Barclays Response to Net Zero Review: Call for Evidence

27 October 2022

Barclays is a universal consumer and wholesale bank with global reach, offering products and services across personal, corporate and investment banking, credit cards and wealth management. With over 330 years of history and expertise in banking, Barclays operates in over 40 countries and employs approximately 85,000 people. Barclays moves, lends, invests and protects money for customers and clients worldwide. In March 2020, we announced our ambition to be a net zero bank by 2050, becoming one of the first banks to do so.

We welcome the opportunity to respond to the Net Zero Review: Call for Evidence. We have responded to the questions where we feel we have the most direct perspective, but our responses may be useful in the context of other questions the Review has set out.

Executive Summary

We believe that the Government's objectives to i) deliver maximum economic growth and investment by driving opportunities for jobs, innovation, and exports ii) support UK energy security, and iii) minimise costs borne by businesses and consumers, are aligned with the net zero transition. This will also help the UK realise a just and orderly transition. To achieve these goals, we outline our recommended steps:

- **Government should work at pace to deliver on energy efficiency measures and renewables integration as the investment case is already strong**. We note that renewables are now cheaper than fossil fuels.[1,2] Therefore, scaling up clean energy solutions today will pave the path towards a more affordable, stable, and resilient energy system in the UK. This could further support up to 440,000 well-paid jobs in green industries by 2030.[3] Finally, producing renewable energy within the UK will have the additional benefit of improving control over supply, reducing the UK's reliance on imported energy and increasing export opportunities. To achieve this, ensuring a good domestic supply chain for raw materials and capabilities is also essential, therefore policies that support local sourcing of parts and skills (e.g. with tax credits) will have the additional benefit of improving control over supply, reducing UK's reliance on suppliers from other regions.

- **Government should push forward a coherent and proactive industrial strategy to address the non-financial barriers for investment**. In practice, this will mean providing robust sector-by-sector policy trajectories on the path to net zero, especially in relation to greening the housing and other building stock, infrastructure, and increasing zero-emission generating capacity. Actions taken to boost EV demand, such as banning the sale of internal combustion engine vehicles from 2030, have been helpful in catalysing progress, but in other areas progress has been much more limited for example the roll-out of EV infrastructure. The Government should accompany this with further measures to reduce the inevitable uncertainty associated with investing in transition. This will mean supporting new technologies, which Government can crowd in finance to achieve, including through expanding the mandates of the UK Infrastructure Bank (UKIB) and the British Business Bank (BBB).

[1] https://www.irena.org/publications/2021/Jun/Renewable-Power-Costs-in-2020
[2] https://www.carbonbrief.org/analysis-record-low-price-for-uk-offshore-wind-is-four-times-cheaper-than-gas/
[3] https://www.gov.uk/government/news/uks-path-to-net-zero-set-out-in-landmark-strategy

- **Government should demonstrate that the UK is a centre of green finance to attract international private capital.** The scale of the investment needed to transform the economy for net zero is vast, estimated to be between $3-5trn per year over the next 30 years. If the investment case is strong, ordinarily, finance will flow. However, we recommend that Government takes certain measures to facilitate more finance, faster, towards investment opportunities. Those efforts should help ensure that large-scale incumbent firms' participation in household capital stock transformation, wholesale energy reform and long-term infrastructure projects can be efficiently financed. The measures need to include consistent capital treatment, globally harmonised and interoperable sustainability disclosure standards, and detailed sector pathways aligned with net-zero commitments. With a world-leading financial and related professional services industry, supported by these measures, the UK can realise the Government's ambition, as announced at COP26, to be the world's first net zero financial centre.

When all these measures are in place, finance can flow, delivering economic growth, providing energy security, and ultimately aligning with the UK's net zero commitments. In collaboration with the Government, it is the responsibility of markets actors such as Barclays to support business through lending and business development advice, foster appetite and expertise in investors, and to finance the transition.

