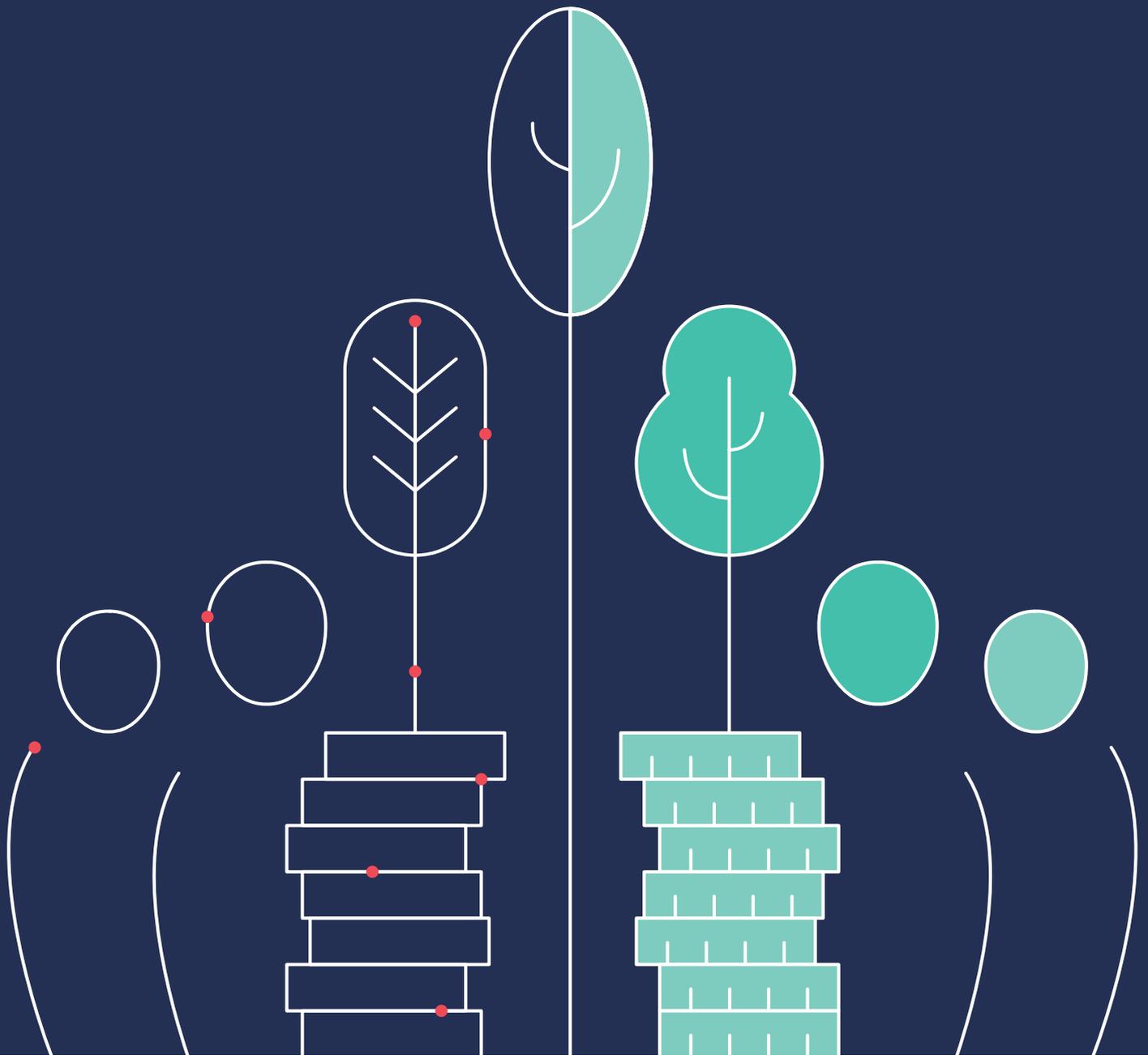


Financing climate action with positive social impact

How banking can support a just transition in the UK

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and Andrew Sudmant



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The Banking on a Just Transition project was launched in 2019, as a pilot project that aims to identify how banking can support a just transition towards a resilient net-zero-emissions economy and society across the UK. The project is a process of research and collaborative dialogue between stakeholders, including banks and other financial institutions, as well as policymakers, business, trade unions and civil society. The project has included place-based consultation workshops in Belfast, Birmingham, Bristol, Cardiff, Cornwall, Edinburgh and Leeds. The project is led by the Grantham Research Institute on Climate Change and the Environment, working with the Sustainability Research Institute. The project has been delivered in partnership with UK Finance and the Place-based Climate Action Network (PCAN). The project is funded by HSBC and the London School of Economics' KEI Fund. The Banking project is part of the broader Financing a Just Transition programme, which has also explored the role of institutional investors. www.lse.ac.uk/GranthamInstitute/financing-a-just-transition/

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Foreword

Bob Wigley, Chair, UK Finance

When UK Finance was first approached 18 months ago by the Grantham Research Institute and Leeds University to partner them in a 'Banking on a just transition' initiative, we had little hesitation in offering to assist. It was agreed that consultation would best take the form of a structured dialogue enacted throughout the UK. With assistance from the Place-based Climate Action Network (PCAN), 250 policymakers, financiers, business, trade unions, civil society and researchers have participated in roundtables held in Belfast, Birmingham, Bristol, Cardiff, Cornwall, Edinburgh, Leeds and London. The roadshow set out to understand the differing circumstances of post-industrial regions, rural areas and major cities and to gain an appreciation of the diverse needs and challenges across the country.

Little did we know that the world would be engulfed in a health and economic crisis of a stunning magnitude by the time this report came to be published. Nor could we foresee the degree to which consensus would grow so rapidly for COVID-19 economic recovery measures to be aligned to climate goals and resilience as we seek to 'build back better'.

Core to just transition is the recognition that climate success will be contingent on designing a transition that is both fair and seen to be fair across regions and across the socioeconomic spectrum. The encompassing nature of the challenge is underlined by the estimation that one in five jobs – over six million in total – could be impacted by the transition, and the fact that we will not achieve our net-zero economy ambitions unless every sector of industry and agriculture, no matter the size of firm or farm, steps up. The cross-country nature of the challenge is amply illustrated by the estimation that achieving net-zero involves not only the building of greener new homes, but the retrofitting of some 26 million dwellings to improve their energy efficiency.

In terms of banking and finance, the response to COVID-19 has taught us that we can adapt business practice and service delivery in support of the economy and society in a way – and to a timescale – not previously thought imaginable. The recommendations of this report – addressed to both banking firms and government – ask for similarly radical changes to be made in order that the path to a net-zero economy be founded upon a just transition.

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Achieving the UK's net-zero carbon target by 2050 is a difficult but critical target that requires coordinated action across industries. This important report sets out clear steps for how the banking and finance industry can play a central role in delivering this goal through a just transition, and UK Finance commits to acting on its recommendations. As the UK now focuses on the economic recovery from the COVID-19 pandemic, there is significant opportunity not only for these growth measures to be aligned with net-zero, but also that they are approached in a fair, just and inclusive way. At the same time, if we are to build back better then we need to do so in a way that benefits regions, cities and communities the length and breadth of the UK.

Banking and finance firms already play an important part in supporting local networks comprising of corporates, SMEs, local authorities, universities and other sources of expertise. As part of this, we will continue to work with the Green Finance Institute, as well as other new or repositioned investment institutions, to help mobilise capital in a way that takes account of local community needs. We also call on the Government to back the report's recommendations for how it can support the just transition.

UK Finance is the collective voice for the banking and finance industry operating within the UK. Representing more than 250 firms across the industry, it acts to enhance competitiveness, support customers and facilitate innovation.

Building a sustainable future and an inclusive recovery from COVID-19

The UK needs to deliver far-reaching climate action at a time when its economy has been severely damaged by COVID-19. As the country moves from confronting the immediate health emergency, there is a once in a generation opportunity for government, business and society to create a new, more resilient model of prosperity, to 'build back better'. At the heart of this recovery would be the convergence of at least two national imperatives: the creation of a successful net-zero-emission economy and 'levelling up' economic and social prospects across the country. This is the challenge of the just transition – delivering climate action that generates positive social impact.

The size of the economic transformation that this implies will need to be fully supported by the UK's financial system, not least by its banks and building societies. The full economic implications of COVID-19 are still unknown, but it has revealed the economy's vulnerability to unexpected shocks and the value of broad-based resilience. It has also brought forward strategic questions over climate critical sectors (such as aviation, oil and gas, and transport). More broadly, it has underscored the importance of valuing nature – not least as a way of minimising the risk of further pandemics – and pointed to the potential for accelerating the deployment of clean technologies as a cost-effective strategy for generating significant economic multipliers in the recovery.

So far, however, a major consequence of lockdown has been to exacerbate underlying inequality and reveal precarious working conditions. Across the country, the vital importance of strong local and regional capabilities in delivering effective responses to a national crisis has also been underscored. Within the financial system, the use of the banking sector as the main transmission mechanism for business support during lockdown has highlighted the key role banking can play in the real economy at times of profound change. Yet, the economy is exiting from the crisis both with more debt and also with excess savings that need to be deployed to finance long-term and sustainable development. All in all, the COVID-19 crisis has amplified the need for a just transition.

The just transition: the next chapter in climate action

The just transition represents a significant evolution in the climate action agenda. To date, most attention has been placed on confronting climate risks, along with a growing emphasis on seizing net-zero economic opportunities and building resilience to physical shocks. It is unlikely, however, that these efforts on their own will be sufficient to realise the transition without a comprehensive focus on the social dimension, in other words a just transition. The just transition was included in the Paris Agreement on climate change adopted in 2015, with its focus on the interests of workers in the shift to a resilient, low emissions economy. Since then, recognition has grown that climate success will be contingent on designing a transition that is both fair and seen to be fair across the socioeconomic spectrum.

What is the just transition?

The just transition is a systemic and whole of economy approach to sustainability, with the following elements:

- Maximising the social benefits of the transition
- Mitigating the social risks
- Empowering those affected by change
- Anticipating future shifts
- Mobilising public and private investment.

Rationale and priorities for the just transition in the UK

The strategic rationale is threefold. First, it is a fundamental question of principle, upholding core standards (such as human rights); second, it is vital to win public support for climate action and address possible opposition; and third, it can help to generate a range of co-benefits for business and society, which will underpin a more resilient recovery.

This rationale has particular resonance in the wake of COVID-19. The UK's recovery plans provide an opportunity to address the looming unemployment challenge by stimulating activities that generate high quality jobs as the net-zero economy grows, improving the quality of all jobs and revitalising communities across the country.

These social and economic benefits will not flow automatically. To rebuild the economy by combining climate action with positive social impact requires a focus on three priorities:

- **Inclusive:** To be inclusive, the transition needs to consider different socioeconomic groups and how their particular needs should be addressed. The interests of workers, communities, small businesses, consumers and citizens have to be considered in particular. We estimate that one in five UK workers (around 6 million jobs in total) could be affected by the transition. Around half of this number will see demand for their skills increase, and so will have greater capacity to flourish in the transition. The other half will be more vulnerable, with demand for their skills falling, and among these particular consideration needs to be paid to people who are already disadvantaged. In addition, climate action will need to respond fully to gender, class and racial inequalities.
- **Place-based:** The transition will need to respond to different requirements in different places. Many parts of the UK continue to be locked into a low-skills, low innovation and low productivity equilibrium, in large part because of unequal allocation of investment in skills, innovation and infrastructure across the country. Place-based strategies are therefore needed in all regions to ensure that the transition is undertaken in ways that do not leave workers or communities, consumers or small businesses behind. Place-based action can also drive greater climate ambition. For example, cities such as Cardiff, Edinburgh and Leeds have all set 2030 as their target date for net-zero – far in advance of the UK's overall 2050 goal – and highlighted the importance of inclusion and fairness to achieving this.
- **Sector-specific:** The transition is a whole economy challenge, but one that will impact different sectors in different ways. Our analysis points to the construction, manufacturing and transport sectors having the highest proportion of workers impacted by the transition in terms of new job opportunities as well as jobs requiring reskilling. Energy supply as well as agriculture and land-use will also need tailored solutions for workers, communities and small and medium-sized enterprises (SMEs). In the case of agriculture and land-use there needs to be a focus on the potential of wider rural regeneration.

The critical role of banking and finance

Finance will be crucial to making the just transition a reality, from institutional investors, banks and building societies as well as public finance. Investors have been the first to recognise the strategic significance of the just transition and now over 150 institutions with US\$10 trillion in assets under management have signed a global statement to support it.

The purpose of banking is to serve the real economy over the long term. Leading banks and building societies increasingly regard taking action on climate change and advancing sustainable development as a key expression of this core purpose. Some banks are starting to align their business models with net-zero. Efforts like these now need to be scaled up in ways that help to make the economy more resilient, more inclusive and more regionally balanced by extending their strategies to incorporate the just transition.

In addition to the strategic rationale set out above, there are four further reasons why banks and other financial institutions should support the just transition:

- **Reinforcing trust:** The financial crisis left a legacy of mistrust in the sector which is not yet fully overcome. A recovery that demonstrates how banks can support households and businesses through difficult adjustments, contribute to regional regeneration and recovery and tackle climate change would do a great deal to reinforce trust in the sector.

- **Aligning with stakeholder expectations:** Key stakeholders, including customers, investors, and staff, as well as government, are looking for bank leadership on this agenda. Investors, for example, are starting to include the just transition in their shareholder engagement with banks on climate change.
- **Responding to material value drivers:** Addressing the needs of small businesses, workers and communities in the transition is increasingly material to value creation in the banking sector: for example, by impacting the ability of customers to repay loans as technology changes.
- **Creating new opportunities:** Well-designed, the just transition holds out the potential for significant opportunities for banks to deliver innovations in terms of new products and services for a wider customer base: for example, to households and businesses interested in achieving impact through their savings and investments.

Importantly, the just transition is not yet-another framework for banks to adopt. Instead, by looking through the just transition lens, banks can strengthen their existing initiatives to cut climate risk, increase green finance and build resilience over the long term. This means integrating the just transition within individual institutions and in collective initiatives, such as the Principles for Responsible Banking and the reporting framework of the Task Force on Climate-related Financial Disclosures (TCFD). One challenge that banks will need to manage transparently is the risk that the just transition could be manipulated and used as an excuse for reducing climate ambition – slowing the phase-out of fossil fuel financing, for example.

Recommendations to banks

We recommend eight actions to embed the just transition across banking operations, both in the UK and globally.

- 1. Leadership:** Board and senior executive leadership commit to ensure that the just transition is incorporated into institutional strategy and culture, identifying roles for the Chair, Non-Executive Directors and the operation of board sub-committees.
- 2. Purpose:** Make the just transition central to the bank's core purpose and culture, embedded in strategic objectives and the business model.
- 3. Strategy:** Outline a clear institutional action plan for how the bank plans to operationalise the just transition. This should cover culture, governance, risk, opportunity, compliance and the treatment of customers. The strategy should identify clear financial targets and be accompanied by training and awareness-raising among staff. Milestones and metrics can then link progress against targets to financially reward and remunerate bank employees, including senior executives.
- 4. Customers:** Serve customers by developing a core portfolio of financial products and services that contribute to achieving net-zero in a socially inclusive manner. Banks have the opportunity to serve customers by developing sector-specific and customer-specific expertise. This would enable them to become a trusted partner in the net-zero future to retail customers and households, small businesses, corporations and investors as well as the public sector.
- 5. Place:** Work with key stakeholders in different geographical areas to respond to the diverse needs for achieving the just transition. Banks can play the role of anchor financial institutions, for example, by helping to finance place-based climate action in both rural and urban settings.
- 6. Policy:** Engage actively with policymakers to encourage the right enabling environment for the just transition and promote system-wide innovation, including through economy-wide policies, financial regulation and public finance initiatives.
- 7. Partnership:** Engage in dialogue with government, business, trade unions and civil society to listen to emerging needs and develop breakthrough partnerships: for example, to deliver blended finance solutions.

8. Accountability: Report on progress against just transition goals in the Strategic Report in the firm's Annual Report and Accounts and include the social dimension in its climate-related financial disclosures.

