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Transition Finance Market Review

Scaling Transition Finance:

Findings of the Transition Finance Market Review

Contents

Foreword

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I was asked by the last Government to conduct this Review to look systematically at what the UK financial and professional services ecosystem needs to do to become a leading hub for and provider of transition financial and professional services. This followed stakeholder feedback in 2023 that Government should work with industry to develop a high-integrity approach to transition financing and to support industry to develop and deploy innovative financial products and services to continue to attract international business.

The global transition to a low carbon economy presents a major opportunity to deliver sustainable growth. McKinsey estimates that the global market opportunity for UK companies supporting this transition could be worth more than £1 trillion by 2030.[1] As a major financial centre, the UK can play a leading role in financing this global transition while supporting its own.

This Review engaged with a wide range of stakeholders, covering over 200 organisations in the UK and internationally. Our engagements showed that the private sector stands ready to support the UK in building its role as a transition market hub and in delivering on our own carbon budgets. I was struck by the level of interest and detailed thinking that was provided in response to our Call for Evidence and throughout our work over the past nine months.

It is clear that to scale transition finance in support of a sustainable and resilient future, investment in transition needs to be made more attractive. Many of the technologies needed for the transition already exist, but some need policy, incentives and catalytic capital to become commercially competitive. The market works within the parameters set by policy, law and regulatory action. Finance follows incentives in the real economy, as that is what drives the perception of future returns. Incumbent sectors globally continue to receive substantial policy and fiscal support for activities incompatible with a Paris-aligned world.[2] This can only be corrected by governments and if left to the market, change will be incremental.

The transition requires whole-of-government, economy-wide action. The new UK Government's mission-led approach to growth and clean energy is a framework worth replicating for the wider transition. I have become convinced that a different approach to policy development is required; sector policy must be more granular and worked through with the benefit of finance, industry and civil society expertise to encourage private sector investment.

Collaboration is crucial, and Government action must be matched by the private sector, through widespread, credible transition planning.[3] Transition planning is becoming a core part of corporate strategy and companies will need to conceive and implement plans strategically and not mistake them for a tick-box disclosure exercise. Financial institutions and funds are already considering transition strategy as part of due diligence and within credit and pricing conversations.

To succeed internationally, the UK needs to focus on credibility and interoperability. Establishing a suitable approach to credibility and integrity in transition finance markets could represent a significant UK contribution to global decarbonisation efforts. The Review recommends developing tools to build understanding of transition finance market components and to grow confidence in transition as a theme. There is a global race to provide the transition finance and technologies that the world needs, and while the UK has the right ingredients, it will lose out if it does not match other markets in demonstrating that it is serious, proactive and will stay the course.

Our engagement with companies and financial and professional services firms showed untapped enthusiasm to seize the opportunity afforded by the transition, which depends on a supportive and stable policy environment. The recommendations of this Review offer a roadmap to realise that potential. My call to action for Ministers and leaders across government and industry is to champion and implement these recommendations as a framework for transition and sustainable growth.

The green economy alone now boasts a global market capitalisation of US$7.2 trillion and has recorded a 14% compound annual growth rate over the past decade.[4] Transition sectors are next – now is the time for action.

[1] McKinsey Sustainability – *Opportunities for UK business in the net-zero transition.*
[2] Globally, the IMF reports that fossil fuel subsidies were $7 trillion or 7.1 percent of GDP in 2022.
[3] by listed and large companies, and financial services companies, and through adoption of a practical, focussed approach for smaller companies.
[4] LSEG, 2024 – *Investing in the green economy 2024: Growing in a fractured landscape.*

Acknowledgements

The Transition Finance Market Review ('the Review')'s remit was a broad one and we engaged with a great number of organisations, across governments, the corporate world, and financial and professional services. I would like to thank everyone who submitted a response to our Call for Evidence, participated in roundtables or discussed matters bilaterally with us. These connections were incredibly useful and I am grateful to all those who gave up valuable time (often a lot of it) to help us with the Review.

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I declare an interest in UK Export Finance whose statutory expert committee I chair, the Export Guarantee Advisory Council, and on whose advisory board I sit, and in Linklaters LLP where I remain a consultant.

While I have been very much helped by and recognise the contributions of others, the recommendations and conclusions are my own.

Executive summary

Executive summary

The global transition to net zero is well underway. Over the past decade, nearly all countries, including every major economy, have committed to a collective future that will see global emissions of greenhouse gases reach net zero. This has been driven by an ever-strengthening value case, encompassing economic benefit, physical necessity, and social imperative. The growth of the global green economy has clearly demonstrated this potential, returning 198% over the past decade.[5]

Global green finance flows, to technologies such as wind, solar, batteries and electric vehicles, have grown to around US$1.3 trillion annually,[6] however this only represents a fraction of the US$8.4 trillion needed each year until 2030 to support the global transition.[7] This wider transition to net zero faces interconnected obstacles such as technological limitations, political resistance, inertia and, most notably in the context of this report, financial constraints.

Transition finance, in the broadest sense incorporates the financial flows, products and services that facilitate an economy-wide transition to net zero consistent with the Paris Agreement.

The need for transition finance will be particularly acute to support the decarbonisation of high-emitting sectors such as heavy industrial sectors, transport, energy, agriculture and the built environment. For the purposes of the Review, we have not considered the continued scaling of low carbon technologies that have already achieved widespread commercial success, such as wind, solar, nuclear, hydropower, batteries and electric vehicles.

[5] LSEG 2024 – *Investing in the green economy.*
[6] CPI 2023 – *Global Landscape of Climate Finance.*
[7] Ibid.

The transition finance opportunity

For the UK, leading the growth of transition finance presents a major opportunity. As a global financial hub with acknowledged strength in sustainable finance, the UK can both finance its own transition and support the global shift to a low carbon economy through its financial and professional services sectors. To seize this opportunity, the UK must act swiftly to implement a cohesive strategy that leverages its innovative, open and influential global financial market. Success rests upon supportive policies and frameworks and a coordinated focus on implementation.

The importance of international collaboration in transition finance cannot be overstated. Leading in this area involves working closely with other countries, international organisations, and financial institutions to create a cohesive global strategy. The UK should act now to keep pace with other markets that are rapidly building their capabilities in this critical area. Failure to do so risks missing a major opportunity to drive prosperity and leaves the UK relying on others to achieve its decarbonisation goals. Being on the front foot domestically puts UK companies and financial institutions in the best position possible to capitalise on global transition opportunities and allows it to proactively shape a regulatory regime which works for the UK and other markets.

From 'green' to 'transition', driving decarbonisation of all sectors

In recent years, in an effort to address imbalances in the economy which favour established companies and technologies, and to combat greenwashing, there has been a focus on introducing new definitions, financial disclosures and regulations to encourage investment in 'green' activities. However, there is now a growing recognition that financial regulation and a focus on renewables regulation is not enough: real economy policies are needed to drive an economy-wide transition.

The global economy is interconnected, and decarbonisation is complex. The initial focus on the green economy and the net zero targets of individual companies in isolation has had unintended consequences. For example, some financial institutions have been discouraged from investing in high-emitting assets or activities even where there is an opportunity to support long-term decarbonisation, and in some cases, finance has retreated from emerging markets where a significant proportion of the world's industrial production has shifted. This has also prompted companies to offload high-emitting assets to buyers who are less committed to a net zero future or are operating in jurisdictions with less stringent regulatory regimes.

The Review has heard that a singular focus on financed emissions discourages the financing of high-emitting companies whose emissions have high potential to reduce in the medium term, and which will require significant amounts of capital to finance their decarbonisation. In jurisdictions where sustainable finance policy has outpaced real economy net zero policy these issues are compounded, creating greenwashing risks for companies and investors alike.

The role of finance in the transition

Private capital will play an important role in driving and financing the global transition. However, stakeholders agreed that to enable private capital to engage and to effect transition at speed and scale, a blend of real economy policy and public finance is required to improve the risk-return profile of transition finance. Without both these things, progress will be incremental. Private actors are unlikely to invest in activities that are not currently commercially viable unless incentivised to do so, or where they have a high degree of certainty as to the future commercial benefit. Companies will struggle to access finance to invest in lower emissions technologies where these are at early stages of commercialisation and carry additional risks. Finance will ultimately flow to where markets believe future profitability, and therefore returns, will be generated: the UK must be clear-eyed about that reality.

> **“For the UK, leading the growth of transition finance presents a major opportunity.”**

Scope of the Review

The Review has been tasked with examining how the UK, as a global financial hub, can lead in developing norms and practices for transition finance that facilitate an economy-wide shift towards sustainability. Detailed terms of reference for the Review can be found in appendix 3.

The Review's recommendations outline an ambitious roadmap to establish the UK as a global transition finance hub, detailing the necessary steps for Government, regulators and the market. The terms of reference focussed on scaling the UK as a global transition finance hub. As such, recommendations are primarily made at the national UK level, where more detailed proposals are sought. In some cases, where findings are seen to be relevant across jurisdictions, recommendations are also made at the international level.

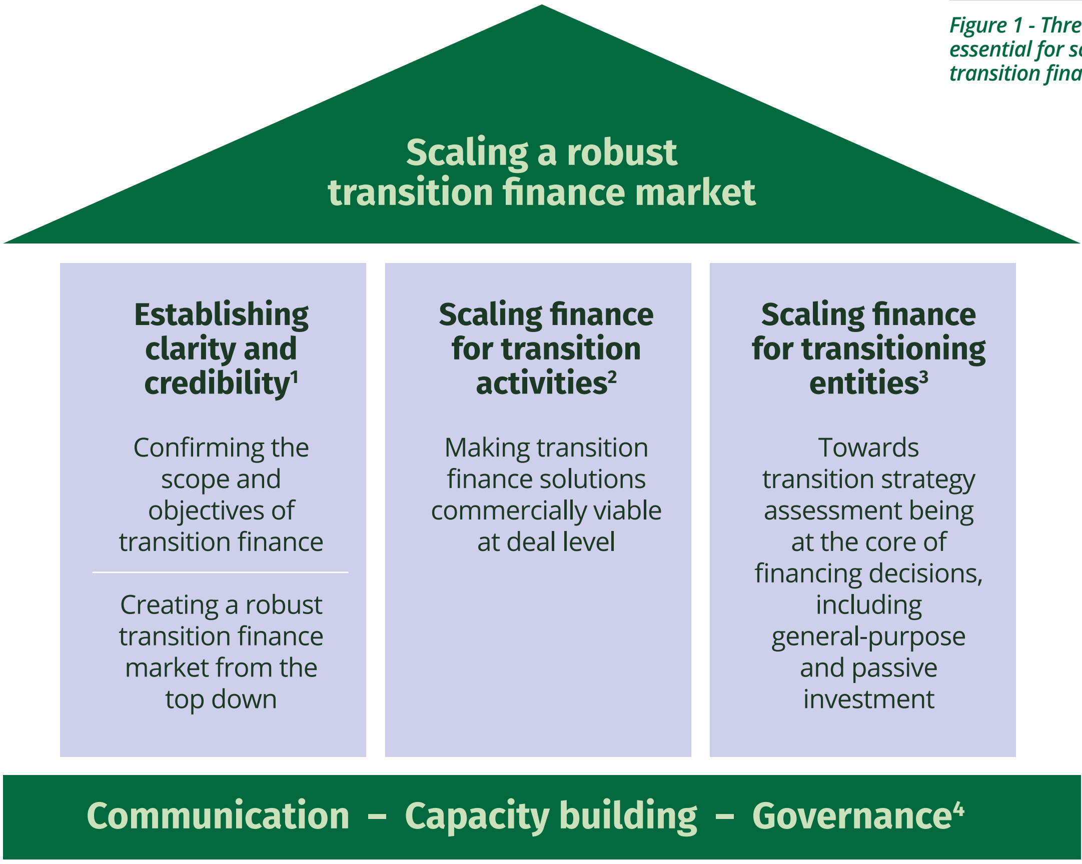
In broad terms, the Review's findings can be organised around three core pillars essential for scaling a robust transition finance market, as illustrated in figure 1.

The Review heard from stakeholders that the market would benefit from greater **clarity** as to the scope of transition finance, and assurance as to how **credibility** will be established. This is considered a necessary pillar for a robust market, although not on its own sufficient to unlock capital.

Unlocking capital for transition finance will require specific interventions and the stewarding of capital towards two key areas: financing the activities needed to make credible transition strategies viable (**financing transition activities**)[8] and financing entities with a credible transition strategy, including through general purpose and passive finance (**scaling finance for transitioning entities**).[9]

For the market to be successful, the Review identified improved **communication**, **capacity building**, and **governance** as necessary crosscutting factors.

Figure 1 - Three core pillars essential for scaling a robust transition finance market



1. Primarily discussed in report chapters 1, 2, 5
2. Primarily discussed in report chapters 3, 6
3. Primarily discussed in report chapter 4
4. Primarily discussed in report chapter 7

[8] 'Transition activities' is defined in the Review's Transition Finance Classification System in section 1.5 and includes climate solutions activities, within value-chain emissions reductions activities for aligned or aligning companies, and activities which support early retirement of high-emitting assets.
[9] 'Transitioning entities' is defined in the Review's Transition Finance Classification System and includes climate solutions companies and companies which are aligned or aligning.

Evidence leveraged by the Review

The Review engaged extensively and sourced input from a wide range of stakeholders and sources to gather evidence in support of its final recommendations. A more detailed summary of the Review's engagement and methodology can be founding in appendix 1 and includes:

- A public **Call for Evidence**,[10] which ran from 14 March 2024 to 9 May 2024 and received 57 responses.
- Over 40 dedicated **stakeholder workshops** held, including with banks, insurers, investors, companies, non-governmental organisations, regulators, and consultants.
- Over 200 **bilateral engagements** with a wide range of individuals and organisations, primarily in the UK but also internationally.
- Engagement with the Review's **Expert Group**, which met five times over the course of the Review.
- Regular engagement with **officials** from commissioning departments, the Financial Conduct Authority and the Bank of England.
- A detailed literature review.[11]

> **The global transition to a low carbon economy presents a major opportunity to deliver sustainable growth.**

Barriers to scaling transition finance

Through its engagements and evidence-gathering the Review identified five key barriers to accessing and deploying transition finance in the UK, which are broadly applicable to the global market.

1. **Lack of long-term regulatory and policy certainty with regard to real economy transition.** Ultimately, finance will follow incentives in the real economy, as that is what drives the perception of future returns. Transition finance will struggle to scale if real economy transition is not incentivised over the status quo. Although there are policy documents covering much of the relevant ground, there is a lack of clear sectoral decarbonisation pathways and whole-of-economy national transition planning in the UK to support investment. This is also the case in many other jurisdictions. Solutions to this barrier are primarily explored in chapter 2.
2. **Mismatch in the risk-return profile required by capital providers and the investible opportunities.** The transition will rely on emerging technologies, which have a different risk-return profile to incumbents. Bridging solutions are needed to connect the deepest pools of capital with key transition technologies. This barrier can be particularly acute in EMDEs. Solutions to this barrier are primarily explored in chapters 3 and 6.
3. **Challenges with assessing whether financing a particular activity or entity will have a credible decarbonisation impact.** There are also related difficulties in preparing and assessing private sector transition plans. Solutions to this barrier are primarily explored through chapters 1, 4 and 5.
4. **Limited provision for transition activities and strategies in the UK's sustainable finance regulatory regimes.** This is also the case in other jurisdictions, where sustainable finance regulation generally focusses on provisions for green rather than transition activities. Solutions to this barrier are primarily explored in chapter 5.
5. **Risk of actual greenwashing and risk of greenwashing allegations and reputational damage** for providing finance to certain transition activities and transitioning entities. This is a particularly significant problem when it comes to financing activities or entities aimed at decarbonising high-emitting sectors. Solutions to this barrier are primarily explored in chapter 5.

[10] City of London Corporation 2024 – *Transition Finance Market Review Call for Evidence.*
[11] Thought leadership leveraged by the Review is outlined in appendix 2.

Summary of key recommendations at a glance

	Key Recommendations*	Applies to	Timing**
Chapter 1	**Defining the scope of transition finance**		
	• Promoting a **dynamic and pragmatic understanding of transition finance** - responsive to jurisdictional, sectoral, and entity-specific context. • The Review presents a ***Transition Finance Classification System*** to support readers in understanding the 'transition activities' and 'transitioning entities' that could be considered in scope for transition finance classification.		Ongoing
	• Developing and embedding the ***Guidelines for Credible Transition Finance*** set out by the Review which present a voluntary, principles-based framework to support institutions in developing their own transition finance frameworks.		6-12 m
Chapter 2	**Pathways and policy**		
	• **More granular national and sectoral pathways and planning**, developed in partnership with industry, via a reinstated ***Net Zero Council***, and communicated in a way that provides confidence and certainty to issuers and investors.		1-3 y
	• **Macro policy levers**, including subsidies, incentives, carbon pricing, and prudential policy, all tilting towards transition.		1-3 y
Chapter 3	**Scaling finance for transition activities**		
	• **Catalytic capital and blended finance** which targets specific sectoral market failures, embedded within a streamlined landscape of public finance institutions.		1-2 y
	• Establishing a ***Transition Finance Lab***, based in the Green Finance Institute, which enables the collaborative design, development and testing of innovative solutions to accelerate finance for sector-specific transition challenges.		6 m
	• Improving the commercial viability of transition activities through all available levers, **including insurance solutions** and **demand incentivisation and aggregation.**		1-3 y
Chapter 4	**Scaling finance for transitioning entities**		
	• Interventions needed to achieve widespread **transition planning**, and the development of a suitable ecosystem to support the assessment and verification of transition plans, with access to effective data and ratings		1-3 y
	• Collaboration between the market and regulators to establish key transition finance metrics, through the establishment of a **Climate Financial Risk Forum (CFRF) transition finance working group**		6-12 m
	• Measures to align capital providers to transition opportunities, including **unlocking productive finance, supporting stewardship,** maturing of the **labelled debt market** and improvements to retail product offering.		1-3 y
Chapter 5	**Scaling transition finance with credibility & integrity**		
	• **Proactive engagement from regulators** which provides confidence to the market on best-practice transition finance.		6-12 m
	• **International alignment and collaboration** on supportive sustainable finance policy and frameworks.		1-3 y
Chapter 6	**Scaling transition finance in emerging markets and developing economies**		
	• **Strategic and catalytic deployment of UK grant funding** for the transition of emerging markets and developing economies (EMDEs).		1-3 y
	• **International advocacy and diplomacy** supporting the development of jurisdictional pathways and planning, and improvements to the international financial architecture which allows greater blended finance support for EMDEs.		1-3 y
Chapter 7	**Delivering on the ambitions of the Review**		
	• Establishment of a ***Transition Finance Council***, based in the City of London Corporation, which ensures delivery of the Review's recommendations and supports **communication** and cross-market **collaboration**.		6-12 m

Government and regulators Corporates Financial & professional services

Table 1 - Summary of report recommendations at a glance

*These recommendations are a core subset of a wider set of recommendations summarised at the beginning of each chapter, and discussed in detail in the body of the report.
**Timing denotes the expected time period to deliver on the recommendation.

Governance structures to support delivery of the Review's recommendations

Decarbonisation is complex and requires coordinated action across multiple Government and market stakeholders. Much more detailed and consistent public-private collaboration will be necessary to address interconnected challenges, and a coherent strategy across multiple different actors will be needed.

To ensure accountability and delivery of the Review's recommendations, three key governance bodies have been suggested (see figure 2). Each of these bodies has different objectives, in the broadest terms a reestablished Net Zero Council will focus on the development of granular real-economy sector decarbonisation pathways, the new Transition Finance Lab, housed within the Green Finance Institute, will focus on developing innovative financing structures in response to specific sectoral financing challenges, and the Transition Finance Council, housed within the City of London Corporation, will act as an accountability mechanism for this Review's recommendations, support transition finance capacity building and communication in the UK, and promote interoperability with other markets.

It will be critical that these three bodies work closely together to support collaborative action, and ensure effective communication of the mission and progress, and the sharing of lessons learned. The Transition Finance Council will have ultimate responsibility for ensuring this is achieved. It should ensure collaboration with other relevant bodies working on transition finance, continuing the network of practitioners built by the Review.

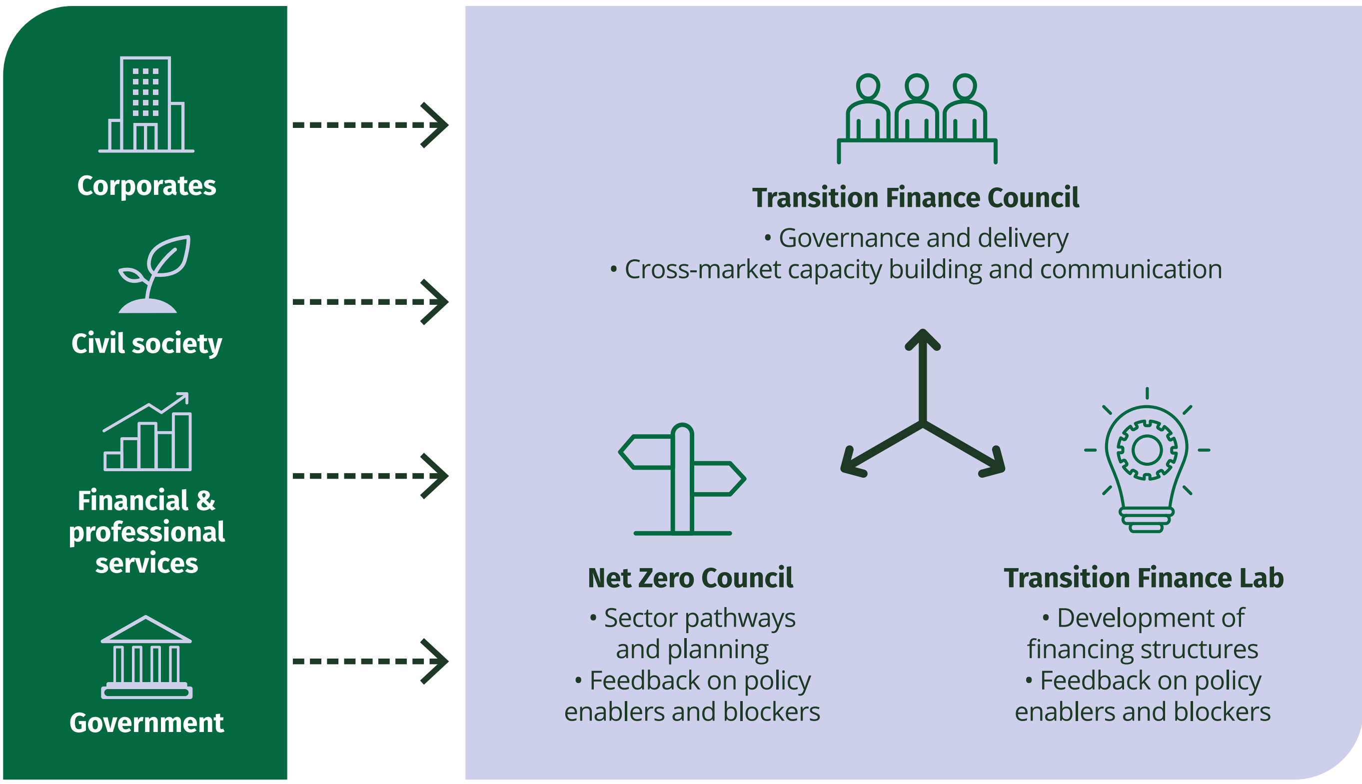


Figure 2 - Public-private governance bodies recommended to support a robust transition finance market

Effective and timely implementation of the Review's recommendations requires clear government commitment to the transition finance agenda and close partnership with industry. The establishment of the Transition Finance Council, with consistent ministerial representation in its governance, will demonstrate this commitment and ensure structured collaboration with market actors in delivering the Review's recommendations.

Market Map

The Review's recommendations detail the short to medium-term actions required from Government, regulators and market actors to scale a robust UK transition finance market. The Review has also developed a market map (see figure 3) to illustrate a longer-term vision, which provides an overview of the critical components of a successful market and how they interact. These elements include the underlying policy, regulatory and public funding environment, financial market characteristics, market practices, tools and frameworks, and market capabilities and expertise. The elements are further explained in table 2.