Yours sincerely,

BARCLAYS

Overarching questions

Question 1. How does net zero enable us to meet our economic growth target of 2.5% a year?

We believe that the Government's objectives to i) deliver maximum economic growth and investment by driving opportunities for jobs, innovation, and exports ii) support UK energy security, and iii) minimise costs borne by businesses and consumers, are aligned with the net zero transition. Studies have indicated that the net-zero transition is expected to have a net benefit of around 4% of GDP.[4] We note that renewables are now cheaper than fossil fuels.[5,6] Therefore, scaling up clean energy solutions today will pave the path towards a more affordable, stable, and resilient energy system in the UK. Further, this will support up to 440,000 well-paid jobs in green industries by 2030.[7] Finally, producing renewables locally will have the additional benefit of improving control and security over energy supply, reducing the UK's reliance on imported energy and increasing export opportunities.

Local production of renewables and ensuring a good supply chain is also essential. Therefore, policies that support local sourcing of parts and skills (e.g. with tax credits) will have the additional benefit of improving control over supply, reducing UK's reliance on suppliers from other regions. In the case of metals for example, the transition could be severely constrained by the lack of copper. A plan will be needed that involves sourcing, metal efficiency and recycling, as well as supporting production of parts.

The scale of the investment needed to transform the economy for net zero is vast, estimated to be between $3-5trn per year over the next 30 years. UK capital markets and companies in the real economy have the opportunity to tap into this finance should the availability of investment projects increase, and clarity is provided on what can be deemed "net zero aligned / green" (we expand on this point in our response to Question 3). We support and recognise the Government's ambition to create a nimbler regulatory environment for UK-based firms. Absence of policy certainty is a brake on investment at present and delivery of clear government decarbonisation strategies is key to unblock private sector action. This will in turn accelerate transition and stimulate growth.

We believe that private / public solution-led approaches to net zero policy between industry and government can maximise economic growth. An example of this is the recently passed US Inflation Reduction Act (IRA), which has provided incentives on renewables, batteries and carbon capture and sequestration. Barclays' Research suggests that the IRA can stimulate $370 billion of investment in climate innovation and technology through the use of tax credits. The use of persistent, high quality tax credits provides a business line which delivers both economic returns and participation in decarbonisation. These have been a consistent part of US policy and have just been established for record long horizons, adding to policy certainty. As intended, they are providing hard, bankable collateral within even young and pre-profit firms.

Another example cited in TheCityUK and PwC's report is the US Department of Energy's $504m loan commitment to develop the world's largest industrial green hydrogen facility in central Utah. This highlights the US' commitment toward supporting the clean hydrogen sector. It also facilitates the creation of a viable market for hydrogen and will catalyse the creation of the fundamental infrastructure necessary to deploy this zero-carbon energy storage source.[8]

[4] https://www.lse.ac.uk/granthaminstitute/publication/what-will-climate-change-cost-the-uk/#:~:text=Co%2Dbenefits%20include%20significant%20health,of%20around%204%25%20of%20GDP.
[5] https://www.irena.org/publications/2021/Jun/Renewable-Power-Costs-in-2020
[6] https://www.carbonbrief.org/analysis-record-low-price-for-uk-offshore-wind-is-four-times-cheaper-than-gas/
[7] https://www.gov.uk/government/news/uks-path-to-net-zero-set-out-in-landmark-strategy
[8] https://www.thecityuk.com/media/xruhnb2r/enabling-the-net-zero-transition-the-role-of-financial-and-related-professional-services.pdf

Question 3. What opportunities are there for new/amended measures to stimulate or facilitate the transition to net zero in a way that is pro-growth and/or pro-business?

Across the market we consider that there are numerous areas for potential growth for the UK financial services sector with respect to green and transition finance. To enable this, Government should demonstrate that the UK is a centre of green finance to attract international private capital. Those efforts should help ensure that large-scale incumbent firms' participation in household capital stock transformation, wholesale energy reform and long-term infrastructure projects can be efficiently financed.

