Actuaries Carbon Collaboration

Acting on climate solvency

Financing Net Zero

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Introduction

There is much debate about how the UK can secure the necessary investment to deliver the transition to net zero needed to mitigate climate change and how it can be financed. In this paper we look at Government policy and recent commentary from the Climate Change Committee to ask if more needs to be done.

The UK enacted the Climate Change Act in 2008. It binds the UK to five-year carbon budgets that get progressively more stringent up to 2050. It gives the Government enabling powers to enact policies to meet climate goals, and it also created an independent watchdog (the Climate Change Committee).

The UK Government is due to publish an update to its Green Finance Strategy in late 2022. Although policy makers undoubtedly have a role in the transition, there seems consensus that the private sector will be needed to provide the bulk of the necessary financing. But can investors be nudged or regulated into doing what's needed, or are the economics such that an increased scale of public financing is necessary? Similar questions arise internationally, but this paper focusses on the UK in the context of its legally binding target.

UK Government strategy

A series of recent documents issued by the Government, shown in the timeline below, provide insight into the current approach:

July 2019	HMG Green Finance Strategy: Transforming Finance for a Greener Future
October 2021	HMG Net Zero Strategy: Build Back Greener (the "Net Zero Strategy")
October 2021	HMG Greening Finance: A Roadmap to Sustainable Investing
May 2022	HMG Update to Green Finance Strategy: Call for Evidence
September 2022	HMG Net Zero Review: Call for evidence

Financing the transition to net zero is an important part of the Government's Green Finance Strategy[1]. For example, the Net Zero Strategy estimated that additional public and private capital investment in carbon intense sectors and technologies needs to increase by a factor of 5, so that we see an average of £50-60bn per year in the later 2020s and 2030s[2]. This covers all type of capital, from early-stage grants through to institutional finance.

Importance of achieving private investment

Section 4ii of the Net Zero Strategy set out the challenge:

"*Both public and private investment will be crucial for any path to net-zero. While we expect most investment to come from the private sector, market failures mean the private sector alone will not deliver emissions reductions and innovation at the pace required*"

"*The scale of the net zero challenge and persistent market failures mean that public sector intervention is needed to shape and accelerate the flow of private capital*"

The Greening Finance Roadmap envisaged the necessary actions in three phases so that sustainability considerations are "mainstreamed into business and financial decisions":

- Phase 1: Informing investors and consumers
- Phase 2: Acting on the information
- Phase 3: Shifting financial flows

Policy to date has been focussed on Phase 1, with an emphasis on achieving clear, reliable, decision-useful data.

Overall, the Net Zero Strategy recognised the need for "action by multiple parties across the public of market and private sectors, delivery at pace, and management of large uncertainties". It emphasised the role of market mechanisms and business reporting, but also the importance of "establishing robust, long-term policy frameworks" [3].

There is no doubt that achieving net-zero by 2050 is a significant challenge.

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[1] Although it is worth noting that climate change mitigation is only 1 of 6 environmental objectives planned for the UK Green Taxonomy, the other 5 being climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems.

[2] Estimated totals by sector are also given as part of the 2037 Delivery Pathway: Power £150-270bn, Fuel supply & hydrogen £20-30bn, Industry £14bn, Heat and buildings £200bn, Transport £220bn, Natural resources, waste and fluorinated gases £30bn, Greenhouse gas removals £20bn.

[3] A recent paper from the EEIST ("Ten Principles for Policymaking in the Energy Transition") discusses sound principles for setting these frameworks.

Can the challenge be met?

Review and analysis are provided in the following UK Climate Change Committee (CCC) documents:

December 2020	The Road to Net-Zero Finance. Report by the Advisory Group on Finance (AGF)
June 2022	Progress in reducing emissions. Report to Parliament by the CCC

The AGF report by independent financial experts for the CCC suggested that "... the financial requirements for net zero can be met with good policies and practices" and emphasised that the actions taken in this decade are pivotal to achieve net zero globally by 2050.

The report recognised the dual aspect of finance, that is:

- the need "to create the real economy 'demand' for net-zero finance (for example carbon prices, policy and regulatory changes, economic incentives); alongside
- financial system interventions that can scale up the 'supply' of net-zero finance (for example market innovation, financial regulation, and public finance)".