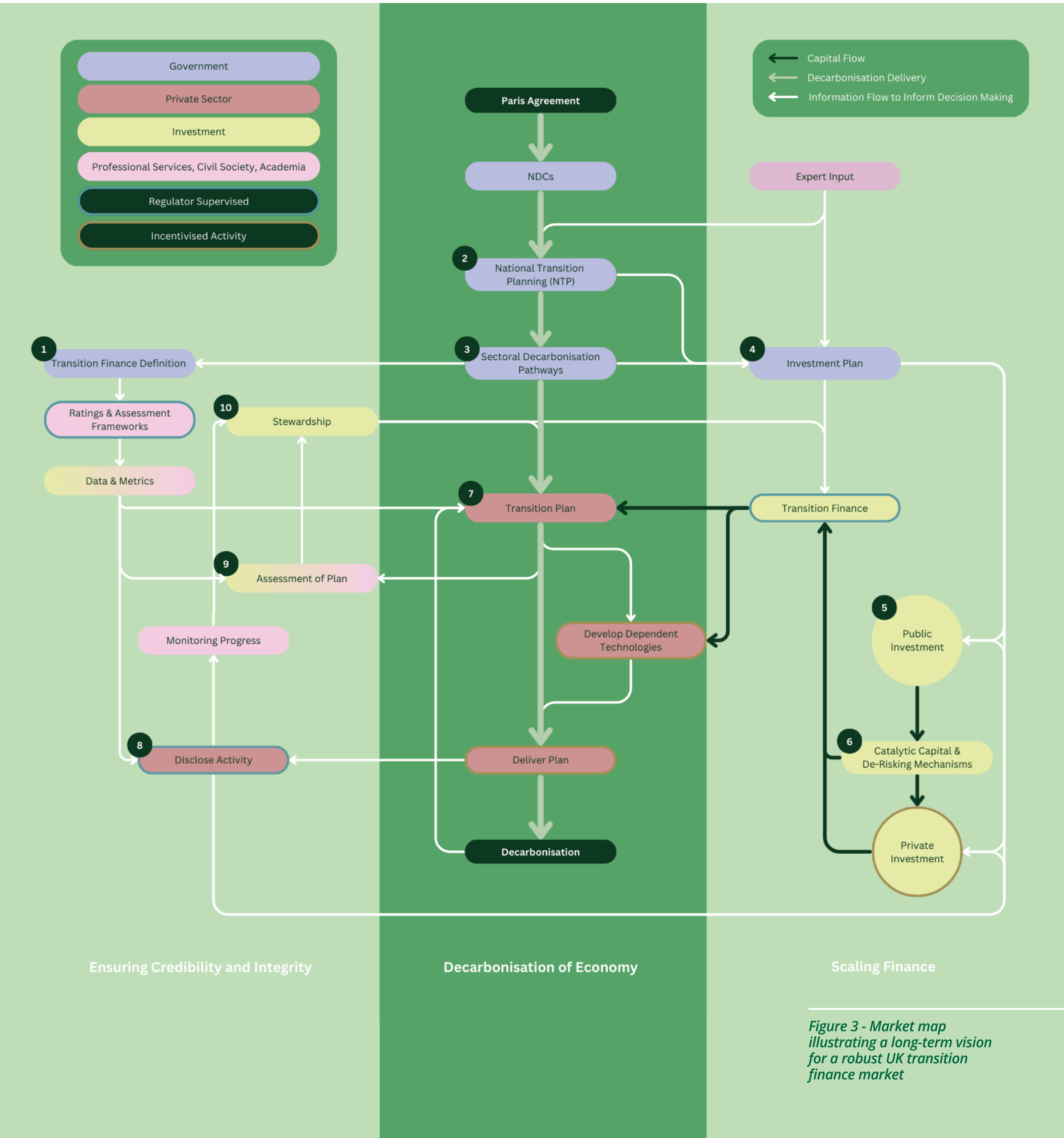
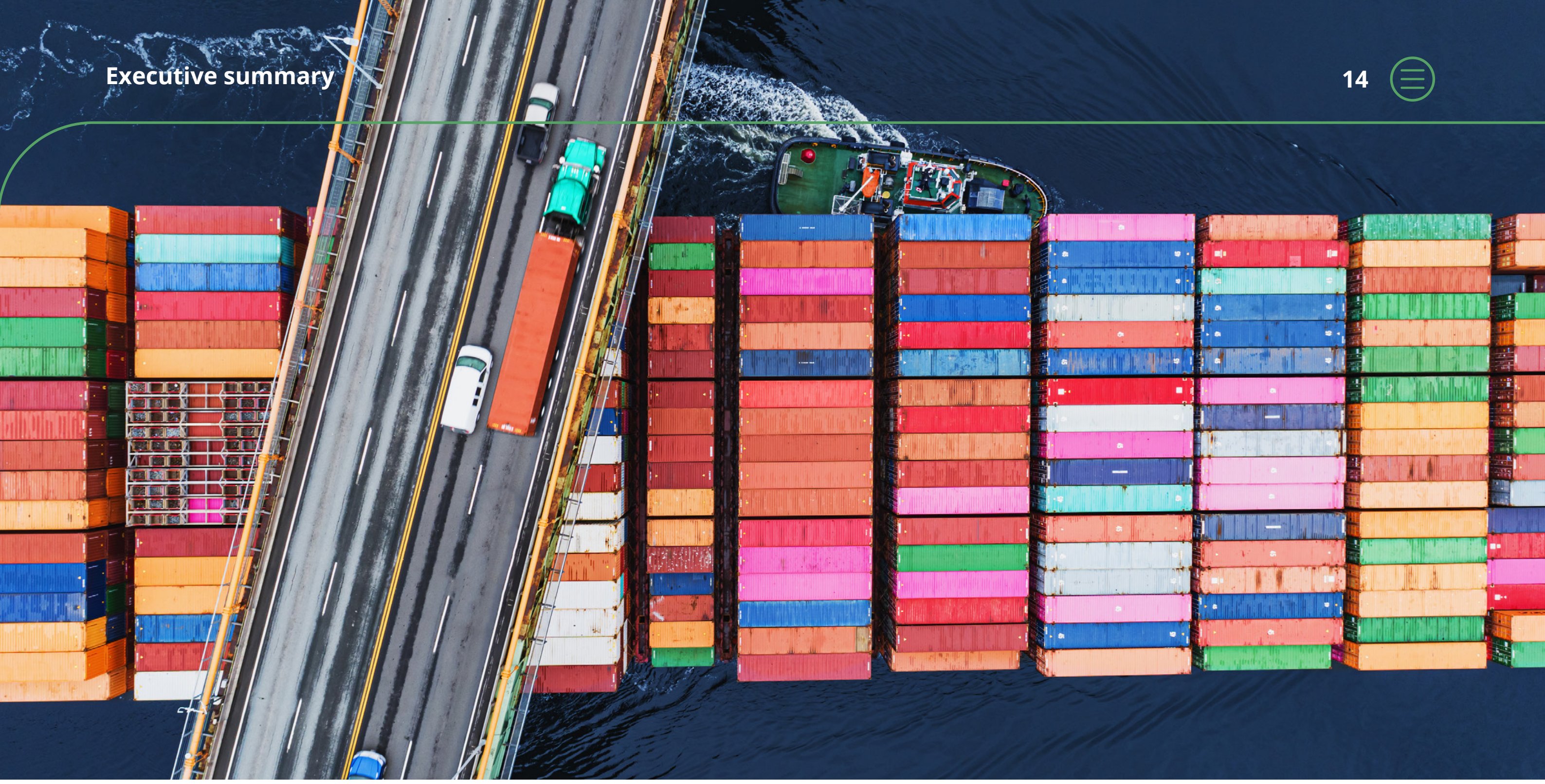


Figure 3 - Market map illustrating a long-term vision for a robust UK transition finance market

Table 2 - Critical components of the transition finance market map

Market map reference	Description	
1	• Embedding a shared understanding of the scope and objectives of transition finance, as a theme and as a classification and labelling tool will be essential to creating a base-level of market confidence. • On its own a definition will not unlock capital for the transition, but a shared understanding allows all actors to work collaboratively towards a common goal.	Chapter 1
2, 3, 4	• Building from the UK's Nationally Determined Contribution (NDC), the development of clear and robust sectoral decarbonisation pathways will be critical to aligning financing decisions national targets and establishing credibility in the transition finance market. Whole-of-government policy which is communicated effectively and developed through stronger collaboration with the market will ensure delivery against pathways. • Over time, it is important to complement sectoral targets with clarity on how these targets will be funded and to seek a degree of global consistency in approach, which may be achieved through utilising a national transition planning framework.	Chapter 2
5, 6	• To finance the technologies and inputs required to support the real-economy delivery of sector pathways, transition finance for transition activities and transitioning entities will need to be de-risked, incentivised, and scaled. • Scaling transition finance at activity-level will require close collaboration and innovation between public and private sources of capital, particularly while emerging technologies are scaling and on their pathway to commercial viability.	Chapter 3
7, 8	• Disclosing a transition plan helps companies to manage the risks and opportunities associated with their transitions and increases transparency for stakeholders, investors and policymakers. • A well-developed transition finance market should be focussed on financing entities with credible transition plans. As market practice builds, companies should be developing and disclosing increasingly sophisticated transition plans, with disclosure of related capital expenditure, operational expenditure, and revenue. • A strong feedback loop needs to be established between the companies, financial institutions, and policymakers engaged in transition planning at all levels, acknowledging the significant interdependencies, and to mitigate the risks of additional barriers and sequencing challenges that may arise when different actors and mechanisms do not work in harmony.	Chapter 4
9, 10	• Widespread, credible and consistent transition planning is critical to a functioning transition finance market, as it informs financial institutions taking capital allocation and pricing decisions. For financial institutions with their own transition-related targets, assessing and understanding transition plans will, over time, underpin their investment and engagement approaches. • Credible stewardship activity is likely to also include macro-level engagement on the wider policy and regulatory environment.	Chapter 4



Summary of Review findings per chapter

Chapter 1 - Defining the scope of transition finance

Evidence gathered by the Review indicated ongoing challenges associated with classifying transition finance, as well as different views as to defining, understanding, and interpreting the approaches of different actors in relation to transition. As outlined above, transition finance moves past a narrower approach to financing established green technologies and encapsulates an economy-wide approach. By nature, this broadens the scope of what transition finance is or could be.[12]

Transition finance, like the transition to net zero, will be dynamic. Activities that are credibly aligned to a particular decarbonisation pathway today may change, as technologies mature, and regional and sectoral nuances are regularly assessed. Current challenges around the scope and definition of transition finance dampen market appetite to engage with the theme, as it has the potential to expose those that do to heightened greenwashing risk. As a global market hub, the UK's approach must work well across the the EU and other major markets.

Summary of key recommendations in chapter 1	Section
Transition Finance Classification System • To support the market with classifying and understanding transition finance, the Review has developed an illustrative **Transition Finance Classification System (TFCS)**, building on the GFANZ transition finance strategies. • The TFCS is not intended to replicate a taxonomy-style classification system and is illustrative only.	*1.5*
Guidelines for Credible Transition Finance • The Review developed a set of **Guidelines for Credible Transition Finance (the Guidelines)** which set credibility and integrity parameters for financial institution transition finance frameworks to provide additional confidence to the market. • **The Review recommends that the Transition Finance Council (see section 7.6) continues to engage stakeholders on the Guidelines to finalise them for use by the market, potentially under trade association or industry-led initiatives.**	*1.6*

[12] The broad definition is also consistent with the European Commission's Recommendation (June 2023) which defines transition finance broadly as "financing of investments compatible with and contributing to the transition, that avoids lock-ins".

Chapter 2 – Pathways and policy

The growth of transition finance markets in the UK and globally will be underpinned by emissions reduction progress in the real economy. Sectoral decarbonisation pathways backed by transparent policy frameworks and supported by targeted and effective public finance interventions will deliver this progress. The Review makes targeted recommendations for UK policymakers, centred around improvements to pathways and policy, and improvements to how information is communicated to the market.

Summary of key recommendations in chapter 2	Section
Policy certainty and sector decarbonisation pathways • Government should work with industry to consider the most appropriate structure of its net zero policy framework, with a focus on building sufficient demand-side policy. By Q1 2025, Government should communicate its findings, and an assessment of whether adjusting the structure of the UK's net zero policy framework would improve information flows and policy clarity. • Government should reinstate, by the end of 2024, a form of the Net Zero Council, to develop improved decarbonisation pathways. • Industry should commit to being a 'better customer' of information produced by Government, and working through the Net Zero Council, provide clearer and more detailed proposals where further policy clarity is sought and feedback on identified problems. • Government should consider the practical policy barriers and dependencies for the roll out of key technologies, and the decarbonisation of key sectors, in a systematic way.	*2.3*
Communicating net zero policy with industry • Government should consider the best communication methods to provide industry and financial institutions with timely and accessible information regarding policy, regulatory and funding initiatives.	*2.4*
National transition planning • Government should consider, through the update to the Carbon Budget Delivery Plan in Spring 2025, use of the emerging global framework for national transition planning and the five critical components outlined in this section.	*2.5*
Green Financing Framework • Government should consider how to incorporate credible transition spend into its existing Green Financing Framework.	*2.5*
Macro-level transition levers • Net zero pathways and policy measures should be considered in the context of what can be achieved at a macro-level, by adjusting incentives - including taxes, subsidies, and carbon pricing, to ensure that all levers are pushing towards achieving net zero.	*2.6*

"The growth of transition finance markets in the UK and globally will be underpinned by emissions reduction progress in the real economy."

Chapter 3 - Scaling finance for transition activities

Governments can underpin transition finance markets with the right pathways and policies, but delivery of those pathways will ultimately rely on the deployment of existing and emerging technology and solutions at scale. The Review has heard that the most significant underlying barrier to scaling activity-level transition finance is that the characteristics of deals and projects are often not commercially viable. Addressing commercial viability challenges will require focus on both the supply and demand sides, including through public and private de-risking mechanisms, as well as an enabling policy and regulatory environment. Public and private actors must work together far more closely to enable large-scale projects and to commercialise transition activities.

Summary of key recommendations in chapter 3	Section
Refinement of the Public Finance Institution (PFI) landscape Recognising the important role of PFIs and blended finance, as part of its proposed refinement of the PFI landscape, the Government should: • Target market failures and adjust PFI mandates in respect of new projects to focus on supporting high-risk, emerging transition activities that the market cannot finance independently, ensuring concessional terms and/or the ability to blend with grants where necessary. • Rationalise and streamline the various government funding and blended finance structures available and ensure adequate expertise and economies of scale. • Create a single, user-friendly gateway for the private sector to engage. • Develop a searchable database or 'knowledge bank' of structured transition finance solutions across PFIs to accelerate the replication of successful models, requiring disclosure of high-level structure information as a condition of PFI support.	*3.3*
Establishment of a Transition Finance Lab The Government should establish and fund a Transition Finance Lab, based in the Green Finance Institute (GFI), to work with finance, policy and industry, to design, develop and test finance structures to accelerate sector-specific transition pathways. • The Transition Finance Lab should address specific transition finance sectoral or technology challenges that cannot be addressed through the standard investment process of financial institutions and PFIs. • The Transition Finance Lab should be led by the private sector; however Government should establish and fund the lab, providing guidance as to the sectors and technologies it should prioritise, and creating formal mechanisms to consider and act on its recommendations. • Guided by what makes most sense for the sectors or solutions that the Transition Finance Lab prioritises, it should develop and pilot structured solutions which may include consideration of aggregation, funds, securitisation and insurance solutions. • The scope of the Transition Finance Lab could be extended beyond the UK to include deploying tested solutions and developing innovative solutions for EMDEs, building on the UK's experience participating in the Global Innovation Lab for Private Finance.	*3.4*
Creating an aggregated demand signal Government should consider supporting a more comprehensive and structured approach to demand aggregation for emerging transition activities, including strategic use of public procurement and the creation of technology-based demand aggregators.	*3.5*
Insurance for transition activities Brokers and (re)insurers should: • adapt existing product offering and develop innovative new insurance solutions to address risk protection gaps; • collaborate with the Transition Finance Lab to assess specific challenges associated with the financing of transition activities and design insurance solutions and risk management practices to address them; • work with Government and the City of London Corporation to promote the role of the UK's insurance market in domestic and global transition finance; and • continue to evolve their strategies and practices in support of the transition.	*3.6*

Chapter 4 - Scaling finance for transitioning entities

Transition finance is important across the spectrum of financial products. However, while financial institutions are providing a variety of products and services to transitioning entities and governments, at present many feel more comfortable classifying specific activity-level financing, issued in the primary markets, as transition finance. Stakeholders suggested that these types of transactions are easier to assess for credibility and risk, in comparison to entity-level financing. If transition finance is to scale, this will need to change to allow for more entity-level transition finance. Evidence assessed by the Review makes it clear that widespread, credible and comparable transition planning is key to achieving this change.

The likelihood of delivering on credible transition plans will increase if the right financial conditions are in place throughout the system. In this regard, the Review focussed on transition plans and their disclosure, scaling productive finance, building strong stewardship and refining the labelled instruments market.

Summary of key recommendations in chapter 4	Section
Transition planning Widespread, credible and comparable transition planning will play a critical role in underpinning the credibility of the transition finance market. • Government should publish (in conjunction with regulators) a forward-looking roadmap, outlining how and when it will implement transition plan disclosure requirements aligned with the TPT Disclosure Framework for the largest listed companies, private companies and financial institutions. • Government should consult in broad terms on what 1.5°C alignment could mean, and which sectoral approaches and existing mechanisms will inform this. • Government should explore different means of incentivising the disclosure of high-quality forward-looking data in transition plans. • Companies and financial institutions should engage with the Disclosure Framework, and where relevant, sectoral guidance, produced by the TPT, as regulatory requirements are developed and embedded. • Jurisdictions in the process of implementing the IFRS Sustainability Disclosure Standards should utilise TPT disclosure-related materials where possible.	*4.4*
Data, verification, assurance and ratings in support of transition planning • ICAEW and ICAS should produce a plan for the development of TPT assurance skills and methodologies (in alignment with the roadmap for incoming disclosure requirements). • Government should clarify that the Voluntary Code of Conduct for ESG Ratings and Data Products Providers applies to transition focussed, forward-looking scores, opinions, assessments and ratings. • The FCA should, as it develops a regulatory approach to ESG Ratings, consider transition ratings and the transparency of methodologies, governance, systems and controls that support them. • The Review recommends that the Government, supported by market initiatives develops a time-bound plan to embed an easy-to-use SME data input product. • The Review recommends that any data systems relating to emissions or transition data or disclosures at a national level should be compatible with, and capable of feeding into the Net Zero Data Public Utility.	*4.5*
Unlocking productive finance • HMT and the Department for Work and Pensions (DWP) should build on the Mansion House reforms by addressing any initial implementation challenges and identifying and working through any wider regulatory barriers that prevent Defined Contribution (DC) schemes from increasing their allocations to transition finance.	*4.7*
Stewardship and engagement • Any revision to the Stewardship Code should consider alignment with recent guidance, including the report issued in February 2024 by the Financial Markets Law Committee on “Pension fund trustees and fiduciary duties: decision-making in the context of sustainability and the subject of climate change”.	*4.8*

Labelled instruments • The market should support the Loan Market Association in its consideration of the development of a use of proceeds transition label. • The Government, with advisory input from the FCA, should develop a time limited incentive scheme, modelled on those adopted in Singapore and Hong Kong to support SME uptake of green labelled finance, based on a limited data set supported on a data platform.	*4.9*
Retail investment • HMT should review the NS&I product range to assess the availability and competitiveness of its green product offers and consider connectivity with the Green Gilt programme. It should also consider launching a tax-efficient retail investment scheme.	*4.10*

Chapter 5 – Scaling transition finance with credibility and integrity

A one-size-fits-all approach to the transition will not work globally and is not consistent with the common but differentiated responsibilities principles of the Paris Agreement. To support the transition (both in the UK and globally), a clearer understanding of 'credible' transition finance is essential. On balance, stakeholders preferred a principles-based approach with appropriate guardrails, as this reflects the flexibility required for regional variations, differences in entity size, and the dynamic nature of the transition. The Guidelines developed by the Review, and discussed in the introduction, are an important step towards developing an understanding of credible transition finance. In addition, the Review heard evidence on the role of regulators, metrics, and taxonomies in supporting credibility.

Summary of key recommendations in chapter 5	Section
The Review recommends, in relation to the role of the Bank of England and the FCA: • Regular engagement between the regulators and the Climate Change Committee (CCC), Department for Energy Security and Net Zero (DESNZ), and the North Sea Transition Authority, to ensure a timely, accurate and evidence-based picture of the UK's transition is reflected in the regulatory framework. • For both the Bank of England and FCA to consider how to incorporate communication regarding transition finance into their regular rhythm of market engagement. • That the Bank of England and FCA should work with the Climate Financial Risk Forum to initiate a new workstream on transition finance, focussed on transition finance metrics for inclusion in commercial transition-related instruments, and to connect with other international markets to align on approaches. This work is unrelated to risk metrics and so the focus should be on action and impact (e.g. capital expenditure, operational expenditure, research & development, revenue growth) and using existing metrics (e.g. from ISSB, TPT, TPI, CA100+). The Review encourages the market to engage closely with the Climate Financial Risk Forum.	*5.4*
In relation to sustainable finance policy, the Review recommends: • UK financial institutions and regulators should engage actively with the European Platform for Sustainable Finance, European Commission and European Securities and Markets Authority (ESMA) regarding the review of SFDR, to support opportunities for convergence where possible. • The market should engage with, and where appropriate take up use of the 'Sustainability Improvers™' label. Regulatory approaches which actively make space for transition strategies should be welcomed. • As funds start to adopt the SDR 'Sustainability Improvers™' label, FCA and industry should engage to discuss approaches to establishing credible and robust transition pathways for demonstrating that underlying assets are fit for inclusion within the label.	*5.5*
The Review recommends that Government should move to issue its consultation on the use cases for a UK Green Taxonomy, aligned to the needs of investors, markets and the UK economy.	*5.5*

Chapter 6 - Scaling finance in Emerging Markets and Developing Economies

Emerging markets and developing economies (EMDEs) play a crucial role in the global transition. The transition will be context specific, and approaches need to be sufficiently flexible to ensure that all entities which need to decarbonise can access capital to support their credible transition. Supporting the transition of EMDEs is an obligation for all developed economies, but also represents an opportunity for the UK's financial and professional services sector. By 2030, EMDEs will need up to US$1 trillion per year to support their total climate finance needs from international partners, including governments, multilaterals, and private capital providers.[13]

Transition finance in EMDEs is complex. High-emitting assets in EMDEs are often newer and less economically viable to wind down than those in advanced economies. The need to sustain or increase growth and drive social development is also an urgent priority, creating challenges where transition involves the restructuring of sectors that employ many people. These barriers form part of a wider set of well-known challenges facing private capital mobilisation in EMDEs.

Summary of key recommendations in chapter 6	Section
The Review recommends international advocacy for national sector pathways and planning. Government should: • The Review recommends that the UK Government supports the development of credible science-based national sectoral pathways by interested EMDEs • The Review recommends that regulators provide further guidance on how to apply the Prudent Person Principle (PPP) in EMDE contexts, • The Review recommends that financial institution disclosures, and regulatory disclosure requirements are broadened to acknowledge that absolute financed greenhouse gas emissions - in certain EMDEs and in certain sectors - could increase before they go down.	*6.5*
The Review recommends UK to maximise the use of its levers to leverage private capital into EMDE transition: • UK Government should continue to support EMDEs interested in developing country platforms in high-emitting sectors, building on the experience of the JETPs in the energy sector. Platforms can help ensure a broad set of local and global partners understand the intended pathways and agree they are ambitious. • UK Government should continue to extend its support to BII and other mechanisms for project preparation, development of private sector transition plans and transition finance opportunities in EMDEs. • FCDO should continue funding off balance sheet concessional finance to enable BII to increase risk appetite for investment in nascent climate technologies and business models. • UK Government should support the development of voluntary reporting standards for non-listed SMEs by IPSF and engages with EU institutions including EFRAG on its work in this area. Further, it recommends that the UK supports MDBs to explore the potential for piloting a subsidised credit line for SMEs in high-emitting sectors combined with a digital data-reporting solution. In relation to the UK's role as a shareholder in MDBs, the Review recommends: • UK advocates for MDBs to explore ways of incentivising the issuance of sovereign-labelled bonds in support of Paris-aligned national transition planning and transition-focussed development. • UK strongly discourages MDBs from commercial green projects where their involvement is unlikely to be additional, and that the UK encourages MDBs to continue with originate-to-distribute business reforms, including through distributing investment products for investors specifically focussed on transition finance. • UK supports MDBs to continue providing technical assistance to countries wishing to mobilise investment to deliver their NDCs.	*6.6*

[13] LSE 2022 – *Finance for climate action: scaling up investment for climate and development.*

Chapter 7 - Delivering on the ambitions of the Review

To progress the delivery of the recommendations and broad ambitions of the Review, three key supporting factors have been considered: communication, capacity building, and governance.