Barclays is strongly committed to transition finance, and the work of the Transition Plan Taskforce (TPT) will help unlock capital flows towards companies that have a credible net zero pathway. We note that the bulk of the transformation ahead must happen in established sectors and given that most of the firms in these sectors are not currently aligned with net zero, investment will have to scale to meet the capital needs of high emitters that are looking to decarbonise. To enable this, a robust transition planning framework is essential to enable banks to support such companies in their transition. Greater standardisation of the transition planning framework will also help companies provide the information required by financial institutions. This should be led by governments, in conjunction with established global industry and expert-led groups such as GFANZ, and not left to market forces.

We welcome the TPT's commitment to develop a robust transition framework and to lead the thinking on this work. It is also essential that, as transition plan frameworks develop, there is as much global consistency as possible. If there is insufficient consistency and coordination of approaches, international businesses will become subject to multiple requirements in different jurisdictions with the same objective. Less efficient processes will inhibit progress to net zero as incoherent frameworks give rise to, for instance, mismatches in the pricing of investments and the viability of green investment projects. We are encouraged by the TPT's engagement with other standard setting bodies and strongly support this continued coordination as this work continues. This should avoid fragmentation, promote greater consistency and comparability of disclosures, and reduce reporting costs. We suggest that the TPT framework should be iterative as global standards emerge to ensure this consistency and interoperability.

We also consider that green and transition lending will continue to grow in the UK as more clarity comes from the UK Green Taxonomy and the development of transition finance frameworks. It is also well understood that a lack of common definitions makes it difficult for companies and investors to clearly understand the environmental impact of their decisions and can lead to consumer harms like greenwashing. To this end, we consider that the proposed UK Green Taxonomy and Sustainability Disclosures Requirements (SDR) regime should be designed to address some of these concerns and believe that the UK Government has an opportunity to take into account market feedback on some of the complexities that have inhibited financial flows following the phased implementation of the EU Taxonomy. We believe that by utilising a "second mover advantage" and leveraging the expertise of the UK's financial and professional services industry, the Government can attract significant flows of international capital into the UK economy. This will give borrowers, investors and lenders confidence that they are aligned with best practice. We would emphasise that the Green Taxonomy and transition frameworks should be simple to use and accessible for all market participants.

We further see an opportunity to consolidate and scale carbon markets, as well as exploring possible partnerships with other jurisdictions to do the same, especially for key carbon intensive and hard to abate sectors such as aviation or freight. The Government should consider how best to promote the UK as a centre of liquidity for such markets, whether through carbon connect schemes or international sectoral markets to capture international aviation or shipping. Growth in this sector can also include the development of carbon trading platforms and other financial market trading and clearing infrastructure to facilitate an international carbon market in the UK.

Question 6. How should we balance our priorities to maintaining energy security with our commitments to delivering net zero by 2050?

Delivering net zero and maintaining / enhancing energy security can be mutually reinforcing. Accelerating the shift to renewables can have multiple benefits including reducing the cost of energy, enhanced ability to control supply; while improvements to energy efficiency can help reduce demand.

We note that renewables are now cheaper than fossil fuels[9], which means that increasing their production will improve households' ability to afford energy. As indicated in our response to question 3, producing renewables locally will have the additional benefit of improving control over energy supply, reducing the UK's reliance on imported energy and increasing export opportunities. This would need to be accompanied by the relevant infrastructure enhancements – including grid connections and hubs. We note that with the correct planning, gas transmission projects now can subsequently be repurposed for blue and later green hydrogen. The industry, including Barclays, can support with financing solutions here. We would also emphasise that success is likely to be contingent on addressing the intermittency of renewables and energy storage issues.

