.uk/-/media/boe/files/annual-report/2020/climate-related-financial-disclosure-report-2019-20.pdf>.

**Chart 8: Outstanding global green bonds by currency**



Source: Bloomberg.

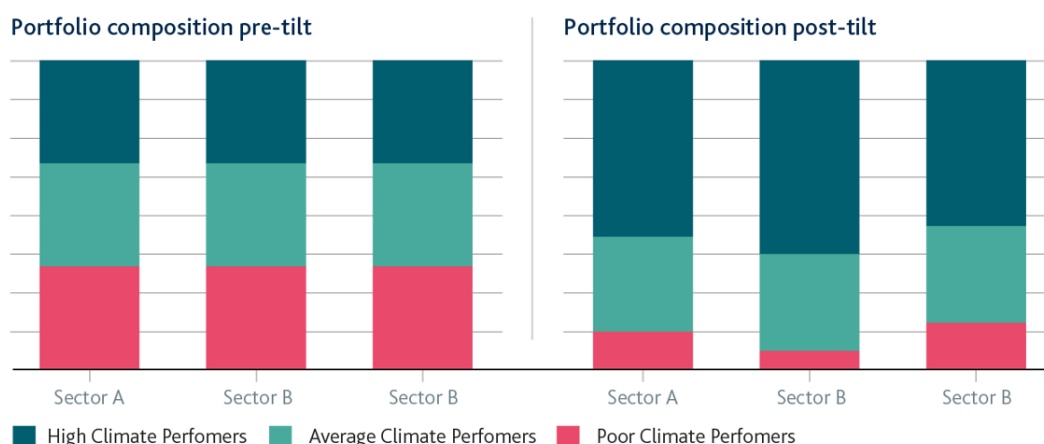
Having set an overall target, our second and third tools – **tilting** and **eligibility** – will play the key role in influencing incentives for transition.

We propose to **tilt** future CBPS purchases towards issuers which are performing relatively strongly in support of net zero, and away from those that are not. Tilting is a well-developed investment practice, applied to climate-based central bank purchases by Dirk Schoenmaker,<sup>22</sup> and has a number of key attractions:

- It will allow us to maintain a dynamic engagement with issuers – dialling up those whose strong record improves, and dialling down the laggards (a process illustrated schematically in **Chart 9**);
- Similarly, it will allow us to improve the mix of climate metrics we use over time, as data coverage and quality improves;
- Predictable, progressive action of this kind will send a clear message to issuers, and the wider market, about the Bank's current and future intent, giving time and incentive to adjust transition planning; and
- It will help avoid concentrations in the portfolio, and maintain space to use the CBPS for future monetary policy purposes, in either direction.

<sup>22</sup> [Greening-monetary-policy.pdf \(bruegel.org\)](#)

**Chart 9: stylised illustration of a climate-based tilt**



To calculate the appropriate tilts, we will explore the use of a ‘scorecard’ approach, capturing a range of metrics related to company climate performance. Judging which metrics to include is a key task for the next stage of the work, and we look forward to receiving input and guidance on this question. Potential candidates include: the level and rate of change of companies’ carbon footprints, the existence of regular climate reporting, commitment to specific reduction targets, and authoritative third-party validation of those targets. Collating comprehensive metrics of this kind will not be straightforward, given the very uneven state of current company level reporting (**Table 4**). And any model-based substitutes would need to meet high standards of robustness and transparency. It is therefore possible that the initial approach may be relatively parsimonious, or vary by sector.