Effective communication from Government, on the reality and importance of the global transition and the growth opportunity for the UK, will be critical to the transition finance market's success. Smart and sustained communication on these points is sorely needed, both for those working in financial markets and professional services, and for UK citizens more generally.

Summary of key recommendations in chapter 7	Section
Communicating the transition All stakeholders, including Government and regulators, should consider how to champion an understanding of transition finance within their organisation. This may include: • articulating the core elements of transition finance; • a clear public endorsement of the role and urgency of developing a robust transition finance market, from Ministers and senior officials; and • endorsing market best practice approaches to transition finance.	*7.4*
Capacity building Government should convene working groups, supported by the Transition Finance Council, market, regulators and key education providers to assess the critical skills gaps across organisations and develop proposals to fill those gaps.	*7.5*
Establishment of a Transition Finance Council Government should establish a Transition Finance Council, housed within the City of London Corporation. The Council should: • Act as a central hub of thought leadership in relation to transition finance in the UK, bringing together the broad range of stakeholders engaged through this Review. • Provide a governance and delivery function for tracking and implementing the recommendations set out throughout this document and periodic reporting on implementation.	*7.6*

Defining the scope of transition finance

1

1.1. Introduction and overview

The Transition Finance Market Review heard from stakeholders that the market would benefit from a clearer articulation of the scope of transition finance, and how credibility will be established in the market. Providing this clarity is a necessary but not sufficient requirement to scale a robust transition finance market.

1.2. Key recommendations

Summary of key recommendations in chapter 1	Section
Transition Finance Classification System • To support the market with classifying and understanding transition finance, the Review has developed an illustrative **Transition Finance Classification System (TFCS)**, building on the GFANZ transition finance strategies. • The TFCS is not intended to replicate a taxonomy-style classification system and is illustrative only.	*1.5*
Guidelines for Credible Transition Finance • The Review developed a set of Guidelines for **Credible Transition Finance (the Guidelines)** which set credibility and integrity parameters for financial institution transition finance frameworks to provide additional confidence to the market. • **The Review recommends that the Transition Finance Council (see section 7.6) continues to engage stakeholders on the Guidelines to finalise them for use by the market, potentially under trade association or industry-led initiatives.**	*1.6*

1.3. The role of finance in decarbonising the global economy

Decarbonising[14] the global economy will require significant investment from both public and private actors. It is estimated that an average annual investment of US$3.5 trillion to US$9.2 trillion is required to achieve the global transition to net zero by 2050.[15] Finance going to emissions-reduction projects alone will need to increase by 300 to 600% to put the world on track for a 2°C or 1.5°C pathway by 2030.[16] Facilitating and delivering this investment presents significant opportunities for growth, job creation, and sustainable development. For the UK, which has significant sustainable finance capacity relative to other markets, and is a major exporter of financial and professional services,[17] this offers an obvious area of opportunity.

A significant portion of the finance needed for decarbonisation will be required to focus on reducing the emissions of high-emitting sectors. According to Bloomberg New Energy Finance (BNEF), in 2022, less than 3% of green-funding went to industrial sectors, despite the fact that steel, cement, and petrochemical production contributed 13% of global CO_2 emissions that year.[18] A robust transition finance market can facilitate and unlock capital for economy-wide progress, in a credible way. In the UK, transitioning companies will create the demand signal, representing the other side of the coin of the Clean Energy Mission.

The UK sector emissions curves show why transitioning the energy sector is not enough, and an economy-wide transition is required, with attendant financing needs. There is an additional capital investment need of an estimated £50-60 billion annually through to the late 2020s and 2030s to deliver the UK's objective of reaching net zero by 2050.[19] So far (as seen in figure 4), a significant proportion of the reduction in emissions from 1990 to 2023 was driven by the decarbonisation of the power supply. Other sectors (such as industrial sectors, aviation, freight transport, buildings and agriculture) will require significant additional investment to finance their transition.

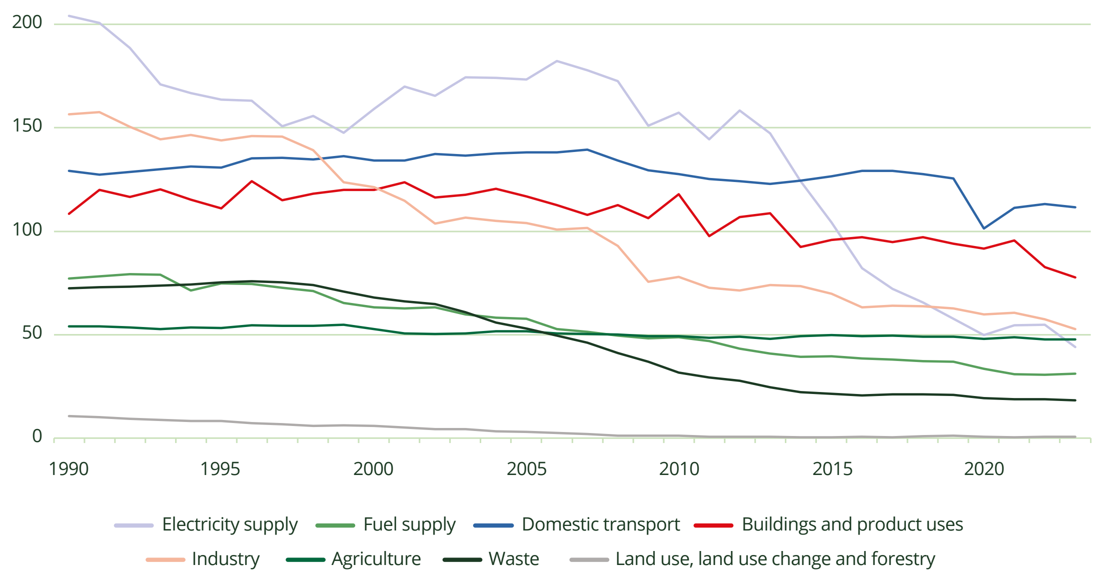


Figure 4 - UK emissions ($MtCO_2e$) by sector since 1990 Source: DESNZ[20]

Facilitating and delivering this investment from public and private sources, in the most impactful and efficient way, will be critical. If done correctly, this will present significant opportunities to the companies and investors that find themselves on the front foot. The CCC estimate that between 135,000 to 725,000 additional jobs will be created by 2030 in low carbon sectors, such as building retrofit, and the manufacture of electric vehicles.[21] In 2021, McKinsey & Company put the global market opportunity for UK companies producing the goods and services to feed the world's broader energy, transport, food, and land-use systems green capital expenditure revolution at more than £1 trillion by 2030.[22]

[14] In this report, the term 'decarbonising' is used, although it broadly refers to reducing greenhouse gas emissions.
[15] Estimates provided by Network for Green the Financial System, International Energy Agency, McKinsey et al.
[16] IPCC 2023 – *AR6 for Policymakers.*
[17] CoLC, 2023 – *State of the sector: annual review of UK financial services 2023.*
[18] BNEF 2023 – *Greener Heavy Industry is Possible, But Only With Smart Policy Support.*
[19] UK Government 2023 – *Mobilising green investment: 2023 Green Finance Strategy.*
[20] UK Government 2024 – *Final UK greenhouse gas emissions national statistics: 1990 to 2022.*
[21] Climate Change Committee 2023 – *A Net Zero Workforce.*
[22] McKinsey 2021 – *Opportunities for UK businesses in the net zero transition.*

1.4. Towards a definition of transition finance

Stakeholders engaged by the Review generally found the lack of a common definition to be a barrier to the growth of the transition finance market. Most respondents to the Review's Call for Evidence (83%) agreed or strongly agreed that there was a lack of clarity around the scope of transition finance. A globally recognised and endorsed understanding of transition finance will be of importance in framing the parameters in which the market can operate, and will help tackle the current paralysis caused by fears of making mistakes that result in litigation and reputational penalties.

A dynamic understanding of transition finance

Transition finance, in the broadest sense **incorporates the financial flows, products and services that facilitate an economy-wide transition to net zero consistent with the Paris Agreement.** This is a wide category that encompasses all finance that helps the economy to transition to net zero, including established 'green finance' categories. Stakeholders have noted that, even with such a broad definition, most transition finance activity is likely to focus on high-emitting sectors in the near-term. This is where transition risk can be concentrated, and where most impact can be achieved. As such and given the timeframes over which the Review seeks to have an impact, there is a greater focus on these areas in the Review.

Assessing the scope of transition activities and strategies must be considered in context. Decarbonisation pathways **are dynamic, non-linear, context specific and will adjust over time as targets are adjusted.** As the global economy decarbonises, the economic activities which can be seen as credibly contributing to the transition will change; new technologies will mature, and certain activities will need to be phased out. Market participants will need to continue to exercise judgement based on the information available. Challenges, reputational risks, and the potential to fall short of desired outcomes are features of any complex transformation process.

Over time, there is an ambition for **transition finance to be finance which facilitates the delivery of a credible transition plan at both the country and company level. This would represent a maturing of transition finance markets, which are currently focussed on activity-level financing, to incorporate more entity-level financing.** The Review saw widespread support for this direction of travel from stakeholders. However, it will take time to build the market infrastructure to allow this both globally and within the UK. **As such, in the meantime, a credible transition plan cannot always be a pre-requisite for access to transition finance,** and **a transition plan is not sufficient on its own to classify all finance as transition finance**. Inconsistencies in disclosure requirements, and a lack of skills and capacity for many private sector companies and some institutions create barriers in the current context. As such, the Review focusses not only on transition plans but also on interim steps that can be taken now to empower a range of actors to participate in the market for transition finance.

Consideration of which sectors and activities are in scope

The Review sought feedback on which activities and sectors transition finance should serve, and which financial products are best placed to do this. The broad view that emerged is that transition finance should focus on real-world decarbonisation impact, should not exclude particular sectors or industries, and should recognise that best practice will differ across sectors and geographies and over time.

The Review proposes that **in principle, transition finance should be regarded as an economy-wide concept that is not limited to particular sectors or industries.** Within this broader definition, **high-emitting companies and sectors will need particular focus in the near term.** This reflects the scale of emissions reductions required, the significant transition investment need, and the additional scrutiny that they will face from a credibility and integrity perspective. In practice, a principles-based approach to best practice, with appropriate guardrails, will need to be applied.

Commercial climate solutions companies and activities (e.g. wind, solar, etc.) may form part of wider transition strategies of high-emitting companies and sectors and are not, by definition, excluded from the definition of transition finance. However, the market for such solutions is more mature with key existing market infrastructure (e.g. supporting standards and frameworks). **The Review therefore considers identifying barriers and solutions for scaling finance to established climate solutions[23] to be part of transition finance, but not a focus of this report.**

[23] Noting that what can be considered "established" will differ in different economies, particularly EDMEs where non-financial barriers to green technologies may be high.

1.5. A Transition Finance Classification System

As outlined throughout the preceding sections, there are challenges associated with translating a conceptual understanding of transition finance into a practical understanding of what can, and cannot, qualify as transition finance on a case-by-case basis.[24] This lack of clarity has been cited by some stakeholders as a barrier. To bring the scope and definition of transition finance to life, and to help guide users of this report through findings, **the Review puts forward a Transition Finance Classification System ("TFCS").**

The TFCS (see figure 5) builds on an existing categorisation of transition finance. The Glasgow Financial Alliance for Net Zero (GFANZ) defines transition finance as "investment, financing, insurance, and related products and services that are necessary to support an orderly, real economy transition to net zero".[25]

GFANZ describes transition finance as falling into four broad strategies of financing entities and activities. These categories are those that develop and scale *climate solutions*; that are already *aligned* to a 1.5°C pathway; that are committed to *aligning*; and the accelerated *managed phaseout* of high-emitting physical assets. In considering these categories, the Review views an aligning strategy by reference to the Paris Agreement's goal of "holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels".[26]

The principle of common, but differentiated responsibilities will also be relevant. This recognises that the Paris Agreement goal is a global one, and considers depending on their starting points and challenges, some countries will achieve a faster decarbonisation trajectory and others will have a slower path. Consistent with the principle of common, but differentiated responsibilities, a proportionate and flexible approach may be required at company level for SMEs, growth companies engaged in climate solutions and for some cases in EMDEs.

The Review seeks to complement the four GFANZ strategies, by considering them at both the activity and entity-level. The Review has found value in considering transition finance in this way, and findings and recommendations are grouped accordingly. Chapter 3 addresses activity-level recommendations, and chapter 4 addresses entity-level recommendations. The TFCS builds an illustrative, non-exhaustive articulation of some activities and sectors which might fall within each of the GFANZ strategies. **This is not intended to replicate a taxonomy-style classification system and is illustrative only.**

Complementing the TFCS are a set of Guidelines for Credible Transition Finance, which seek to provide steps towards a common framework for assessing when financing an activity or entity credibly amounts to transition finance. Users of this report that may be going through a process of forming their own judgements as to what falls within their understanding of transition finance, may use the TFCS and the Guidelines together, as an input to their own framework building process.

The Guidelines refer to TFCS categories, and in this context:

- The term "transition activities" refers to activities described in categories 1, 3 and 5 of the TFCS.
- The term "transitioning entities" refers to entities described in categories 2 and 4 of the TFCS.

> **The Review seeks to complement the four GFANZ strategies, by considering them at both the activity and entity-level.**

[24] For example, the challenges of producers of fossil fuels are now quite different from those of fossil fuel users looking to transition.
[25] GFANZ 2023 – *Scaling Transition Finance and Real-economy Decarbonization.*
[26] UNFCCC 2015 – *Paris Agreement under the United Nations Framework Convention in Climate Change.*

Figure 5 - Transition Finance Classification System

Illustrative categories of transition finance	Description	Type of finance	Alignment to GFANZ	Illustrative examples of activities/ entities which may be financed within each category
(1) Climate solutions and enablers (activity level)	Financing climate solutions activities and activities which enable climate solutions	Specific purpose ACTIVITY LEVEL	Climate solutions	• Generation and storage of renewable and low carbon fuels and CO_2e e.g. - sustainably sourced biofuels, - Sustainable Aviation Fuel (SAF), - low carbon hydrogen, and - nuclear. • Permanent carbon removals and Carbon Capture Utilisation and Storage (CCUS) • Production and sales of products intended to substitute for existing high carbon products e.g. bamboo packaging *and* • Components for delivery of Category 1 activities e.g. electrolyser components, transmission and distribution of renewables and low carbon fuels • Production and sales of goods and services intended to support delivery of other Category 1 activities e.g. specialty chemicals, critical minerals and metals
(2) Climate solutions and enablers (entity-level)	Financing 'pure play' companies, where 90% (with a minimum expected threshold of 70%) of revenues or assets within a portfolio are derived from activities within Category 1, as classified by the supporting Guidelines	General purpose ENTITY LEVEL	Climate solutions	Financing companies where 90%, or a minimum expected threshold of 70% of revenues are derived from activities within Category 1, as classified by the supporting Guidelines
(3) Activities to support alignment (activity-level)	Financing activities which support an entity in aligning to a credible decarbonisation pathway as defined in the supporting Guidelines	Specific purpose ACTIVITY LEVEL	Aligning	• Electrification of equipment and industrial processes • Lower carbon retrofit of buildings, transport, machinery and infrastructure • Lower carbon efficiencies in equipment, processes and operations
(4) Entities which are aligned/ aligning (entity-level)	Financing entities that are aligning/ aligned and result in abatement in line with a credible transition strategy as defined in the supporting Guidelines	Specific purpose now, Moving to general purpose ENTITY LEVEL	Aligned / Aligning	'Pragmatic prioritisation' of higher emitting sectors, the decarbonisation of which drive abatement e.g. • Steel • Cement • Aviation • Shipping • Agriculture • Energy • Real Estate
(5) Early retirement of high-emitting assets	Financing activities which lead to early retirement of high-emitting assets which would otherwise continue to produce emissions	Specific purpose ACTIVITY LEVEL	Managed phaseout	• Buyout and early wind-down of coal plants • Early phaseout of coal-fired steelmaking facilities • Repurposing of coal plants (e.g. REPOWER)

1.6. Guidelines for Credible Transition Finance

Based on its market engagement, the Review understands that there is currently no widely accepted common approach to support financial institutions in the development of their transition finance frameworks.

Stakeholders have indicated that they would value having a common, principles-based voluntary framework to support institutions in the development of their own transition finance frameworks and in their evaluation of whether financing an activity or entity can amount to transition finance. This is a particular challenge in relation to financing of activities or entities that relate to decarbonising high-emitting sectors, because of the reputational risk and greenwashing risk associated with this. In this context, the Review has developed a consolidated, headline set of good practice Guidelines for Credible Transition Finance (the Guidelines) that could be applied across financing types and jurisdictions, and fit into available standards and policies.

Stakeholders highlighted that by clarifying the boundaries of credible transition finance, the Guidelines could provide the following benefits:

- **Legitimacy:** provide clarity that financing transition activities and transitioning entities (including those in high-emitting sectors) is a necessary and legitimate way to achieve whole-of-economy decarbonisation (including the decarbonisation of high-emitting sectors, which is much needed). Applied carefully, they can be used to inform institutions' own frameworks and processes to mitigate actual greenwashing risk and help to tackle perceived greenwashing.
- **Scale:** contribute to greater confidence in and scaling of transition finance across the market.
- **Transparency and comparability:** increase transparency and provide factors for financial institutions and financial market participants to consider in assessing companies, projects, and activities in relation to their transition progress and ambition.

Background to the creation of the Guidelines

The Review heard that generally stakeholders are not in favour of applying a set of detailed, activity-specific technical criteria to determine which activities are in scope of transition finance (as this would not be sufficiently dynamic or flexible to local contexts). Rather, there was strong support for an overarching **principles-based framework** that can be used in tandem with existing frameworks, pathways, and policy tools (including taxonomies). The benefits of the approach proposed by the Review include:

- A principles-based approach affords the market **greater flexibility** to consider different starting points in decarbonisation journeys, and to respond to the evolving landscape of decarbonisation pathways, technologies, science, policy priorities, and demand signals (which change depending on time, geography, and sector).
- Incorporating leading frameworks, pathways, and tools allows users to **leverage existing, respected, methodologies and information,** thus reducing the burden of applying the principles.

The Guidelines were developed by the Review in consultation with UK Finance members and individual institutions, leveraging work undertaken by the UK Finance and Rocky Mountain Institute (RMI) Transition Finance Alignment Forum to identify good practice in relation to transition finance frameworks.[27] The Guidelines use the Review's TFCS terminology.

In the design and development of these Guidelines, the Review has tried to balance:

a. stakeholders calling for more clarity on what 'credible' looks like; and
b. the need for high-level frameworks to take account of different starting points, geographical variation, and the transitory nature of this area.

Assessment of transition activities and transitioning entities inevitably requires judgement on the part of the financial institution or market participant, considering contextual factors. **Institutions will need to take particular care in their use of the Guidelines in borderline cases. If these Guidelines are used to finance activities that are not 'transitional', even if they provide some emissions reductions,[28] this will undermine the credibility of the market.**

These Guidelines set credibility and integrity parameters for financial institution transition finance frameworks to provide additional confidence to the market. **The Review recommends that the Transition Finance Council (see section 7.6) continues to engage stakeholders on the Guidelines for use by the market, potentially under trade association or industry-led initiatives.** Following further consultation, the Review notes that Government and regulators may find it helpful to review and further develop the Guidelines.

[27] RMI, 2024 – Transition Finance Resource Hub.
[28] A relevant example would be a project to reduce methane emissions by a fossil fuel company which cannot demonstrate a credible transition strategy.

Application of the Guidelines

- **Voluntary:** These guidelines are voluntary.
- **Guidelines for transition finance frameworks:** The Guidelines present a set of qualitative credibility and integrity factors relevant to the formulation and application of an institution's public or internal transition finance framework and related procedures and governance. They may be a helpful reference point for engagement with external and internal stakeholders.
- **Current good practice:** The Guidelines represent current good practice. They reflect the relative immaturity of the market at Summer 2024. Comparable private sector transition plans or strategies have yet to be widely adopted. As a result, activity-level financing (including use of proceeds and other specific purpose finance) and finance applied to 'pure play'[29] companies is more commonly considered as likely to qualify as credible transition finance than entity-level financing. This understanding may evolve as the market develops.
- **Application to entity-level finance:** The greatest potential for scaling transition finance is widely recognised to be at entity-level. The Review heard, however, that many institutions currently consider existing policy and data to be insufficient to allow entity-level classification outside of the climate solutions category (see Category 2 of the TFCS). Roll out of mandatory transition planning disclosures in the EU and UK should help realisation of this potential transition finance category for companies in those markets. Pending these developments, entity-level general purpose finance is a matter for individual institutions and categorisation as transition finance is likely to be less common. Chapter 4 addresses the steps needed to scale and support the classification of entity-level transition finance.[30] The Review notes that the relative weighting of the Guideline's Entity/Strategy Factors will likely be greater where entity-level financing is contemplated, rather than where these are used in the context of activity-level financing decisions.
- **Whole-of-economy objective:** Transition finance should enable credible whole-of-economy decarbonisation, prioritising the transition of high-emitting entities and sectors.
- **Nature, adaptation and just transition:** Relevant nature, adaptation and just transition-related factors should be considered in transition finance and any best practice financing (see section 1.7).
- **EMDEs:** Markets and other stakeholders acknowledge that individual countries, and particularly EMDEs, have different transition trajectories and starting points. Where national emissions reduction pathways do not exist or are incomplete, investors and lenders may apply global standards or targets, and these may require exemptions, flexibilities or proportionality approaches that disapply elements where they cannot be met due to constraints or lack of data. Companies may need to prioritise foundational data (e.g. basic emissions data) before seeking transition plan components, using a building block approach or timebound process to allow for capacity building. Investors and lenders may provide other flexibility mechanisms (for example extending pathway timelines). Consideration of these factors as part of framework design is helpful to benchmark approaches and to enable consistency of application.
- **Wider application:** The Guidelines are intended for application across the market, but developed primarily with credit institutions. In the time available, it was not possible to test this widely with multiple market bodies and the Review leaves the question of adoption by other parts of the financial services sector for further consideration by the Transition Finance Council, industry bodies, and individual institutions.
- **Review and update:** This is a rapidly moving area, and these guidelines should be revisited periodically, taking account of wider market guidance and evolving practice. Institutions should anticipate that expectations will tighten as the market develops. Other stakeholders should acknowledge that institutional decision-making is fairly considered by reference to the level of market maturity, market practice, and information available to the institution at the time of the decision.

[29] ICMA Principles Guidance define "pure play" organisations as "organisations that are mainly or entirely involved in environmentally and/or socially sustainable activities".
[30] Tools that would support classification of transition finance at entity-level include for example core metrics, including at portfolio level, appropriate allocation metrics for general purpose finance, such as by percentage of revenue that is transition aligning or aligned.

Financial Sector Guidelines for Credible Transition Finance

General Guidelines for classification of Transition Finance

1. **Activity-level approach:** Transition finance at activity-level may be provided to activities that are **credible** (as defined in principle 3 below) and:

   a. fall within the definition of transition activities, as described in Categories 1, 3 and 5 of the TFCS; and

   b. have been subject to appropriate consideration for their contribution to a whole-of-economy transition and the avoidance or mitigation of environmental and social risks and impacts, including just transition factors.

2. **Entity-level approach:** Transition finance at entity-level may be provided to entities that fall within the TFCS's definition of transitioning entities, as described in Category 2 and potentially, at the institution's discretion, Category 4;[31] and are in the process of implementing a **credible** entity-level strategy to decarbonise and contribute to a whole-of-economy transition, with appropriate consideration for the avoidance or mitigation of environmental and social risks and impacts, including just transition factors.

3. **Credible:** What is a credible activity or strategy should be considered by reference to the Paris Agreement's goal of "holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels"[32] and the principle of common but differentiated responsibilities.

   a. What is credible should be considered by reference to Nationally Determined Contributions (NDCs), regional, national or sector pathways, taxonomies aligned or compatible with the Paris Agreement's goal, and science-based targets. Pathways and technology roadmaps compatible with 1.5°C should be used where available.

   b. Additional consideration and proportionate flexibilities may be necessary for EMDEs to respond to the barriers and challenges outlined in chapter 6.