Detailed sector pathways are also necessary and should be explicit as to how the sector's overall trajectory is aligned with Paris and net zero commitments. For example, if government judges it is appropriate to increase some elements of O&G production in the North Sea, it should set out its pathway to future alignment with the UK's NDCs and NZ legally binding target (i.e. is it a substitution and not additional/incremental to global emissions). It should also be clear how sectors should address the risk of locked-in infrastructure (or stranded assets) with balancing the need for an orderly transition/energy security. For example, supporting time-bound investments to meet near-term needs might be appropriate if they are accompanied with, say, earlier retirement investments of transitional assets ahead of their normal economic life. Without being clear about the nature of these plans though, there is a risk finance will not be available to certain projects as lenders will need to demonstrate their financing activity is consistent with transition. Recent announcements by some lenders in the UK underline the significance of this point.

Questions for businesses

Question 8. What growth benefits/opportunities have you had, or do you envisage having, from the net zero transition?

We believe that the transition to a low-carbon economy is today's defining opportunity for innovation and growth. There is a significant opportunity for Barclays to play a leading role in helping to meet the demand for climate change related financing. The financial sector has a critical role, and opportunity, to play in supporting the economy to reach this goal. It is estimated that at least $3-5 trillion of additional investment will be needed each year, for the next 30 years, in order to finance the transition.[10] Our Corporate and Investment Bank supports the renewable energy and clean technology sector, offering strategic advice and facilitating access to finance for renewables including wind and solar energy, storage solutions and other innovations that will support the transition towards a low-carbon economy. We also continue to enhance our focus on the development of green product structuring capabilities in the capital markets, including green 'use of proceeds' bonds and sustainability-linked financing instruments.

We continue to expand our sustainable finance offering through our specialist teams and to integrate sustainability into our service offering. There remains a significant opportunity for Barclays across social and environmental financing, both through lending from our balance sheet and origination

[9] https://www.irena.org/publications/2021/Jun/Renewable-Power-Costs-in-2020
[10] https://www.sifma.org/wp-content/uploads/2020/12/Climate-Finance-Markets-and-the-Real-Economy.pdf

through the capital markets. For instance, we facilitated £69.2bn of social, environmental and sustainability-linked financing in 2021, up 14% from £60.9bn in 2020.[11]

Examples of our specialist teams include:

- Our Sustainable Capital Markets team offers a broad range of ESG capital market product types and delivers across multiple client segments to help clients finance their sustainability journeys and formalise their sustainability commitments. The team focuses on underwriting and structuring green, social and sustainability use of proceeds bonds, and sustainability-linked bond issuance. The team continued to execute a range of landmark transactions in 2021 such as helping the UK Government issue its £10bn green bond.

- Our Sustainable Impact Capital Programme has a mandate to invest up to £175m of equity capital in sustainability-focused start-ups by 2025, helping to accelerate our clients' transition towards a low-carbon economy. Through the Programme, we aim to fill growth stage funding gaps to help accelerate and scale catalytic and strategic solutions to environmental challenges. Recently, we made an equity investment in ZeroAvia, a hydrogen-electric, zero-emission aviation company that aims to power 40-80-seat aircraft with zero-emission engines by 2026.[12]

On the retail side, Barclays was also one of the first UK lenders to launch a green mortgage product in 2018, and to date we have completed over £1bn in green home mortgages. The Barclays green home mortgage offers residential homebuyers lower interest rates for new-build properties with an energy efficiency EPC band of A or B, compared to our standard products. We are particularly keen to work with government on initiatives to help retrofitting.

Question 9. What barriers do you face in decarbonising your business and its operations?

It is important to emphasise that alignment of the UK's financial services sector with net zero goals can only happen as part of a whole of economy transition. This needs to recognise that banks' balance sheets are a reflection of the wider economy. Consequently, a full economy transition requires robust net zero and sustainability policies. Government should therefore push forward a proactive industrial strategy to address these non-financial barriers for investment.