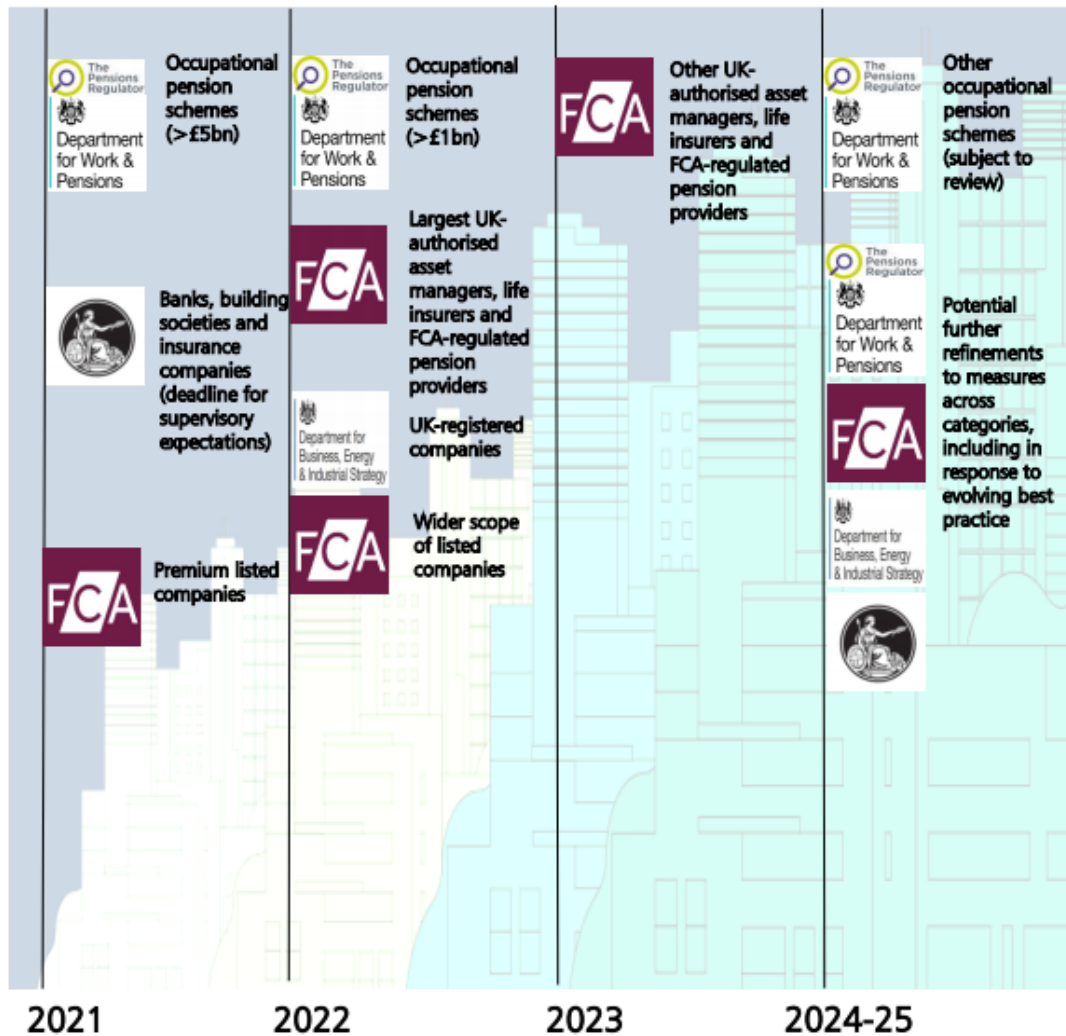
**Table 4: Climate data coverage for CBPS-eligible firms**

■ 24% and below      ■ Between 50% and 74%  
■ Between 25% and 49%      ■ 75% and above

Sector	TCFD (or equivalent) disclosure	Emissions reduction target	Validated science-based target	Rated by Climate Action 100
Energy				
Gas				
Electricity				
Water				
Consumer, cyclical				
Consumer, non-cyclical				
Property and finance				
Industrial and transport				
Communications				
Aggregate	54%	71%	40%	16%

Tilting CBPS purchases leaves the relevant bonds still **eligible** for purchase.<sup>23</sup> In some cases, we may wish to go further and remove that eligibility. As I said earlier, eligibility criteria relating to the primary monetary policy objectives of the scheme and financial risk management will be retained. As we calibrate our new framework, we will consider whether these should be extended to include climate-related requirements.

**Chart 10: UK roadmap to mandatory TCFD-aligned disclosure<sup>24</sup>**



Two immediate possibilities are covered in the Discussion Paper.

The first relates to the potential to use CBPS eligibility criteria to help improve the coverage and quality of UK companies' climate disclosures. Comprehensive disclosures are not only a critical building block for orderly transition – they would also help investors, including the Bank through the CBPS, to calibrate more effective tilts and other investment strategies. The Government has published a roadmap to mandatory TCFD-aligned

<sup>23</sup> The current list of bonds eligible for the CBPS is available at: [Documentation | Bank of England](https://www.bankofengland.co.uk/asset-purchase/asset-purchase-eligibility/).

<sup>24</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/933783/FINAL\\_TCFD\\_ROADMAP.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/933783/FINAL_TCFD_ROADMAP.pdf)

climate disclosures for all UK companies (**Chart 10**). We will explore whether we can adjust CBPS eligibility requirements to incentivise timely compliance with these requirements.

The second potential change relates to activities judged to be fundamentally incompatible with reaching net zero by 2050.

Thermal coal is the most commonly-cited example of such an activity in the UK. Coal produces more than twice the amount of CO<sub>2</sub> per unit of electricity as natural gas, and over a third more than oil. As such, the UN estimates that global coal production needs to fall very substantially, by some 11% every year between 2020 and 2030 to hit Paris temperature targets (**Chart 11**). In the UK, coal usage in power stations has already declined sharply – accounting for nearly half of the reduction in UK-wide emissions since 1990 shown in Chart 3 – and the Government has announced that it intends to eliminate its effective use altogether from October 2024.<sup>25</sup>

The new CBPS eligibility requirements announced this autumn will support and reinforce that timeline, excluding any assets that fail to meet tough restrictions.