4. **Carbon lock-in:** Transition Finance should not lock in carbon intensive assets, processes or technologies. This should be considered with reference to climate science, net zero pathways and the availability of technologically feasible and/or commercially viable solutions. Institutions should consider the lifetime of assets and activities and avoid extension beyond net zero pathways or in compatibility with the sector pathway's emissions allowance.[33]

5. **Monitoring and reporting:** To provide transparency, transition finance should require annual monitoring and evaluation, with regular reporting in respect of transition strategy or plan implementation (where available) and outcomes from agreed baselines. This could include incentives, or declassification if transition activities are not performed and/or targets are missed. Where possible, consideration should be given to whether forward-looking metrics can complement core emission reduction and other targets, including capital expenditure.

Activity and entity or strategy level factors

To provide more granularity to support consideration of what constitutes a credible activity or entity/strategy, the following factors should be considered in determining credibility. These may be used separately or in combination. Transition strategies are relatively nascent, and so all Entity/Strategy Factors may not be satisfied in many instances. As part of good governance, companies should record which Factors are not satisfied and why, to enable broad consistency of approach and over time to drive continuous improvement.

Activity Factors

1. **Is the activity consistent with** or **enabling of** a sectoral decarbonisation scenario or pathway aligned or compatible with the **Paris Agreement?**

   • Such scenarios could include the International Energy Agency (IEA) Net Zero Emissions by 2050 Scenario (NZE).[34]

2. **Is the activity consistent with** national or regional **green or transition taxonomies** that are aligned to or compatible with the Paris Agreement, or comparable national policy-driven performance thresholds (e.g. those developed under the US Inflation Reduction Act)?

[31] See interpretation guidance on potential entity-level application.
[32] UNFCCC 2015 – *Paris Agreement under the United Nations Framework Convention in Climate Change.*
[33] For example, a steel plant relining should consider carbon lock-in.
[34] IEA 2021 – *Net Zero by 2050: A Roadmap for the Global Energy Sector.*

3. If the activity is a **high-emitting transition activity** that replaces higher-emitting activities, but which is not viable in the long-term under a net zero pathway or carbon budget, has a phaseout date and carbon lock-in been considered, by reference to a credible third-party methodology?

   • Third party methodologies may include tests under a taxonomy, such as the EU Taxonomy, the additional attributes for use of 'transitional' activities described in the GFANZ Secretariat Technical Review Note[35] or the European Bank for Reconstruction and Development's (EBRD's) approach to assess a low likelihood of carbon lock-in as part of its Methodology to determine the Paris Agreement alignment of EBRD investments.[36]

4. Are **material environmental or social risks or negative impacts mitigated** in accordance with **applicable taxonomy criteria** (if a taxonomy is engaged), **credible third-party standards** or the financial institution's own **environmental and social policies** and standards (which should be consistent with credible third-party standards)?

   • Such mitigations may include criteria such as Do No Significant Harm and Minimum Social Safeguards for example, where relevant taxonomies are used.

   • Third-party standards may include International Finance Corporation (IFC) Performance Standards and EHS Guidelines, the Equator Principles, and relevant UN Conventions and Declarations (e.g. UN Declaration on the Rights of Indigenous Peoples).

5. **Are there reporting requirements in respect of relevant metrics and targets** that reflect the activity's actual performance by reference to the applicable pathway, taxonomy or performance threshold and its mitigation of environmental and social risks and negative impacts?

   • These are most likely to be provided in labelled transactions and in project finance.

6. Are the metrics reported subject to **limited assurance or independent consultant review?**

Entity/Strategy Factors

Entity/Strategy Factors are relevant in respect of transitioning entities that are borrowers or investees not only for entity-level finance; they should also be considered in relation to transition activities financing.

1. For entities **that fall within Category 2 of the TFCS**, do their climate solutions or enabling activities[37] contribute to emissions reduction by:

   • *Climate solutions.* Demonstrating direct or indirect net contribution to and acceleration of real-economy emissions reductions, without leading to carbon lock-in as set out in Guideline 4 above?

   • *Enabling.* Being a meaningful or material component of the value chain that enables greenhouse gas emissions avoidance and/or removal (even if the business activity is associated with emissions itself)?

Additionally, for both solutions and enabling:

   • Are reasonable efforts planned or underway to address emissions reductions in the medium to long term (growth companies' emissions may scale over the shorter term), and can the activities be expected to align to a regional, national or sector pathway over time in a net zero economy aligned with the goals of the Paris Agreement? Institutions are encouraged to consider the elements of a transition strategy listed under Factor 2 below when assessing these efforts.

   • Are material environmental or social **risks or negative impacts mitigated** in accordance with applicable taxonomy criteria (if engaged) or credible third-party standards? See activity Factor 4 for further information.

2. **For entities that fall within Category 4 of the TFCS**, do their decarbonisation strategies include, or will their strategies be developed to include all or some of the following (recognising that the strategies of many entities, particularly private medium sized companies and those in EMDEs, currently may not have many of these elements):

   • If the entity has a transition plan, is it framed, disclosed and reported upon in accordance with the TPT Disclosure Framework, or the GFANZ net zero transition plan guidance, or other existing or forthcoming national, regional or

[35] GFANZ 2023 – *Scaling Transition Finance and Real-economy Decarbonization.*
[36] EBRD 2019 – *Methodology for the economy assessment of EBRD projects with high greenhouse gas emissions.*
[37] The Review notes that an entity may have business activities or divisions that fall into any of the TFCS categories. This may be dealt with in portfolios by applying multiple variables (i.e. through a dashboard of metrics to assess them against, each of which can be positive or negative to various degrees, or neutral). Categories which are not relevant for the entity would be assessed as neutral, i.e. no score or metric.

voluntary frameworks of similar rigour, scope and transparency? This should involve consideration of the entity's contribution to economy-wide transition and the entity's implementation of its transition plan.

• Consideration of the entity's **alignment to** NDCs, regional, national or sector pathways or taxonomies aligned or compatible with the Paris Agreement's goal or science-based targets, as set out in Guideline 3;

• a **net zero ambition**, preferably specifying a 1.5°C pathway,[38] by a stated endpoint;

• current and planned **capital expenditure and operational expenditure** to deliver the strategy and increasing alignment of this with interim targets and net zero ambition;

• scope 1 and 2 absolute greenhouse gas emissions reduction **interim targets** aligned or compatible with the Paris Agreement;

• scope 3 (where material) absolute greenhouse gas emissions reduction **interim targets** aligned or compatible with the Paris Agreement;

• consideration where applicable of **carbon lock-in and sunset dates** for relevant assets;

• consideration of key dependencies, for example power supply of the countries where the entity's assets or significant suppliers (for Scope 3 greenhouse gas emissions) are located;

• alignment to the strategy of **the entity's engagements across the value chain**, and with other stakeholders and public entities; and

• **transition-related targets and key performance indicators (KPIs)** in respect of actions within the control of the entity.

3. Is there **oversight** of the approach under Guideline 1 or the transition plan or strategy under Guideline 2 by the entity's **board of directors.**

4. Is there **public disclosure of the entity's strategy or transition plan** and **annual disclosure of progress** against it?

5. **Is external assurance** in place or to be provided on an annual basis in respect of metrics, targets, KPIs and information used in the entity's transition strategy, in order to demonstrate progress.

   • Assurance can consist of limited assurance over metrics and targets disclosed as part of a transition strategy.

6. Has the entity's business model or transition strategy been the subject of **external rating or scoring** as part of a Net Zero or similar assessment by a third-party organisation?

[38] The Review acknowledges that alignment with 1.5°C pathways will lead to different achievement dates between companies in advanced economies and companies in EMDEs (such as in the IEA NZE pathway).

1.7. Considerations beyond emissions

The Review sought feedback on the role and prominence of non-emissions factors such as nature, adaptation and just transition considerations within transition finance. The feedback reflected the sentiment that risks and opportunities related to non-emissions factors must increasingly be incorporated into broader strategic decision-making. The evaluation of potential trade-offs between climate and other objectives may differ by region or other factors and should be conducted with reference to available international guidance and principles.

Initial steps to bring non-emissions factors into decision-making include the following examples, and more must be done by the Government and the private sector in this regard:

- The TPT Disclosure Framework provides that an entity should disclose “whether and how it has identified, assessed, and taken into account the impacts and dependencies of the transition plan on the entity’s stakeholders, society, the economy, and the natural environment, throughout its value chain, that may give rise to sustainability-related risks and opportunities”.
- The TPT Disclosure Framework recognises that how entities map and engage with their supply chains and how they integrate consideration of climate adaptation are areas of transition planning and transition plan disclosure.
- Climate Bond Initiative reports the coupling of mitigation and adaptation action in sovereign green bonds as a growing priority for EMDE Debt Management Offices.
- The Review heard from stakeholders that companies, investors and governments internationally are increasingly sensitive to the importance of delivering a just transition.
- The Review heard from stakeholders that when making decisions over the provision of transition finance, adaptation and climate resilience matters should fall within environmental risks that are considered.

At this stage, **the Review recommends in the near term that a whole-of-economy approach to emissions reduction remains the primary objective of transition finance.** However, governments, the market and civil society must continue to consider how non-emission elements can be integrated into decisions over the provision of transition finance. Non-emission factors should over time be incorporated into all strategic and financial decisions, regardless of whether these are classified as transition finance.

Pathways and policy

2

2.1. Introduction and overview

As outlined in chapter 1, transition finance should facilitate an economy-wide transition to net zero. Governments have an important role to play in achieving this, seeking to set, communicate and implement policy, regulatory and funding frameworks in a way that gives companies and financial institutions as much clarity as possible. Without this, it is unlikely there will be a widespread shift in incentives through the economy necessary to drive the transition The proposals outlined in this chapter relate to the UK's net zero policy framework; however, many will be relevant internationally. Robust jurisdictional policy and pathways were identified as a critical factor underpinning a credible transition finance market for any market. Two key issues were highlighted to the Review:

- The importance of developing and implementing clear pathways and policy across the economy.
- The importance of clear and consistent communication of policy positions and updates.

2.2. Key recommendations

Summary of key recommendations in chapter 2	Section
Policy certainty and sector decarbonisation pathways • Government should work with industry to consider the most appropriate structure of its net zero policy framework, with a focus on building sufficient demand-side policy. By Q1 2025, Government should communicate its findings, and an assessment of whether adjusting the structure of the UK's net zero policy framework would improve information flows and policy clarity. • Government should reinstate, by the end of 2024, a form of the Net Zero Council, to develop improved decarbonisation pathways. • Industry should commit to being a 'better customer' of information produced by Government, and working through the Net Zero Council, provide clearer and more detailed proposals where further policy clarity is sought and feedback on identified problems. • Government should consider the practical policy barriers and dependencies for the roll out of key technologies, and the decarbonisation of key sectors, in a systematic way.	*2.3*
Communicating net zero policy with industry • Government should consider the best communication methods to provide industry and financial institutions with timely and accessible information regarding policy, regulatory and funding initiatives.	*2.4*
National transition planning • Government should consider, through the update to the Carbon Budget Delivery Plan in Spring 2025, use of the emerging global framework for national transition planning and the five critical components outlined in this section.	*2.5*
Green Financing Framework • Government should consider how to incorporate credible transition spend into its existing Green Financing Framework.	*2.5*
Macro-level transition levers • Net zero pathways and policy measures should be considered in the context of what can be achieved at a macro-level, by adjusting incentives - including taxes, subsidies, and carbon pricing, to ensure that all levers are pushing towards achieving net zero.	*2.6*

2.3. Sectoral pathways and policy

Sectoral decarbonisation pathways

The Review has heard consistent evidence that sectoral pathways are essential for understanding the pace of emissions reduction that can be achieved over time, as well as the choices, trade-offs, and implications.[39] In 2021, the IEA published its *Net Zero by 2050: A Roadmap for the Global Energy Sector*,[40] which set out a comprehensive pathway for the global energy sector to reach net zero emissions by 2050. An updated report was published in 2023 which includes more than 400 key milestones for different sectors and technologies.

Global pathways are an important reference point; however, country sectoral pathways are of greatest relevance because they tailor strategies to the specific economic, social, and environmental contexts of individual jurisdictions, ensuring that decarbonisation is practical and aligned with national priorities.

Country sectoral pathways can:

- Provide a pathway for market participants to link their activity to carbon budgets within that jurisdiction, and in doing so provide a benchmark to assess the credibility of planned decarbonisation activity.[41] **This is a key supporting factor for widespread credibility and integrity within transition finance markets** (explored further in chapter 5).
- Signal to the wider market the technology and investment needs to achieve net zero and the interim steps that must be achieved. This allows companies and investors to make investment and development decisions with greater confidence.
- Focus policymakers on priorities and the key decisions that need to be made, particularly with reference to national infrastructure with significant up-front costs and long lead times.[42]

To fulfil these purposes, sectoral pathways need to go beyond being illustrative (i.e. laying out what a potential pathway might look like) and consider the practical steps that will need to be taken and their cost, sequencing, and dependencies. Over time and aligned to what is increasingly being asked of companies in their own transition planning activities, governments should start to articulate the financial assumptions underpinning their proposed decarbonisation pathways. Understanding total investment need, articulating the public financial mechanisms which will be deployed, and assessing whether they will achieve sufficient private capital mobilisation will give greater confidence to the market. Given the long-term nature of infrastructure investments, pathways must clarify which approaches are off the table and how limited resources will be allocated. Sectoral pathways should be regularly reviewed and updated to reflect changes in technology availability, market readiness, and cost.

Sectoral decarbonisation pathways in the UK

The UK has a well-respected net zero policy framework. Anchored to a robust legal framework through the Climate Change Act 2008[43] and informed by expert, independent analysis undertaken by the Climate Change Committee (CCC), it is a framework that has delivered emissions reductions consistent with budgets to date. Through the 2021 Net Zero Strategy, and more recently in 2023 through the Carbon Budgets Delivery Plan,[44] Government has provided a significant amount of detail on pathways, plans, and policies to achieve forthcoming Carbon Budgets. However, this Review, and others before it, have noted there is a disconnect between the level of detail provided by the Government and ongoing widespread calls from industry for more policy certainty to guide the economy.

Several areas of disconnect were highlighted to the Review, including how information about policy is provided to the market and kept current, as well as the overall structure of the policy framework, which inadequately addresses demand-side measures. Focussing on emissions reductions through a few large, aggregated sectors, combined with detailed plans and funding for the *supply* of new technologies, has created gaps, especially on the *demand* side. A notable example mentioned during engagements was the lack of policy and funding to support the demand for green hydrogen (see case study 1).

> **"Sectoral pathways need to go beyond being illustrative."**

[39] CCC 2023 – *CCC: Insights: Determining a pathway to Net Zero.*
[40] IEA 2021 – *Net Zero by 2050: A Roadmap for the Global Energy Sector.*
[41] This supports the assessment of whether an entity's transition strategy is aligned to national ambitions and its exposure to transition risk.
[42] Such as grids, CO_2 transport and storage, port and airport fuel supplies.
[43] UK Government 2024 – *Climate Change Act 2008.*
[44] UK Government 2023 – *Carbon Budget Delivery Plan.*

Case study 1 – The role of hydrogen in industrial decarbonisation

The Government has set an ambition of 10GW of hydrogen production by 2030. This is supported by a range of policy frameworks, business models and funding schemes. This has successfully kicked off a growing hydrogen production environment in the UK, with a pipeline of over 250 projects in place.[45] Although this is positive, the Review has heard that there is an over-emphasis on policy to spur the *supply* of key emerging technologies, with less well-developed policy to spur *demand* for these technologies.

For example, the Government has set out a clear ambition for industrial decarbonisation, where emissions should see a 90 to 96% reduction by 2050.[46] Companies in industrial sectors are likely to be key customers for green hydrogen. However, the UK's policy framework covering industry is aggregated, grouped as industrial decarbonisation, rather than considered as individual, unique sectors e.g. steel, cement, chemicals. This means that there is an absence of clear, sectoral pathways in sectors which will be central to demand for emerging technologies. Government itself notes that "industrial energy use and emissions are highly diverse, with significant variation in how and why emissions happen, even within sectors or locations".[47] Given this, an aggregated approach may not provide companies in those sectors with sufficient clarity and confidence, reducing their ability to signal future demand.

Governments in the UK and in other jurisdictions have a careful balance to strike. In many areas of the transition to net zero, uncertainties remain as to which solutions will be most appropriate and cost effective, and how quickly nascent technologies can reach commercial maturity. The market needs room to innovate and reward successful solutions; however, many transition technologies are not yet commercially viable, and the urgency of the transition necessitates a clear framework for when and how Government support will be provided.

The development of indicative decarbonisation pathways across key sectors of the economy in a sufficiently disaggregated way will generate the confidence required for private investment to flow at the scale and pace required. The UK hosts a number of not-for-profit transition pathway expert bodies, for example, the Transition Pathway Initiative, World Benchmarking Alliance and Science Based Targets Initiative, and can also draw on their expertise. The ideal approach fosters a collaborative ecosystem where market dynamism is complemented by thoughtful, long-term government direction. A good example of where a jurisdiction has married pathways to commercial maturity for specific technologies, with analysis and pathways for sources of demand, is the US Department for Energy's Liftoff Reports (see case study 2).

Case study 2 – US Department of Energy Liftoff Reports

The US Department of Energy (DoE) has developed a number of 'Liftoff Reports' which map out the pathway to commercial maturity (liftoff) for a specific technology (e.g. clean hydrogen, long duration energy storage) or a suite of technologies required for a particular sector's transition (e.g. iron and steel, pulp and paper, chemicals and refining).

The mapping covers the current state of technologies and markets, pathways to commercial maturity, challenges and potential solutions, and metrics to track progress. The reports provide perspective on when various technologies could reach full-scale commercial adoption – including critical signposts for investment decisions, developed through extensive stakeholder engagement and a combination of system-level modelling and project-level financial modelling.

The Reports were developed through Department of Energy-led engagement with experts across the clean-energy landscape. They are considered live documents and will be updated based on best-available information.

[45] UK Government 2024 – *Hydrogen Net Zero Investment Roadmap: Leading the way to net zero.*
[46] UK Government 2024 – *Industrial decarbonisation strategy.*
[47] UK Government 2024 – *Industrial decarbonisation strategy.*

Crucially, the development of clearer sector pathways must be delivered through closer and more effective collaboration between industry and policymakers. Government needs to find effective and efficient mechanisms to consistently hear from a wide range of companies, standard setters, and financial institutions operating within sectors, to understand the barriers they face to achieving their decarbonisation goals and to receive live feedback on policy as it is developed and implemented. This may include seeking stakeholder input into policy development earlier in the process. In parallel, industry needs to become a better customer of the information and guidance produced by Government, feeding back more detailed, technical proposals to solve for issues, and flagging problem areas as it becomes aware of them. The Review has heard positive feedback regarding the role of the **Net Zero Council** in relation to this. Further, some policy critical to the delivery of net zero is devolved. To develop and implement pathways successfully, Devolved Administrations (DAs) must be empowered to take necessary actions.[48]

To address some of the pathways and policy issues highlighted, **the Review recommends:**

- **Government should work with industry to consider the most appropriate structure of its net zero policy framework, with a focus on building sufficient demand-side policy.** This may include, for example, breaking out policy work for industrial decarbonisation into component sub-sectors (e.g. steel, cement, chemicals etc.), and giving due consideration to sectors which cut across multiple elements of the existing framework (e.g. hospitality or retail). By Q1 2025, **Government should communicate its findings, and an assessment of whether adjusting the structure of the UK's net zero policy framework would improve information flows and policy clarity.**

- **Government should reinstate a form of the Net Zero Council before the end of 2024.** This structure should become a key engagement route between policymakers, standard setters, industry, and financial services firms. The Review recommends the Council focusses on:
  • Supporting Government to assess an efficient sectoral and sub-sectoral structural split, as per the recommendation above.
  • Subject to outcomes, the Council should establish a working group for each sector and sub-sector considered by Government. **Working groups should be tasked with providing detailed analysis of sectoral decarbonisation, to inform Government on pathways, barriers, investment needs and any material implications for other parts of the net zero ecosystem.**
  • Following initial analysis, these working groups should be used by Government to test the development and implementation of policy on an ongoing basis and to support the development of solutions to any barriers identified. An EU programme for the decarbonisation of steel has been cited as a good case study.[49]

- **Industry and financial services firms must commit to engaging with the Net Zero Council, providing clear, specific detail where policy gaps remain, and being a 'good customer' of information provided, and partners in the mission.** As outlined above, public-private collaborations are going to be necessary to achieve the economy-wide transition sought. This will require careful input from industry and firms.

Practical policy to unlock investment and lending decisions

Developing the right sectoral pathways is an important step. In addition to this, delivering on those pathways through the right policy will be necessary to underpin confidence in the transition. A number of anecdotal cases articulated to the Review suggest that, even in areas where a high degree of policy certainty has been provided, practical barriers can remain.

Two examples raised with the Review bring this issue to life:

- **Decarbonisation of road transport:** The policy framework in place for the UK's road transport decarbonisation journey is an example of sending clear, long-term signals which can be used to predict future demand. The framework consists of clear targets for the supply of new technologies, clear phaseout dates to dampen the demand of incumbent technologies, and a coherent set of funding schemes encourage investment. Despite this clarity, **the Review heard that a number of major UK banks are currently unable to provide senior debt for charging infrastructure projects.** This is largely due to perceived risks around payment mechanisms rather than risks around the underlying security of the asset given the likely significant demand. Multiple payment methods and customer interfaces create uncertainty in predicting demand. This highlights that, despite strong policy frameworks being in place, it should not be assumed that a major source of private capital will be available without careful consideration of other practical factors including standards and harmonisation of the customer experience.

[48] Given the time available to the Review, there have been limited opportunities for engagement with the DAs.
[49] ESTEP EU 2024 – *Green Steel for Europe.*

- **Carbon Capture, Utilisation and Storage (CCUS):** In 2023, the UK Government's "CCUS Vision" planned £20 billion of investment to develop a domestic CCUS market, building capacity of 20-30 $MtCO_2e$ by 2030. A series of CCUS 'clusters' are proposed, which will be funded sequentially.[50] The Government announced on 4 October 2024 its decision to fund two CCUS projects.[51] Significant capital and a clear policy framework is in place. **The Review has heard, however, that a requirement for a first-of-a-kind permit (in terms of its application to CCUS) for a CCUS project, resulted in delay while the precise requirements were scoped and met.** This kind of delay should be avoided where possible, it encourages internationally active investors seeking project opportunities to look elsewhere.

The Review recommends that Government prioritises consideration of practical barriers and dependencies for the roll out of key technologies, and the decarbonisation of key sectors, in a systematic way. This should be done in close collaboration with industry and highlighted **as an area for focus of the Net Zero Council.**

> **Having the right policy and pathways in place is critical, however equally important is communicating this in a way which is clear and decision-useful to market actors.**

2.4. Communicating with industry

Having the right policy and pathways in place is critical, however equally important is communicating this in a way which is clear and decision-useful to market actors. Returning to the sense of disconnect between Government plans and how industry interprets them, the Review sees communication methods as a significant contributor to that. The Government has a range of practical constraints to consider regarding communication, particularly ensuring the provision of information mandatory under the requirements of the Climate Change Act. However, **the Review recommends that Government should consider the key factors below, which were raised throughout engagements.**

- Long-form strategy documents may not be the most effective method for communicating plans and progress to a wide audience. The length of these documents can be a barrier, especially to companies without dedicated resource to digest and understand them, and companies that do not neatly sit within the boundaries of the existing structure and as such need to digest multiple sections.
- The pace of policy development underway means publications can become outdated quickly. Stakeholders noted that there is currently no central way to identify when policy has been superseded by a more recent announcement, and what the most up to date information is regarding a given sector.

It is expected that, increasingly, larger companies and financial institutions in the UK (and other jurisdictions) will be implementing transition planning in line with the TPT Disclosure Framework. The Review sees benefit in aligning the rhythm, content and structure of reporting done at the corporate and sovereign level, where appropriate. This is particularly important when considering the need for better public-private engagement and collaboration on pressing issues, and the need to introduce a feedback loop between corporate and sovereign actors. The Review addresses recommendations regarding the UK's entity-level transition plan disclosure framework in chapter 4. In establishing a framework for companies, it will be important for Government to understand how it may communicate material external dependencies relevant to transition planning. Policymakers and regulators should be able to use private sector transition plan disclosures on dependencies and assumptions as a source of information from industry on the necessary

[50] UK Government 2023 – *Carbon capture, usage and storage: a vision to establish a competitive market.*
[51] UK Government 2024 – *CCUS investment decisions.*

enabling environment for their plans and any current shortfalls. Using this information and reflecting it in clear government planning can harness the 'ambition loop' and create a transition planning ecosystem in which transition finance and implementation can scale. Examples of the types of dependencies that companies and financial institutions will be considering are outlined in table 3.