These recommendations will come to life through practical implementation: this report illustrates how banks can support a just transition for small and medium-sized enterprises (SMEs) and in the housing sector as examples of this.¹

Recommendations to the UK government

Banks can make considerable contributions to the just transition through their own efforts but their scope for action is significantly influenced by the policy regime in terms of correcting market failures, regulating the financial system and allocating public finance to generate public goods. This is an agenda with high potential for partnership between the financial sector and government. The importance of strategic policy signals is particularly critical as the UK recovers from COVID-19. An ambitious and comprehensive roadmap is needed from the Government to provide the enabling rules, resources and incentives that can mobilise banks behind the just transition.

To achieve this, we have identified six recommendations for action by government primarily at the national level.

1. Make a strategic commitment to a just transition, which could include:

- Agreeing a just transition policy statement to achieve the UK's net-zero and resilience goals, building on international best practice.
- Creating a multi-stakeholder Just Transition Task Force to advise on implementation of the policy statement (akin to Scotland's Just Transition Commission).
- Establishing just transition sector plans to identify social priorities, building on the existing programme of sector deals as part of the Industrial Strategy.
- Identifying just transition standards to be applied by government, business and financial institutions, such as banks.

2. Kick-start the just transition through the UK's COVID-19 recovery plans, which could involve:

- Aligning recovery plans with the Paris Agreement, including the just transition, involving those affected in their design and delivery.
- Targeting a sizeable proportion of stimulus spending on sustainable growth opportunities with strong economic multipliers in terms of short-term job creation and long-term productivity enhancements via investments in skills, innovation and infrastructure.

3. Mobilise public finance behind the just transition, which could include:

- Extending the mandates of existing institutions, such as the British Business Bank, to support the UK's SMEs to be part of the just transition.
- Creating new institutional capacity through the establishment of a UK National Investment Bank, with an explicit sustainability mandate, focusing on infrastructure (including buildings).
- Applying the just transition policy statement to fiscal policy, notably to ensure fairness in carbon pricing.
- Issuing sovereign green bonds to finance a just and sustainable recovery programme, with clear impact reporting on social benefit.

1. These sectors are covered in more depth in our two accompanying policy briefs, forthcoming (end July 2020) at www.lse.ac.uk/granthaminstitute/publications

4. Integrate the just transition into financial regulation of climate risk, which could involve:

- Exploring how the social dimension of the transition can be incorporated into the reporting framework of the TCFD.
- Using the results of the forthcoming exploratory climate stress test to identify transition hot spots across the country.

5. Commit to supporting place-based action to deliver a just transition, which could include:

- Applying the just transition policy to the Government's new Shared Prosperity Fund.
- Adapting the Social Value Framework as a tool for achieving the just transition in local authority contracting and procurement.
- Encouraging the extension of climate emergency declarations to include a commitment to the just transition and mobilising finance to support this.
- Expanding the UK impact investment and community finance market as a major tool to deliver the just transition at the local level, encouraging innovative, regionally-focused financial instruments and institutions.

6. Make the just transition a key part of international climate action, which could include:

- Promoting the just transition as an important approach to achieving ambitious climate outcomes during the UK's presidency of the G7 and at the COP26 climate summit in 2021.
- Mobilising the international financial community, especially UK banks and investors, to help deliver the just transition.
- Setting the standard through leadership on the just transition from the UK's internationally-facing financial institutions such as CDC and UK Export Finance.

Taking a system-wide approach through a new alliance

The importance of the just transition as a core part of the UK's strategy for overcoming climate breakdown has been underscored by the COVID-19 crisis. The convergence of these two agendas offers huge potential to make progress in bringing the just transition to life. The banking sector is a key agent of change, and so too are other actors in the financial system; non-bank finance, institutional investors, capital markets, public finance and community finance institutions.

To help deliver this system-wide approach, we propose a Financing the Just Transition Alliance. The alliance would bring together financial institutions, local and national policymakers, business and trade unions, civil society and researchers from across the UK. The aim of the alliance will be to co-create breakthrough financial innovations that show how to connect climate action with positive social impact and thereby make the just transition a key way for the UK to build back better after COVID-19.

1. Introduction: the case for action

Over the next decade, banks and the financial sector as a whole will need to show how they are aligning their balance sheets with the UK's net-zero greenhouse gas emissions target, how they are enabling households and companies to become resilient to climate change impacts, and how the process of often disruptive transition can be steered so that it is fair and inclusive. These goals combine to form the challenge of the just transition, a task that has become even more important with the shock of COVID-19.

This report presents our research findings and recommendations of how to achieve this process. It focuses primarily on the role of the UK's banks and building societies, but it also contains recommendations for other financial institutions and government at all levels.

The just transition: the next phase of climate action

The challenge of the just transition – a systemic and whole of economy approach to sustainability – is to deliver climate action with positive social impact. Designed well, the UK's goal of achieving net-zero emissions by 2050 will play a key role in delivering the Government's commitment to reduce regional imbalances and 'level up' economic prospects. It could generate good jobs in the industries of the future that will serve the transition; it could improve health and wellbeing; and it could help to revitalise communities. Realising these co-benefits is, however, not automatic. Poorly managed, there is a risk that decarbonisation could exacerbate the prospects facing regions that are already 'left behind' and peripheral, as well as negatively impacting low-income consumers.

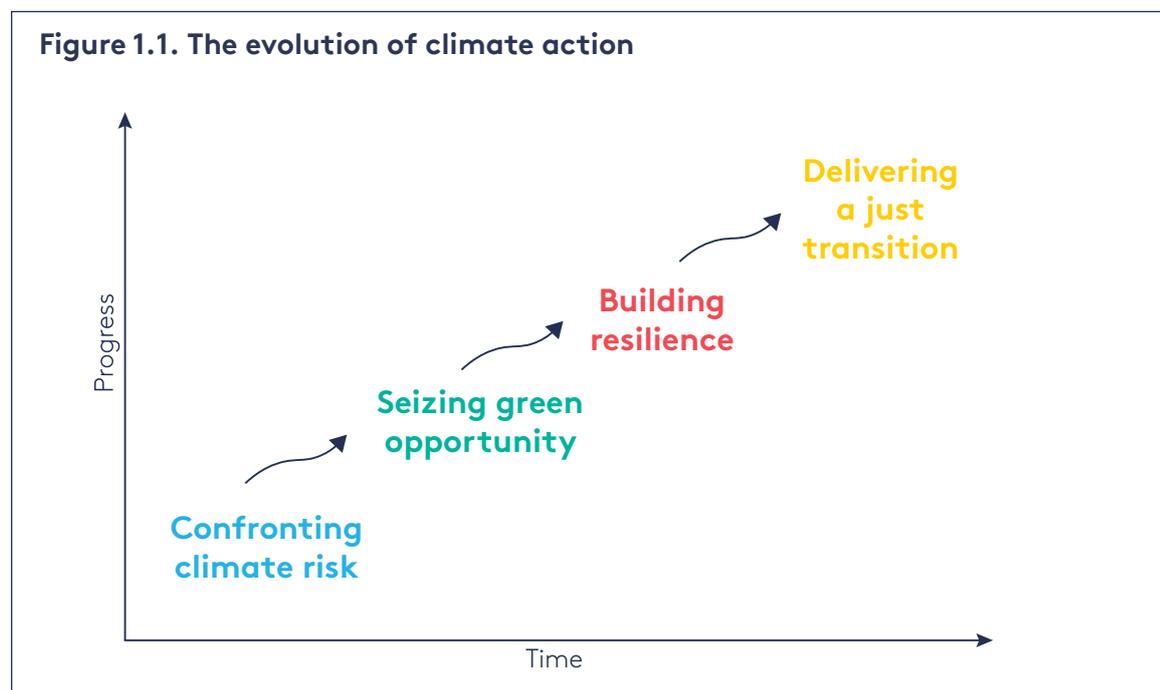
The just transition is a global objective and one that is included in the Paris Agreement on climate change, primarily to connect climate action with the creation of decent work. At its heart is the recognition that success will be contingent on designing a transition that is both fair and seen to be fair not just for workers, but everyone who is affected by the change. In the UK, the need for a just transition is rapidly gaining acceptance (Box 1.1) and the concept has been extended to encompass the full social and distributional implications of climate action.

Box 1.1. Mounting commitment to the just transition in the UK

Increasing commitment in the UK to the just transition agenda is evidenced by the following:

- The Committee on Climate Change (CCC) has recommended that the Government will need to develop a broad strategy "to ensure a just transition across society, with vulnerable workers and consumers protected" (Committee on Climate Change, 2019).
- The Government's Green Finance Strategy also recognises that "it is vital we make sure that this growth is inclusive, benefitting people across the UK" (HM Government, 2019a).
- Scotland has established a Just Transition Commission focusing on how a carbon-neutral economy can be "fair for all". The Commission released its interim findings in February 2020 and will publish its final recommendations in 2021 (Scottish Government, 2020).
- The Trades Union Congress (TUC) has issued a set of 'just transition principles', focusing on the need for a clearly funded pathway involving workers in the process of change, building up skills, and ensuring that new green jobs are 'good' jobs (Trades Union Congress, 2019).
- The Treasury has launched a net-zero review, which includes a focus on ensuring "a fair balance of contributions, including how to reduce costs for low-income households" (HM Government, 2019b).
- More than 30 leading UK-based investors are part of an international coalition with over US\$10 trn in assets that has committed to supporting a just transition (PRI, 2020).

The just transition now represents the next phase in the evolution of climate action, supplementing the historic focus on confronting climate risk, seizing green economic opportunities and building resilience, as illustrated in Figure 1.1. In the European Union, for example, the just transition is a central plank of the 2050 Green Deal programme and its post-COVID-19 economic recovery plan (European Commission, 2020a, 2020b).



Over the past two years, our work with the financial sector has highlighted five key elements that exemplify the just transition (Robins et al., 2019):

- i. **Maximising the social benefits** in terms of opportunities for creating social value through climate action (for example, in terms of the quantity and quality of work).
- ii. **Mitigating the social risks** in terms of strengthening social resilience particularly for high-carbon sectors, as well as vulnerable stakeholders across the country.
- iii. **Empowering those affected by change**, so that they can actively engage in decisions that affect them, ensuring that this is open to all in terms of gender, race, age or income.
- iv. **Anticipating future shifts**, so that decisions taken today do not lock in either emissions or inequality and that social implications can be addressed ahead of time.
- v. **Mobilising investments**, from the public sector, from business and finance as well as citizens to build the human, social and technological capital for the transition.

These elements now need to be deployed in the new context created by the COVID-19 crisis.

COVID-19: a focus on the just transition at the heart of the recovery

The severe economic shock of the COVID-19 crisis has propelled the just transition agenda forwards into the centre of thinking about how to shape the UK's process of recovery. As part of the broad-based recognition that the UK needs to 'build back better' from COVID-19, there is strong agreement that the country's recovery not only needs to be aligned with the goals of the Paris Agreement, but also that it needs to generate strong social benefits in terms of short-term job creation and investing in the skills and infrastructure for long-term prosperity. For example, more than 200 UK-based businesses gave voice to this convergence of the environmental and social dimensions of the post-COVID-19 reset in a letter to the Prime Minister in June 2020, arguing that the country's recovery plans should "align with the UK's wider goals and deliver a clean, just recovery, that creates quality employment and builds a more sustainable, inclusive and resilient UK economy" (Corporate Leaders Groups, 2020).

Recent research shows that investing in a resilient, net-zero economy can generate powerful economic multipliers in the recovery process, not least in building retrofits, clean energy infrastructure and nature-based solutions in rural areas (Hepburn et al., 2020). These multipliers can be particularly powerful when attention is played to the quality as well as the quantity of employment generated in recovery programmes in terms of working conditions, diversity, social dialogue and health and safety.

The prize is a more resilient economy, one that is fairer and more capable of withstanding shocks. Achieving resilience will mean valuing nature more profoundly both to minimise future zoonotic pandemics that are intensified by environmental degradation and also to protect the UK from the rising physical shocks of climate change itself. This nature-based resilience will also need to be matched by a strengthening of the country's social resilience, building up the capacity of all individuals and communities to withstand and bounce back from future crises. Indeed, there is now an historic opportunity for policy, business and society to coalesce around the creation of a model of prosperity that combines hitherto separate agendas through a process of economic transformation. This transformation will also take place as the new relationship with the EU is developed and digital technologies (particularly artificial intelligence) reshape the business and employment landscape.

Major changes will be needed to repair the damage of COVID-19, get on track for a net-zero economy and address the inequality and precarious work that has been revealed during the crisis. The crisis has led to a profound build-up of private sector debt. In May 2020, City UK estimated that by March 2021, the level of unsustainable debt held by UK Private Non-Financial Corporations (PNFCs) could be as much as £90 to £105bn (City UK 2020). These levels of debt compromise business viability and future prosperity, requiring a range of interventions to promote recapitalisation. Levels of public debt have also grown significantly during the crisis, but in the medium term, provided recovery plans avoid an economic depression, higher public debt remains historically affordable. The savings rate has increased significantly during the crisis, with the Bank of England estimating that the saving ratio will expand from 6 per cent of household resources in 2019 to 17 per cent in 2020 (Bank of England, 2020). The key objective of any recovery package is to stabilise expectations and channel surplus saving into productive investment in physical, human, knowledge, natural and social capital (Stern et al., 2020).

All of this will require the financial system – and the banking sector in particular – to be fully responsive to these converging economic, social and environmental imperatives, supporting the real economy in this process of transformation.

The critical role of finance in the just transition

The transition cannot be successfully managed without finance and finance will play an even more critical role in the sustainable economy of the future in terms of both the quantity and quality of capital it provides.

A resilient, net-zero economy will tend to be capital-intensive, with more up-front investment balanced out by reduced resource and energy throughput. We estimate the capital required to achieve net-zero for buildings, energy, industry and transport to be around £47bn annually or 1.6 per cent of GDP per year through to 2050, a total of £1.4trn over the 30-year period.² Additional capital will be required for decarbonising agriculture and land-use, aviation and shipping. These investments into the growing net-zero economy will need to be made resilient to the growing physical impacts of climate change as well as other shocks. Furthermore, investment in the nation's human capital and skill base will be required. Although large in total, these investments, nationally and locally, are entirely manageable. Over the last 30 years overall investment has ranged between 15 and 24 per cent of UK GDP. Furthermore, the costs of key net-zero technologies have been steadily falling and are expected to fall further.

2. These figures are drawn from the latest version of the UK-level economics of climate action model based at the University of Leeds and affiliated with the Place Based Climate Action Network (PCAN). Further details of the methodology can be found at <https://pcancities.org.uk/> or in Millward-Hopkins et al., (2017); Gouldson et al. (2020b); Williamson et al. (2020).

This increase in the quantity of capital will need to be matched by improvements in its quality, with a heightened long-term focus and improved performance in terms of environmental, social and governance (ESG) outcomes. This is where the just transition becomes critical. The investor community has been the first part of the financial system to appreciate the strategic importance of the just transition as a critical success factor (Robins et al., 2018). In October 2019, a roadmap for investors to support the just transition in the UK was released, highlighting the importance of investors signalling their expectations through shareholder engagement, factoring the just transition into capital allocation as well as dialogue with policymakers (Robins et al., 2019).

Banks form the largest part of the financial system and have a pivotal role to play, not least due to their reach and relationships across the country with households, businesses and communities. Since January 2019, large UK banks have had to ring-fence core retail banking services from their investment and international banking activities, making the country's success in delivering a net-zero transition structurally important to their long-term success. The importance of the sector's role in serving the real economy has been further underlined during the COVID-19 crisis, with banks becoming the main transition mechanism to channel government financial support to businesses.

Structure of the report

Section 2 lays out the analytical foundations for the just transition in the UK. It sets out why the just transition is an essential element of successful climate action and outlines priorities for implementation.

Section 3 then presents the strategic rationale for banks to support the just transition, along with recommendations for banks to fulfil this ambition. The section also contains two case studies of what banking for a just transition means in practice: for serving small businesses and for the housing sector. Longer briefings on these are published separately.³

Section 4 examines the enabling policy framework that is needed to mobilise the banking sector behind a just transition. It makes recommendations for the specific steps that can be taken as part of the recovery process from COVID-19, and specifies the component parts of a just transition policy roadmap.

Finally, Section 5 presents the conclusions and practical next steps to maintain the momentum generated by the report.