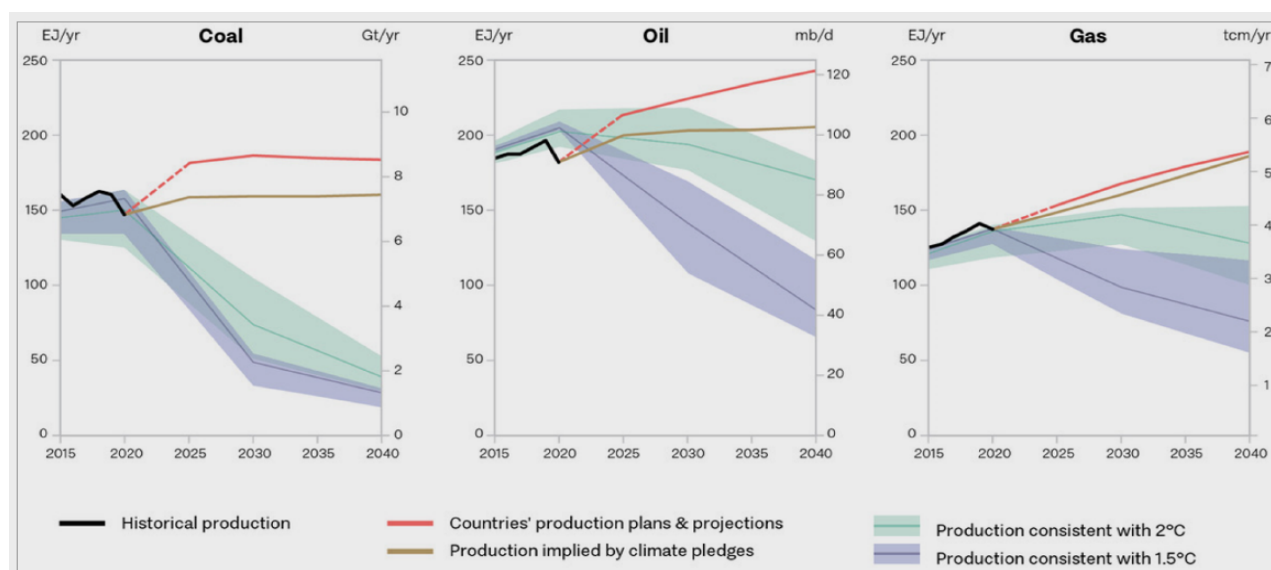
Judging whether any other fossil fuel related activities are also fundamentally incompatible with reaching net zero by 2050, and hence should receive similar treatment, is a complex and technical matter, in which the Bank has no direct expertise. We welcome input on this question in response to the Discussion Paper, but will need to base our judgments on a combination of robust, broad-based scientific evidence and specific UK government policy.

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<sup>25</sup> <https://www.gov.uk/government/consultations/early-phase-out-of-unabated-coal-generation-in-great-britain>



**Chart 11: Transition consistent production pathways for fossil fuels**



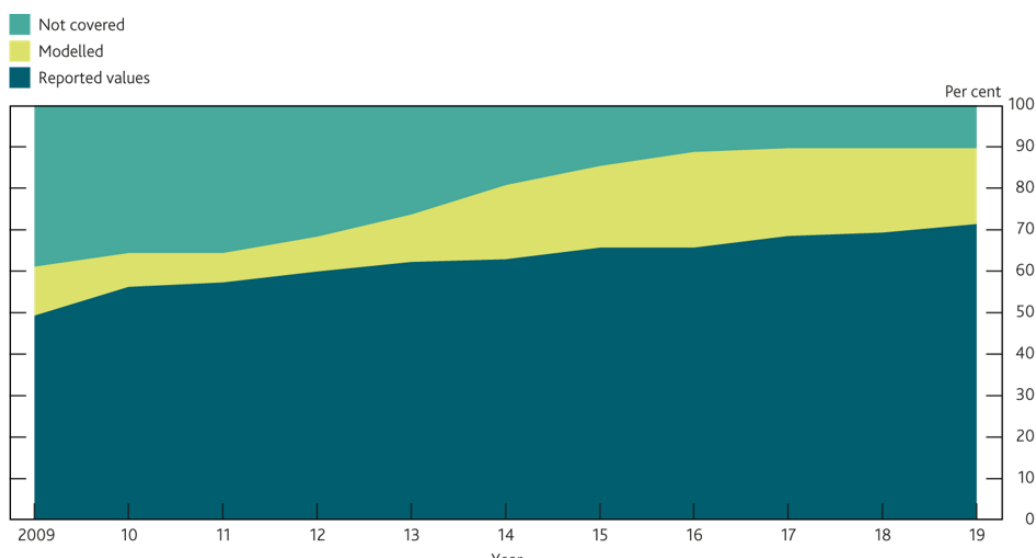
Source: SEI, IISD, ODI, E3G, and UNEP. (2020). The Production Gap Report: 2020 Special Report.