Table 3 - Typology of dependencies that can influence a private sector transition plan[52]
Source: Rose, Shrimali, & Halttunen (2024)[53]

Category	External dependency	Type
Non-physical	Policy strategy	• National decarbonisation strategy • Geopolitical environment (e.g. threats to energy security, trade of critical resources)
	Regulatory framework	• Real economy regulation (e.g. permitting process) • Carbon pricing mechanisms and subsidies • Financial regulation • Legal framework (e.g. ESG litigation risks)
	Market and economics	• Capital availability and cost • Energy and commodity prices
	Public acceptance	• Concerns about local effects • Just transition
	Consumer and client behaviour	• Willingness to reduce demand and/or adapt behaviours • Willingness to pay a green premium
Physical	Infrastructure and logistics	• Availability of infrastructure and logistics for transport, distribution, and storage
	Technology	• Technology readiness levels and innovation • Efficiency improvement • Technology lock-in
	Resource availability	• Availability of land, raw materials, and other inputs
	Ecosystem services	• Climate change impact
	Labour availability	• Availability of skilled workers

[52] Based on assessment of disclosure guidelines on external dependencies TCFD, TPT, ISSB, CSRD, and GFANZ.
[53] Rose, Shrimali, & Halttunen 2024 – *A framework for assessing and managing dependencies in corporate transition plans.*

2.5. National transition planning

For companies and investors operating across multiple jurisdictions, consistency between how countries develop and present their decarbonisation pathways is important. The UNFCCC and G20 are leading global efforts advocating for NDCs to be supported by national transition planning. A recent policy brief to the G20 stated that these plans should include "stronger strategic orientation; a deeper focus on whole-of-government planning; and coherent policies, pathways and investment plans that target a just, equitable, low-emissions, climate-resilient economy."[54] The paper outlines five core functions:

1. set a clear strategic direction;
2. provide a costed action and investment plan;
3. act as a coordination vehicle between Government and the private sector;
4. bring everything together into one coherent document, following the same structure as private sector transition plans, applying the TPT and GFANZ approach; and
5. embed commitment and accountability mechanisms and develop the institutional frameworks to support them.

Capabilities to develop and implement national transition planning principles will vary between jurisdictions, and for some the administrative burden of developing such a plan will not be appropriate. However, the Review welcomes work to develop a globally applicable, sovereign-level framework, and encourages advanced economies, including the UK, to consider testing the use of such a framework and supporting EMDEs who wish to develop their own.

National transition planning in the UK

The UK has already established and published many core elements of the emerging national transition planning framework. In considering how to improve the communication approach of existing and future policy, **the Review recommends that, through the update to the Carbon Budget Delivery Plan in Spring 2025, Government should consider the framework and embrace medium-term development of a National Transition Plan**, focussing on the key gaps identified above including:

1. Developing more granular and strategic disaggregated sector decarbonisation pathways, as outlined above. Communication regarding these pathways should focus on key targets, the most material policy in place to deliver those targets, clear articulation of the analysis and assumptions showing how the policy in place is expected to deliver the desired outcome, the KPIs in place to track progress and the trigger points for further changes or for further work to be done should the sector move off track.
2. Consider the most efficient mechanisms for providing the market with material updates between major communications moments, for example through an online Net Zero Dashboard. This could provide a central, searchable resource, split by sector, which provides a snapshot of the most relevant policy, regulatory and funding initiatives, and highlights when and where material updates or changes have been made.
3. Aligned to the sectoral pathways, Government should consider more closely the investment needs to reach stated targets, and over time look to articulate the public financial levers available to facilitate that investment. Recommendations regarding a Transition Finance Lab (see section 3.4) explore how this may be achieved.
4. Setting roles, responsibilities and mechanisms for delivery of emissions reductions and co-ordination within government including co-ordination with the Mission Control for Clean Energy, and with the Government's Industrial Strategy.
5. Effectively communicating these critical components to market participants in a clear, inclusive, and timely manner, in a format which aligns with private sector transition plans and creates positive feedback loops between the public and private sector, accelerating delivery.

One benefit of providing clarity on the points above, is related to the **sovereign debt market**. The Review has heard clearly from financial institutions that they are seeking to develop robust approaches to transition financing, and many recommendations throughout this document seek to support them in doing so. Often with significant green or transition investment or lending targets to meet, financial institutions are actively looking for credible opportunities to deploy capital in a way that aligns with their broader objectives and transition-related targets. Several stakeholders have made clear that investment is often looked at on a country-by-country basis; provision of policy information relevant to investment decision making in an easy-to-use format for investors is an obvious step for a country seeking to encourage investor interest.

For those that invest in sovereign debt, a closer connection between a robust national transition plan, and the issuance of gilts which can articulate how spend is allocated to the delivery of national transition planning, has the potential to attract a deep pool of investors. As such, and subject to sufficient progress being made on the recommendations above, **the Review recommends that the UK Debt Management Office, HM Treasury and key spending departments should consider how to incorporate credible transition spend into the existing Green Financing Framework.**[55] This consideration should be subject to market appetite and preferences at the time. Many of the component parts outlined above are in place or in development within the UK. This means it can be a first mover in developing national transition planning and can **help to shape and encourage global sovereign-level transition planning capabilities.** In

[54] Mark Manning et al., 2024 – *Taking the lead on climate action and sustainable development, September 2024.*
[55] UK Government, 2021 – *UK Government Green Financing Framework.*

the first instance, this would include welcoming the G20 Presidency's work on national transition planning, considering its application through the Carbon Budget Delivery Plan in Spring 2025, and exploring how to utilise international capacity building networks, such as the UK's role in the NDC Partnership, to support other jurisdictions that may want to adopt a similar approach.

The UK, and many other jurisdictions internationally, are now working to provide companies and investors with the clarity they need to engage with the transition. This must be commended. The Review has heard, as others have before, that at times there remains a disconnect between policy and pathways provided, and how that information is sourced and then interpreted by key users. This is avoidable, and the Review encourages Government to consider the recommendations outlined in this chapter as potential helpful steps to bridge that disconnect, supporting the UK's attractiveness as an investment destination.

2.6. Macro-level transition levers

To support economy-wide decarbonisation, transition policy and planning should consider all available tools, including systemic levers that would support the tilting of incentives away from the traditional (carbon-intensive) economy and towards a lower carbon future.[56]

The Review has consistently heard from stakeholders that unless the risk-return profile of transition investments is comparable with, or better than, available returns from green and traditional (carbon-intensive) investments, transition finance will not flow at scale. This can be addressed with a variety of de-risking tools that apply at the individual technology and transaction level (see chapter 3 on scaling activity-level transition finance) and through capacity building; however, it is essential to consider these measures in the context of what can be achieved at a macro-level, by adjusting incentives - including taxes, subsidies, and carbon pricing, to ensure that all levers are pushing towards achieving net zero, while also factoring in affordability and competitiveness considerations.

Carbon pricing and carbon markets

Carbon pricing can be a powerful tool to address the misalignment between traditional economic incentives and the needs of a net zero future. Carbon pricing mechanisms, such as carbon taxes or cap-and-trade systems, put a price on greenhouse gas emissions, creating a financial incentive for companies to reduce their carbon footprint and invest in lower-carbon technologies and practices. This can be an important tool in bridging the 'green premium' for low carbon alternatives essential to the transition. For example, abatement costs for CCUS are highly uncertain but likely to be significant, as much as £160-180 per tonne of CO_2 stored,[57] which is much higher than the carbon price of £36 per tonne currently reflected in the UK Emissions Trading Scheme (UK ETS).[58] In the absence of a higher carbon price, the Government will need to apply public capital to address this gap, for example through revenue support models.

The World Bank finds that 24% of global greenhouse gas emissions are now covered by an Emissions Trading Scheme (ETS) or carbon tax,[59] up from only 7% a decade ago. However, an implementation gap remains between countries' commitments under the Paris Agreement and implemented policies, with the price of carbon falling short of the ambition needed to achieve the Paris Agreement goals.[60] It will also be critical for industry to increasingly reflect carbon pricing assumptions in their transition plans. **The UK Government can support the growth of carbon pricing by taking actions to increase the ambition of its compliance schemes**, including implementing a Carbon Border Adjustment Mechanism (CBAM), **expanding the scope and ambition of the UK ETS and improving alignment and connectivity to equivalent EU schemes.**

Voluntary Carbon Market

The Voluntary Carbon Market (VCM) can be a means of mobilising finance towards transition activities, including projects that reduce or remove carbon emissions in support of UK or international decarbonisation goals. The application of carbon credits will also play a role in companies' transition strategies. Recognising the significant potential and the opportunity that hosting a high-integrity VCM could provide, including for scaling transition finance specifically, a clear indication from the UK Government of willingness to anchor this market would be helpful. As such, **the Review recommends that the UK Government promptly issues its consultation on scaling a high-integrity VCM.** As part of the consultation, it should seek to provide clarity on the role of carbon credits within best practice private sector transition plans, leveraging or endorsing the work of leading international bodies.[61]

The Government should also support the broader ambition and applications of carbon markets (voluntary, compliance, and Article 6) by demonstrating ambition and leadership in international forums, including as part of G20 and UNFCCC negotiations.

[56] Stechemesser et al. – *Climate policies that achieved major emission reductions: Global evidence from two decades,* Science Adviser (Vol. 385, Issue 6711).
[57] McKinsey & Co. 2022 – *Global Energy Perspective 2022.*
[58] Statista 2024 – *UK ETS carbon price 2022-2024.*
[59] World Bank 2024 – *State and trends in global carbon pricing.*
[60] Less than 1% of global greenhouse emissions are covered by a direct carbon price at or above the range recommended by the High-level Commission on Carbon Prices to limit temperature rise to well below 2°C.
[61] Such as the Integrity Council for the Voluntary Carbon Market (IC-VCM) which supports the identification of high-integrity carbon credits, and the Voluntary Carbon Markets Integrity Initiative (VCMI) which supports their credible use.

Scaling finance for transition activities

3

3.1. Introduction and overview

The previous chapters set out practical recommendations for Government and market stakeholders to support clarity and confidence in the transition finance market. This chapter looks at practical interventions to scale transition finance for transition activities. Transition activities are defined under categories 1, 3 and 5 of the Transition Finance Classification System and include climate solutions activities, within value-chain emissions reductions activities for aligned or aligning companies, and activities which support early retirement of high-emitting assets.

The Review has heard that the lack of commercial viability is the most significant underlying barrier to scaling finance for transition activities, particularly in respect of emerging transition technologies and first-of-a-kind projects. Commercial viability challenges include both supply side and demand side challenges. To address these, a variety of de-risking levers and supportive mechanisms will need to be deployed by both public and private actors, set within an enabling policy and regulatory environment.

3.2. Key recommendations

Summary of key recommendations in chapter 3	Section
Refinement of the Public Finance Institution (PFI) landscape Recognising the important role of PFIs and blended finance, as part of its proposed refinement of the PFI landscape, the Government should: • Target market failures and adjust PFI mandates in respect of new projects to focus on supporting high-risk, emerging transition activities that the market cannot finance independently, ensuring concessional terms and/or the ability to blend with grants where necessary. • Rationalise and streamline the various government funding and blended finance structures available and ensure adequate expertise and economies of scale. • Create a single, user-friendly gateway for the private sector to engage. • Develop a searchable database or 'knowledge bank' of structured transition finance solutions across PFIs to accelerate the replication of successful models, requiring disclosure of high-level structure information as a condition of PFI support.	*3.3*
Establishment of a Transition Finance Lab The Government should establish and fund a Transition Finance Lab, based in the Green Finance Institute (GFI), to work with finance, policy and industry, to design, develop and test finance structures to accelerate sector-specific transition pathways. • The Transition Finance Lab should address specific transition finance sectoral or technology challenges that cannot be addressed through the standard investment process of financial institutions and PFIs. • The Transition Finance Lab should be led by the private sector; however Government should establish and fund the lab, providing guidance as to the sectors and technologies it should prioritise, and creating formal mechanisms to consider and act on its recommendations. • Guided by what makes most sense for the sectors or solutions that the Transition Finance Lab prioritises, it should develop and pilot structured solutions which may include consideration of aggregation, funds, securitisation and insurance solutions. • The scope of the Transition Finance Lab could be extended beyond the UK to include deploying tested solutions and developing innovative solutions for EMDEs, building on the UK's experience participating in the Global Innovation Lab for Private Finance.	*3.4*
Creating an aggregated demand signal Government should consider supporting a more comprehensive and structured approach to demand aggregation for emerging transition activities, including strategic use of public procurement and the creation of technology-based demand aggregators.	*3.5*
Insurance for transition activities Brokers and (re)insurers should: • adapt existing product offering and develop innovative new insurance solutions to address risk protection gaps; • collaborate with the Transition Finance Lab to assess specific challenges associated with the financing of transition activities and design insurance solutions and risk management practices to address them; • work with Government and the City of London Corporation to promote the role of the UK's insurance market in domestic and global transition finance; and • continue to evolve their strategies and practices in support of the transition.	*3.6*

The Review has considered a broad range of public and private de-risking methods. It is clear that **there is no silver bullet to scale transition finance**; a series of interventions will be necessary by the market, Government and regulators.

This chapter will address the potential levers and mechanisms to de-risk and scale finance for transition activities such as:

- targeted use of blended finance and other public support mechanisms;
- matching, sequencing and stacking the right capital to the right projects and activities;
- creating a demand signal for transition activities; and
- deploying insurance solutions to de-risk and support the commercial viability of transition activities.

3.3. Targeted use of blended finance and other public support mechanisms

Figure 6 shows a simplified diagram of how technologies at different stages of development can be supported through a mixture of policy and regulatory levers and applications of blended finance. Long-term policy certainty (as set out in chapter 2), coupled with targeted applications of blended finance can be catalytic in increasing private sector confidence and accelerating the development of novel transition activities.

In chapter 2 the Review introduces the importance of considering and enabling new technologies within sectoral pathways and wider policy making as a component of enabling an economy-wide transition. Blended finance - *funding interventions which combine public and private funding, with the aim of lowering risk and attracting private investment* - can help to make this happen, including for first-of-a-kind projects.

Blended finance mechanisms can take many forms (see table 4), with the common objective being to de-risk. This may include the use of guarantees or government taking junior positions in the capital stack that help de-risk investments and prove viability of investments that should become commercially viable over time. By doing so, blended finance unlocks private investment and enables projects that would not be feasible under purely commercial terms.

The success of blended finance hinges on its ability to catalyse market development and technological advancement (additionality)[62] while ensuring value for money. It can be applied to large infrastructure projects, programmatic projects (for example domestic heating and insulation) and early-stage climate solutions. Data generated on the performance of blended finance transactions in turn supports the development and financing of similar projects or entities in the future.

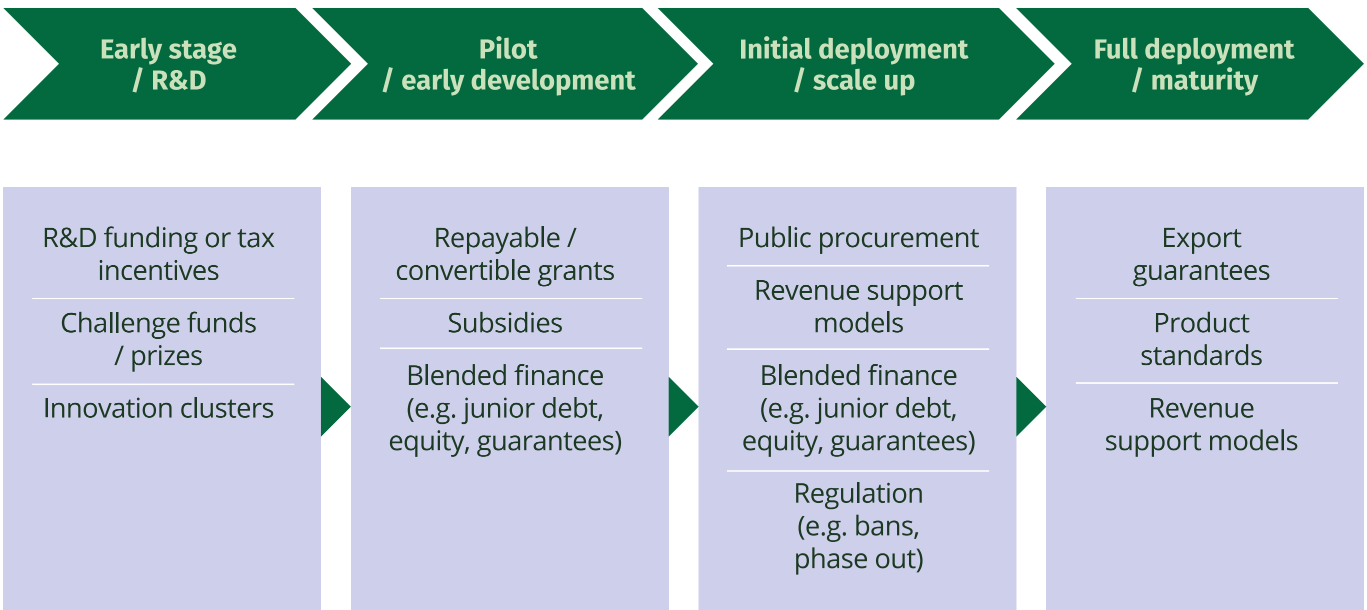


Figure 6 - Simplified schematic showing how policy and regulatory levers might be applied across the development of transition activities (intended to be illustrative and non-exhaustive)

[62] i.e. not funding deals that are already commercially viable / the private sector can currently finance.

Table 4 - Examples of blended finance mechanisms used to scale transition activities

Blended finance mechanism	Description
Debt mechanisms	Debt instruments typically include loans, direct lines of credit and bonds. *Concessional* debt is provided at more attractive conditions than market terms.
Senior vs. junior ('subordinated') positions	Junior or subordinated positions mean the public capital takes higher risk (e.g. 'first loss') compared to private investors holding senior debt and equity positions.
Equity mechanisms	Investors take a share in the ownership of a company or project and derive a claim on the future cash flows. As in debt structures, there are typically senior and junior (subordinated) tranches.
Grant funding	Grants help to decrease the total funding costs of a given investment project and as such are sometimes used to make projects 'investment ready'. *Repayable grants* are required to be repaid under certain conditions, typically if the project reaches a certain level of success. *Convertible grants* can be converted into equity or another form of investment under certain conditions.
Guarantees / performance wraps	Guarantees can take many forms and help mitigate a wide range of market failures. They are essentially risk sharing mechanisms where the Government could cover all losses made, partial losses, take a first or second loss position. Other forms of guarantee are re-insurance (such as the flood-re programme) or Utilisation Linked Finance.
Revenue support models	Revenue support models focus specifically on providing long-term revenue stability and reducing market risk. For example, the *Contract for Difference (CfD)* mechanism[63] incentivises investment by providing revenue stability and bridging the 'green premium' of low-carbon alternative technologies. The CfD is based on a difference between the market price and an agreed 'strike price'. If the 'strike price' is higher than the market price, the CfD counterparty must pay the supplier the difference in price.

Making better use of UK blended finance and PFIs

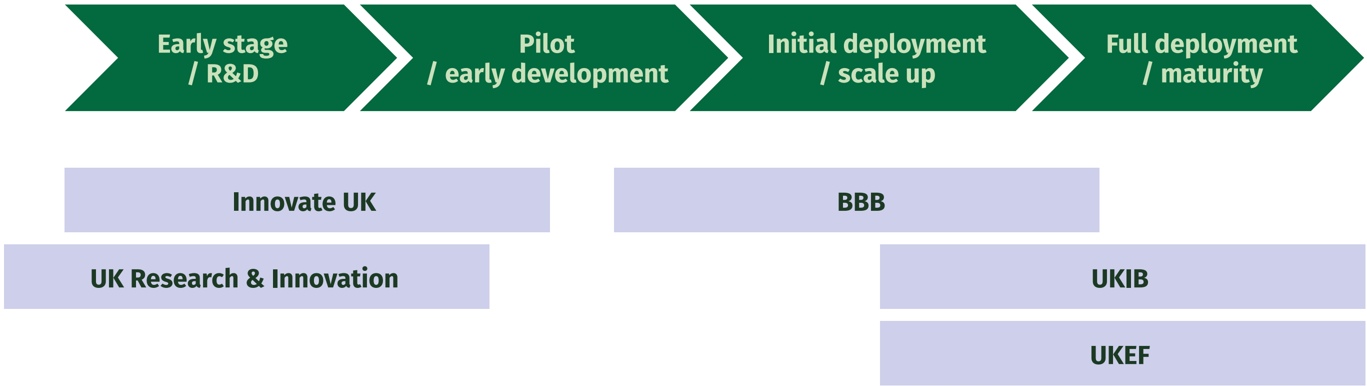
84% of respondents to the Review's Call for Evidence "agreed" or "strongly agreed" that the UK Government could make better use of blended finance approaches to de-risk and scale up transition finance. As one financial institution put it, "blended finance is going to be a fundamental element of the UK's transition to net zero."

This is important in a globally competitive race to attract private investment into transition sectors and technologies, where other jurisdictions are deploying significant sums of public capital to improve the viability of projects in their jurisdiction. The Review heard anecdotally that significant European sustainable fund flows have been invested in US assets following introduction of US Inflation Reduction Act tax credits.

Working alongside other policy levers, the UK's PFIs deploy a range of financing products, some with a greater focus on private finance mobilisation. Each has a different objective, targets a slightly different stage of commercial maturity (see figure 7), and operates with a different mandate and product toolkit. The Review heard a common concern that to date the PFIs have not been deployed coherently to target the cross-economy challenges relevant to the net zero transition.

[63] Revenue support mechanisms (or price assurance mechanisms) such as CfDs have traditionally been deployed by central government rather than PFIs, however the Review considers them to be part of the blended finance toolkit, and note that these mechanisms were considered as a potential tool to be deployed by the National Wealth Fund in the Taskforce Report.

Figure 7 - Simplified diagram showing the focus of UK PFIs across the development of transition activities



PFIs will play a crucial role in de-risking transition transactions which are currently not commercially viable. However, a common issue raised is where the risk appetite, minimum ticket size or returns mandate of institutions do not permit them to be active in areas where there are major market barriers, and which require a more 'concessional' approach. Projects consistently report failing to access PFI support because they are not sufficiently developed or do not match the profile of investment that PFIs are incentivised or required to invest in. **The Review welcomes the clear commitment to blended finance mechanisms demonstrated by the new National Wealth Fund (NWF) proposal and supports the accompanying commitment to rationalise the PFI landscape** (see case study 3).

Case study 3 – National Wealth Fund (NWF)

The UK Government has announced plans to launch a new NWF capitalised with £7.3 billion over the course of the current Parliament, with a remit to support the Government's growth and clean energy missions. The NWF will support green steel, green hydrogen, industrial decarbonisation, gigafactories and ports and will have a target of attracting three pounds of private investment for every one pound of public investment.

The Treasury has been engaging with industry, Government departments and the UK's PFIs on detailed plans, such as how the £7.3 billion can best be deployed and how the wider UK institutional landscape can be made more attractive for private investment, and how other changes to the mandates of PFIs may enhance their net zero impact.

As part of the examination of the PFI landscape currently underway, **the Review recommends considering the following:**

- **Rationalise and streamline blended finance structures and policy incentive programmes:** The current landscape of PFI and Government funding options is fragmented and difficult for investors and developers to navigate. Response times can be slow. To attract the necessary private sector investment, a more coherent approach is needed, with better coordination from early-stage grants to large-scale project finance, ensuring smoother access to support. For example, in a Hydrogen Investment Roadmap, 20 separate funding schemes are referenced.[64]

- **Create a clear, user-friendly gateway for the private sector:** Information about the available support mechanisms and the process for engaging with PFIs should be readily accessible via a single-entry point. This could for example take the form of an interactive portal or searchable wiki which operates at an umbrella level. The Review heard positive feedback about the website for applications under the US Inflation Reduction Act.[65] Another example highlighted to the Review is the InvestEU Advisory Hub.[66]

- **Target market failures:** Blended finance is needed to address solutions that the market cannot finance alone, given risk-return requirements. **PFI investment mandates should be amended to enable greater risk appetite for transition activities and to set targets and reporting relating to this.** Market failures for which blended finance solutions are particularly effective include:

  - Insufficient return on investment: Projects with strong development impacts often lack sufficient financial returns to attract private investment.