3. Available from end July 2020 at www.lse.ac.uk/granthaminstitute/publications

2. Analytical foundations of the just transition

The successful achievement of an inclusive, resilient and net-zero economy in the UK will be contingent on designing a transition that is just. In this section, we set out the strategic rationale for the just transition and three key priorities for its implementation: making it inclusive, place-based and sector-specific.

The strategic rationale

The current focus on the just transition builds on substantial work over the past five years to set out the strategic implications for policy and the economy of attention to the social dimensions of change (ILO, 2015; Just Transition Centre, 2017). In the UK, the just transition has become increasingly strategic in the past year. In its 2020 report on progress, the Committee on Climate Change underscored that “a just transition is a crucial part of meeting our Net Zero target”, highlighting that “it is important to consider not just the socio-economic distribution of costs, but also the regional aspects” (CCC, 2020).

Three overarching reasons stand out for why this is needed.

- **A fundamental question of principle:** The Paris Agreement states that governments should take into account “the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities” (UNFCCC, 2015). The UK has since reaffirmed its commitment to the just transition, for example, in its support for the ‘Solidarity and Just Transition Silesia Declaration’ at the COP24 UN conference. There is a strong principled case for the just transition based on longstanding commitments to human rights (including core labour standards). Conceptually, this incorporates three aspects of justice: procedural justice to ensure that those affected by decisions are included; distributive justice to ensure that the benefits and costs of change are allocated fairly; and restorative justice to ensure that historical roots of current social imbalances linked to climate change are remedied. This historical dimension is important in the UK given the lasting social and economic consequences of past transitions, particularly deindustrialisation in the last quarter of the 20th century and the weak recovery following the global financial crisis of 2008.
- **To win support for climate action and address possible opposition:** Evidence suggests that perceived fairness is one of strongest predictors of both support for climate action and achieving behaviour change (Whittle et al., 2018; Sweetman and Whitmarsh, 2015). Social and behaviour change will be particularly important in the next phase of UK climate action, especially to ramp up efforts in the buildings, transport, business, food and farming sectors. An important spur to behaviour change will be the rewarding of households and businesses who demonstrate good climate and broader sustainability performance.

For success, distributional effects must be addressed to avoid penalising the poorest, with equitable enforcement and development of viable alternatives to business as usual. As government, local authorities, communities and others move to scale up their climate strategies, it will be crucial for decision-makers to listen to stakeholders in order to develop a fine-tuned response. This imperative is likely to be reinforced following COVID-19, which has underscored the need for individual behaviour change in order to achieve collective outcomes.

A just transition is also important to addressing possible opposition to climate action. In its 2019 report on achieving net-zero in the UK, the Committee on Climate Change concluded that “if the impact of the move to net-zero emissions on employment and cost of living is not addressed and managed, and if those most affected are not engaged in the debate, there is a significant risk that there will be resistance to change, which could lead the transition to stall” (CCC, 2019). If this opposition crystallises, then the UK faces the realisation of systemic climate risks, both in terms of physical shocks as well as insufficient action to build a successful net-zero economy.

- **To generate co-benefits for business and society:** As well as being the right thing to do – and the necessary thing in terms of generating public backing, the just transition is the smart option. Consciously incorporating the just transition can help to deliver a range of social, economic and environmental co-benefits, such as business innovation, additional high-quality jobs, more resilient communities and improved health. For example, smart approaches to the participation of workers in seeking out net-zero opportunities can uncover savings that a narrow, top-down approach would miss.

This strategic rationale has particular resonance in the wake of COVID-19: the recovery plan needs to be designed so that it addresses the looming unemployment challenge by stimulating activities that generate high quality jobs in the growing net-zero economy, improving the quality of all jobs and revitalising communities across the country.

Priorities for implementing the just transition

Figure 2.1. The just transition is relevant for all parts of the climate agenda



Delivering climate success involves three interlinked actions, set out in Figure 2.1: confronting climate risks through the rapid decarbonisation of the economy, phasing out fossil fuels and activities that generate greenhouse gas emissions; seizing green opportunities through the expansion of sustainable activities in agriculture, buildings, energy, industry and transport; and building resilience by increasing the country’s capacity to withstand and bounce back from environmental shocks, including the impacts of climate change (Greenham et al., 2013).

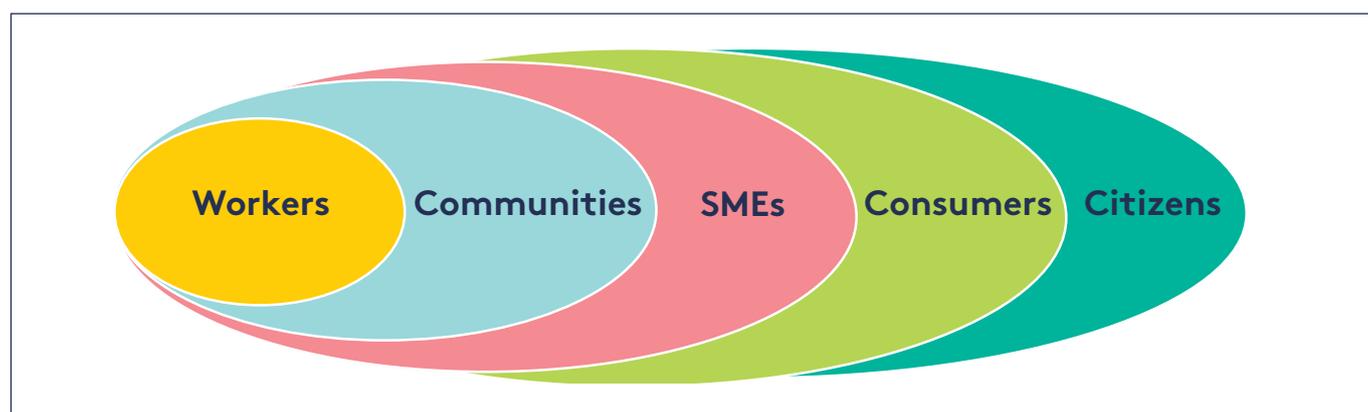
Clearly, these three areas of climate action can be delivered in ways that generate positive social impact. But these benefits will not flow automatically. For the full benefits to be realised, the transition needs to be inclusive, grounded in place-based realities and sector-specific. We discuss each of these priorities in turn.

Just transition priority 1: inclusion

The just transition needs to be inclusive of different socioeconomic groups and to consider their particular needs. It needs to acknowledge that some individuals, communities and businesses will be more vulnerable to the transition than others. This includes members of those groups who are already disadvantaged, for whom due consideration is needed not only to guarantee that they are not adversely affected by change, but also to ensure that creative solutions to address their existing challenges are found. Climate action needs to respond fully to gender, class and racial inequalities and injustices. Amartya Sen has helpfully focused attention on identifying and acting on obvious injustices (Sen, 2009).

The stakeholder groups we focus on in this report are shown in Figure 2.2.

Figure 2.2. Stakeholders in the just transition



In Table 2.1, we identify some of the principal just transition issues facing each of these stakeholder groups, structured around the priorities of confronting climate risk, seizing green opportunities and building resilience.

Table 2.1. Applying the just transition lens to climate action

Priorities	Key actions	Just transition priorities for different stakeholders
Confronting climate risks	<ul style="list-style-type: none"> • Price carbon emissions and remove fossil fuel subsidies • Phase out high-carbon products and processes • Implement net-zero sector roadmaps • Stress test business models • Disclose climate risks 	<ul style="list-style-type: none"> • <i>Workers</i>: Involve workers in the process of change; reskill those affected. • <i>Communities</i>: Mobilise funding to avoid 'left behind' regions. • <i>SMEs</i>: Support the shift in high-carbon supply-chains to alternative opportunities. • <i>Consumers</i>: Recycle carbon revenues to protect the vulnerable. • <i>Citizens</i>: Promote inclusive participation at the local and national levels, seeking active participation from under-represented communities and age groups.
Seizing green opportunities	<ul style="list-style-type: none"> • Upgrade buildings • Build clean energy supply and networks • Deliver net-zero industrial sectors • Realise nature-based solutions • Make transport sustainable 	<ul style="list-style-type: none"> • <i>Workers</i>: Ensure green jobs are good jobs with decent working conditions. • <i>Communities</i>: Promote place-based climate solutions to energy, food, housing and transport, which acknowledge and address existing racial and gender inequalities. • <i>SMEs</i>: Build strong UK supply chains for green solutions serving innovation clusters. • <i>Consumers</i>: Enable inclusive and widespread access to green products (including financial services). • <i>Citizens</i>: Promote participation at local, sectoral and national levels, seeking active participation from under-represented communities.
Building resilience	<ul style="list-style-type: none"> • Avoid losses to lives and livelihoods • Enable rapid and effective recovery • Boost economic activity through reduced risk • Generate co-benefits for society and economy 	<ul style="list-style-type: none"> • <i>Workers</i>: Involve workers in resilience measures; build skills for resilience. • <i>Communities</i>: Focus on the most vulnerable to climate shocks and seek out co-benefits. • <i>SMEs</i>: Strengthen robustness of UK supply chains, focusing on the weakest links. • <i>Consumers</i>: Recognise value of reliable goods and services during and after a crisis. • <i>Citizens</i>: Promote diverse and inclusive participation in local and national resilience planning.

Just transition priority 2: place-based

The just transition needs to be grounded in place-based realities. Even before COVID-19 struck, the UK was described as two countries economically, with a prosperous enclave in London and the Southeast (Jones, 2019). Many parts of the UK continue to be locked into a low-skills, low innovation and low productivity equilibrium, in large part because of unequal allocation of investment in skills, innovation and infrastructure across the country. Public spending rules for investments in infrastructure and R&D historically have been focused on promoting national economic growth. This has led to funds being disproportionately allocated to the already affluent Southeast England.

Ambitious place-based strategies are needed in all regions to make sure that climate action draws on specific needs, skills and insights. Place-based action can also be a driver of overall national ambition. It is striking how the 'climate emergency' declarations from a number of cities and counties have set 2030 as the target date for achieving net-zero emissions, well in advance of the overall target at the UK level. These include Birmingham, Bristol, Cardiff, Cornwall, Edinburgh and Leeds (Declare a Climate Emergency, 2020).

The task now is to ensure that the just transition helps drive the national goal of 'levelling-up' economic and social prospects. Table 2.2 shows the parliamentary constituencies across Great Britain that are in the top 10 per cent for multiple deprivation (i.e. are the most deprived), and ranks these 10 constituencies by the proportion of their workforce affected by the just transition.

Table 2.2. Transition impacts on jobs in the most deprived constituencies in the UK

Parliamentary constituencies in top 10% for deprivation	Region	No. of new and in-demand jobs generated by transition	No. of jobs requiring upskilling	New and in-demand jobs as % of current employment	Jobs requiring upskilling as % of current employment
Bradford South	Yorkshire and the Humber	6,024	5,431	16%	15%
Kingston upon Hull East	Yorkshire and the Humber	7,265	5,761	18%	14%
West Bromwich West	West Midlands	7,414	7,001	15%	14%
Airdrie and Shotts	Scotland	3,874	4,125	13%	14%
Wolverhampton South East	West Midlands	4,641	4,085	15%	14%
Glasgow North East	Scotland	4,754	4,993	12%	13%
Birmingham, Erdington	West Midlands	4,820	4,429	14%	13%
Birmingham, Yardley	West Midlands	4,689	4,452	13%	13%
Barking	London	4,081	4,484	12%	13%
Glasgow East	Scotland	4,380	4,418	13%	13%

Notes: The underlying methodology for the jobs assessment is drawn from Robins et al. (2019). Source: Authors using data on deprivation by local authority from Abel et al. (2016) to account for differences between national Indexes of Multiple Deprivation.

The results highlight that the transition could bring real opportunities to these communities. On average, we estimate that around 14.2 per cent of the jobs in these 10 constituencies will be in higher demand in the transition, substantially above the national average of 10.3 per cent. The manufacturing, construction and transport sectors will be home to large numbers of in-demand and new jobs. In-demand positions include a large number of high skilled jobs in the trades (plumbers,

electricians, carpenters etc.), technicians to work in advanced manufacturing and supply chain management specialists. New employment will be generated in areas including software development, logistics, and management.

An average of 13.5 per cent of jobs in these areas will require reskilling, again higher than the national average at 10.5 per cent. For these 10 constituencies, manufacturing appears to be the sector that would require the most upgrading of skills.

Across the country, there is growing demand for financing solutions that combine climate action with social benefit, helping to decentralise and democratise the investment process. Recent research highlights the importance of external finance as a key component in the development of entrepreneurial ecosystems that will be essential if the economy is to be levelled up across the country (British Business Bank, 2020). As well as seeking finance from existing providers there is potential to tap the substantial financial resources that exist across the UK in terms of savings and pensions: there is around £4bn of investable wealth per 100,000 people in the UK (Abundance, 2020).

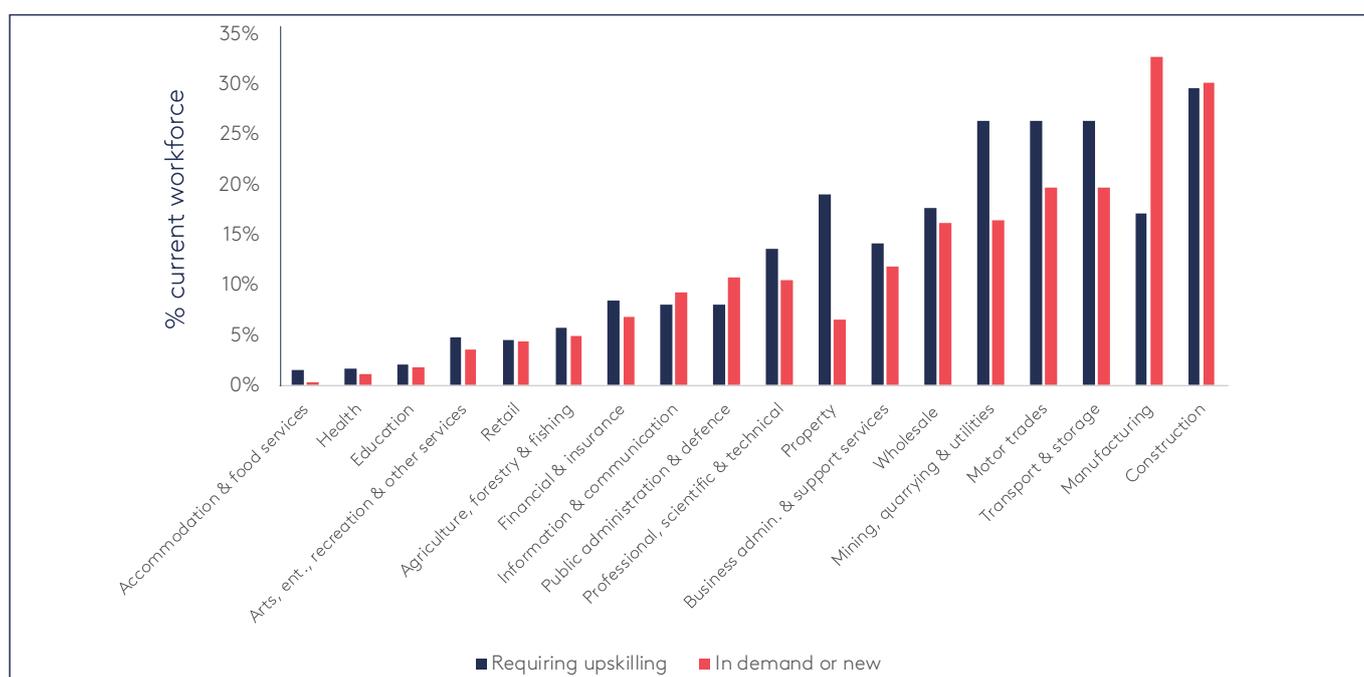
In Table 2.3 on the following two pages we profile some cities, counties, regions and devolved nations and their work to connect climate action, social justice and finance.

The just transition is very relevant for rural areas, as well as for urban communities. For example, the Leading Edge group of rural councils has identified a ‘policy corridor’ in England, which argues that important regions that do not have a major city or urbanised population are not prioritised in policymaking (Leading Edge, 2019). These include parts of the South West, much of East Anglia, and parts of Yorkshire, Cumbria and Northumbria.