We consider that at a high level the barriers to decarbonise our business and operations are:

- A lack of policy clarity achieved via a whole of government approach. The UK needs policy clarity across the real economy, sector by sector, to ensure shared expectations and aligned objectives. In a wide variety of UK sectors, the net zero and wider sustainability policy trajectory remains vague, without clear milestones leading to full decarbonisation and uncertainty around where finance should flow. The banking and finance sector alone cannot be responsible for fixing this absence of clarity, as it often lacks real-world opportunities in which to invest. Government policy clarity can help to crowd in industry actors. We welcome Government's commitment to supplement the Green Finance Strategy and Ten Point Plan with sector-by-sector net zero roadmaps, and are keen to work with policymakers to bring banking and finance expertise to develop them.

- Poor risk / return ratios. Many technological innovations and wider activities needed for the sustainable transition are currently unattractive to lenders due to poor risk / return ratios. For instance, technology solutions such as Carbon Capture or Hydrogen are yet to achieve full

[11] https://home.barclays/content/dam/home-barclays/documents/investor-relations/reports-and-events/annual-reports/2021/Barclays-PLC-Annual-Report-2021.pdf
[12] https://home.barclays/news/2022/07/barclays-invests-in-hydrogen-electric--zero-emission-aviation-co/

commercial scalability, limiting access to more expensive forms of capital. Larger amounts and less costly capital could be unlocked via blended finance.

- Wider infrastructure challenges. A wide variety of sector-specific infrastructure challenges remain, which need to be addressed on a case-by-case basis. For example, although a highly skilled economy, the UK is encountering a skills shortage, for instance in the construction sector.

- Consumer inertia. A lack of confidence, action and awareness amongst consumers in wider society inhibits private investment from flowing into the conduits where it could have the most impact to change behaviour. This is compounded by the fact that more often than not, for households, there often isn't a sufficient return on investment / incentives for consumers to act.

- Data. Access to client sustainability-related risk and impacts data remain a barrier to assessing our Scope 3 emissions, and therefore fully integrating these factors into decision-making. Government and regulators should recognise that corporate and financial sector reporting will improve over time, with some challenges likely to persist over the coming years due to data gaps. There will be a particular challenge for firms exposed to markets in which sustainability reporting is not yet widespread.

- International fragmentation. We are also concerned that as major jurisdictions are moving at different speeds, a risk of fragmentation and diverging rules may emerge. This is particularly concerning for banks such as Barclays with a global presence. Interoperability of regulatory frameworks is essential. To this end, we encourage the Government to maintain lines of communications and cooperation with international partners and regulatory authorities in different jurisdictions and at the supra national level. The FCA's participation within the ISSB's jurisdictional working group is an excellent example of this.[13]

Question 10. Looking at the international market in your sector, what green opportunities seem to be nascent or growing?

Government should leverage the UK's world leading financial and related professional services industry to demonstrate that the UK is a centre of green finance to attract international private capital. We consider there are many opportunities to harness the industry's full potential to support the net zero transition and help ensure the UK becomes the world's first net zero-aligned financial centre. We highlight below some nascent opportunities where Government support can cultivate the sector.

We believe that there is considerable potential for the UK Government to support (through for instance, issuing) sustainability-linked bonds (SLBs), or indeed other similar products. ICMA defines SLBs as "any type of bond instrument for which the financial and / or structural characteristics can vary depending on whether the issuer achieves predefined Sustainability / ESG objectives."[14] With robust key performance indicators (KPIs), this is a product area that we believe the UK Government should seek to prioritise. We also consider that KPIs, through coupon ratchets / margin adjustments, will keep institutions accountable towards their sustainability targets.