[64] UK Government 2024 – *Hydrogen Net Zero Investment Roadmap: Leading the way to net zero.*
[65] The IRA landing page contains informational resources and case studies to make it easy for investors, producers, manufacturers, and consumers to access information relevant to them. This includes regularly updated depositories containing all the relevant policy links with information on how recently they have been updated.
[66] EU 2024 – *InvestEU Advisory Hub.*

Blended finance helps improve the financial viability of these projects.
- Information asymmetries: Investors often lack reliable information on investment opportunities. Blended finance mechanisms can provide technical assistance and support better project preparation, reducing informational barriers.
- Coordination failures: Blended finance can align multiple stakeholders, including governments, donors, private investors, and financial institutions, facilitating coordinated investments that address complex challenges.

- **Prioritise emerging technologies:** The primary role of blended finance should be to provide catalytic capital, and it is essential that pragmatic prioritisation of high-emitting sectors and the technologies they require is made a central focus for PFIs. This will require a cultural shift in some instances.

- **Create a 'knowledge bank' of structured transition finance solutions:** First and second-of-a-kind deals will by nature be bespoke; however, given the need to scale quickly (and therefore move towards simple, replicable solutions), a publicly available, searchable bank should be developed which includes high-level details of the capital stack, enabling market participants to learn from previous deals. This would involve requiring disclosure of high-level structure information as a condition of PFI support.

- **Ensure adequate expertise and economies of scale:** Structuring solutions and managing interdependencies will require specialised skills which are currently thinly spread across PFIs (e.g. venture capital within the British Business Bank (BBB), infrastructure within the UK Infrastructure Bank (UKIB)). Rationalising and addressing gaps will be essential to progress deals in alignment with the net zero strategy.

- **Connect PFIs to industrial strategy and sector policy teams:** The broader enabling environment (e.g. revenue support, grid connectivity) is critical. Where PFIs or the NWF are working on specific sectoral objectives, this must be done hand-in-glove with the relevant departments and Net Zero Council sector groups to ensure the broader policy regime is delivered to a similar timetable.

- **Scaling sustainability-linked loans:** Engage PFIs in opportunities to support sustainability-linked instruments, for example, by establishing facilities to securitise or warehouse these loans, enabling them to be efficiently refinanced through issuance of sustainability-linked bonds and/or through offer of 'first loss' provision to borrowers or issuers with transition plans.

- **Regular dialogue with investors:** The NWF should engage in regular dialogue with financial institutions to help prioritise investments, provide transparency over the pipeline of opportunities, and avoid inadvertently duplicating or contradicting private sector initiatives.

The above objectives should be considered as part of the Government's existing commitment to review the PFI landscape and establish an NWF. However, to support the recommendation on leveraging UK finance sector expertise through dialogue with investors, **the Review recommends the establishment of a UK Transition Finance Lab.**

3.4. Establishing a UK Transition Finance Lab

As outlined in chapter 2 and earlier in this chapter, there is a need to connect clear, sectoral net zero policy and pathways with targeted use of public finance. The Review has noted a gap in the existing policy and public finance landscape to achieve this – a place for testing first-of-a-kind transactions with innovative funding approaches and identifying those that can be replicated and scaled quickly. These would include development and deployment of levers such as targeted subsidies and taxes, testing of blended finance models incorporating concessionary capital from public funding bodies, and building bespoke financial instruments and product design. The barriers and solutions facing different sectors vary, and so will require dedicated approaches, policies, products and funds to unlock them.

This pioneering activity would provide a route to replication and scale for private investors to commit capital into sub-sectors consistent with, and vital to, their individual transition pathways, supported by an industry-government consensus. Scoping, designing and delivering these first-of-a-kind pilot funds and transactions currently sits outside of the remit, scope and even budget for both private investors and even the UK's public finance institutions.

To scale activity-level transition finance, **the Review recommends the establishment of a Transition Finance Lab, based in the Green Finance Institute (GFI), to work with finance, policy and industry, to design, develop and test innovative solutions to accelerate sector-specific transition pathways. The Review recommends the Government publishes a clear, funded plan for the establishment and scale-up of the Transition Finance Lab, including an articulation of the priority sectors in focus and the desired outputs and associated KPIs, in Q1 2025.**

The Transition Finance Lab should create a controlled environment to design and test innovative solutions for challenging transition finance deals, which cannot be addressed through the standard investment process of financial institutions and PFIs.

The Transition Finance Lab should:

- design financial solutions to address the risks associated with novel transition activities, including aggregation structures;
- create a 'sandbox' environment to test these solutions with regulators, policymakers capital providers, and developers;
- advise on the deployment of catalytic funds in areas of greatest impact;
- design the appropriate monitoring and reporting framework to determine the effectiveness of each solution or transaction;
- produce blueprints for executable transactions by sector and technology; and
- support capital providers in the execution of deals.

The Transition Finance Lab should be a private sector led initiative; however, given the importance of the enabling policy and regulatory environment, the support of UK Government will be critical to its success. Pioneering transactions will need to be connected directly to the Government's industrial strategy. This allows policy risk to be managed and gives adequate confidence to private capital to fund subsequent transactions at scale.

- **Government should support the establishment of the Transition Finance Lab and provide guidance as to the sectors and technologies it should prioritise** (driven by areas of greatest need identified by CCC pathways, sector transition planning and priorities of the NWF).

- **The Transition Finance Lab should be given a formal role in the reformed PFI Landscape**, established as part of the review now underway via the NWF. The Transition Finance Lab should play a critical role in supporting capital deployment across the PFI landscape, including but not limited to the NWF.

- **Government should create formal mechanisms to consider and act on the Transition Finance Lab's recommendations** on critical policy and regulatory blockers, and the mix of blended finance solutions and policy support required to test and execute structures which the Transition Finance Lab pilots.

- **At a minimum this should include regular meetings between Transition Finance Lab leadership and representatives from key policy teams and the NWF.**

- **The Transition Finance Lab should provide execution expertise for a reformed Net Zero Council**, (a recommendation made in chapter 2 which would support the development of sectoral decarbonisation pathways), ensuring pathways can be delivered by the market.

To be successful the Transition Finance Lab itself will require dedicated resource and access to skilled and experienced expertise. For speed to launch it is recommended that this should be housed within the GFI, with reasonable levels of funding for operational cost from Government sponsors. Having Government funding is essential to ensure ownership of the activity and recommendations of the Transition Finance Lab, enhance the Transition Finance Lab's credibility in both public and private ecosystems, and allocate cost responsibility to the appropriate entities

The GFI is uniquely well positioned to develop and execute the Transition Finance Lab having already pioneered a sector-based approach to mobilising private capital, including in relation to the built environment, road transport, sustainable aviation and natural capital. Most recently, its work includes product innovation with financial services firms looking to invest debt capital into UK charging infrastructure. It has also developed, with the market, Green Transition Fund (GTF) structures (see case study 5) that would significantly increase the amount of institutional debt capital being deployed in EV charging infrastructure but also other green assets with suitable cashflows.[67]

Furthermore, the GFI led the taskforce to design the new NWF, currently being implemented by Government, so is well placed to advise on how the Transition Finance Lab could support capital deployment for the £7.3 billion fund and wider public finance landscape.

[67] GFI 2024 – *Insurance and pensions fund investors can unlock capital to accelerate the green transition.*

The GFI's inhouse financial expertise should be supplemented with expertise from commercial partners, which would allow the ability to flex and scale up or down depending on focus of the Lab. This would replicate their existing 'coalitions'. The Transition Finance Lab should have the ability to access funding for structuring costs associated with smaller / newer transactions which will necessarily require some investment of time, money and resource from participants without short-term economic returns.

Finally, the GFI is active in international markets, with live programs in Africa and South East Asia, creating opportunities to design cross-border solutions, replicate this model in other jurisdictions and demonstrate UK leadership in transition finance.

The rest of chapter 3 includes discussion of financing structures which may have valuable applications for scaling transition activities, such as aggregation, funds, securitisation, and insurance solutions. These are all areas that the Transition Finance Lab could look to address as part of its mandate, guided by what makes most sense for the sectors or solutions that the Lab prioritises. Innovative structures and solutions should not be the end goal, rather structures should be developed with the end goal of solving specific technology or market readiness challenges.

As the Transition Finance Lab becomes more established and develops blueprints for executable transactions, it could look to attract funding from commercial partners. The scope of the Transition Finance Lab could be extended beyond the UK to include deploying tested solutions in EMDEs.

Securitisation

Securitisation involves bundling together (pooling) cashflow-generating assets (such as residential or commercial mortgage loans, auto-loans/leases, consumer, corporate or public sector loans, trade receivables etc.) to repackage them into tradeable interest-bearing securities. For banks, securitisation can provide a cheaper source of funding, and it may also be helpful because, if certain conditions are met, it allows them to achieve accounting and/or regulatory capital derecognition when securitising these bundled assets, thus freeing up space on their balance sheets. It has been relatively underutilised in Europe (compared to the US), especially since the 2008 financial crisis.

Securitisation enhances liquidity of securitised assets by converting them into tradeable securities, enables portfolio-level measurement of transition targets through asset-level and investor reporting, and allows for risk transformation through tranching techniques that cater to different risk-return profiles. **There may be value in the Transition Finance Lab setting up a focus group to explore and test options for UK securitisation structures, collaborating with regulators and industry.**

Investors subject to regulatory capital requirements in the regulated banking and insurance sectors may be deterred from investing in securitisations as a result of high (or less favourable) regulatory capital requirements that apply to such investments compared to other financial products. The introduction under the Securitisation Regulation in the EU and the UK of the "simple, transparent and standardised" (STS) securitisation regime attracts better regulatory treatment, but it is not available for all securitisations as STS-designated transactions must meet highly prescriptive eligibility criteria.

The EU is looking to introduce in due course wider securitisation reforms which, among other things, will be aimed at potentially recalibrating regulatory capital treatment of securitisations in the banking and insurance sectors. Whether or not such reforms will specifically benefit 'green' securitisations remains to be seen (there has been some suggestion this might be a focus). **UK policymakers should pay close attention to these EU reforms and consider their outcome** when developing UK policy on transition finance and the role of securitisation to ensure the competitiveness of the UK market. In addition, in the light of the ongoing reforms to the UK Securitisation Regulation regime and the introduction of the recast UK securitisation framework from 1 November 2024, it is recommended that any transition finance reforms in relation to securitisation are approached holistically in order to mitigate unnecessary cost and complexity.

Utilising public finance to scale sustainability-linked instruments with credibility

Sustainability-linked instruments, especially when provided to an entity as general-purpose financing, can be a powerful form of transition finance (see section 4.9). PFIs, together with MDBs (via UK shareholdings) can play a pivotal role in supporting the development and adoption of effective sustainability-linked instruments, particularly sustainability-linked loans (SLLs). One way to achieve this is by establishing dedicated facilities designed to securitise or warehouse these loans, enabling them to be efficiently refinanced through debt capital market issuance of sustainability-linked bonds (SLBs). These facilities would provide 'first loss' tranches for SLBs that refinance SLLs[68], mitigating risk for private investors and making these transition finance instruments more attractive to the market.

UK PFIs can further catalyse the development of SLBs and SLLs as a form of transition finance

[68] ICMA & LMA 2024 – *Guidelines for Sustainability-Linked Loans financing Bonds.*

by providing a growing range of dedicated guarantees, loans, and facilities above a certain threshold (e.g. £10 million) to borrowers and issuers with transition plans in need of financing. Over time, these transition plans should grow in quality to meet increasingly rigorous sustainability criteria.

This approach draws on the successful experiences of the European Investment Bank (EIB) and the EBRD in catalysing private investment in sustainable and SME finance. For example, the EIB's involvement in the European Guarantee Fund (EGF) has enabled it to support SME loans through synthetic securitisation, such as the partnership with Landesbank Baden-Württemberg (LBBW). In this arrangement, the EIB provided 'first loss' protection on a portfolio of SME loans, allowing private investors to participate confidently in financing smaller companies that are often considered high-risk. This model effectively reduced financial constraints for SMEs during the post-pandemic recovery, illustrating how public financial institutions can create market confidence and liquidity through structured 'first loss' tranches.

Similarly, the **EBRD has played a key role in securitising sustainability projects by taking 'first loss' positions** in renewable energy financings in Central and Eastern Europe. This involvement has catalysed private investment into higher risk sectors, including some forms of renewable energy, where long-term projects often struggle to attract private capital. By assuming higher-risk tranches, the EBRD has successfully encouraged private sector participation in sustainability efforts, a model that could be mirrored to scale SLLs in the UK and globally.

By applying these lessons, UK PFIs and MDBs could play an instrumental role in scaling sustainability-linked instruments. The proposed facilities would mirror successful models of 'first loss' provision seen with EIB and EBRD, helping broader market adoption of impactful and high-quality SLLs.

Aggregation structures

Some high-emitting sectors (such as agriculture and built environment) will require smaller, more disaggregated transition activities compared to the large-scale, high-cost initiatives typical of the industrial and energy sectors. These sectors often demand widespread adoption of incremental changes, such as improving energy efficiency in buildings or adopting sustainable farming practices, making it essential to develop flexible, localised strategies that offer value for the individuals or companies who would be making the changes. There is also an opportunity for the Transition Finance Lab to leverage existing pilot projects for aggregating demand side financing models for supply chain emissions reductions, for example, in relation to agricultural or other supply chains, and to assess barriers and potential levers to encourage uptake.

While these smaller projects and companies may be too small to access support from PFIs on case-by-case basis, banks and challenger banks routinely lend to small businesses, and with blended finance support from PFIs (e.g. loan guarantees) can provide subsidised debt. There may then be an opportunity to package up these smaller loans. Regional and sector schemes will be key to this and there are a number of effective examples of this kind of aggregation (see case study 4 for one example).

Case study 4 – Greater London Authority (GLA)

The GLA has been establishing a number of instruments to help crowd-in finance for smaller ticket low carbon infrastructure projects. In 2023 the Mayor's Green Finance Fund (GFF) was launched and will lend up to £500 million to projects that help London meet its net zero ambitions. The GFF offers loans with more flexible terms and lower interest rates than the market.

- Funding support from UKIB (in the form of a £190 million loan) will help the GFF pass on a lower cost and more flexible terms, providing an incentive to crowd in private finance.
- The ticket size of £1m minimum is much smaller than UKIB can offer on a deal-by-deal basis.
- The ability to offer flexible terms (e.g. phased draw down, flexible repayment, terms up to 25 years) tailored to individual projects allows the GFF to support projects that would otherwise struggle to access capital.

Funds and investment vehicles

Not all investors will have the capacity to invest in transition activities on a deal-by-deal basis. Creation of funds structured to be deployed into blended finance structures as they come online creates the potential to crowd-in investors who would otherwise not have access to early-stage climate solution deals. Proven models exist and industry has the structuring expertise to develop and implement something quickly (see case study 5 for a recent innovative example).

The Government can play a crucial role by investing indirectly through programs like those offered by the BBB, which provides indirect finance via fund investments. Additionally, the Government could consider creating a fund-level wrapper that offers risk-sharing or tax incentives, making these funds more attractive to a wider range of investors.

Broadly speaking, funds might target two different types of investor:

- **Banks, non-bank financial institutions, and insurers** who would normally provide direct lending, but want to supplement with additional fund-based activity if constrained in the amount of capital they can deploy directly. These funds would invest in early-stage projects, for example structured similarly to Pentagreen Capital[69] where a PFI provides a tranche of 'first loss' capital, supplemented by private capital.

- **Productive finance (i.e. pension funds and life insurers)** seeking assets to match long-term liabilities. These funds could invest in built infrastructure projects, with a potential government role in creating a supportive regulatory framework or providing incentives (unlocking productive finance is discussed in Section 4.7).

There is an opportunity to grow a listed funds market for climate transition funds, building on the success of listed UK renewable energy funds.

Addressing the 'missing middle'

The UK is home to creative and innovative companies providing technologies that support transition activities; however, **these companies, often small or medium-sized, struggle to access capital to support scaling up in the UK** and anecdotal evidence to the Review suggests that this can result in a pivot towards US funding and ultimately US listing.

There is currently a limited established funding pathway in the UK for climate solutions in the post-venture stage, where the technology or company is not mature or established enough to fit the risk-return profile of investors, limiting and delaying scale-up potential. Data from the UK Cleantech Group suggests that from 2018 to 2022 a £1.5 billion climate tech financing gap has emerged at Series B stage (£10-50 million).[71]

Case study 5 – Green Transition Fund (GTF)[70]

The GFI in collaboration with the Investment Delivery Forum has piloted sectoral Green Transition Funds (GTFs) to crowd-in private finance for green infrastructure projects that lack the performance data to attract private investors limited by their prudential investment mandates. Using capital from insurance and pension fund investors through their subscription for bonds issued in the debt capital markets, the GTFs make loans to critical infrastructure developers.

Repayments under these loans, which are secured on the relevant infrastructure assets, are the primary source of repayment on the bonds.

As the infrastructure assets lack the performance data to support investment in isolation, the Government (e.g. through UKIB) would 'guarantee' loan repayments at the launch of any GTF. As the GTF programmes mature and performance data becomes reliable, public support would no longer be required.

[69] Established by HSBC and Temasek, Pentagreen Capital is a debt financing platform dedicated to accelerating the development of sustainable infrastructure in Asia, targeting "marginally bankable" clean infrastructure projects. It is supported by the Asian development Bank and Clifford Capital Holdings.
[70] GFI 2024 – *Insurance and pensions fund investors can unlock capital to accelerate the green transition.*
[71] Cleantech for UK 2022 – *Building the next generation of cleantech champions.*

Some of the specific challenges contributing to this 'missing middle' or 'valley of death' include:

- Project finance and traditional bank lending is typically not available at the post-venture, early stages of technology maturity as they rely on predictable cashflows backed by performance data.
- As 'hardware' companies, climate tech solutions often involve higher upfront costs and longer pathways to scale-up than software companies, which can make them less attractive to venture capital and private equity providers.
- Unlike in the US which offers a full spectrum of capital, the UK has a proliferation of early-stage funds, but very few actors at the Series B+/growth stages (£10-50 million).
- Many of the issues highlighted earlier in this Review (including policy uncertainty, planning and grid challenges, and a complex landscape of public support mechanisms) have also been raised as issues faced by startups and scale-ups navigating the 'missing middle'.
- There can be a lack of understanding between both capital providers and the startups seeking finance.[72]

Addressing these challenges will allow the UK to take advantage of the opportunities presented by these innovators, from a growth and climate transition perspective. In response to large scale policy incentive programmes such as the US Inflation Reduction Act, the UK has a limited window to reestablish itself as an incubator for the new-to-market solutions the transition requires. Climate technology innovation from companies headquartered in the UK creates jobs and enables export opportunities, inward investment and growth.

Policymakers and market actors alike should consider the following solutions:

- **Banks should work to develop equity models to address this gap**, anticipating the growth and portfolio decarbonisation benefits of these solutions.
- **The Government should, as part of its commitment to examine and rationalise the PFI landscape, prioritise addressing the £10-50 million funding gap and ensuring that the right funding programmes, investment mandates, blended finance products, and expertise are in place to address this.** This may include for example:

  • Expanding DESNZ and Innovate UK's capacity to provide more follow-on loans or equity support to companies post research and development phase.[73]
  • Expanding UKIB's capacity to invest in earlier stage projects by re-assessing its financial return objectives and increasing its project development function.
  • Increasing funding for programmes such as British Patient Capital and Future Fund: Breakthrough, which have already been successful in supporting UK technology company growth.

- **Alignment of policy development with the need to pull certain key technologies through to market** – so that innovations which have successfully bridged from concept stage to demonstration stage have the policy support they need to reach commercial scale and continue to grow. This applies to both *direct* policy support (e.g. carbon pricing, product regulations, or time-limited subsidies to pull through new innovations) and *indirect* support (addressing barriers such as planning, permitting, supporting infrastructure, and low public awareness).
- **Investors should be supported in building expertise in climate solutions** (capacity building is discussed in chapter 7).
- **The Government should increase the EIS Knowledge Intensive Company upper limit from £20 million to £30 million** to support research and development intensive climate technology startups to continue to raise capital after hitting the current ceiling.
- **PFIs and the market should develop fund models which aggregate smaller projects and engage productive finance providers.**
- **The Government should encourage greater deployment of Corporate Venture Capital (CVC),** which is a subset of venture capital. CVC funding comes from large companies, who invest in smaller businesses that are relevant and beneficial to the parent group. The corporate offers funding in exchange for a share in the business, driven by a desire to develop market insight, reach or innovative technology.[74]

[72] Smaller capital providers lack the technical capacity to analyse technology risks in the absence of an established track record, and startups don't necessarily understand the unique characteristics and requirements of the different capital providers.
[73] This may include expanding the Energy Entrepreneurs Fund (EEF) which has been DESNZ's primary vehicle to support clean technology innovators at the Series B level.
[74] BBB 2024 – *Corporate Venture Capital (CVC).*

3.5. Creating a demand signal

Most of the commentary in this chapter has focussed on support for the production side; however, creation of a pipeline of investment opportunities also relies on creating a demand signal. Scaling a new technology, particularly where it faces an initially large green premium, requires a focus on the entire value chain, including creation of a strong market demand signal to provide confidence for market participants to invest in production. This links to key points raised within chapter 2.

Companies through collective action and individual strategies can create demand signals which support the development of a pipeline of transition activities. By forming coalitions, such as the Clean Energy Buyers Alliance or the First Movers Coalition (FMC), companies can aggregate their purchasing power to secure better terms for transition activities, creating demand certainty and fostering market development.

The FMC[75] brings together nearly 100 members, whose collective purchase commitments by 2030 will represent an annual demand of US$16 billion for emerging technologies and 31 million tonnes in annual emissions reductions. In its first two years of operation, FMC member companies have signed 94 offtake agreements to purchase emerging technologies.[76]

Market collaborations may require careful consideration of competition law. The UK Competition and Markets Authority has issued 'green agreements guidance' to help market actors to understand the degree to which they can collaborate, and has offered to provide informal guidance to market actors, where the application of competition law is unclear. As transition finance develops, further engagement of the Competition and Markets Authority on collaborations of this nature is likely to be useful and necessary.

Governments and other public bodies can support demand creation through policy and regulatory levers (e.g. mandates), subsidies, procurement rules, and indirectly by supporting private sector efforts (e.g. supporting platforms or marketplaces, educating potential buyers, and supporting voluntary action through endorsing best practice in corporate net zero claims).

Public procurement can be an effective tool for governments and local authorities to incentivise transition technology development, especially as a first customer. Advanced market commitments from governments can mitigate market risk for emerging technologies by showing there is a willingness to pay for novel transition activities, while providing a revenue stream to innovators to reduce their dependence on external financing. An example of this is the German government's commitment to purchase electricity from renewable sources, considered instrumental in driving the growth of the solar energy market.[77]

A UK demand aggregator

The UK continues to have the highest number of companies with ambitious net zero targets,[78] indicating a significant pool of potential demand for low carbon products. However, **linking a single buyer to a developer gives rise to significant counterparty and delivery risk, increases the administrative costs,[79]** and relies on demand being sufficient to build a commercial scale project.

Aggregating groups of buyers (as depicted in figure 8) provides a clear demand signal for a particular product, for example, green steel or sustainable aviation fuel (SAF). It also enables pooling of collective resource (economies of scale) to minimise delivery risk, e.g. through collectively obtaining independent technical support and services, brokering commercial contracts, and procuring insurance solutions.