Just transition priority 3: sector-specific

The transition will impact the economy in a range of different ways. In a single generation, new industries need to be developed, others wound down, and still others to introduce technologies and practices yet to be developed. Processes that historically have taken decades will need to be compressed into a few years. Workers are one of the key stakeholder groups in the just transition and will be impacted by both the quantity and quality of work involved. Across the UK, we estimate that one in five jobs, around 6.3 million jobs in total, will be affected by the transition (See Figure 2.3). This means that one in 10 workers has skills that will be in high-demand – a positive consequence of the transition – and one in 10 will need upskilling (Robins et al., 2019).

Figure 2.3. Employment implications of the transition on different sectors in the UK



Source: Authors

Table 2.3. Work happening across the UK to connect climate action, social justice and finance

BIRMINGHAM AND WEST MIDLANDS



Birmingham's climate emergency declaration committed the city "to be net zero carbon by 2030 or as soon after as a just transition permits". Considerable emphasis is being given to achieving a just transition that "takes communities with us, protects employment and without impoverishing deprived communities". Across the broader West Midlands, the goal is "to meet the climate crisis with inclusivity, prosperity and fairness". The Combined Authority's climate plan highlights the importance of financial innovation to deliver its goals including green bonds and community share issues, as well as new financing solutions for housing retrofit and to provide support for people in 'at risk' industries (West Midlands Combined Authority, 2020a). The region's COVID-19 recovery plan also highlights the potential for creating green manufacturing jobs (West Midlands Combined Authority, 2020b).

BRISTOL



Bristol City Council issued the City Leap Prospectus in 2019, a request for proposals to attract, facilitate and deliver up to £1bn of low carbon and smart energy infrastructure investment in Bristol's energy system over the next 10 years. The prospectus attracted over 180 expressions of interest from across the world (Energy Service Bristol). The social dimension has been designed into the Prospectus to create "a healthier and fairer city for all our residents", and in the Mayor's words to "build a resilient city where no one is left behind". The Prospectus builds on the city's cluster of green and social finance expertise involving banks (such as Triodos), asset managers (such as Rathbones) and pension funds (such as Brunel).

CORNWALL



As one of the most disadvantaged areas in Europe, Cornwall is highly vulnerable to the social, economic and environmental impacts of climate change. Cornwall was one of the first local authorities to produce a detailed and costed plan to become carbon neutral by 2030. The Council aims to ensure that social justice is at the heart of its decision making by embedding a new decision wheel, utilising the 'Doughnut Economics' model developed by Kate Raworth (Raworth, 2018). Attracting finance is a key priority, potentially through a dedicated sustainability fund, the growth of anchor finance institutions in the South West region and by mobilising local savings for the transition process.

LEEDS



Leeds' Climate Commission has identified a key challenge to be "to ensure that the transition is a just and inclusive one – with steps being taken to ensure that people and places are not left behind and that all social groups and economic sectors participate in and benefit from the transition" (Leeds Climate Commission, 2019a). The city has taken an innovative approach to understanding what this means in terms of practical financing solutions. The Leeds City Region already has a Revolving Investment Fund to provide development finance for opportunities that cannot access private finance. The city's Citizen Jury has also identified a number of financing priorities to maximise local involvement in the transition, including the issuance of Community Municipal Bonds to tackle the Climate Emergency (Leeds Climate Commission, 2019b).

LONDON



London's Sustainable Development Commission has proposed the establishment of a new Future Finance Facility. Although the City of London is a global leader in green finance, efforts to implement the city's ambitious climate goals are hampered by institutional fragmentation. The new Facility would have the goal of delivering the investment London needs to decarbonise and thrive in a world with a changing climate. It will have a focus on delivering a just transition, supporting disadvantaged communities and creating jobs for all (London Sustainable Development Commission, 2020).

NORTHERN IRELAND



Housing has emerged as a key priority in the transition in Northern Ireland, alongside the rural economy. Fuel poverty almost halved from 42% to 22% from 2011–2016, partly due to the devolved government's energy efficiency programmes, which invested £298 million. But fuel poverty remains double the level of England. In addition, with investment in the gas network lacking historically, 68% of houses are still heated with oil, which is high in cost and emissions, has significant impacts on public health and wellbeing and operates at a considerable economic loss, with a large proportion of energy spending going on imported fossil fuel resources. Dedicated green bonds with a dual just transition focus on both decarbonisation and fuel poverty could provide a mechanism for Northern Ireland Housing Executive to upgrade 80,000 low income homes, including through the installation of district heating and heat pumps.

SCOTLAND



Scotland has taken the lead in the UK with its Just Transition Commission. The Commission's emerging findings provide important insights on how finance and investment can ensure that "the benefits of climate action are shared widely, while the costs do not unfairly burden those least able to pay" (Scottish Government, 2020). This includes future financing for agriculture, the North Sea oil and gas sector, and low-carbon heat and infrastructure. In addition, the law establishing the new Scottish National Investment Bank sets an overall mission of "promoting or sustaining economic development or employment in Scotland" (Scottish Parliament, 2020), and the Bank will promote environmental wellbeing (including the country's net-zero emission target) as well as just transition principles. This is probably the first time that the just transition has been written into the mandate of a financial institution.

WALES



Wales's pathbreaking Wellbeing of Future Generations Act requires public bodies to consider the long-term impact of their decisions, to work with people and communities, and to mitigate long-term issues such as poverty, health inequalities and climate change. The Act provides a framework for tackling the just transition. The Welsh Government has also introduced its Prosperity for All: A Low Carbon Wales strategy, connecting the environmental and broader socioeconomic dimensions of the transition. In addition, the Welsh Economic Contract obliges companies seeking support from the government to enter into ongoing dialogue and commit to a "something for something" approach (Welsh Government, 2019). Wales also has the Development Bank of Wales (Banc Datblygu Cymru) which manages its impact across four themes: Prosperity and Global Opportunity, Decarbonisation and Environment, Innovation and Digital Inclusion, and Communities, Health and Social Inclusion.

Clearly, the COVID-19 crisis has impacted many workers, driving up unemployment and putting many more jobs at risk. The crisis has also brought forward restructuring risks for climate critical sectors such as aviation and oil and gas and has accelerated the pace of economy-wide digitisation. But equally, it has stimulated intense focus on how accelerated action to green the economy could lead to significant employment creation, with jobs offering decent working conditions. Improving the efficiency of the building sector is a key focus of recovery planning, with one estimate suggesting that investment in home renovation to meet the net-zero target could support more than 150,000 skilled and semi-skilled jobs to 2030 (EEIG, 2020). This aligns with the conclusions of our analysis which shows that construction is the key sector to focus on from a just transition perspective. Around 60 per cent of construction jobs will be impacted, both in terms of jobs that will be more in demand and those that will require reskilling as building renovation expands (see Figure 2.3 above). The specific financing challenges around a just transition in the housing sector are addressed in the next section and in more detail in our accompanying brief on the sector (forthcoming).

Financing the just transition will require attention to the specific dynamics across the economy and some of the other key sectors are profiled in the Appendix.

3. Putting the just transition at the heart of banking

The banking sector can play a critical role in providing the capital and financial expertise needed to realise a just transition. This section covers:

- The case for banks to support the just transition
- Recommendations to embed the just transition in banking practice
- What this means in two priority areas: SMEs and housing
- Next steps for banks

The case for action

Reinforcing trust by aligning with a just transition

The purpose of banks and building societies is to serve the real economy over the long term. At the most basic level, they do this by supporting economic activity and capital allocation in the economy in ways that underpin prosperity and financial stability. The financial crisis of 2008/9 left a legacy of mistrust in the sector which has not been fully overcome. However, banks continue to play an essential role in the economy, as demonstrated by the Government's use of the sector to transmit its financial support to businesses during the COVID-19 lockdown. A recovery from the pandemic that demonstrates how the sector can support households and businesses through difficult adjustments, how it supports regional regeneration and recovery and how it is helping to tackle climate change would do a great deal to rebuild trust.

For banks to align with a just transition to a net-zero economy, they will need to act on the fact that all the activities of customers, as well as those of the banks and building societies themselves, have direct and indirect impacts on both carbon emissions and the creation of social value. Banks serve retail and wholesale customers through a range of products and services including financing mortgages, helping people make payments, plan pensions and travel abroad for work and holiday, as well as being a repository for their savings. They also offer a range of services to corporate customers, small, medium and global companies. On the sell-side banks issue bonds and equities, they underwrite corporate and sovereign bonds and they provide high-level services that facilitate transactions of UK-based corporations and global financial market activities, e.g. fixed income, currency and commodities (FICC) and derivatives. How banks manage climate risks and ensure social inclusion – including support for customer resilience in the face of extreme weather events – is increasingly central to banks' core task of serving the real economy.

Compared with insurers and institutional investors, banks and building societies have often not been as advanced in understanding the extent of the changes to business thinking and practice that acting on climate change requires. There is now growing awareness of these implications and a welcome determination to measure and manage climate risk and to introduce sustainable finance innovations

Box 3.1. Examples of climate targets set by leading UK banks

- **Barclays** has pledged to be a net-zero bank by 2050, aligning its entire financial portfolio with the goals of the Paris Agreement (Barclays, 2020).
- **HSBC** has committed to providing and facilitating US\$100bn of sustainable financing and investments by 2025 (HSBC, 2020).
- **Lloyds** has committed to reducing the carbon emissions that it finances by more than 50 per cent by 2030 (Lloyds Banking Group, 2020a).
- **NatWest** has committed to at least halve the climate impact of its financing activity by 2030 and will withdraw support from fossil fuel sectors that are not net-zero-aligned by the end of 2021 (RBS, 2020).
- **Santander** has committed to raising €120bn in green finance from 2019 to 2025 and €220bn to 2030 (Santander, 2019).

in the market (such as green mortgages and sustainability bonds). Over the past year this has led to the realisation from UK banking leaders that further efforts are needed to deliver the required transformation, with some of them accepting that this has implications for every aspect of their business models (see Box 3.1 above).

Aligning with stakeholder expectations

Core stakeholders in the banks – regulators, customers and investors, plus citizens and civil society – are increasingly calling for more effective action on climate change. The sector’s regulators in the UK, the Prudential Regulatory Authority (PRA) and the Financial Conduct Authority (FCA), have issued a joint statement declaring that climate change, and society’s response to it, present financial risks. The statement says that few firms in the banking and insurance sectors are yet taking a strategic approach that considers how action on climate change today affects future financial risks. New regulation to encourage this strategic approach is coming, not least in the form of the system-wide stress tests exemplified by requirements of the Bank of England’s 2021 biennial exploratory scenario (BES) on the financial risks from climate change.

Customers are also expressing growing interest in how financial institutions are managing the savings they entrust to them. There is significant growth in demand for products that have considered environmental, social and governance (ESG) issues. However, there remains a mismatch between the unprecedented levels of public concern over climate change and the banking products that are routinely offered to individual and business customers.

Finally, institutional investors, themselves under pressure from their own clients and regulators to do more, are increasingly focused on the performance of banks in the transition. More than 150 institutional investors with over US\$10 trillion in assets have committed to support the just transition in their portfolios. Although the initial focus has been on high-carbon sectors such as energy and oil and gas, the key role of banks as allocators of capital is under increasing scrutiny. A resolution brought by a group of shareholders in Barclays in 2020 was one of the first to explicitly mention the need for a bank’s balance sheet to be deployed in line with the goals of the Paris Agreement. This resolution was also one of the first to explicitly mention the importance of the just transition as an investor expectation.

Responding to material value drivers

Addressing the needs of the customers, small businesses (including social enterprises), workers and communities in the transition is increasingly material to value creation in the banking sector, for example by impacting the ability of customers to repay loans as technology changes.

One risk is that the sector could respond to this growing stakeholder interest with an approach that focuses too narrowly on the physical and transition risks of climate change and on how to reduce their exposure to what could become ‘stranded assets’. Banks could inadvertently become agents of precipitating not only stranded assets, but also stranded workers and communities, in what we have termed ‘greenlining’ (see Box 3.2 below).

Another possible challenge that banks will need to manage transparently is the potential for the just transition to be misused as an excuse for reducing ambition on climate change. The USA offers an example where apparent concern for jobs in fossil-fuel sectors such as coal have been manipulated by President Trump to pull out of the Paris Agreement. Instead, the just transition is designed as a strategy that accelerates the drive to a net-zero economy, and it does this by ensuring that affected workers and communities are part of the process of change. Banks can work with their customers in the vulnerable sectors and regions to identify positive pathways to new net-zero opportunities.

Box 3.2. Greenlining – unintended consequences of climate risk assessment

If banks take a narrow approach to managing climate risks, there could be unintended negative societal consequences as they withdraw lending based on environmental factors. This action could be called ‘greenlining’.

For example, banks could withdraw capital from businesses in high carbon sectors that pose an elevated credit risk. Doing so could crystallise these risks and prompt a premature stranding of assets, with potential spillover effects along supply chains and in communities before there has been the chance to put in place mitigation measures. Another example: mortgage lenders could identify households in energy-inefficient buildings as facing increased credit risks as the country shifts to net-zero, removing support from vulnerable consumers.

This challenge of greenlining is not an argument for banks to slow efforts to support the transition. Rather it is a powerful case for banks to incorporate a just transition filter into their climate risk analytics and consider the second and third order implications at a strategic level across customer groups.

Creating new opportunities

Providing the capital and expertise that will accelerate the transition to an inclusive, resilient and net-zero economy clearly will require a comprehensive approach from banks. It will extend beyond a prudent focus on risk reduction to an active strategy to support customers and communities through the process of transformation. In so doing, a major opportunity exists for the banking sector to reconnect with customers and communities and become a leading protagonist in the complex task of reconstruction. The COVID-19 crisis has highlighted how banks have a reach and technical capacity to meet complex needs across the economy – qualities that will be vitally important for the inclusive, sector-specific and place-based challenges of the just transition. It remains clear, however, that alternative and non-bank finance reach parts of the economy banks cannot, e.g. some SMEs. While ensuring that banks play a central role, care will be needed to continue to support diversity of supply of finance.

The just transition reset: eight recommendations for action by banks

A recent survey of European banking practice concluded that “the idea of ensuring a just transition is generally not reflected in banks’ climate strategies” (ShareAction, 2020). This is now set to change as it becomes clearer to banks that adopting a comprehensive approach that is rooted in the just transition, incorporating both the opportunities as well as the risks, offers a strategy for long-term success.

In the coming decade and beyond, supporting a just transition amounts to a reset of core elements of banking operations and we recommend action across eight areas, discussed in more depth below:

- **Recommendation 1:** Board and senior executive leadership commit to ensuring that the just transition agenda is incorporated into institutional strategy and culture
- **Recommendation 2:** Make the just transition central to the bank’s core purpose and culture
- **Recommendation 3:** Outline a clear institutional strategy for how the bank plans to operationalise its just transition commitments
- **Recommendation 4:** Serve customers by developing a core portfolio of financial products and services that helps them achieve net-zero in a socially inclusive manner
- **Recommendation 5:** Work with stakeholders to respond to diverse place-based needs
- **Recommendation 6:** Engage actively in policy to encourage the right enabling framework
- **Recommendation 7:** Engage in dialogue with others to develop breakthrough partnerships
- **Recommendation 8:** Increase accountability by reporting on progress against just transition goals

1) Leadership: The role of the board and Non-Executive Directors (NEDs)

Banks' boards are responsible for organisational strategy and long-term viability of the business. They are also responsible for ensuring that an appropriate culture prevails in the firm. Therefore, they have a central role in ensuring that the just transition agenda is incorporated into institutional strategy and culture. The chair of the board can play a crucial role in this by signalling the importance of the topic to senior management and committing to regular, at least annual, board reviews of both the liabilities and opportunities associated with climate change and the role of the bank in social reconstruction.

Non-Executive Directors (NEDs) are also critical and particularly the chairs of the board sub-committees.⁴ One NED could be nominated to report to the board on senior management's strategy and internal management of climate risk and opportunity and on what social justice means to the bank. The chair of the Risk (or Audit and Risk) Committee could be tasked with considering the executive's plans to manage climate risk and undertake regular reviews on climate change and other environmental impacts on the company's portfolio. The Remuneration Committee chair could ensure that management of societal expectations and climate risk are incorporated into remuneration policy, by setting targets aligned with the company's commitment to climate action with positive social impact and by introducing metrics to evaluate progress. Finally, the Nominations Committee chair could ensure that competency on these issues is a basic requirement of all NEDs and if current NEDs do not hold this competency, the Nominations Committee chair should arrange for training to provide it. As this committee also has oversight of human resources functions, it should be satisfied that adequate arrangements for inclusive employment practices, staff training and awareness raising in just transition principles are in place.