We also see an opportunity for a growth in "social" lending. While there are currently limited market standards as to what constitutes social lending – in much the same way that the industry has asked for consistent and comparable criteria when it comes to green financing – social lending will grow as

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[13] https://www.ifrs.org/news-and-events/news/2022/04/issb-establishes-working-group-to-enhance-compatibility-between-global-baseline-and-jurisdictional-initiatives/

[14] https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2020/Sustainability-Linked-Bond-Principles-June-2020-171120.pdf

frameworks emerge to address investor uncertainty. To take apprenticeship schemes as an example, it is a challenge to determine what the social impact of this is on communities as the outcome is qualitative rather than quantitative in scope. Nevertheless, social / sustainability bonds are another avenue through which the UK can positively contribute to the development of the capital markets and equally contribute to addressing social needs.

Finally, financing for biodiversity and nature-based solutions is still embryonic with a clear role for blended finance approaches that leverage public, philanthropic and private capital to share risk and demonstrate the commercial viability and returns for commercial investors and lenders. The Government can encourage more blended finance approaches for biodiversity internationally, working within the multilateral development banks and development finance ecosystem. Options to accelerate public private partnerships for investing and lending in UK-based projects should also be explored with relevant stakeholders to identify potential sources of blended capital, barriers to current deployment, and measures to increase blended finance flows over time.

The UK can lead the development of carbon markets to build on the welcome progress made at COP26 on Article 6 – both by working to put an effective price on carbon and to reallocate revenues – for example, by hypothecating revenues from the sale of carbon permits for investment in new technologies (e.g. Sustainable Aviation Fuel). UK national standard setting bodies should continue to ensure that any approach taken locally is consistent with global standardization efforts, such as those undertaken by the Integrity Council for Voluntary Carbon Markets (ICVCM). In this regard, we support the ICVCM in its work to increase market confidence in the quality of voluntary carbon credits and address market participants' concern related to environmental and reputational risks associated with trading voluntary carbon credits. We support the work of the UK Voluntary Carbon Markets Forum (VCM) that will implement the framework recommended by the ICVCM, and thus ensure that UK-based firms and branches of global firms based in the UK possess critical tools in corporate emission reduction efforts. Providing legal certainty of the treatment of carbon credits under English law is instrumental to establishing the UK as a carbon-trading hub.

Question 14. What more could be done to support your business and/or sector to decarbonise?

It is important to emphasise that alignment of the UK's financial services sector with net zero goals can only happen as part of a whole of economy transition. This needs to recognise that banks' balance sheets are a reflection of the wider economy. Consequently, a full economy transition requires robust net zero and sustainability policies.

The required transition investment amounts imply an increase in corporate spending. The policy environment will determine whether the investment will be mobilised through regulation, tax and exclusion of types of activity or through incentives, credits and public finance. Policy will also determine the nature of the capital, ranging from private to public funds. One lesson of the American IRA is that policy interventions are more likely to occur and be successful when designed as 'carrots' rather than 'sticks'. The energy security imperative calls for long-term support to an active industrial policy which must include the carbon transformation of the economy. Vivid examples of this new approach to policy come from China, the EU and especially the US where a rush of funding from diverse sources, including IRA, has created a 'wall of money' that will accelerate an investment boon. With green power and infrastructure often occupying the most attractive returns and benefits, transition can, therefore, be accelerated.

Building on our response to Question 9, we provide some examples of steps the Government can take to decarbonise the wider economy and, by extension, our business.

Expanding Blended Finance

In certain cases, targeted financial incentives are required to support investing and start-ups that are focused on net-zero / transition aligned activities. This is particularly the case for green technologies that are unproven and there is hence a need to risk share to help them reach scale. To use a case study, contract for difference auctions have been very successful for offshore wind power, and by extension have helped to decarbonise a component of the UK's electricity market. To this end, we see a role for the UK Infrastructure Bank (UKIB), the Infrastructure and Projects Authority (IPA) and the British Business Bank (BBB) here. Important new green technologies, such as hydrogen and carbon capture and storage/CCUS, which are necessary for the transition but will have payback periods that are long or uncertain, will need further Government support to lower risks and drive down costs. We share UK Finance's concern that the UKIB's current resources (£12bn in equity and debt capital and £10bn in guarantees), is too small in comparison to some of the opportunities it may be approached with and challenges it needs to resolve.