The report recommended, inter alia:

- a shift in mindset from climate related risk mitigation to a focus on opportunities;
- financial policy and regulations be designed with net zero targets in mind;
- the consideration of risks and available returns when designing real economy policies, in order to attract private capital;
- a global perspective, advising that "successful net zero financing in the UK will depend on shaping and developing effective international frameworks;" and
- establishing "a regular assessment of investment needs and financial flows for climate action in the UK, including net-zero, resilience and a just transition".

The last recommendation above is particularly important where there is significant reliance on market mechanisms rather than direct policy interventions, which inevitably increases the level of uncertainty in outcomes.

Subsequent Government policy has been made in the light of these recommendations. But does it go far enough to achieve the UK's goals?

Assessing UK progress

The CCC recently studied this question in detail in its June 2022 report "CCC Monitoring Framework: Assessing UK progress in reducing emissions." This report acknowledged significant progress, but its overarching conclusion was that "current programmes will not deliver net zero". We support this expert view.[4]

The report has a large number of recommendations. Some of these involve sharing information or co-ordinating plans. But a significant number also require financial investment and/or new market mechanisms, for example:

- a funding mechanism for electrification of manufacturing and construction
- incentives for non-Emissions Trading System (ETS) de-carbonisation

[4] Separately, we note that financing issues are likely to be even more challenging when it comes to adaptation, because many of the benefits will accrue to third parties. The CCC is planning to publish a further report on adaptation later in the year, which we await with interest.

- funding and support for extra hydrogen production capacity
- funding and incentives for tree-planting

So, there are many further actions that need to be considered. Will these be enough to encourage the required investment from the private sector?

Private sector funding and policy risk

Private sector investors need projects that support the net zero transition to be investable, i.e. in line with their fiduciary and other legal obligations to provide suitable risk-adjusted returns. Blended finance, where public and private funds work together, can help to bring risk/reward into balance, where the public funds de-risk investments through, for example, first loss arrangements on particular investments.

If the Government can act to increase the predictability of cash flows and decrease risk with good policies, this can help to leverage the private sector funding needed. However, the private sector will need to trust that public policy or funding will endure before committing their own capital. For example, an investment in electric mobility has a risk of a lack of sufficient charging infrastructure, which could prevent the business from succeeding. If public capital is financing the requisite charging infrastructure, then the investment may have a reduced risk of failure.

“Policy risk” is the term applied to the risk that policies are not consistently applied or are withdrawn at short notice. This can be a particular issue when politicians change or short-term considerations interfere with long-term objectives. For example, back-tracking on previously made environmental commitments disconnects investor incentives and increases risk.

We suggest there should be more political discourse about the measures needed to tackle climate change and policy risk. More clarity on a co-ordinated well-publicised high-level plan of action would help provide the certainty required to unlock the potentially significant flow of private sector investment . And policy advisers need a good understanding of investor perspectives on climate risks and opportunities.

Our assessment is that investor uncertainty about future Government policy is a significant constraint. Governments cannot normally constrain future legislation. But government may be able to help alleviate investor concerns by taking on more policy risk itself. For example, government might provide guarantees of financial compensation if future changes to policy alter expected cashflows from a project. Or they might take on more financial risk directly by providing the equity finance for a project. The exact mechanism would need to depend on individual circumstances.

Investor stewardship

Another option suggested by the AGF is to extend investor stewardship to incorporate the achievement of net-zero more formally. Currently institutions may face litigation risk if, by virtue of investing in impact/green projects, they have failed in their fiduciary duty to maximise risk-adjusted returns. If investor stewardship was extended to incorporate the climate impacts, this could overcome another hurdle to achieving the required level of investment now.

How this might be achieved and the impact of regulation is the subject of a future planned paper.

Conclusion

The precise level of financing required over the next three decades to achieve net zero in the UK by 2050 and increasingly ambitious 2030 goals is unknown. But all are agreed that it will be substantial and a very significant increase on current levels.

The CCC's assessment is that "current programmes will not deliver net-zero", and we support that expert view. Policy risk, i.e. investor uncertainty about relevant future government policy, is a significant hurdle to achieving the necessary level of private sector investment. We have suggested ways this risk might be mitigated.

We also support the final recommendation of the AGF's 2020 paper, namely that because of high levels of uncertainty there should be "a regular assessment of investment needs and financial flows for climate action in the UK, including net-zero resilience and a just transition".