2) Core purpose and culture

An important first step for the Board and Senior Management is to make this agenda central to the bank's core purpose. An organisation's culture shapes management decision-making, reveals what is important to senior management and therefore what gets translated into day-to-day activity. For staff and customers to be persuaded that the bank cares about the just transition requires a clear statement of commitment to be embedded in the company's strategic objectives and business model. It also requires a comprehensive package of awareness-building and training to support staff to understand what is required and why. This will not always be easy. But any just transition strategy will be much more effective if bank personnel are inspired and motivated by the challenge of meeting the banks' revised commitment to purpose. A growing number of UK banks are committing to the UN Principles for Responsible Banking as a way of defining their institution's purpose (detailed further later in this section).

3) Strategy

How the bank plans to operationalise its purpose should be outlined in a clear institutional strategy: an action plan that covers culture, governance, risk, opportunity, compliance and treatment of customers. The strategy should identify clear targets and be accompanied by milestones and metrics that link progress to targets to financially reward all bank employees, including senior executives. These milestones and targets could include new non-financial targets designed to address changing societal and regulatory expectations, and internal demand from staff and management. One important element of this strategy is to set out sustainable finance frameworks, notably for banks' own bond issuance, showing how social and environmental factors come together (see Box 3.3).

4. Here, there are potential synergies with existing initiatives such as Chapter Zero, an initiative working to help non-executive directors engage with the potential risks and opportunities of climate change and take this discussion into their boardrooms.

Box 3.3. Banks and sustainable finance: examples of emerging bond frameworks

- **Barclays** has a Green Bond Framework that is used to issue Barclays Green Bonds; the bank uses the proceeds to lend to environmental projects and companies, including mortgages, real estate development and corporate loans in energy, transport, and green building. Barclays facilitated £34.8bn of environmental and social bond finance in 2019, of which £24bn was social finance (Barclays, 2019a; 2019b).
- **HSBC** has developed a Green Bond and an Sustainable Development Goal (SDG) Bond framework, the latter covering health, education, water, clean energy, infrastructure, sustainable cities and climate action. HSBC issued US\$36.7bn in green, social and sustainable bonds between 2017 and the end of H1 2019 (HSBC, 2017; 2019).
- **Lloyds'** Sustainability Bond Framework is designed to direct finance towards the UN's Sustainable Development Goals and align with its Helping Britain Prosper Plan. Lloyds has issued more than US\$4.9bn in green, social and sustainable bonds, including an ESG bond focused on deprived areas of the country (Lloyds Banking Group, 2019a; 2019b).
- **NatWest's** Sustainability Bonds framework is designed to "attract dedicated funding for loans and investment that bring a positive environmental and social impact" such as renewable energy, SME lending and access to essential services. RBS issued US\$3.7bn in green, social and sustainable bonds in 2018 and 2019 (RBS, 2019a; 2019b).

Particular attention can be paid to risk management. There is growing demand for finance as a whole to disclose climate-related risk management. The Task Force on Climate-related Financial Disclosures (TCFD) has already thought a great deal about what investors and insurers should disclose in order to demonstrate that they are paying adequate attention to the risks of climate change. The just transition offers huge opportunity as well as risk. The TCFD calls for disclosure on policy, technology, market and reputation risks and opportunities provided by resource efficiency, energy use, products and services, access to new markets and resilience. Banks could build on the TCFD framework to identify how the social dimension of the transition can be incorporated into the reporting framework of the TCFD and articulate how they are managing these issues.

4) Customers

The strategy could address the bank's approach to serving customers, providing appropriate goods and services, lobbying for the best possible enabling environment and systems innovation.

All customers have social and environmental impacts. Banks will need to develop expertise to think about what different customers require and how this should influence the range of products offered to retail and wholesale customers – individuals, households and SMEs as well as corporates and the public sector – to ensure they are consistent with the need for both climate action and positive social change.

Banks can usefully think about customers in their loan book in the following ways:

- **Customers who are providing green solutions:** Efficient funding should be offered to firms seeking to further or enable the transition through new technologies, business models and other solutions. Start-ups will often need grant and equity funding from outside the banking sector. Banks can also provide lending for companies in the growth and expansion phase.
- **Customers who are green adopters:** Banks are already introducing specific products to assist households and firms seeking to green their lifestyles and operations. Ecology Building Society has been a longstanding green mortgage provider, with discounts to incentivise energy-efficient newbuild and renovations. Recently, Nationwide has introduced a mortgage top-up product to support green building renovation at a lower interest rate to the standard mortgage rate (Nationwide, 2020). For business, Lloyds Bank's Clean Growth Financing Initiative enables firms to access discounted lending for green purposes (Lloyds, 2020). The desire now is for such

measures to become widespread across the whole sector, and for the products to reflect the social dimension, both to recognise vulnerability and also to seek out opportunities for positive impact.

- **Customers who are vulnerable in their exposure to the transition:** For firms in high-carbon sectors, regions or supply chains (grey firms), banks should consider how funds they lend can reflect the increased potential liabilities associated with future penalties or regulations. To be fair and seen to be fair, these costs should be managed in ways that actively reward positive transitional moves, for example re-skilling and redeployment of workers, or retrofitting of housing to increase energy efficiency. Attention should be paid to the banks' role in supporting those hardest hit by the transition, including some SMEs that may be especially vulnerable. Many such firms and households will need a trusted partner to help them understand what is required and access appropriate finance.
- **Sell-side activities:** Banks also serve corporate customers via their sell-side activities. They play a key role in issuing bonds and equities and in underwriting corporate and sovereign bonds. They also provide investment research. As interest in the role of finance in making markets greener and fairer increases, customers will be seeking to understand how banks are supporting these goals. There will be greater scrutiny of whether banks are supporting the growth in green bonds and the extent to which their investment research capabilities cover this agenda. It is already apparent that alternative research providers are developing significant expertise in competition to the banks and, likewise, investors are finding other intermediaries to facilitate the issuance of, for example, green bonds. Bank strategy should therefore explicitly outline the role of the sell-side in the company's plans to support climate action with social outcomes. Banks themselves are also a significant issuer of fixed income bonds and UK banks have already issued a number of green, social and ESG bonds; these could be a platform for a more sustained strategy of issuance connecting the environmental and social dimensions of the transition.

Disaggregating customers in this way will enable banks to develop greater expertise about what customers want and need, and facilitate innovation in products and services, which could include:

- **Flexible finance:** The capital-intensive nature of many transition requirements mean that banks can usefully think of how to build flexibility into product offerings such as interest rates, maturity and repayment timelines. Likewise, banks can offer preferential credit rates or invoice financing to SME suppliers and firms delivering large infrastructure projects whose aims are aligned with the transition, such as railway improvement projects. It will be important here not to introduce perverse incentives.
- **Supply chain innovation:** Banks can introduce innovative schemes to provide financial incentives and certainty to approved suppliers of large corporations and other anchor institutions by offering preferential credit rates to cover the costs of transition/investment expenditure. HSBC's recent offering to Walmart in Mexico is an example of the type of innovation that is possible (HSBC, 2020): the bank offered preferential credit rates to approved suppliers, which had met certain sustainability standards assured by Walmart. Similar arrangements for joint ventures between banks and large corporations could be put in place to provide a clear, quantified financial benefit in return for best-in-class supply chain practice in activities that support a just transition to net-zero.
- **Sustainability expertise:** Banks can play a crucial role by becoming a trusted partner or adviser to firms on the net-zero future. This would include helping them understand the government guarantees already on offer, such as the Enterprise Finance Guarantee Scheme of the British Business Bank, designed to help firms with a sound borrowing proposal but insufficient security for the bank.

5) Place-based finance

International evidence suggests that strong local banking systems have a positive impact on regional economies (Burghof et al., 2020). The British Business Bank has also recently evidenced the importance of banks in the development of innovation ecosystems (British Business Bank, 2020). Unlike other countries, the UK largely relies on a relatively small number of national-level commercial banks to meet regional needs. The business models of the UK's large high street banks depend increasingly on algorithms and digital calculations to assess the creditworthiness of customers, replacing the skills and expertise that were previously held by local bank managers. The physical presence of banks is declining across the country due to the rise of internet banking and consequent branch closures. To level up the economy means ensuring that the regions have strong and responsive local banking services, both through dedicated anchor institutions and mainstream banks that are based in local realities.

Some banks are recognising the implications of the likely changes in working practices as a result of COVID-19: higher levels of homeworking are likely to be maintained, for example, leading to new requirements for enhanced business expertise in a larger number of locations than before. As banks adjust to the new reality, consideration of how to reconfirm their commitment to enhanced place-based expertise will also be invaluable for thinking about what will be needed for a successful transition. Some banks already publish postcode data of personal, mortgage and SME lending. This data can be used to support the just transition to enhance regional and local knowledge and be shared with others who are designing strategies to address the just transition.

Banks could play a key role as anchor financial institutions in regional and local regeneration initiatives structured around the just transition. This includes an essential brokerage role in debt deals agreed between companies, consortia and regional development funds. And they can think creatively about how to provide support to anchor institutions, such as leading businesses, hospitals, universities or local authorities, and their supplying companies and knowledge networks. Where banks are unable to provide financing due to commercial constraints they can support local firms by referring them to the British Business Bank's regional network.

As banks withdraw from many high streets, it will be important for them to consolidate sustainability expertise so that it can be accessed across the country. This means enabling regional managers to raise awareness, make referrals and provide certain types of regulatory-compliant advice. Bank regional managers can also be trained and encouraged to utilise existing allocations and to use any future 'green' allocation provisions.

6) Policy

Banks and other financial institutions also have an important role in creating the right enabling environment for the transition and driving the innovation that is needed at the level of the financial system as a whole.

Banks can use their influence to advocate to government the need for an ambitious roadmap supported by credible incentives and predictable rules. Beyond their direct operations banks can support putting inclusive climate action at the heart of economic policy for 'levelling up', financial regulation and the role of public finance institutions. This could include the banking sector making submissions to the Budget (fiscal, public finance), inputs to the design of UK-wide industrial, energy and climate strategies, inputs to devolved nations, regions and city initiatives, responding constructively to Bank of England and other regulatory action on climate, and promoting disclosure of targets and progress towards the just transition.

7) Partnerships for system innovation

Traditional banking alone is unlikely to be sufficient for the task in hand. Banks can help identify the limits to the purely market-based solutions and help clarify where transformational action is needed in finance. Some banks are already engaged in social inclusion programmes to support, for example,

improved access to bank accounts for people with no fixed abode. These innovative programmes have meant identifying new ways of serving customers that have important lessons for thinking about just transition partnerships.

Such collaborations could also involve supporting the evolution of a more diverse financial ecosystem at the local and national levels; identifying need and then thinking about the requisite financial institutions and platforms to meet that need; supporting new incentive regimes and tax breaks; more in-depth thinking around the currently separate Net-Zero and Inclusive Growth agendas; deploying existing financial incubators and innovation labs to tackle this challenge; and exploring links with the investment community (e.g. private debt funds). The new ecosystem will need to factor in capital mix, climate risk, fintech, institutions, real economy connections and citizen engagement. The UK is a leader in fintech and the expertise of this community can be harnessed to develop solutions to the just transition 'use case'.

Not all needs in the transition will be commercially viable. Individual banks can therefore enhance internal capacity to collaborate and experiment with government, community development finance institutions (CDFIs) and impact investors. This means collaborating with civil society, social finance, and possibly public finance to create blended financing models for use in areas of market failure. Banks can also play an active role as partners to incubators and pilot projects for breakthrough innovations.

Non-bank financiers can also make a significant contribution to the transition. Many of the recommendations above also apply to asset finance, equity finance and market-based finance. In addition, there is a specific opportunity for banks to enter into partnership with specialist financiers to ensure access to finance for sectors and businesses that banks cannot finance themselves, e.g. equity finance has particular skill in assessing the collateral value of SMEs, including depreciation and amortisation that banks could access through collaboration.

Bank and building society partnerships can also extend to creative engagements with external stakeholders that think about the core purpose of the sector, such as the Global Alliance for Banking on Values and the UNEP FI's Principles for Responsible Banking.

8) Accountability: Reporting on the strategy

Progress against the bank's purpose and strategy on the just transition and how it will be operationalised then needs to be reported in the Strategic Report in the firm's Annual Report and Accounts. This would signal to investors and other bank stakeholders management's view that this agenda is central to the organisation's long-term success. Easily accessible, fundamental information about how the bank plans to manage sustainability and societal expectations would allow investors to understand and evaluate how the banks they invest in are addressing environmental and social factors as they are required to under Section 172 of the Companies Act and under the Financial Reporting Council's new Stewardship Code, which came into force in January 2020. This could be linked to the proposal to build on the work of the TCFD, outlined above.

Bringing banking on the just transition to life: case studies of SMEs and housing⁵

SMEs: supporting the UK's economic backbone in the transition

The SME sector is essential to delivering a just transition. In aggregate, SMEs contribute a large proportion of the UK's greenhouse gas emissions (an EU study estimates UK SMEs contribute 53 per cent to 'environmental impact', including greenhouse gases [Constantinos et al., 2010]). At the same time, they generate employment, economic prosperity, innovation and social cohesion, especially in deindustrialised, rural and semi-rural parts of the country.

5. See our separate, longer case studies of SMEs and housing in policy brief form, forthcoming (end July 2020) at www.lse.ac.uk/granthaminstitute/publications

The SME sector is dispersed, diverse and complex. All SMEs will need to meet the legal requirement to reduce emissions to net-zero by 2050. The considerable challenges they face in doing so have been compounded by the COVID-19 crisis, which has left many SMEs highly indebted, some in need of recapitalisation and others bankrupt. Between March and June 2020 SMEs borrowed an extra £40bn through government loans schemes, giving rise to concern about their capacity service this debt.

Some SMEs offer green solutions, technologies and business models that will enable the transition. Others are green adopters, seeking to decarbonise their operations. And some are vulnerable to exposure in the transition. These include SMEs in high-carbon sectors, regions or supply chains as well as firms providing hospitality and services. These SMEs are likely to be hardest hit by the transition and require most help.

Post-COVID-19 reconstruction will be extremely challenging to SMEs, but it also offers an opportunity for them to reimagine their businesses in terms of sustainability. To do this means providing support to service the debts accrued during the lockdown as well as improving their access to finance – debt and equity. They also need access to more business, financial and legal advice. To take action, SMEs need to be persuaded of the commercial importance of becoming more sustainable and the negative consequences of not doing so.

Specific steps that banks can take to support SMEs include:

- Design and deliver tailored products to SMEs, introduce sustainability services, build flexibility into existing products and support SMEs in supply chains. This will help SMEs to invest in their future in a way that boosts productivity of labour and capital by ensuring they are aligned with net-zero.
- Ensure that solutions for SMEs have a high priority in place-based financing packages, working with, for example, local authorities and providers of alternative finance seeking to promote the net-zero future in the regions.
- Focus new blended finance initiatives, bringing together banks, public finance, alternative finance providers and impact investors, on the needs of SMEs.

Actions that government need to take to support SMEs include:

- Introduce a sector-specific just transition roadmap with clear goals, timelines and interim deadlines.
- Extend the mandate of the British Business Bank (BBB) to support SMEs in making the just transition.
- Make specific provision for SMEs in the Shared Prosperity Fund and other development funding, prioritising funding for SMEs contributing to the just transition.
- Introduce changes to fiscal policy, public procurement and expenditure to provide support to those SMEs focusing on decarbonisation and social value.

Housing: decarbonisation with inclusion

To meet the UK's net-zero emissions target will require a rapid decarbonisation of the UK's entire building stock well before 2050 – and the alignment of all housing finance with this goal. The UK's 28 million homes are responsible for 20 per cent of the country's annual emissions (Green Finance Institute, 2020a) and progress to decarbonise has so far been inadequate. Decarbonisation will be achieved through retrofitting existing housing stock and ensuring zero-carbon construction of new housing.