We consider that the UKIB, the IPA, and the BBB can maximise the potential of their financial resources by expanding their risk mandate to cover securitisations through blended finance. This is where the UKIB / the IPA / the BBB can provide guarantees for green projects such as retrofits that would otherwise not be funded due to a lack credit appetite within the market. The tranches in a securitised structure allows for the sharing of risk between Government and private capital in a way that generates a commercial return to the UKIB / the BBB. Additionally, as the UKIB / the IPA / the BBB are not at risk for the full loan – this would only use a small proportion of their balance sheet versus the total size of the facility. This creates opportunities to crowd in private finance and, as an additional benefit, is balance sheet efficient for institutions such as the UKIB / the BBB which have different risk appetites and capital structures compared to banks. We would additionally note that expanding these organisations' mandates would allow lenders to re-deploy capital that is currently locked into long-dated green projects on banks' balance sheets. This will become more important as the level of capital requirements is set to increase across the various sectors in the coming years – which could restrict lenders' financing of medium / longer term projects.

<u>Greening the Housing Stock</u>

Across Barclays we have spent time thinking about the issue of retrofitting, recognising that it contributes towards 15% of the UK's greenhouse gas emissions[15], and that the Government has identified improving the energy efficiency of the UK housing stock as a key vehicle to achieve net zero by 2050. However, lenders cannot move the dial alone and we face several challenges that require Government support. In line with our overarching articulation of the policy barriers facing decarbonisation, we would recommend that Government, in collaboration with the industry, takes the following steps:

- Policy clarity. A national decarbonisation roadmap and retrofitting strategy, aligned to long-term energy policy, are needed to create a clear framework for action. For instance, the Government has consulted on proposals to set minimum energy efficiency standards for private rented accommodation and commercial buildings. This would provide an imperative for building owners to invest in energy efficiency, as well as ensure a clear timetable for action.

- Expedite the payback period for customers. We believe financial incentives will be the pivotal driver of motivation for homeowners to take action and retrofit their homes to increase energy efficiency. Barclays, alongside the wider industry, is also committed to developing products that may provide the incentive required to "nudge" our customers to act. We welcome collaboration with government on a scale grants scheme that is accessible for all (not

[15] https://www.carbonbrief.org/uk-homes-shockingly-unprepared-for-climate-change-says-ccc/#:~:text=Homes%20account%20for%20around%2015,UK's%20legally%20binding%20climate%20goals.

just mortgage holders and low-income groups) and reflects lessons learned from industry pilots. Government can also trial different finance models attempting to address these barriers. For instance, the Property Assessed Clean Energy (PACE) model has been deployed at scale in North America and is being trialled in Europe. PACE funds the upfront costs of energy efficiency and renewable energy measures (e.g. heat pumps) through a secured loan, with costs repaid over a set time period through the owners property tax bill. Alternatively, where households are unable to borrow or finance the retrofitting of their homes, the Government could expand the Energy Company Obligation (ECO) and consider a system of grants to support vulnerable and low-income households.

- Improve infrastructure challenges. For consumers and businesses to act, improved access to practical advice about what to do and who to trust to undertake "retrofit" works will be essential. This should include widely available support to identify interventions appropriate for different types of properties; and expansion of Trustmark and accreditation schemes to ensure appropriate quality. Lenders can help signpost information using touchpoints with our customers and clients.

- Raising consumer awareness. Greater public awareness of energy consumption is required to encourage take-up of retrofitting and reduce energy usage. It is critical to ensure households are prompted to think about these issues at the appropriate time (e.g. at the point of house purchase). As such, we recommend government drives a widescale education campaign, including increasing access to energy-use data for households.