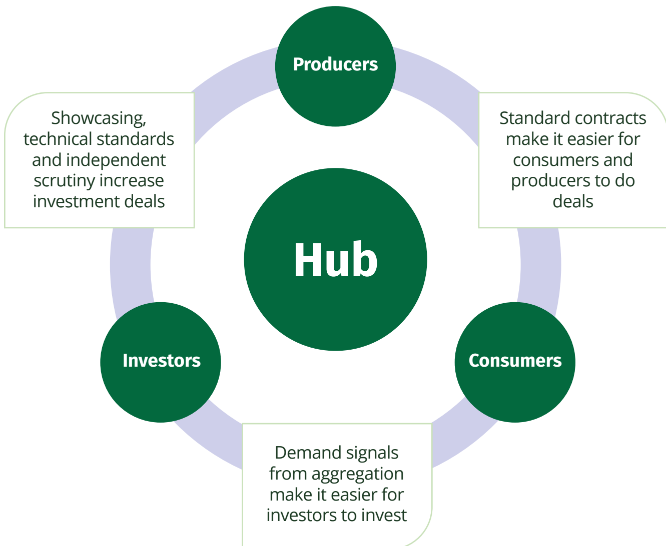


Figure 8 - Simplified diagram showing the participants and core functions of a UK demand aggregator

[75] The FMC is managed by the World Economic Forum. It currently focusses on seven high-emitting sectors: aluminium, aviation, cement and concrete, shipping, steel, trucking, and carbon dioxide removal (CDR).
[76] WEF 2024 – *First Movers Coalition: over 95 members send world's largest clean demand signal for emerging climate technologies.*
[77] (Eds.) Jones and Lerner, Entrepreneurship and Innovation Policy and the Economy: Volume 2, (Chicago: Chicago University Press, 2023).
[78] Science Based Targets Initiative2023 – *SBTi Monitoring Report 2023.*
[79] Since the existing market for early-stage climate solutions is small, there are limited examples of commercial offtake agreements, which adds an additional barrier to agreement, since it is likely that bespoke commercial terms would need to be developed.

Elements of this demand aggregation concept are present within existing initiatives, such as the Carbon Capture, Utilisation and Storage (CCUS) cluster programme,[80] the First Movers Coalition, and the UK SAF clearing house;[81] **however, the Review recommends that the UK Government considers supporting a more comprehensive and structured approach to demand aggregation. Including the following:**

- **The Government should commit – potentially through the Transition Finance Lab - to assessing what form of demand aggregation and operational support will be most impactful within each sector** (e.g. technical assistance, matching buyers to producers or some combination of these elements).
- **The Transition Finance Lab could also assess the impact and appropriateness of restrictions on claims of avoided emissions.** In relation to reported emissions, the same emissions are reportable by a range of actors within different or the same scopes under the Greenhouse Gas Protocol, leading to potential double counting. The approach to avoided emissions is less well developed, and a range of methodologies apply. It typically involves clear limits on the entities who can make claims in respect of avoided emissions and sets relatively complicated gates for those claims. The Transition Finance Lab should review the extent to which this is a barrier to the marketing and pricing of low carbon inputs or products, assess current methodologies and make recommendations as appropriate in relation to overcoming these operational barriers and reputational risks.
- Government backing in the early stages of development or deployment of emerging technologies or products (e.g. through Government and state-owned enterprises acting as cornerstone buyers) could help unlock additional corporate demand from the private sector and accelerate the economies of scale that should lead to more affordable large-scale deployment of key transition technologies.
- **The Government working with the Competition and Market Authority (CMA) should supplement the CMA's Green Agreements Guidance with specific detailed guidance on demand aggregation** and how demand aggregators can be set up and governed in a manner that complies with UK competition law.

3.6. Insurance as a de-risking tool

The UK's world-leading insurance industry has long been the destination of choice for companies and investors looking to underwrite unique and complex risks, and insurance has historically played an important role in industrial development.[82]

Insurance products can play a critical role in de-risking transition activities by transferring risk from financiers or developers to insurers. Conversely, limited or prohibitively expensive coverage can restrict access to capital, hindering the growth of these solutions (this may be relevant in the case of early asset retirement transactions). Through their underwriting practices, the insurance industry can reduce the risk of projects as well as have a fundamental impact on decarbonisation.

Involvement of insurers earlier in the technology development and capital stack design process will enable better risk management conversations, improving market and technology readiness. Technology and market risks arise across the various stages of the development and finance lifecycle of transition activities, and insurance products can be adapted or developed to support many of these. Table 5 presents an illustrative and non-exhaustive list of current transition-related insurance products.

> **Involvement of insurers earlier in the technology development and capital stack design process will enable better risk management conversations, improving market and technology readiness.**

[80] The UK Government CCUS cluster programme has developed standardised contracts for different offtakers and aggregates the production side, but as of yet the programme hasn't developed models to scale up demand from potential buyers willing to pay a premium for low carbon products.
[81] This / these iniaitives provide(s) technical support to SAF producers.
[82] This spans underwriting industrial technology in the steam age through to underwriting offshore wind farms today.

Table 5 - Examples of insurance solutions for transition activities

Product	Description
Pre-investment	
Credit & political risk insurance	• **Purpose:** Protects against non-payment by buyers or counterparties arising from default or insolvency, or against losses due to political instability, expropriation, or changes in regulation. • **Application:** Useful to support the long-term financing typically involved in transition projects, and for projects in regions with more uncertain political environments. • *Intellectual property-backed credit insurance* is an interesting example for transition activities.[83]
Construction / development	
Construction All-Risk Insurance	• **Purpose:** Covers physical damage or loss during the construction phase of projects, including material damage, third-party liability and delays in project completion due to insured events. • **Application:** Relevant where new infrastructure is being built, or existing infrastructure retrofitted.
Operation	
Supply Chain Interruption Insurance	• **Purpose:** Protects against disruptions in the supply chain that could impact operations, such as delays or shortages in critical supplies. • **Application:** Relevant for projects that rely on complex supply chains for feedstock, transportation, or distribution (e.g. the production of biofuels).
Operational All-Risk Insurance	• **Purpose:** Provides coverage during the operational phase of projects, covering against risks such as equipment breakdown, natural disasters and business interruptions. • **Application:** Relevant where operations are dependent on newer technologies such as electric arc furnaces.
Technology performance insurance	• **Purpose:** Mitigates the risk of underperformance or failure of new technologies. • **Application:** Relevant for early-stage technologies like green hydrogen, biofuels, direct air capture.[84]
Later life / decommissioning	
Decommissioning liability insurance	• **Purpose:** Managing post-operational liabilities, such as the eventual deconstruction and removal of assets to avoid any future adverse environmental impact • **Application:** Relevant for end-of-life assets (both transition solutions and managed phaseout of high-emitting assets)

[83] Intellectual property (IP) backed credit insurance is another product that improves project bankability. IP-insured financing secures the value of a company's IP assets used as loan collateral. This policy wraps IP and other intangible assets in insurance protection, enabling debt providers to lend to growth-stage tech companies at a lower cost of capital without requiring equity.

[84] Munich Re's technology performance insurance for bioenergy and circular economy projects provides a revenue guarantee in case of technology performance issues during plant start-up and long-term operations.

Decarbonising the global economy and building climate resilience will require an unprecedented transformation of the financial system. Although there are specific and good examples of innovative insurance products being developed, the Review has heard that growth of this insurance segment is not happening at the pace or scale required to support the development of a pipeline of investible transition activities. **Front-footing the innovation required in the insurance underwriting sector will require interventions which accelerate an evolution in underwriting practices in favour of innovation and which encourage cross-sector collaboration and information sharing across the market.**

An evolution in underwriting practices

A focus on the following areas can help the insurance industry develop and deploy innovative solutions for the transition.

- **Data availability:** Insurers use data to assess risk and support customers. For emerging technologies, risk data may be limited or non-existent, which impacts the insurance industry's ability to accurately assess risk and develop relevant, affordable solutions.

- **Policy durations:** Insurance underwriting decisions typically have short timeframes which contrast with the long-term financial commitments required to support emerging climate technologies to reach maturity. Even where a longer-term outlook is considered in strategic decision-making, it may not be reflected in the day-to-day incentives and targets of underwriters and therefore will not encourage a change in approach.

There are already several initiatives looking to create an environment which encourages more innovative practices (see case study 6). These efforts will need to be expanded and accelerated.

Greater cross-sector collaboration

Insurers could and should engage with climate solutions providers earlier in the technology development process (i.e. from demonstration and early deployment stages) and companies should seek out insurance inputs earlier. This could result in:

- better data sharing and enhanced risk understanding;
- the development of more resilient solutions where risk mitigation is built into the product design;
- convergence on the data required for risk assessment, enabling the development of databases which support decision making;
- support in identifying and addressing gaps in the insurance product offering.
- Identification of risks which can be addressed through collaboration such as policy design or blended finance solutions; and
- expediting the development of risk management standards, guidelines and codes of practice for new technological climate solutions, to enable their replicability and scaling.

Case study 6 - Innovation at Lloyd's

Lloyd's Lab was set up in 2018 to encourage new ways of thinking and accelerate the development of innovative new products and solutions.

The Lab includes the following programmes:

- ***InsurTech*** - an accelerator which helps innovative technologies gain traction and success in the market
- ***FutureMinds*** - an eight-week programme which brings together managing agents, brokers and clients to develop a product idea and proof of concept in response to a customer problem.
- ***Lloyd's Lab Challenge*** - a two-to-four-month program where market participants work through a customer problem through to minimum viable product design and identified routes to launch and scale.[85]
- ***Product Launchpad*** - brings together innovation leaders to assess risk capacity and scaling opportunities for new products and explore non-standards risks that might not fit the traditional market.

In addition, Lloyd's have recently introduced a ***transition TCX class*** which allows insurance syndicates to write up to an additional 5% of their planned Gross Written Premium for innovative sustainability-focussed products. It is designed to help the market to undertake transition risk experiments without having to compete internally for capacity or impacting their performance-based oversight.

[85] The first challenge was a solution that helps to quantify greenhouse gas emissions across managing agents' underwriting and investment portfolios using the PCAF standards.

When (re)insurers can support customers in the development stages of new technologies, they are able to add value through their risk management and modelling expertise to benefit the broader enabling environment. Therefore, collaboration and feedback mechanisms between insurers and other stakeholders in the transition finance market (such as policymakers, regulators, financiers and professional services providers) will be important.

The Review recommends that:

- **The insurance industry should collaborate with partners across the real economy to adapt its existing product offering and develop new innovative insurance solutions to address risk protection gaps** faced by high-emitting sectors and nascent technologies.

  • The insurance industry has an important role to play by **bringing its risk management expertise to bear more widely** for real economy companies as well as finance and public sector partners.

  • **Encouraging increased sharing of standardised data** by real economy sectors and third parties, as well as across the insurance industry, working carefully within competition, intellectual property and data protection guardrails, could help to provide insurers with greater confidence around novel technologies and assets.

- **The Transition Finance Lab could create a fully-costed programme, potentially run in partnership with Lloyd's Lab, focussed specifically on bringing together (re)insurers, project developers, technical experts and relevant industry bodies** to assess specific challenges associated with the financing of emerging transition activities and design insurance solutions and risk management practices to address them.

  • The programme could work on a per technology/sector basis, focussing on technologies at early stages of development which will be essential for the transition.

  • The programme could focus on developing or facilitating potential solutions to specific market constraints, such as the availability of performance data for new technologies (for better risk management and more favourable pricing), recycling underwriting capacity (via portfolio risk transfers to capital markets), and risk hedging mechanisms to permit longer-term insurance contracts (providing more certainty with less 'rollover risk' to project developers).

  • The insurance industry could work together in these forums to develop existing and new solutions for transition technologies. This may involve close engagement with Government on particular risks that are currently not insurable, or regulatory sandboxes to test approaches.

- **Brokers and (re)insurers should continue to evolve their strategies and practices around the climate transition** to consider how they will monitor their transition and climate risk and take advantage of transition opportunities. This includes considering what tools, processes and activities are needed to understand and manage their underwriting or investments, and engaging in evolving and developing policy and regulatory requirements to ensure they have the right skillsets, incentives, risk management and collaboration mechanisms in place.

- **The Department for Business and Trade (DBT), HMT and the City of London Corporation together with leaders in the insurance sector, should design and execute an international outreach programme** to promote the role of the UK's insurance market in domestic and global transition finance.

Given this review's focus on scaling up transition finance, specific recommendations on managing physical climate risks are not made. However, the UK Government and regulators should continue collaborating with the insurance industry to better understand climate-related challenges. UK insurers should actively engage with initiatives like the Sustainable Market Initiatives Insurance Taskforce to support asset resilience and long-term viability of insurance solutions.

> **“UK Government and regulators should continue collaborating with the insurance industry to better understand climate-related challenges.”**

Scaling finance for transitioning entities

4

4.1. Introduction and overview

In addition to building solutions to scale transition activities, over time, more solutions will be necessary to scale finance for transitioning entities. This chapter focusses on interventions to scale general purpose financing for 'pure play' companies that deal in climate solutions, and financing for entities with a credible transition strategy, as defined by the Transition Finance Classification System (TCFS) under categories 2 and 4.

In particular, the TCFS considers the role of transition plans in facilitating entity-level decarbonisation and the steps necessary to improve the assessment, assurance and verification of transition plans, including considering the role of ratings and the development of supportive data infrastructure. In addition, this chapter considers bond and loan market issues including the labelled market, creating the right financial conditions to improve alignment between capital providers and investible opportunities, including unlocking productive finance, and the role of stewardship and engagement, and retail products.

4.2. Key recommendations

Summary of key recommendations in chapter 4	Section
Transition planning Widespread, credible and comparable transition planning will play a critical role in underpinning the credibility of the transition finance market. • Government should publish (in conjunction with regulators) a forward-looking roadmap, outlining how and when it will implement transition plan disclosure requirements aligned with the TPT Disclosure Framework for the largest listed companies, private companies and financial institutions. • Government should consult in broad terms on what 1.5°C alignment could mean, and which sectoral approaches and existing mechanisms will inform this. • Government should explore different means of incentivising the disclosure of high-quality forward-looking data in transition plans. • Companies and financial institutions should engage with the Disclosure Framework, and where relevant, sectoral guidance, produced by the TPT, as regulatory requirements are developed and embedded. • Jurisdictions in the process of implementing the IFRS Sustainability Disclosure Standards should utilise TPT disclosure-related materials where possible.	*4.4*
Data, verification, assurance and ratings in support of transition planning • ICAEW and ICAS should produce a plan for the development of TPT assurance skills and methodologies (in alignment with the roadmap for incoming disclosure requirements). • Government should clarify that the Voluntary Code of Conduct for ESG Ratings and Data Products Providers applies to transition focussed, forward-looking scores, opinions, assessments and ratings. • The FCA should, as it develops a regulatory approach to ESG Ratings, consider transition ratings and the transparency of methodologies, governance, systems and controls that support them. • The Review recommends that the Government, supported by market initiatives develops a time-bound plan to embed an easy-to-use SME data input product. • The Review recommends that any data systems relating to emissions or transition data or disclosures at a national level should be compatible with, and capable of feeding into the Net Zero Data Public Utility.	*4.5*
Unlocking productive finance • HMT and the Department for Work and Pensions (DWP) should build on the Mansion House reforms by addressing any initial implementation challenges and identifying and working through any wider regulatory barriers that prevent Defined Contribution (DC) schemes from increasing their allocations to transition finance.	*4.7*
Stewardship and engagement • Any revision to the Stewardship Code should consider alignment with recent guidance, including the report issued in February 2024 by the Financial Markets Law Committee on “Pension fund trustees and fiduciary duties: decision-making in the context of sustainability and the subject of climate change”.	*4.8*
Labelled instruments • The market should support the Loan Market Association in its consideration of the development of a use of proceeds transition label. • The Government, with advisory input from the FCA, should develop a time limited incentive scheme, modelled on those adopted in Singapore and Hong Kong to support SME uptake of green labelled finance, based on a limited data set supported on a data platform.	*4.9*
Retail investment • HMT should review the NS&I product range to assess the availability and competitiveness of its green product offers and consider connectivity with the Green Gilt programme. It should also consider launching a tax-efficient retail investment scheme.	*4.10*

4.3. Linking transition strategies to transition finance

Transition plans

The Review's market engagement affirmed that for providers of transition finance making decisions about capital allocation, credible transition plans will be a valuable source of forward-looking information about corporate strategy. Furthermore, those that have already developed transition plans provided positive feedback, noting the strategic nature of the process and outputs. **93% of respondents to the Review's Call for Evidence "agreed" or "strongly agreed" that there is a significant role for TPT-aligned transition plans in the provision of transition finance**, highlighting that they will provide useful information and strategic context in which to evaluate a company's transition strategy.

The ISSB's definition of a climate-related transition plan, on which the TPT Disclosure Framework builds, is "an aspect of an entity's overall strategy that lays out the entity's targets, actions or resources for its transition towards a lower-carbon economy, including actions such as reducing its greenhouse gas emissions."[86] The TPT Disclosure Framework takes this further, recommending that a best practice transition plan clearly articulates the entity's strategic ambition, comprising the entity's objectives and priorities for responding and contributing to the transition towards a low carbon, climate-resilient economy[87]. The strategic ambition should also set out whether and how the entity is pursuing these objectives and priorities in a manner that captures opportunities, avoids adverse impacts for stakeholders and society, and safeguards the natural environment.

To support investment decisions and to build confidence in the credibility of an entity's transition strategy, investors and lenders will require more forward-looking information on its strategic response to the economy-wide transition, coupled with regular reporting on progress against it. This is a significant change for reporting entities, because climate-related reporting has historically focussed on backward-looking emissions reporting (demonstrating progress made) and risk reporting (outlining the material climate-related risks an organisation is facing). There will be challenges for users, preparers and regulators as the market adjusts.

To ensure that disclosure requirements support, rather than encumber, companies' transition planning efforts, the introduction of transition planning disclosures must be done in a way that drives positive, practical action, and must be combined with real economy policy interventions. The Review also heard that corporates' focus is being diverted from practical development and implementation of transition strategies, towards understanding and dealing with incoming sustainability reporting requirements.[88]

Case study 7 - Transition Plan Taskforce (TPT)

The TPT is an excellent example of how a UK initiative has been able to inform international standard-setting. The TPT was established at COP26 with a mandate to bring together leaders from across UK industry, academia, and regulators to develop best practice for transition plan disclosures for the financial sector and the real economy.

The TPT published a Disclosure Framework in October 2023 and has also published a broad suite of supporting guidance for a range of sectors. The work took place through a unique multi-stakeholder effort over two years and involved more than 600 organisations in the UK and around the world. Many companies were actively engaged in the process and an increasing number of transition plans have since been published which follow the TPT Disclosure Framework.

In June 2024 the IFRS Foundation announced that it would take responsibility for the disclosure-related outputs of the TPT and streamline and consolidate frameworks and standards for transition plan disclosures.

The global transition plan disclosure landscape

The development and launch of the IFRS) International Sustainability Standards Board (ISSB) sustainability disclosure standards in June 2023 has brought to the fore discussions about transition planning and related disclosures globally. It is significant that, in June 2024, the IFRS Foundation announced it will be assuming responsibility for the TPT's disclosure-specific materials, and that it will likely use those materials to develop educational materials and over time, as relevant, to support the provision of high-quality disclosures under the IFRS sustainability disclosure standard for climate-related disclosures (IFRS S2).[89]

[86] IFRS 2024 – *IFRS S2 Climate-related Disclosures.*
[87] TPT 2024 – *TPT Disclosure Framework.*
[88] Many UK headquartered entities are required to disclose on European operations and activities under the EU CSRD and were engaging for the first time under this reporting regime during the Review.
[89] The IFRS S2 does not require an entity to have a transition plan but it includes requirements to disclose information that is transition plan-related, as well as a requirement to disclose any transition plan that the entity may have.

There is a significant opportunity to promote international interoperability in transition planning while adopting IFRS S2. IFRS S2 contains many disclosure requirements that are linked to transition planning and requires entities to disclose their transition plan, should they have one.[90] Furthermore, the TPT Disclosure Framework can be used as guidance to help entities to report more effectively on the transition plan-related aspects of the ISSB Standards. **This development has the potential to increase global quality and consistency of transition plan disclosures**, given that over 20 jurisdictions representing more than half of global GDP have already decided to use or are taking steps to introduce the IFRS sustainability disclosure standards in their legal or regulatory frameworks.[91]

There are several efforts which seek to promote the interoperability of reporting requirements. This includes the collaboration between the ISSB and the EU to map reporting requirements under the IFRS sustainability disclosure standards and those of the European Sustainability Reporting Standards (ESRS) and the TPT's mapping of the TPT Disclosure Framework against the ESRS and the TCFD's recommendations.

The Review welcomes the IFRS Foundation assuming responsibility for the TPT's disclosure-specific materials. While beyond the scope of the Review to make recommendations, **it should be noted that based on feedback received, many respondents would welcome use of the TPTs outputs in the IFRS S2 application guidance**. Further to this, the Review also notes that jurisdictions in the process of implementing the IFRS® sustainability disclosure standards could look to utilise TPT disclosure materials to promote international **interoperability**.

4.4. Transition plan disclosures

The Review has heard a need to clarify the scope, sequencing and ambition of transition planning in the UK. This is in light of the UK moving towards implementing UK-endorsed ISSB standards[92], which is complemented by the TPT Disclosure Framework, and recent manifesto commitments of the new Government.

The Review recommends the Government publish a forward-looking roadmap for disclosure, setting out how and when it will implement disclosure requirements aligned with the TPT Disclosure Framework. The roadmap should provide a clear timeline for implementation, including proposed timelines for consultation. The TCFD Roadmap[93], published under the previous Government, was highlighted as an example of where this was done well. In the process, consideration should be taken to ensure transition planning is viewed as a wider component of business strategy, rather than only as a compliance and disclosure obligation.

Companies and financial institutions have already started developing and disclosing transition plans. The Review has engaged with some of these organisations, and has noted the consistent positive feedback, especially in the way transition planning can better embed net zero considerations into the core of a business. As regulatory requirements are developed and embedded, **the Review recommends that companies and financial institutions should engage with the Disclosure Framework, and where relevant, sectoral guidance, produced by the TPT, and should consider making voluntary disclosures.**

Requiring mandatory transition plans

In their manifesto, the new Government outlined a commitment to mandate UK-regulated financial institutions[94] and FTSE 100 companies "to develop and implement credible transition plans that align with the 1.5°C goal of the Paris Agreement".[95]

The Review has received feedback recognising the importance of policy frameworks to align the private sector with national climate commitments. However, feedback collected during the Review also identified several barriers to the development of high-quality, credible 1.5°C aligned transition plans. This includes:

- **Lack of granular, sector specific emissions pathways to ground transition plans:** This issue has been outlined in more detail in chapter 1. Companies with UK operations will benefit from having such pathways upon which to base their transition plans, which should in turn give investors greater confidence as to the credibility of those plans.

- **Lack of clarity as regards key transition planning concepts:** the Review has heard concerns from the market over the lack of a clear, sector-specific definition of what it means to "align with the 1.5°C goal of the Paris Agreement". In the absence of such definitions, companies making statements about their degree of alignment risk exposing themselves to undue legal and

[90] UK Government 2024 – *Sustainability Disclosure Requirements: Implementation Update 2024.*
[91] IFRS 2024 – *Jurisdictions representing over half the global economy by GDP take steps towards ISSB Standards.*
[92] This is the subject of ongoing work by the UK Sustainability Disclosure Technical Advisory Committee which will provide recommendations at the conclusion of its process to the Secretary of State for the Department of Business and Trade.
[93] UK Government 2020 – *A Roadmap to mandatory climate-related disclosures.*
[94] This includes banks, asset managers, pension funds, and insurers.
[95] Labour Party Manifesto 2024 – *Make Britain a clean energy superpower.*

reputational risk, which in turn could discourage detailed disclosures. Multinational companies and institutions with assets around the world will be navigating different national pathways and may be exposed to significant policy and practical dependencies with regard to any targets and strategies for their scope 2 and scope 3 greenhouse gas emissions. The framing of a similar requirement is the subject of detailed work in the EU, following adoption of the Corporate Sustainability Due Diligence Directive (CSDDD), there is an opportunity to learn from that process, which is already discussing compatibility (as opposed to alignment) with the 1.5°C goal of the Paris Agreement.

- **Fear of liability over misstatements and omissions:** Companies may hesitate to make detailed disclosures of a forward-looking nature, for fear of the legal and reputational risks that may arise from misstatements or omissions in transition plan disclosures. This is particularly true for companies in sectors where the pathway to decarbonisation relies on access to technologies which are not yet commercially viable, and the future viability of those technologies will be dependent on factors outside of an individual company's control.

There was strong support across responses to the Review's Call for Evidence on transition plans having a role in the provision of transition finance. Resultantly, the Review welcomes the commitment to mandatory transition plans. **The Review recommends moving forward with mandatory transition plans, applicable to a wide set of financial and non-financial companies, via a consultation, including on the sequencing of implementation and any requirements for alignment with 1.5°C to avoid unintended consequences.**

Through consultation, significant focus should be given to understanding the guidance and capacity building that companies and financial institutions may require to make credible disclosures. Furthermore, to support companies in their transition plan disclosures, **the Review recommends that Government explores different means of incentivising the disclosure of good quality forward-looking data in transition plans.** This may involve introducing a concept similar to the FCA's proposed concept of "protected forward-looking statements" to transition plan disclosures, as well as providing clarity over applicable standards of liability for omissions or misstatements in transition plan disclosures.