This discussion leads naturally to our final tool: **escalation**.

In calibrating our framework, we face a trade-off. On the one hand, we want to set challenging incentives to support transition. But jumping straight to the end state today, when data remain partial and firms are still developing credible emissions-reduction plans, is neither feasible nor productive.

This is not at all an argument for despair or timidity. Issuers should not be given excessive time to adjust. And emissions data are improving steadily (**Chart 12**).

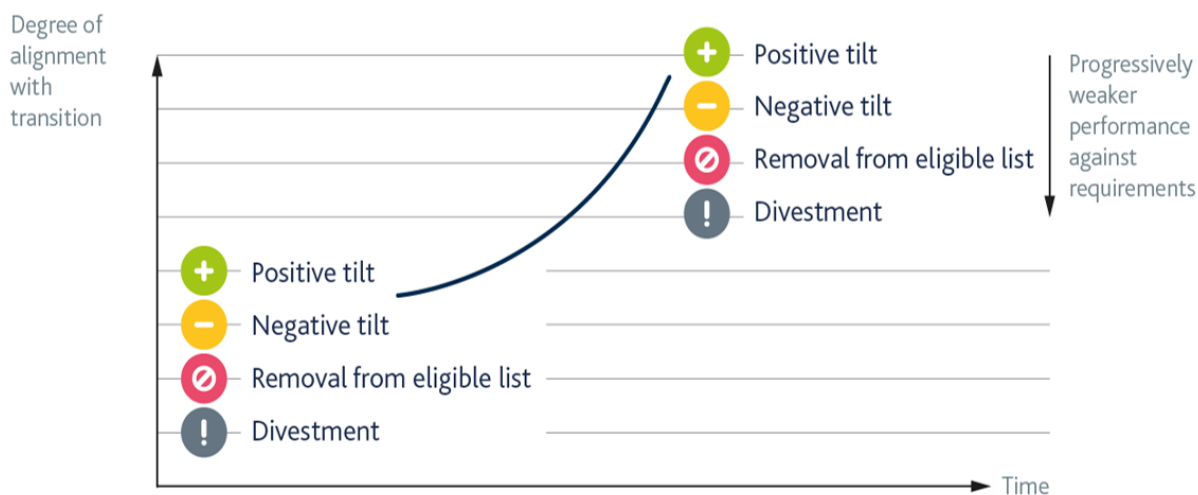
**Chart 12: Evolution of emissions data for CBPS eligible firms**



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But it does suggest adopting a progressive approach, in which the debt of firms that fail to develop and execute credible plans moves down the rungs of a 'ladder', flipping first to a negative tilt, then – if poor performance continues – to removal from eligibility, and ultimately active divestment (**Chart 13**).

**Chart 13: Possible escalation ladder**



The precise calibration of this approach will be developed in the coming months. But the aim would be to impose progressively tougher requirements over time, as data and emissions-reduction technology improve, and key policy deadlines draw nearer. Making this escalation process predictable should increase the credibility of our actions, and bring forward companies' responses.

### Conclusions and call for feedback

Let me conclude.

Achieving net zero is a pressing global priority. It requires action from everyone, including central banks.

We believe it is possible to adjust the composition of our Corporate Bond Purchase Scheme to support net zero without compromising the Scheme's primary monetary policy purposes. Doing so lies clearly within the MPC's revised remit, and can be justified by noting that current market prices do not yet fully reflect the inevitable increase in the shadow carbon price.

In designing a framework to guide that adjustment, our primary goal is to improve firms' incentives for delivering the adjustments necessary to hit net zero, not simply minimise the current carbon footprint of the CBPS.

To achieve that, we expect to combine: an ambitious portfolio-wide climate target; a scorecard-based tilting mechanism; selective climate-related eligibility restrictions; and an escalation ladder ending in potential divestment. Specific calibrations of these tools will be chosen in ways that are clear, transparent and evidence-based, and ensure the continued effectiveness of the CBPS as a monetary policy tool and the safe and appropriate use of public money.

This framework draws heavily on thinking by non-profit, central bank and investor groups – and will in turn have its greatest impact if it operates in concert with them. The CBPS itself is limited in size, scope and longevity. But we hope that, by working collectively, both with those already involved and those persuaded to do so by our lead, our influence can reach beyond those limitations and help play a part in supporting transition to net zero. We look forward to your comments today, and in the weeks ahead.