To achieve a just transition in housing means ensuring that the process of decarbonisation is delivered fairly across different household groups and tenure types – owner-occupied, private rented and social rented. Acknowledgement is needed that ability to pay does not necessarily match tenure type – 46 per cent of those in fuel poverty are owners-occupiers, for example (HM Government, 2019c); and energy costs are proportionately higher for people on lower incomes. A just transition also means delivering decent working standards with high skills throughout the construction value chain and addressing resilience to weather-related shocks.

The construction sector has been hard hit by COVID-19. Concerted government and financial sector responses can support a recovery that delivers climate action and social value, including the creation of much needed employment.

Banks can support a just transition in the housing sector in a number of ways:

- Commit to net-zero, resilience and social impact goals in housing-related lending and investment (e.g. introduce green mortgages and community municipal bonds).
- Actively participate in the Green Finance Institute's Coalition for the Energy Efficiency of Buildings' savings and lending demonstrator projects that have a just transition focus, such as affordable rent, affordable living and leaseholder financing (GFI, 2020a).
- Create place-based partnerships with local authorities, cities and regions with ambitious housing decarbonisation plans to trial and test financial innovations in the building sector that could then be scaled up nationally.
- Introduce conditionality on loans to the construction industry to support decent work standards for workers and small businesses needed to deliver decarbonisation.

Government action is also needed to deliver the finance required for a just transition in housing, focusing on the following priorities:

- Introduce a post-COVID-19 stimulus package for the construction sector that combines decarbonisation, skills and retraining, job creation and locally-led, place based retrofit and energy efficiency programmes.
- Create a National Investment Bank with a mandate to support decarbonisation of housing, by providing long-term, low-cost capital as well as vital quality assurance.
- Address the barriers to the decarbonisation of housing identified by the GFI's Financing Energy Efficient Housing report through sector-specific policy interventions (e.g. VAT reform to stimulate energy efficient renovation and retrofit for social housing).

Conclusion: the next phase in banking action on climate change

The just transition is not yet-another framework for banks to adopt. Rather, it complements and builds on existing bank commitments to climate action and responses to societal demands. Looking through the just transition lens shows how banks can build on existing in-house initiatives to cut climate risk, increase green finance and build resilience over the long term. This means integrating the just transition within individual institutions and through collective initiatives, such as the Principles for Responsible Banking; Table 3.1 sets out how our recommendations match these principles.

Table 3.1. How our just transition recommendations match the Principles for Responsible Banking

Principles for Responsible Banking	Just transition recommendations for banks
PRB 1: Alignment	Rec 2: Make the just transition central to the bank’s core purpose and culture
PRB 2: Impact and target setting	Rec 3: Clear targets, milestones and metrics that link progress against targets to reward and remuneration
PRB 3: Clients and customers	Rec 4: Serve customers by developing a core portfolio of financial products and services that help them achieve net-zero in a socially inclusive manner
PRB 4: Stakeholders	Rec 5: Work with stakeholders to respond to diverse place-based needs Rec 6: Engage actively in policy to encourage the right enabling framework Rec 7: Engage in dialogue with others to develop breakthrough partnerships
PRB 5: Governance and culture	Rec 1: Board and senior executive leadership commit to ensure that the just transition agenda is incorporated into institutional strategy and culture Rec 3. Outline a clear institutional strategy for how the bank plans to operationalise its just transition commitments
PRB 6: Transparency and accountability	Rec 8: Increase accountability by reporting on progress against just transition goals
<i>Source: Prepared for the authors by Lydia Hascott, Finance Innovation Lab</i>	

4. The policy roadmap

Banks can make considerable contributions to the just transition through their own efforts, but their scope for action is significantly influenced by the policy regime in terms of the need to correct market failures, regulate the financial system and allocate public finance to generate public goods. For example, banks and other institutions should be innovative in stimulating the provision of more patient, long-term capital to finance a just transition. Yet, current incentives often discourage such an approach, requiring a policy response. This is an agenda with high potential for partnership between the financial sector and government.

The importance of strategic policy signals is particularly critical as the UK recovers from COVID-19. Combining climate action with post-COVID-19 reconstruction offers a once-in-a-lifetime opportunity to stimulate transformational change. Failing to make this transition will have catastrophic consequences for the UK's long-term economic prospects, locking in high-carbon business models, delaying the development of crucial industries of the future and increasing the costs of physical impacts. Likewise, "strong and timely action can increase confidence, improve expectations and channel productive private and public investment into a sustainable, inclusive and resilient recovery across the UK" (Stern et al., 2020). An ambitious and comprehensive roadmap is needed from the Government to provide the enabling rules, resources and incentives that can mobilise banks behind the just transition.

This section suggests ways that this could be done by embedding the just transition in six priority areas: strategic commitment, recovery planning, public finance, financial regulation, decentralised policies and global action.

Making a strategic commitment to the just transition

An ambitious and comprehensive roadmap is needed from the Government to provide the enabling rules, resources and incentives that can mobilise banks behind the just transition. Banks need this signal from government to reinforce their own efforts and overcome collective action problems. In the UK, the Government has already committed to levelling up and addressing the needs of communities and regions that have been 'left behind'. This can now be strengthened by embedding the just transition across the policy spectrum, articulated in four strategic steps:

- **Agreement of a just transition policy statement** to aid the achievement of the UK's net-zero and climate resilience goals. This would build on national and international models (such as the guidelines prepared by the International Labour Organization, 2015). The policy statement would then be applied across all relevant policies (e.g. agriculture, clean growth, energy, housing, industrial strategy and trade) as well as the spending decisions needed for the delivery of a resilient and net-zero economy.
- **Establishment of an independent, multi-stakeholder just transition task force** to advise the Government on how to translate this policy statement into specific measures. This could draw on the experience of Scotland's Just Transition Commission, as well as international lessons from similar initiatives. The task force will be crucial to ensure that people have a chance to shape the transitions in their workplaces, communities and homes, rather than simply being on the receiving end of events.
- **Drawing up of just transition sector plans** for each part of the economy, building on the existing sector deals as part of the UK's Industrial Strategy. These plans would outline how the opportunities for positive social impact can be delivered and potential costs mitigated, including through social dialogue, skills and training and business development.
- **Initiation of a process to design just transition standards** for government, business and finance to apply in their operations, supply chains and investment decisions. The Standards

could consolidate existing best practice initiatives (such as campaigns for the Living Wage, and 'fair work') and develop shared approaches to dealing with the worker, community, consumer, small business and citizen dimension of the transition. Many of these elements are individually captured in the new Good Business Charter (Good Business Foundation, 2019).

Kick-starting the just transition through COVID-19 recovery plans

In the wake of the global financial crisis in 2008 and 2009, a number of governments introduced 'green stimulus' programmes amounting to just over 16 per cent of the global public finance boost (Robins et al., 2010). In 2020, following the COVID-19 crisis, governments will need to take a more comprehensive approach and design a programme for a sustainable and inclusive recovery that goes beyond a short-term fiscal stimulus. This could help to kick-start the achievement of the just transition in the following ways:

- **Aligned with Paris:** The UK's recovery plans must be consistent with the Paris Agreement. The plans should accelerate the delivery of the UK's net-zero target and resilience planning. Any support for currently high-carbon sectors must be contingent on the development of measurable net-zero emissions transition plans; this could be achieved by amending the articles of association for major corporations to include commitment to the Paris Agreement. The imperative of the just transition should be woven throughout, involving workers and communities in their design and delivery.
- **Targeted stimulus:** A sizeable proportion of any stimulus spending should be directed to sustainable growth opportunities, with a focus on boosting economy activity in regions with high unemployment and strong indicators of multiple deprivation. This would see a focus on a portfolio of measures that have high economic multipliers, generating both a boost to short-term employment and to long-term productivity enhancements through investments in skills, innovation and infrastructure (Hepburn et al., 2020). A wealth of productive options exists, including renewable energy and energy storage, retrofitting housing, green hydrogen and carbon capture and storage (CCS), public transport and electric vehicles, as well as land-use, adaptation and nature-based solutions. To avoid the precarious conditions that have been revealed in the current crisis, it will be important to implement strong social standards to make sure the stimulus is inclusive. This could be enabled through the creation of a dedicated Just Transition Fund as part of the recovery plan (IPPR, 2020).

In its July 2020 'Plan for Jobs', the Treasury introduced a number of measures to drive job creation through a green recovery. The centrepiece was over £3bn for decarbonisation in the public sector and social housing, as well as a Green Homes grant for homeowners and landlords (HM Government, 2020b). The linkage between the green recovery and social benefit was made in two measures: first, the new Social Housing Decarbonisation fund; and second, the provision in the Green Homes Grant for low-income households to receive double the level of the standard support at £10,000. Further recovery measures could follow later in 2020 and take forward the just transition agenda.

Channelling public finance to transformational opportunities

The bulk of the finance and investment for a just transition will come from the private sector and households, but public finance decisions are critical to reset market incentives and deliver important public goods in the transition (not least fairness, participation and regional engagement). The combination of the COVID-19 crisis, the UK's departure from the EU and the long-term net-zero commitment require important shifts in public finance policy and institutions. The result would be a platform for blended finance in the UK, cost-efficient for the taxpayer and transparent in terms of delivering positive social and environmental impacts. To be effective, this platform would need to be designed with much greater capability and capacity than current programmes and institutions. Four steps could lead this process:

- 1. Extend the mandate of the British Business Bank (BBB)** so that it has a clear commitment to support the UK's SMEs in achieving a just transition to a resilient net-zero economy. The Government could support this by allocating capital to support 'green' versions of tried and tested BBB mechanisms (such as the Enterprise Guarantee Fund) as well as seeding new approaches such as a dedicated Just Transition Investment Fund to develop impact investing opportunities in SMEs across the regions.
- 2. Establish a National Investment Bank with an explicit sustainability mandate** to support a just transition to a resilient net-zero economy (as proposed by Unsworth et al., 2020). This would complement the new Scottish National Investment Bank and the Welsh Development Bank. Building on national and international experience, the Bank could deploy a range of well-tested mechanisms to reduce risk and the cost of capital for projects that do not yet meet market risk: return expectations. This crucial market creation function would be focused on infrastructure (digital, energy, industry, transport, water and waste), buildings and potentially agriculture and land-use.
- 3. Apply the just transition policy statement to the design of climate-relevant fiscal policies.** This includes the taxation of fossil fuels and introduction of a new carbon pricing regime following departure from the EU. Judicious use of carbon tax revenues – where economic 'losers' are compensated – can help ensure distributional fairness and protection for fuel-poor households (Burke et al., 2020). In this way, it is possible to design a revenue recycling scheme that leaves fuel-poor and low-income households better off while driving the transition to net-zero emissions in the UK by 2050 (ibid.).
- 4. Issue a series of sovereign bonds to finance the just transition.** This could be guided through the development of a sustainable finance framework for sovereign bond issuance showing how the UK will issue a series of significant benchmark sovereign bonds to channel finance for the environmental and social expenditures required to deliver a just transition (Robins, 2020). This framework would provide the foundations for a family of green, social, sustainability and transition bonds through the 2020s. This issuance would be welcomed by investors (such as pension funds and insurance firms) who have unmet demand for high-quality sustainable assets. The process could commence with a sizeable green bond, focused on areas of high relevance for the just transition, with an impact measurement and reporting framework to track social and environmental performance.

Integrating the just transition into financial regulation of climate change

The work of the Prudential Regulatory Authority (PRA) and the Financial Conduct Authority (FCA) on climate change has transformed the way that banks and other financial institutions are addressing climate risk, adding regulatory expectation to other motivations for action such as client demand and market materiality. To date, these have focused on managing transition and physical risks. The social dimension of the transition has not yet been addressed; to do so, one starting point would be to articulate regulatory expectations of disclosure, notably through reporting according to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). To take on board the just transition, this would mean including social factors that are material to the understanding of how firms are managing climate change risks and opportunities within the TCFD framework. These include how employees are involved in these decisions, how human capital is being developed and how any restructuring is being managed to ensure a just transition is being delivered. As part of the next round of the Climate Financial Risk Forum, the PRA and the FCA could work with financial firms to explore how these social dimensions could be practically addressed.

The Bank of England's 2021 biennial exploratory scenario (BES) stress testing exercise on the financial risks from climate change provides another opportunity. The results of the BES could provide profound insights into how climate change could impact the UK's financial resilience at a regional level. For example, concentration risk either in terms of the net-zero transition or physical impacts could be

identified for specific parts of the country. This could be combined with key social data to understand where policy, corporate and business responses could be most needed, particularly to ensure that the transition does not have an unintended impact of leaving communities behind. The Bank of England's network of offices across the country could be usefully deployed to communicate the regional results of the BES to relevant stakeholders in business, finance, local government and civil society (including trade unions). Ultimately, the social dimension could be fully integrated into the stress testing models and scenarios.

Finally, a more tailored approach to regulation that differentiates between what needs to be centralised and what can be regionally determined as a way of stimulating secondary markets is needed. One possibility would be a requirement for banks and other finance providers to disclose geographical allocation of finance to enhance understanding of inflows to the local and national economy.

Supporting place-based action through decentralised policies

These policy and institutional steps at the all-UK level should also be designed in ways that empower and enable devolved, regional, local and community action on the just transition, ensuring that local people are involved in critical decisions. Activities in three UK cities, Edinburgh, Leeds and Belfast, give an indication of the investments required for transformational climate action and their impacts in jobs terms (Box 4.1).

Box 4.1. Reducing emissions in Edinburgh, Leeds and Belfast

Analysis from the Place-based Climate Action Network (PCAN) suggests that emissions in Edinburgh, Leeds and Belfast can be cut by over 50 per cent in the coming decade but that this will require investments of nearly £20bn from business, investors and banks, households and the public sector in these three cities (Figure 4.1). This investment could also be rich in terms of local job creation (Figure 4.2).

Figure 4.1. Investment (£m) required over the next decade in the three cities to meet emissions reduction targets aligned with capping global warming at 1.5°C

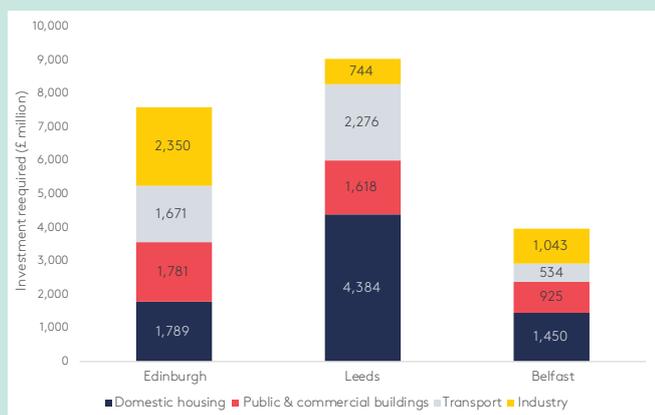
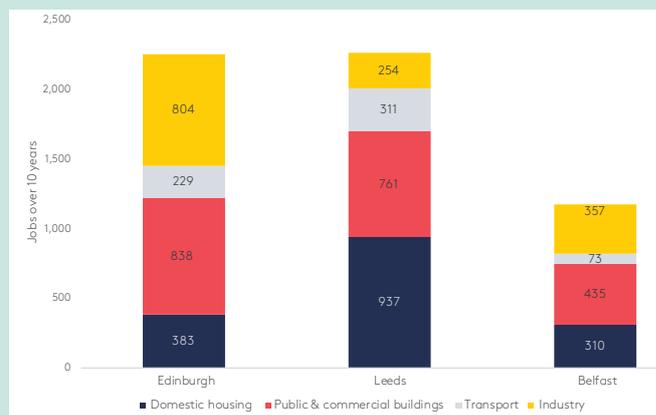


Figure 4.2. No. of jobs created by the investments made through the three cities' Low Carbon Roadmaps over the next decade



Data sources: Gouldson et al. (2020a); Williamson et al. (2020); Gouldson et al. (2020b)

Policymakers can take a number of steps to support place-based action on the just transition and encourage banks to fulfil their potential as anchor financial institutions. It will be important that these efforts to mobilise bottom-up action do not lead to a proliferation of different requirements across the country, but instead provide practical ways to crowd-in private capital from banks as well as from institutional investors and citizens.

Box 4.2. Social value – lessons for the just transition

The 2012 Social Value Act requires local authorities to consider social value in their contracting and procurement and the Government has recently indicated that it wants to strengthen this requirement. The construction and real estate sector has developed a range of responses to demonstrate social value, but until recently it has been defined in terms of job creation. This could be extended to demonstrate how new developments and retrofit programmes designed to reduce carbon emissions also provide tangible social benefits to workers and suppliers, occupiers, local communities, wider society and future generations.