- Accommodate for lack of data. Energy Performance Certificates (EPCs) could play a central role in the measurement of change for the individual property-owner and at a societal level, but enhancements are needed to these ratings to increase accuracy and coverage. This should command consumer's confidence in a way that MOT tests are seen as reliable and effective. BEIS has committed to reforming these standards, and we urge the acceleration of this work, to ensure confidence that the EPC system is a robust way to measure progress.

- Clarity will be needed about who bears the technology risk vis a vis Section 75 in cases of new, unproved technologies, as without such clarity, finance will be inhibited.

Supply-Side Factors (e.g. Electric Vehicle Infrastructure)

In conjunction with solving for demand side reform – the UK can support a financial system that leverages private investment by addressing existing supply-side issues. One example of this is a lack of central strategy for expanding the coverage of the electric vehicle charging network, which restricts large scale debt investment. Charging point installation is a fragmented market (lampposts schemes depend on local governments, petrol stations on private landowners, etc.) and there is no incentive for private players to address the less obviously profitable areas. The organisation of the market needs to be overhauled in order to allow investments at scale across the country (e.g. a nationwide auction on lampposts might be considered). Having discussed this with our clients, we believe that a form of availability-based payment mechanism (i.e. where fee payments are made once the project is completed and available to use) across regions of the UK would be required to stimulate investment. There is also a role here for the UKIB to share risk with lenders. It is critical that this strategy also accounts for coverage in areas of low population densities.

Unlevelled Playing Field (competitiveness)

Additionally, we note that from an international perspective there is an unlevel playing field whereby green supporting factors are incorporated into non-UK jurisdictions. As an example, the EU infrastructure supporting factor CRR 501a (c.25% reduction in capital requirements for green / social infrastructure financing) has not been adopted within the UK, meaning that UK institutions may struggle to compete / support in these areas. We strongly agree with the view of the Bank of England that regulatory capital has a role in dealing with the consequences of climate change but is not the right tool to deal with its causes (greenhouse gas emissions). As an alternative, to work towards a level playing field, we would welcome the opportunity to discuss with Government options outside the capital framework to address this disparity and to ensure that UK institutions can support green infrastructure investment on an equal footing.

Research, Innovation and Technology

There is also a greater role for public sector research and universities in unlocking private investment. Funding towards research and development will undoubtedly boost innovation and develop technologies that are needed in the transition beyond 2030, such as carbon capture, waste management, and energy efficiency. To this end, expanding other UK grant schemes – such as Innovate UK – can link private and public sector partnerships to accelerate further investment. It would help to seek out other structures that could increase bankability for smaller firms that champion and deliver innovation.

SMEs and Retail Customers

The Government has a key role to play in disseminating necessary awareness and knowledge into the wider population to increase demand for green finance. We are concerned about the potential lack of awareness and understanding amongst SMEs and retail customers about the practical implications of the transition, and the potential consequences of failing to act in time. As such, there is a need for the Government to inform and educate the public on these issues and highlight the real implications for individuals and small businesses, as well as communities at large. This should include focussed communications campaigns to highlight the need to consider how the UK's net zero strategy will impact their lives.

It is important to note that there is currently limited data-based insight on what actions SMEs are taking to invest in the net zero transition. As this is a relatively incipient market, we would welcome a BEIS commission on the approach of SMEs across the economy towards the transition. In particular, lenders would welcome further data covering i) in a given period, what has been the SME spend on reducing their carbon emissions and ii) in a given period, how much finance has been raised by SMEs with the purpose of investing in reducing carbon emissions. From this, an understanding of what this money has been spent on and the types of finance requested would help lenders tailor their solutions to the market and support SMEs to align with the UK's climate and environmental objectives.

Questions for academia and innovators

Question 29. How can we ensure that we seize the benefits from future innovation and technologies?

As mentioned in our response to Question 4, targeted financial incentives are required to support investing and start-ups that are focused on net-zero / transition aligned activities. This is particularly the case for green technologies that are unproven and there is hence a need to risk share or blend finance to help them reach scale.