High-potential areas for further action include:

- Applying the just transition policy to the new Shared Prosperity Fund, which will replace European regional funding from April 2021 and seek to reduce inequalities between communities.
- Exploring the use of the Social Value Framework to delivering workplace, community and wider benefits in line with the just transition in public procurement decision-making (see Box 4.2 above).
- Encouraging the extension of ‘climate emergency’ declarations by local authorities and regional bodies to include a commitment to the just transition: they can work with banks and other financial institutions to design innovative ways to achieving it. This commitment could then be implemented through Local Industrial Strategies and City Deals, including the development of net-zero industrial clusters and support for community-based business models.
- Expanding the UK impact investment and community finance market to support the just transition by encouraging innovative regionally-focused financial instruments and institutions. Crowdfunded municipal bonds offer local authorities one way to tap local pools of savings to help deliver their climate emergency declarations. In addition, new regionally-focused financial institutions can help to fill gaps in the current financing market around the just transition: Box 4.3 provides two emerging examples.

Box 4.3. Examples of innovative regionally-focused financing for the just transition

Abundance: Abundance was founded in 2012 on the principle of democratic finance, to help people mobilise their money for good, for example by investing in the green infrastructure of the future. Recently it has developed a new instrument, Community Municipal Investments (CMIs), which is a bond issued by local authorities through a crowdfunding platform, giving residents the chance to support low-carbon projects directly benefiting their own community. Unlike other European countries, the UK does not have a well-developed municipal bond market; the CMI helps to fill this gap. Local authorities are able to access attractively priced funding and also tap the desire among their residents to take part in climate action: 73 per cent of people polled would be interested in investing in a CMI (Abundance, 2020). West Berkshire, Warrington and Leeds are among a number of local authorities planning to issue CMIs in 2020.

South West Mutual: Place-based financial institutions can help to understand the transition needs of rural communities, ideally supported by national finance institutions, both commercial and in the public sector. The new South West Mutual is seeking a licence to establish a mutual retail bank with a mission to finance a just transition in the Great South West region (Cornwall, Devon, Somerset and Dorset). It will focus on the specific characteristics of the region from board level downward and will align its lending with the priorities of a just transition to net-zero. An Opinium poll commissioned by South West Mutual showed that one in two people would be more likely to choose a bank if it focused on the local area and economy, with only one in 25 saying they would be less likely to do so. This shows an unmet desire among customers for place-based financial institutions.

Making the just transition a key part of international climate action

As well as promoting a just transition domestically, the UK Government could also take the lead in advancing the just transition internationally, focusing on its leadership in financing arrangements. The banking sector would benefit from the predictability that would arise from having clear policy and regulation in support of the just transition. This would mean making the just transition a key approach to achieving ambitious climate outcomes during the UK's presidency of the G7 and at the COP26 summit to be hosted by Glasgow in 2021. The UK has agreed through the UN to lead a global workstream on ensuring an inclusive and sustainable recovery, which provides a perfect platform for promoting the just transition and its financing. The UK economy and financial system are highly interconnected with the rest of the world and accelerating the global momentum behind the just transition is strongly aligned with strategic national interests.

The UK's recovery package from COVID-19 should promote a coordinated multilateral response at the global level. For example, a portion of the UK's recovery funds need to be dedicated to supporting developing and emerging economies, where the pandemic's impacts are set to be most severe and capital for the transition is in shortest supply. Sustainable finance innovations could also be deployed to tackle rising sovereign bond stress in emerging markets (Pinzón et al., 2020).

In addition, the UK Government could focus on mobilising the international financial community, notably UK banks and investors, to help deliver the just transition. Further, it could make sure that the UK's internationally-facing financial institutions such as CDC and UK Export Finance are leading action on the just transition. For example, CDC's new Climate Change Strategy includes the just transition as one of its three building blocks, alongside net zero and resilience (CDC, 2020).

5. Conclusions and next steps

Moving into the mainstream

When the Banking on a Just Transition initiative started in early 2019, few in the UK banking sector had heard of the need for a just transition to a net-zero economy. Institutional investors had started to extend their climate strategies to embrace the social dimension, but had not made the link with the banks they owned. Leading cities and regions had signalled the importance of inclusion in delivering their climate emergency statements, but had not linked this with their financing plans. And the UK had made high-level commitments to the just transition at the international level, but had not translated this into policy domestically.

Now there is growing recognition that the just transition is the next chapter in climate action. Not only is there a principled need to connect climate action with questions of social justice, but there is also a powerful economic case. As a country, the just transition neatly connects the climate agenda with the realities of the UK's deep regional imbalances. The demand for a comprehensive approach to finance, climate action and social impact emerged strongly in the series of workshops we held across the country. The workshops involved banks and investors, but also local government, community groups, and trade unions. This awareness of the need for national solidarity at moments of disruption has then been further deepened by the experience of the COVID-19 crisis.

As a pilot project, this work has sought to build the analytical foundations for banks to act on the just transition. We have set out the strategic rationale for action and the importance for implementation to be inclusive, place-based and sector-specific. We have laid out an agenda for action by UK banks and building societies, recommending a set of practical measures that they can take to strengthen their approach to climate action. We have also set out how the just transition could be embedded in key policy instruments and institutions to mobilise the finance needed.

All the way through we have recognised the need to combine a coordinated national framework with a strong commitment to respond to the bottom-up needs from different parts of the country. The work has also revealed a rich research agenda for the future, which has not yet been addressed in this report. This includes, for example, how finance can help to ensure that new green jobs are also good jobs in terms of working conditions. Another priority for further inquiry is to explore how to finance a just transition in a degrowth scenario, something of increased relevance following COVID-19.

Next steps: taking a system-wide approach to the just transition

The importance of the just transition as a core part of the UK's strategy for overcoming climate breakdown has been propelled forwards by the COVID-19 crisis. There is huge potential for progress in bringing the just transition to life. The banking sector is a key agent of change, and so too are other actors in the financial system such as non-bank finance, institutional investors, capital markets, public finance and community finance initiatives. There is a real sense of possibility around creating targeted partnerships in key regions, bringing together policymakers, financiers, business, trade unions and civil society to deploy capital that responds to local priorities.

Following the pilot project that underpins this report, a Financing the Just Transition Alliance could now be formed to support this system-wide approach. The Alliance would bring together banks and investors, local and national policymakers, business and trade unions, civil society and researchers across the country. The Alliance would seek to co-create breakthrough financial innovations that show how climate action can deliver with positive social impact and do this at scale.

Appendix: Financing a just transition in the UK

– sector snapshots

Agriculture

Across the agriculture sector, there is need for a profound supply-side repurposing of land to store carbon, restore nature and strengthen resilience, combined with demand-side changes in diet and consumption. Crop patterns need to shift, for example, alongside a significant increase in forest cover to at least 17 per cent by 2050 and 35,000 hectares of peatland restored by 2025 (CCC, 2020). The Agriculture Bill of 2020 sets out how farmers and land managers in England will in the future be rewarded with “public money for public goods”; this will help to support these measures, as well as ‘re-wilding’, activities that have the potential to create new employment opportunities.

A just transition will involve improving skills and working conditions to attract a robust labour force, as well as supporting rural communities to seize the opportunities from an increased focus on sustainable and inclusive business. The agriculture and forestry sector has the lowest average ethnic diversity across all sectors in the UK (Emden et al., 2019). Economic multipliers can be particularly powerful when attention is played to the quality as well as the quantity of employment generated in terms of working conditions, diversity and social dialogue.

Agriculture currently lags behind other sectors (such as energy) in the tailored finance services available to support the sector’s transition. Investing in low-carbon technology and innovation may improve agricultural productivity but may also displace workers. A dedicated Agro-Ecology Development Bank has been proposed by the RSA’s Food, Farming and Countryside Commission (2019), to support the transition to a low-carbon agricultural sector and jobs.

Buildings

The UK’s building stock is lagging behind on the path to net-zero. For example, the annual rate of loft insulation to residential buildings is less than one-tenth of what is needed. Transforming heating systems away from gas is another significant undertaking that needs to happen on a bigger scale (CCC, 2020). Future progress rests on the Heating and Building strategy and the National Infrastructure strategy to be released later this year (ibid.). In the meantime, a recent Royal Institution of Chartered Surveyors publication provides a comprehensive package of policy recommendations for decarbonising housing in the UK (RICS, 2020). All of these transformations will need to be achieved alongside increasing resilience to physical climate shocks, notably flooding.

In the short term, building retrofits have proven to have significant multiplier effects and stimulate high job creation (Allen et al., 2020). In the long term, upgrading the building stock using a just transition framework offers a chance to end fuel poverty and to improve workforce standards throughout the construction sector and supply chain. It means designing policies and regulations so that they do not disadvantage lower-income households and finding ways to promote place-based strategies, including local financing options. The new Coalition for Energy Efficiency in Buildings has identified a package of breakthrough financial solutions, which could also deliver positive social benefits (GFI, 2020a; GFI, 2020b).

Energy supply

The UK has made substantial progress in decarbonising power generation, with emissions falling by over two-thirds since 1990. The rapid expansion of offshore wind highlights the potential for the generation of significant job creation in key regions in the process of decarbonisation. The post-COVID-19 stimulus package can be designed to build on the existing successes (notably in terms of onshore wind and solar) to massively intensify investment in renewables to expand the sector, build up a new green hydrogen sector and replace coal, oil and gas.

Delivering a just transition in the energy sector will mean ensuring a high standard of workplace practices throughout the new net-zero value chains, involving workers and communities in the phase-out of fossil fuels and maximising the opportunities that a decentralised, decarbonised and digitised system can bring, not least for UK SMEs. Renewables and energy efficiency are more labour-intensive than fossil fuels but higher employment in this sector in the long term depends on investments and the impact on household incomes (Blyth et al., 2014). A key focus will be to ensure that low-income consumers and those in fuel poverty can benefit from investment in buildings, as outlined above. Both debt and equity financing for the energy system need to be tied more closely to net-zero goals and accompanied by strong social standards to drive positive impact.

Manufacturing

The net-zero transition holds significant potential for the UK's manufacturing base: this is the sector with one of the largest rises in demand for key skills in the transition. Making this shift in critical foundation sectors such as chemicals, construction materials, engineering and steel will involve further improvements in process efficiency as well as the development of net-zero industrial clusters. In 2019, the Government announced a £250 million Clean Steel fund, and an associated £100 million Low Carbon Hydrogen Production fund (UK Parliament, 2019). In addition, a new CCS Infrastructure Fund backs the development and deployment of carbon capture and storage (CCS) and will establish CCS in at least two sites, one by the mid-2020s and the second by 2030.

A just transition in manufacturing would involve seizing the opportunities for reshoring manufacturing jobs in net-zero. To compete in global markets a decarbonised UK manufacturing sector must also include a labour force with the requisite skills in engineering, procurement and construction management services in addition to manufacturing products and materials (CCC, 2020). Key policy instruments such as carbon pricing would need to incorporate just transition principles. Announcing decarbonising reforms well in advance and providing compensation to key groups prior to the reforms are strategies to support jobs and ensure a just transition (Robins et al., 2019). Net-zero plans in the manufacturing sector could be accompanied by human capital investment and worker involvement in innovation. A clear place-based approach, focused on industrial clusters, could also involve small businesses in the process of change.

Transport

Transport – encompassing road, rail, shipping and aviation – is the UK's largest source of emissions and is currently significantly off-track in the net-zero transition. Achieving net-zero in the transport sector has significant potential for improved health, reduced costs for consumers, local cohesion and economic opportunity.

In March 2020, the Government set out how it will deliver the decarbonisation of transport. The approach combines a modal shift to public transport and active travel as “the natural first choice for our daily activities”, along with steps to drive emissions to zero for personal and commercial travel and logistics, through electric vehicles, fuel efficiency, car sharing, improving rail infrastructure and new technology such as hydrogen (HM Government, 2020). A full Transport Decarbonisation Plan will be released later in 2020.

The experience of the COVID-19 lockdown may also reshape transport needs as businesses and individuals adjust to more permanent arrangements to work from home. In April 2020, for example, the AA predicted that government investment might be better directed at investing in high quality broadband infrastructure than in roads. COVID-19 has demonstrated there is significant demand for cycling infrastructure. If used to replace some car travel, e-bikes, for example, have the capability to cut car emissions in England by up to 50 per cent (about 30 million tonnes per year) (Philips et al., 2020). A recent report highlighting the impact of COVID-19 on job security within the aviation industry proposes that the Government could adopt principles of a fair and just transition within the sector (Chapman et al., 2020).

Applying a just transition lens to the transport system means looking at the needs of all stakeholder groups, so that positive social impact is generated. This will include managing the jobs transition in public transport, the electric charging infrastructure as well as automotive production. While emphasis has been placed on electric cars, significant opportunities also lie in the electrification of public transport fleets (International Transport Workers' Federation, 2020). There needs to be a focus on fairness for SMEs in transport services (such as taxis), as well as ensuring that policies, taxes and tax breaks are distributed fairly so there is universal access for people to net-zero forms of transport. The local dimension will be crucial, particularly for isolated communities in towns and rural areas for whom both physical infrastructure and improved internet connectivity will be key. Equally, new housing should be planned and integrated with forward-looking public transport networks to mitigate car dependency. Specific financing products have yet to be developed to respond to these diverse requirements.

References

- Abundance Investment (2020) *Turning words into action: How Community Municipal Investment can create a new sphere of civic engagement that will galvanise local action in the fight against the climate emergency*. London: Place-based Climate Action Network [PCAN] https://pcancities.org.uk/sites/default/files/2020_06_18_PCAN-CMI.pdf
- Allan J, Donovan C, Ekins P, Gambhir A, Hepburn C, Robins N, Reay D, Shuckburgh E, Zenghelis D (2020) *A net-zero emissions economic recovery from COVID-19*. Oxford: Oxford Smith School of Enterprise and the Environment. <https://www.smithschool.ox.ac.uk/publications/wpapers/workingpaper20-01.pdf>
- Bank of England (2020) *Monetary Policy Report May 2020*. London: Bank of England. <https://www.bankofengland.co.uk/-/media/boe/files/monetary-policy-report/2020/may/monetary-policy-report-may-2020>
- Barclays (2019a) *Barclays Green Bond Framework*. London: Barclays Bank PLC. <https://home.barclays/content/dam/home-barclays/documents/investor-relations/fixed-income-investors/20191212-Green-Bond-Framework.pdf>
- Barclays (2019b) *Barclays Environmental Social Governance report*. London: Barclays Bank PLC. <https://home.barclays/content/dam/home-barclays/documents/citizenship/ESG/Barclays-PLC-ESG-Report-2019.pdf>
- Barclays (2020) 'Our ambition to be net-zero by 2050'. Webpage. <https://home.barclays/society/our-position-on-climate-change/>
- Blyth W, Gross R, Speirs J, Sorrell S, Nicholls J, Dorgan A, Hughes N (2014) *Low carbon jobs: The evidence for net job creation from policy support for energy efficiency and renewable energy*. London: UK Energy Research Centre [UKERC]. <https://d2e1qxpsswcpqz.cloudfront.net/uploads/2020/03/low-carbon-jobs.pdf>
- British Business Bank (2020) *Small Business Finance Markets 2019-20*. Sheffield: British Business Bank PLC. <https://www.british-business-bank.co.uk/research/sbfm/>
- Burghof H, Gehrung M, Schmidt D (2020) *Banking Systems and Their Effects on Regional Inequality and Wealth*. SSRN. <http://dx.doi.org/10.2139/ssrn.3380669>
- Burke J, Fankhauser S, Kazaglis A, Kessler L, Khandelwal N, O'Boyle P, Owen A (2020) *Distributional impacts of carbon tax in the UK*. Policy brief. London: Grantham Research Institute on Climate Change and the Environment. <http://www.lse.ac.uk/GranthamInstitute/publication/distributional-impacts-of-a-carbon-tax-in-the-uk/>
- CDC (2020) *Investing for clean and inclusive growth*. London: CDC Group. https://assets.cdcgroup.com/wp-content/uploads/2020/07/01170324/CDC_Climate_Change_Strategy_spreads.pdf
- Chapman A, Wheatley H (2020) *Crisis support to aviation and the right to retrain*. London: The New Economics Foundation <https://neweconomics.org/uploads/files/aviation-workers.pdf>
- Committee on Climate Change [CCC] (2019) *Net-Zero – the UK's contribution to stopping global warming*. London: CCC. <https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/>
- Committee on Climate Change [CCC] (2020a) COVID-19 can be a historic turning point in tackling the global climate crisis. Press release, 25 June. <https://www.theccc.org.uk/2020/06/25/covid-19-can-be-an-historic-turning-point-in-tackling-the-global-climate-crisis/>
- Committee on Climate Change [CCC] (2020b) *Reducing UK emissions: 2020 Progress Report to Parliament*. London: CCC. <https://www.theccc.org.uk/publication/reducing-uk-emissions-2020-progress-report-to-parliament/>
- Constantinos C, Sørensen S, Larsen P, Alexopoulou S et al. (2010) *SMEs and the environment in the European Union*. Brussels: European Commission, DG Enterprise and Industry. https://ec.europa.eu/growth/content/smes-and-environment-eu-new-study-0_en
- Corporate Leaders Groups (2020) 'More than 200 leading businesses urge the UK Government to deliver clean, inclusive and resilient recovery plan'. Webpage. <https://www.corporateleadersgroup.com/reports-evidence-and-insights/news-items/leading-businesses-urge-uk-government-to-deliver-resilient-recovery-plan>
- Declare a Climate Emergency (2020) 'List of councils who have declared a climate emergency'. Climate Emergency. Webpage. <https://www.climateemergency.uk/blog/list-of-councils/>
- Emden J, Murphy L (2019) *A just transition realising the opportunities of decarbonisation in the north of England*. London: Institute for Public Policy Research (IPPR) North. <https://www.ippr.org/files/2019-03/energy-skills-march19.pdf>
- Energy Efficiency Infrastructure Group [EEIG] (2020) *Energy efficiency's offer for a net zero compatible stimulus and recovery*. EEIG. https://www.theeeig.co.uk/media/1096/eeig_report_rebuilding_for_resilience_pages_01.pdf

Energy Service Bristol 'Bristol City Leap'. Bristol City Council. Webpage. <https://www.energyservicebristol.co.uk/cityleap/>

European Commission (2020a) 'A European Green Deal'. Webpage. https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en

European Commission (2020b) 'Recovery plan for Economic'. Webpage. https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/recovery-plan-europe_en

Good Business Foundation (2019) 'The Good Business Charter'. Webpage. <https://www.goodbusinesscharter.com/>

Green Finance Institute [GFI] (2020a) *Financing Energy Efficient Buildings: the path to retrofitting at scale*. London: GFI. <https://www.greenfinanceinstitute.co.uk/wp-content/uploads/2020/05/Financing-energy-efficient-buildings-the-path-to-retrofit-at-scale.pdf>

Green Finance Institute [GFI] (2020b) *Stimulus actions for a greener and more resilient property sector*. London: GFI. <https://www.greenfinanceinstitute.co.uk/news/report-stimulus-actions-for-a-greener-and-more-resilient-property-sector/>

Greenham T, Cox E, Ryan-Collins, J (2013) *Mapping Economic Resilience*. York: Friends Provident Foundation. <https://www.friendsprovidentfoundation.org/wp-content/uploads/2017/11/nef-Mapping-Economic-Resilience-1-report.pdf>

Gouldson A, Sudmant A, Boyd J, Williamson R (2020a) *A Net Zero Carbon Roadmap for Belfast*. June 2020. PCAN Cities. www.pcancities.org

Gouldson A, Sudmant A, Duncan M, Williamson R (2020b) *A Net Zero Carbon Roadmap for Leeds*. June 2020. PCAN Cities. www.pcancities.org

Hepburn C, O'Callaghan B, Stern N, Stiglitz J, Zenghelis D (2020) *Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change?* Oxford: Oxford Smith School of Enterprise and the Environment. <https://www.smithschool.ox.ac.uk/publications/wpapers/workingpaper20-02.pdf>

HM Government (2019a) *Green Finance Strategy: Transforming finance for a greener future*. London: HM Treasury and Department for Business, Energy and Industrial Strategy. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/820284/190716_BEIS_Green_Finance_Strategy_Accessible_Final.pdf

HM Government (2019b) Net-Zero Review launched to support the UK's world leading climate commitments. Press release, 2 November. <https://www.gov.uk/government/news/net-zero-review-launched-to-support-uks-world-leading-climate-commitment>

HM Government (2019c) 'Fuel Poverty Statistics'. London: Department for Business, Energy and Industrial Strategy. <https://www.gov.uk/government/collections/fuel-poverty-statistics>

HM Government (2020a) *Decarbonising Transport – setting the challenge*. London: Department of Transport https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/878642/decarbonising-transport-setting-the-challenge.pdf

HM Government (2020b) *A Plan for Jobs*. <https://www.gov.uk/government/publications/a-plan-for-jobs-documents>

HSBC (2017) *HSBC Sustainable Development Goal (SDG) Bond Framework*. <https://www.hsbc.com/-/files/hsbc/investors/fixed-income-investors/green-and-sustainability-bonds/pdfs/171115-hsbc-sdg-bond-framework.pdf?download=1>

HSBC (2019a) *HSBC Green Bonds Report*. <https://www.hsbc.com/-/files/hsbc/investors/fixed-income-investors/green-and-sustainability-bonds/pdfs/191001-hsbc-green-bonds-report-2019.pdf?download=1&la=en-gb&hash=746131DE091ECFFD08D22D75903E7B13ECA2EB66>

HSBC (2019b) HSBC and Walmart partner to drive sustainability of businesses. Press release, 18 April. <https://www.business.hsbc.com/sustainability/hsbc-and-walmart-partner-to-drive-sustainability-of-businesses>

HSBC (2020) *Environmental, Social and Governance Update*. London: HSBC Holdings plc. <https://www.hsbc.com/-/files/hsbc/investors/hsbc-results/2019/annual/pdfs/hsbc-holdings-plc/200218-esg-update-2019.pdf>

International Labour Organisation [ILO] (2015) *Guidelines for a Just Transition towards environmentally sustainable economies and societies for all*. Geneva: ILO. https://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/documents/publication/wcms_432859.pdf

International Transport Workers' Federation [ITF] *Policy Consultation: Proposals 20-23: Climate Change*. <https://www.itfglobal.org/en/sector/urban-transport/proposals-20-23-climate-change>

Jones R (2019) *A Resurgence of the Regions: rebuilding innovation capacity across the whole of the UK*. Soft Machines. http://www.softmachines.org/wordpress/wp-content/uploads/2019/05/ResurgenceRegionsRALJv22_5_19.pdf

Just Transition Centre (2017) *Just transition – a report for the OECD*. Brussels: International Trade Union Confederation [ITUC]. <https://www.oecd.org/environment/cc/g20-climate/collapsecontents/Just-Transition-Centre-report-just-transition.pdf>

Leading Edge (2019) *Britain's Leading edge – Tomorrow's society, today*. Truro: Cornwall County Council. <https://www.cornwall.gov.uk/media/39213175/britains-leading-edge-booklet-july19.pdf>

Leeds Climate Commission (2019a) *A Science-based Carbon Budget, Carbon Targets and Carbon Roadmap for Leeds*. <https://www.leedsclimate.org.uk/sites/default/files/Leeds%20Carbon%20Roadmap%20v4.pdf>

Leeds Climate Commission (2019b) *Climate Jury Delivers Verdict to the City of Leeds*. Press release, 25 November. <https://www.leedsclimate.org.uk/news/climate-jury-delivers-verdict-city-leeds>

Lloyds Banking Group (2019a) *Responsible Business Update*. London: Lloyds Banking Group PLC. <https://www.lloydsbankinggroup.com/globalassets/documents/our-group/responsibility/hbpp-2019/2002-update/lbg-responsible-business-update-april-2019.pdf>

Lloyds Banking Group (2019b) *Sustainability Bond Framework*. London: Lloyds Banking Group PLC. https://www.lloydsbankinggroup.com/globalassets/documents/investors/2019/sustainability_bond_lb_framework_may2019v2.pdf

Lloyds Banking Group (2020a) 'Helping Britain Prosper – Financing a green future together'. Web page. <https://www.lloydsbankinggroup.com/Our-Group/responsible-business/financing-a-green-future-together/>

Lloyds Banking Group (2020b) 'Clean Growth Financing Initiative'. Webpage. <https://www.lloydsbank.com/business/commercial-banking/clean-growth-financing-initiative.html>

London Sustainable Development Commission (2020) *Financing for a future London*. London: Greater London Authority. https://www.london.gov.uk/sites/default/files/green_finance_full_report_online.pdf

Millward-Hopkins J, Gouldson A, Scott K, Barrett J, Sudmant A (2017) Uncovering blind spots in urban carbon management: the role of consumption-based carbon accounting in Bristol, UK. *Regional Environmental Change* 17(5): 1467-1478

Nationwide Building society. 'Green Additional Borrowing mortgage' Webpage. <https://www.nationwide.co.uk/products/mortgages/borrowing-more/green-additional-borrowing>

Pinzón A, Robins N, Hugman M (2020) *How could sustainable finance help avoid an emerging market sovereign debt crunch?* London: Grantham Research Institute on Climate Change and the Environment. <http://www.lse.ac.uk/GranthamInstitute/news/how-could-sustainable-finance-help-avoid-an-emerging-market-sovereign-debt-crunch/>

Philips I, Anable J, Chatterton T (2020) *E-bike carbon savings – how much and where?* CREDS Policy brief 011. Oxford: Centre for Research into Energy Demand Solutions <https://www.creds.ac.uk/wp-content/pdfs/CREDS-e-bikes-briefing-May2020.pdf>

Raworth K (2018) *Doughnut Economics*. London: Penguin Random House Business.

RBS (2020) 'Climate'. Webpage. <https://www.rbs.com/rbs/about/climate.html>

RBS (2019a) *Building a more sustainable bank – Green, Social and Sustainable Bond Framework*. Edinburgh: The Royal Bank of Scotland Group plc. <https://investors.rbs.com/~media/Files/R/RBS-IR/green-social-and-sustainability-bonds/framework-report.pdf>

RBS (2019b) *Annual report and accounts 2019*. Edinburgh: The Royal Bank of Scotland Group plc. <https://investors.rbs.com/~media/Files/R/RBS-IR/results-center/annual-report-2019.pdf>

Revell A, Stokes D, Chen H (2008) SMEs and the environment: Turning over a new leaf? *Business Strategy and the Environment* (19)5: 273-288 <https://doi.org/10.1002/bse.628>

Robins, N (2020) *Why governments should issue just transition bonds and how they could do it*. London: Responsible Investors. <https://www.responsible-investor.com/articles/financing-fast-and-fair-climate-action-why-governments-need-to-issue-just-transition-sovereign-bonds-and-how-they-could-do-it>

Robins N, Clover R, Saravanan D (2010) *Delivering the green stimulus*. London: HSBC Global Research.

Robins N, Brunsting V, Woods D (2018) *Climate Change and Just Transition – A guide for Investor Action*. London: Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science. <https://www.unpri.org/download?ac=9452>

Robins N, Gouldson A, Irwin W, Sudmant A, Rydge J (2019) *Financing Inclusive Climate Action in the UK: An investor roadmap for the just transition*. London: Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science. http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2019/09/Financing-inclusive-climate-action-in-the-UK_An-investor-roadmap-for-the-just-transition_POLICY-REPORT_56PP.pdf

Robins N, Rydge J (2019) *Why a just transition is crucial for effective climate change*. London: Vivid Economics. <https://www.unpri.org/download?ac=7092>

Royal Institution of Chartered Surveyors [RICS] (2020) *Retrofitting to decarbonise UK existing housing stock*. Press release, 19 May. <https://www.rics.org/uk/news-insight/latest-news/press/press-releases/rics-policy-report-retrofitting-to-decarbonise-uk-existing-housing-stock/>

RSA Future, Farming and Countryside Commission (2019) *Our Future in the Land*. London: Royal Society for the Encouragement of Arts, Manufactures and Commerce [RSA]. <https://www.thersa.org/discover/publications-and-articles/reports/future-land>

Santander (2019) Santander commits to becoming carbon neutral in 2020. Press release, 11 December. <https://www.santander.com/en/press-room/press-releases/santander-commits-to-becoming-carbon-neutral-in-2020>

Scottish Government (2020) *Just Transition Commission Interim Report*. <https://www.gov.scot/publications/transition-commission-interim-report/>

Scottish Parliament (2020) Scottish National Investment Bank Bill. https://www.parliament.scot/S5_Bills/Scottish%20National%20Investment%20Bank%20Bill/SPBill43BS052020.pdf

Sen A (2009) *The Idea of Justice*. London: Penguin Books Ltd

ShareAction (2020) *Banking on a Low-Carbon Future II*. London: ShareAction. <https://shareaction.org/research-resources/banking-on-a-low-carbon-future-ii/>

Stern N, Unsworth S, Valero A, Zenghelis D, Rydge, J, Robins, N (2020) *Strategy, Investment and Policy for a Strong and Sustainable Recovery: An Action Plan*. A CEP Covid-19 analysis: Paper No.005. London School of Economics and Political Science

Sweetman J, Whitmarsh L (2016) Climate Justice: High-status ingroup social models increase pro-environmental action through making actions seem more moral. *Topics in Cognitive Science* 8 (1), 196-221

TheCityUK (2020) *Recapitalisation group initial workplan letter to the Bank of England*. Webpage. <https://www.thecityuk.com/assets/2020/ff312db314/TheCityUK-Recapitalisation-group-initial-workplan-letter-to-the-Bank-of-England.pdf>

Trades Union Congress [TUC] (2019) *A Just Transition to a greener, fairer economy*. London: TUC. <https://www.tuc.org.uk/research-analysis/reports/just-transition-greener-fairer-economy>

Transport for New Homes (2020) Green promises broken: Garden Villages and Garden Towns will be dominated by the car. Press release, 16 June. <https://www.transportfornewhomes.org.uk/green-promises-broken-garden-villages-and-garden-towns-will-be-dominated-by-the-car/>

UK Parliament (2019) *Clean Steel Fund and Low Carbon Hydrogen Production Fund*. Written statement HCWS1807. parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2019-09-03/HCWS1807/

United Nations Framework Convention on Climate Change [UNFCCC] (2015) The Paris Agreement. http://unfccc.int/files/home/application/pdf/paris_agreement.pdf

Unsworth S, Valero A, Stern N, Bowen A, Robins N, Ward B, Zenghelis D (2020) *Delivering strong and sustainable growth in the UK: A special decade for innovation and investment*. London: Grantham Research Institute on Climate Change and the Environment. http://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2020/03/Delivering-strong-and-sustainable-growth-in-the-UK_A-special-decade-for-innovation-and-investment.pdf

Welsh Government (2019) Over 200 companies sign up to Economic Contract in first year. Press release, 29 May. <https://gov.wales/over-200-companies-sign-economic-contract-first-year>

West Midlands Combined Authority (2020a) #WM2041 *Actions to meet the climate crisis with inclusivity, prosperity and fairness*. Birmingham: West Midlands Combined Authority. <https://www.wmca.org.uk/media/3639/wm2041-final.pdf>

West Midlands Combined Authority (2020b) *Recharge the West Midlands. Kick starting the West Midlands economy: Our investment case to the Government*. Birmingham: West Midlands Combined Authority. <https://www.wmca.org.uk/media/3975/west-midlands-economic-recovery-our-ask-and-offer-hd-spreads.pdf>

Whittle C, Whitmarsh L, Schleich J et al. (2018) *Factors driving household acceptance of energy-efficiency policies*. BRISKEE-CHEETAH Scientific Working Paper

Williamson R, Gouldson A, Sudmant A (2020) *A Net Zero Carbon Roadmap for Edinburgh*. June 2020. PCAN Cities. www.pcancities.org

Over the next decade, banks and the financial sector as a whole will need to show how they are aligning their balance sheets with the UK's net-zero greenhouse gas emissions target, how they are enabling households and companies to become resilient to climate change impacts and after the COVID-19 crisis, and how the process of often disruptive transition can be steered so that it is fair and inclusive.

This report presents research findings and recommendations for how to achieve these aims. It focuses primarily on the role of the UK's banks and building societies, but it also contains recommendations for other financial institutions and government at all levels.

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