The Review recommends Government consults in broad terms on what 1.5°C alignment could mean, and what sectoral approaches and existing mechanisms could be used to inform this.

4.5. Transition plan assessment – the role of assurance, ratings and data

To facilitate the effective use of transition plans that can inform financing decisions, the Review considers that it is important to strengthen both the assurance and verification of transition plan data points and processes, and the assessment, assurance and verification of transition plans' quality, ambition and viability.

Assurance and verification of transition plan data points and processes

Assurance and verification have the potential to enhance the credibility and integrity of transition plan disclosures and transition finance more broadly. Whether this is verifying methodologies for decarbonisation targets, securing third party assurance on a transition plan disclosure or seeking a second party opinion on a transition focussed bond or loan, there are an emerging range of bodies, mechanisms and methodologies underpinning this area of the market.

Transparency of reporting and disclosures is seen to play an important role in avoiding risk of actual or perceived greenwashing and improving the accessibility and understandability of standards and frameworks. However, the structures to deliver the verification needed to underpin provision of transition plans and the transition finance products that leverage them are not currently well developed. **Methodologies for providing assurance over non-financial sustainability information exist and are developing in sophistication and appropriateness.** However, they exist in an environment which is only now starting to include more operative disclosure regulation and without a clear market understanding of guidance around what assurance should achieve and how. **Once a set of transition planning and transition finance metrics, targets and frameworks are agreed upon by the market, the assurance providers will respond**, and assurance of information will start to have greater useability and value.

Various types of assurance exist that have the potential to support the integrity of transition plan disclosures. **Crucially these are dependent on providers, receivers, and users of assurance opinions sharing a common understanding of the scope and meaning of an assurance opinion.** Some examples of assurance activities that can support the provision of transition finance include:

1. **KPI or metrics assurance:** KPI assurance involves the provision of an assurance opinion over a metric, or series of metrics, that are to be reported at a point in time. These assurance opinions aim to attest that information has been prepared in line with a reporting criterion. Opinions (and the underlying work performed) can vary based on the type of assurance engagement performed (for example, Limited or Reasonable assurance). Currently most assurance undertaken is the narrower Limited assurance.

2. **Process assurance:** process assurance is a wide-ranging service and can cover a variety of assurance methodologies. This might include end-to-end process and control reviews as well as programme and transformation assurance. Process assurance can overlap with the work of internal audit functions.

The ecosystem supporting the sustainability assurance market, as opposed to the techniques and methodologies themselves, needs further development for assurance to play a leading role in promoting the integrity of transition finance. This connects into the Review's wider recommendations on skills development and capacity building in chapter 7. **The Review recommends that the Institute of Chartered Accountants in England and Wales (ICAEW) and the Institute of Chartered Accountants of Scotland (ICAS) produce a plan for the development of transition plan assurance skills and methodologies that aligns with the forward-looking roadmap recommended for roll out of transition plan disclosures.**

Assessment, assurance and verification of transition plans' quality, ambition and viability

In addition to securing assurance of relevant datapoints and processes, users of transition plan disclosures will need to assess the quality, ambition and viability of transition plans themselves.

The UK is a leader in climate-related data analytics and there are a range of emergent methodologies, frameworks and providers to turn to for quality assessment of transition plans and their execution. This expertise sits to some extent in professional services firms, but some of the most developed data sets and trusted methodologies have been developed by not-for-profit organisations. Not-for-profits such as the CDP also led the market on the reporting and assessment of emissions and emissions reduction performance and now provide deep knowledge of corporate progression pathways over the past 10-15 years.

Three widely-used examples of more recent tools or data sets most relevant for assessing the credibility and integrity of a transition plan, all from the voluntary part of the ecosystem, are:

- TPI,[96] which is a global initiative led out of the UK launched 7 years ago (led by asset owners and supported by asset managers funding an academic team at the London School of Economics). Its activities support investors to assess companies' and sovereigns' preparedness for the transition to a low carbon economy. Its work forms the basis for the Climate Action 100+ Net Zero Company Benchmark Disclosure Framework assessments. TPI assessments look at companies on two dimensions based on publicly available information:

  - Management Quality covers companies' governance of greenhouse gas emissions and the risks and opportunities arising from the low carbon transition; and

  - Carbon Performance, which tests the alignment of company targets with the UN Paris Agreement goals.

  TPI's benchmarking is sector-specific and based on emissions intensity, using three benchmark scenarios for each sector, which in most sectors are: 1.5°C, Below 2 Degrees and National Pledges.

- The World Benchmarking Alliance's (WBA) Assessing companies Transition Plans Collective (ATP-Col),[97] which is a working group of 40 organisations formed in June 2023 to develop a consensual framework with guidance on how to assess companies' transition plans' credibility.

- TransitionArc,[98] which is an assessment tool focussed on corporate transition strategy that was launched in 2024 by ClimateArc on a non-for-profit, public domain basis. It involves TPI, WBA and other civil society data analysis providers.

[96] TPI 2024 – *TPI Centre's assessment tools.*
[97] WBA 2024 – *Assessing Transition Plans Collective (ATP-Col).*
[98] Climate Arc 2024 – *Introducing TransitionArc.*

The demand for methodology transparency and some level of convergence on credibility assessment criteria and processes, is only going to increase and become more salient for financial market participants. At a national level, a role for a government or independent national body has been previously suggested to assess the substantive credibility of transition plans for UK companies. The wider need is to secure a more internationally focussed high-quality body around which the market can coalesce. Because transition finance has only recently started to attract attention, those groups that are working on tools and analytics that focus on credibility of transition strategy and performance are predominantly civil society or university led and often funded on a short-term basis by philanthropists or investor groups.

Providers of these analytic services will occupy a critical role in the sustainable finance marketplace. **There is a clear argument for transitioning some or all of these initiatives onto a more secure footing and funding base, and to consider over time whether they should be subject to regulatory oversight.** More generally the Review has observed that philanthropy funded civil society groups have often led the way on standard setting in climate and transition areas. This has enabled agile, innovative climate solutions and concepts which are then often taken forward by commercial players. This may divert philanthropic funding from its more catalytic role and pose governance questions as the market matures and as standards become more widely used.

Transition ratings

There is an emerging role for SPO providers and ratings agencies, as well as commercial sustainability data, analytics and research providers in relation to assessment of transition strategies and their success. Their role is likely to evolve rapidly as markets embrace transition analysis.

Key ratings and opinions that may consider transition-related information include:

1. **ESG ratings and scores**, which provide an opinion, score or other ranking based on a defined ranking system, regarding the environmental, social or governance characteristics or risks in relation to an entity or financial product. These products are varied and often have been developed to be used for different purposes. They are provided by large commercial data analytics companies but also by smaller boutiques and some not-for-profits.

2. **Climate transition ratings and scores** (and other associated data, analytics, research and products), which assess companies' transition strategies, are an emerging area of focus, particularly as they pertain to forward-looking information and critical components of transition ambition and planning. These may form part of a wider sustainability assessment, score or rating, or may stand entirely separately.

3. **Credit ratings**, which include ESG factors and scores that are part of credit rating methodologies, though it may have limited impact currently on the rating issued.

4. **Second Party Opinions**, which are relevant to labelled bonds or loans, provide investors with assurance that the relevant sustainable finance framework is aligned to accepted market principles.

The Review welcomes efforts to foster transparency of methodologies, and to create core principles relating to governance, conflicts of interest and systems and controls. The recently published Codes of Conduct (in the UK, Japan and Singapore) based on International Organization of Securities Commissions' (IOSCO) recommendations will help to improve trust in these products, to guide investors in allocating their money to the right assets as well as to alleviate the risk of greenwashing. The EU is close to finalising a Regulation on ESG Ratings, while HMT recently consulted on regulation of ESG ratings when they are used for a broad range of activities relating to financial services.[99]

In this context, **the Review recommends that it should be made clear that the Voluntary Code of Conduct for ESG Ratings and Data Products Providers[100] applies to transition focussed, forward-looking scores, opinions, assessments and ratings. The Review further recommends that in formulating any regulatory approach to ESG Ratings, consideration is given to transition plan ratings and to the treatment of private sector and civil society entities engaged in potentially relevant activities (see section 4.6).**

The Review has heard from stakeholders that there are benefits in the forward-looking components of transition plan scores or ratings (rather than the detailed methodologies) becoming broadly comparable. Credit ratings have developed organically to a similar end point. Given the urgency of transition and the importance of substantive assessment of transition planning and progress, a more active route may be needed to enable providers to meet this need as this area develops. This is something that should be kept under review by IOSCO, ratings providers and the relevant regulatory authorities.

[99] EU 2024 – *ESG rating activities. UK Government, 2024. Future regulatory regime for Environmental, Social, and Governance (ESG) ratings providers.*
[100] ICMA 2024 – *Code of Conduct for ESG Ratings and Data Products Providers.*

Improving data architecture to assist transition plan preparers and users

There has been a significant focus over the past 5 years on bringing the right data and disclosure to the market. At UK and EU level this has focussed on securing information from the largest companies in response to investor demand and disclosure regulations. Indeed, many leading climate-related data, analytics and advisory firms and companies have been established and are based in the UK.

At a global level, the establishment of the Net Zero Data Public Utility[101] will provide a free to access, central repository for information from climate disclosures on company emissions, targets and progress. **The Review recommends that any data systems relating to emissions or transition data or disclosures at a national level should be compatible with and capable of feeding into this Utility.**

As a result of all this activity, data from the largest companies, especially those listed in developed markets, is starting to improve. However, major challenges remain in relation to the data available from SMEs, and the process SMEs must go through to provide data. SMEs account for around half of the UK's private sector turnover[102] and business driven emissions,[103] but so far, there has been generally limited focus on how to support and encourage SMEs to develop transition strategies and disclose information in a structured way. Despite some helpful interventions, for example the SME Climate Hub,[104] **the Review notes that a coherent, ambitious and forward-looking strategy for addressing issues related to SME data provision and access is currently lacking from the UK Government's framework**. Solutions to this issue are largely being left to the market, despite being consistently referenced as a key issue to address over a number of years.[105] [106] It is unclear whether the current approach will be sufficient for SMEs specifically, and international examples (see case study 9) highlight the power of government and regulator leadership.

Often, SMEs are operating within the supply chains of larger companies and so their starting point is to respond to information requests from their customers. They often face multiple customers all asking for slightly different information. This places burdens on smaller companies, and does not encourage the forward-looking, strategic thinking that will be necessary to drive progress. **The British Business Bank notes that 76% of smaller UK companies are yet to implement a transition strategy, and only 11% of smaller companies have accessed external financing to support net zero actions.**[107] In the UK, Project 'Perseus' has been developing the building blocks of a solution to the issues outlined above over several years (see case study 8).[108]

Case study 8 - Project Perseus

A collaboration between Bankers for Net Zero and Icebreaker One, the initiative is aimed at automating emissions reporting for SMEs across the UK. The initiative is intended to enhance data access and quality by streamlining processes and improving compliance with Partnership for Carbon Accounting Financials (PCAF) standards. It seeks to simplify and improve compliance processes, benchmarking, data quality, monitoring and verification. Perseus has the potential to provide personalised net zero recommendations for SMEs and match these recommendations with banking products to increase access to transition finance. SME participation is secured through engagement with existing suppliers (such as banks and accounting solutions), and data sharing permission is managed in a manner akin to open banking implementations.

A supportive data platform which improves data qualify and simplifies reporting, specifically targeted to address SME challenges will have value to multiple stakeholders.

- For SMEs, improved data quality and reliability will support access to transition finance and reduce the burden of reporting and compliance obligations.
- For lenders, enhanced access to standardised data, enables greater confidence in the deployment of capital towards transition activities and transitioning entities.

[101] NZDPU 2024 – *Net-Zero Data Public Utility.*
[102] UK Government 2024 – *Business population estimates for the UK and regions 2023: statistical release.*
[103] EN 2021 – *Smaller companies account for half of UK business' greenhouse gas emissions.*
[104] SME Climate Hub 2024.
[105] UK Government 2019 – *Green Finance Strategy.*
[106] UK Government 2023 – *Green Finance Strategy.*
[107] BBB 2023 – *Smaller business and the transition to net zero.*
[108] B4NZ 2024 – *Bankers for Net Zero (B4NZ) – 'Perseus'.*

The Review recommends that Government, supported by market initiatives develops a time-bound plan to embed an easy-to-use SME data input product. The Review recommends that Government also considers building out additional components to support SME engagement with transition, improve data capture and deliver access to finance for transition purposes.

The Review has heard from stakeholders that Singapore's Greenprint (Gprnt) initiative is an example of a best practice platform for the provision of data (with connected mechanisms to enable capacity building and support for accessing green loans). The Review sees this as an interesting, interconnected offering and one of the more advanced approaches to collecting transition relevant data. It is a model which has also been adopted in other markets in the region. A characteristic of Project GPrnt is the level of regulatory involvement with the platform, which provides a layer of credibility and encourages use by market participants. The platform also has an ability to connect into additional services, including training modules and online portals to access green loans (see case study 9).

Case study 9 - Monetary Authority of Singapore Greenprint

In 2023, Greenprint (Gprnt) was launched by the Monetary Authority of Singapore (MAS) and private sector partners as an open and interoperable ESG data infrastructure that interlinks the financial sector and real economy. Gprnt aims to facilitate efficiencies in collecting, accessing, and harnessing high-quality ESG data to drive green and transition efforts through (i) automating ESG disclosures for companies large and small, via integration with various public and private data sources; (ii) facilitating access to aggregated ESG data, benchmarks and insights from its ecosystem of private and public data; and (iii) connecting ESG market solutions to investors, financial institutions, and companies. Gprnt has started its journey in Singapore with an initial focus on simplifying sustainability reporting for Small and Medium-sized enterprises (SMEs) by integrating with a range of digital systems that are utilised by SMEs in their day-to-day activities and translating these economic data into ESG-related outputs. In doing so, it will unlock sustainability data needed by companies and financial institutions.

4.6. Critical levers for financing transitioning entities

In addition to considering the actions necessary to support the development, disclosure and assessment of entity-level transition, it is also important to consider the financial conditions needed to encourage and support entities through the transition. The following section of the Review's findings focusses on upcoming challenges for high-emitting sector bond reissuance, the role of productive finance, the effectiveness of **stewardship activity**, and ways to improve the **labelled instruments marke**t.

The corporate perspective

Although there are many commonalities, differing sectoral contexts result in differing transition barriers and opportunities for the real economy. In some industries, such as the power industry, policy is in place and there are clear technology roadmaps: most large companies are clear on what steps they must take. In other sectors, such as the industrial manufacturing sector, there is less policy, there is still uncertainty as to which route to decarbonisation is best and companies are not incentivised to be a first mover. Companies are also now sensitised to risks of being criticised for greenwashing.

Addressing each sector's context includes consideration of the system within which it operates and is essential to growing the pipeline of projects eligible for transition finance and accelerating each sectors' transition in the most efficient way.

Companies have started working towards how to address climate-related impacts and opportunities across their value chains. **This is complex and there is some confusion among companies and financial institutions about the boundaries of the value chain and the roles and responsibilities of companies in relation to their value chain**. Even so, companies are starting to collaborate with customers to drive greater decarbonisation impacts, offering strategies (for example, carbon footprint tracking, or incentivising improved emissions performance in trade finance arrangements). The Review spoke to members of the chemicals sector who noted that, while they could lower the carbon impact of their production processes, greater impact could be achieved at the same cost through decarbonising the processes of their customers.

Each sector weighs barriers to accessing transition finance differently. In the aviation sector, severe Covid-era debts stymy investment. In the heavy industry sectors customers can be price sensitive. **Challenges of these types, together with new and complex rules on treatment of claims relating to avoided emissions are contributing to a lack of a green premium**. Incentives to transition also vary by sector. Some, like the agricultural sector where the impacts of climate change are most obvious, are being driven to transition and adapt by necessity. Others feel that they do not yet have incentives to transition. In the case of the mining sector, the pressure to transition does not yet acknowledge the strategic importance of the sector as enablers of climate solutions for economy-wide decarbonisation. While all these challenges remain, continuing with business as usual is also challenging, as the following section illustrates.

Maturity profile of carbon intensive debt

As outlined above, different sectors face a range of challenges, which are hindering real economy progress. However, it is imperative for progress to be made across the economy in the near-term. **Carbon-intensive debt remains an important feature of global fixed income markets, accounting for 29.5% of total non-financial corporate debt, and in aggregate would surpass the size of any other non-financial sector**.[109] Carbon-intensive sectors also have a high concentration of long-term debt, with 46% of the outstanding carbon-intensive debt issued having a longer tenor than 10 years, and 16% exceeding 30 years. **Over half of that carbon-intensive debt is set to mature before the end of this decade**. Outstanding carbon-intensive debt is dominated by issuances with an investment grade rating and will be supporting some companies with the most complex and costly transition pathways ahead of them.

This creates some systemic risk issues which insurers, credit institutions and their regulators will need to work through. Current regulatory approaches channel insurers and banks towards investment grade instruments which can be higher in carbon intensity and with longer tenor, locking in emissions. **Over the next five years as much of this carbon-intensive debt matures, and companies return to the market with new issuances, their exposure to transition risk, the maturity of their transition strategy and its flow through into financial data will become increasingly material**. In this context, stewardship is likely to become more important for these issuers and their investors particularly at the point of reissuance as bonds mature. Regulators will also be alert to market level positioning on this.

[109] LSEG 2024 – *Tracing carbon-intensive debt: Identifying and calibrating climate risks in corporate fixed income.*

4.7. Unlocking productive finance

Productive finance or patient capital has been talked about for some time as a potential source of capital for high-emitting sectors. As previously discussed (see section 3.4), providers of early-stage technologies that support transition activities, with longer and more uncertain pathways to maturity are sometimes cited as requiring long-term investments that may exceed traditional time horizons. It is helpful to understand the characteristics and investment needs of the different productive finance providers to understand how they can play a role in transition finance. Table 6 outlines the investment profile of different types of productive capital providers.

Table 6 - Investment profile of different providers of productive finance

Type	Assets under management (UK)	Investment profile
Insurance	Committed to investing £100 billion into green infrastructure over the next decade.[110]	Long-term perspective, generally higher risk tolerance (life). Generally focussed on debt instruments (which offer cashflows matching liabilities), but some flexibility has been introduced to permit highly predictable (as opposed to matching) cash flows, potentially supporting investment in instruments linked to projects with a construction phase.
Local Government Pension Schemes (LGPS)	Over £350 billion.[111]	LGPS already invests in wider range of assets and has longer investment horizons.
Defined Benefit (DB) Pension Funds	£1.6 trillion.[112]	Generally longer-term perspective, and large DB schemes are well-placed to invest in patient capital to match their long term but predictable liabilities with long term but predictable cash flows. The long-tail of smaller DB schemes are approaching maturity and therefore investing in low-risk assets, typically bonds prior to transferring their assets and liabilities to insurers (see above). A sizeable minority of DB schemes, managing c. £300bn, remain open to accrual.[113] These open schemes have capacity to invest in a wider range of growth assets.
Defined Contribution (DC) Pension Funds	Predicted to grow to £1 trillion by 2030.[114]	There are a wide range of DC schemes in the UK, ranging from very small through to the very large Master Trusts. The Master Trusts manage c. £120 billion. They are growing rapidly and will manage £1 trillion in assets by 2030. These schemes invest largely in equities and, as their scale grows, will have increased scope to invest in growth assets.[115] Currently-proposed legislative and regulatory developments will facilitate (and in some cases mandate) consolidation of smaller schemes into larger arrangements such as Master Trusts, increasing the flow of DC assets likely to be invested in more sophisticated strategies. In addition, the development of collective DC schemes is being encouraged by the government, which may provide greater flexibility for DC investment in patient capital.

[110] ABI 2022 – *Solvency II reform welcomed by insurance and long-term savings industry.*
[111] LGPS 2023 – *Annual Report.*
[112] UK Government 2024 – *Options for Defined Benefit schemes.*
[113] PLSA 2024 – *Pensions & Growth: Creating a Pipeline of Investable UK Opportunities.*
[114] Ibid.
[115] Ibid.

Reform of the existing regulatory architecture could be one lever to help reallocate capital towards assets that support net zero goals. The Solvency II framework, in its current form can limit the scope for investment in long-term productive assets. The move to Solvency UK,[116] and prudential requirements that are more tailored to the specifics of the UK insurance market, is welcome in this regard. The Association of British Insurers (ABI) has noted that these reforms could help to unlock £100 billion[117] for investment that supports the transition, including innovative green technologies and renewable energy infrastructure. Solvency II, alongside Basel III, has also been cited as a barrier to EMDE investment, raising the cost of capital for EMDE issuers to prohibitive levels.

Enabling pension schemes, particularly DC schemes, to invest more easily in long-term assets could help to increase the amount of productive finance that can be invested in the transition. The UK insurance and long-term savings industry manages investments of over £1.9 trillion,[118] equivalent to approximately 70% of UK GDP in 2023,[119] with DC schemes projected to be valued at £1 trillion by 2030.[120] The average Defined Contribution (DC) pension scheme has an investment horizon of at least 30 years (even if asset management is assessed and incentivised over much shorter term horizons),[121] and there is increasing pressure to diversify DC schemes asset exposures to deliver the long-term sustainable positive returns which are key to successful savers' retirement outcomes. On the face of it, these vehicles are well placed to provide the long-term capital that is needed to finance the UK's net zero transition. However, many UK savers have little to no exposure to these types of assets with over 90% of assets typically invested into the default options.[122]

DC pension sponsors should be encouraged to redesign their default options to include specific transition objectives. All of the global index providers, including FTSE Russell, provide climate transition indexes that can be used as a basis for such funds. This is not a new development, with the first recorded usage being in 2017 when the HSBC Bank (UK) Pension Scheme did this by developing a new default scheme using a specifically designed version of the FTSE All World index that weighted companies based on climate metrics, managed by LGIM as the original fund in their Future World Fund.[123]

Initiatives such as the Mansion House Compact,[124] where DC scheme signatories have agreed to allocate at least 5% of their default funds to unlisted equities by 2030, should help to boost investment in climate solutions that will help pension funds generate sustainable returns for their beneficiaries and deliver on their climate targets.

The Review recommends that HMT and DWP should build on the Mansion House reforms by addressing any initial implementation challenges and identifying and resolving any wider regulatory barriers that prevent DC schemes from increasing their allocations to all forms of productive capital, including transition finance. **The Review recommends this include amending the Value for Money framework, to ensure it can account for other factors than solely costs that can support long-term returns, providing greater flexibility for DC schemes to invest in climate solutions, including growth and/ or illiquid assets.**[125] Other measures, including the DWP's amendments to charge caps[126] and the FCA's rules to introduce the Long-Term Asset Fund[127] are welcome. However, they should be complemented by initiatives to scale pension funds so that they may better capitalise on these strategic opportunities, pool costs and share risks.

As outlined in chapter 2, blended finance structures will be key to drawing in more insurance and long-term savings capital. The ABI has noted that, with the right kind of structures, **the sector could provide up to one third (£0.9 trillion) of the total £2.7 trillion needed to reach the UK's interim 2035 target of a 78% reduction in greenhouse gas emissions.**[128] As outlined in chapter 3, the NWF could provide new vehicles and structures for pension schemes to invest in growth areas including transition focussed assets.

Defined Benefit (DB) funds generally offer limited opportunities, given their maturity and the popularity of buy out as an option. However, opportunities for transition focussed debt issuance may still be relevant where buy out is an option. In that context, **the Pensions Regulator (TPR) could convene DB trustee companies, their investment consultants and insurance companies, to explore areas of consensus as to appropriate asset classes with a transition focus.** In the case of larger funds that will run on, the opportunities for some investment in growth assets such as transition-focussed climate solutions companies are clear and in engagement the Review heard of funds starting to look at this opportunity.

116 BOE 2024 – *PS2/24 – Review of Solvency II: Adapting to the UK insurance market.*
117 ABI 2024 – *Pillar Two: Unleashing Investment Capacity.*
118 ABI 2024 – *Written evidence submitted by the Association of British Insurers.*
119 Ibid.
120 PE 2022 – *Unleashing Capital.*
121 To note - the time horizons of asset managers are far shorter.
122 WTW 2024 – *Nine New Year's predictions for UK pension schemes in 2024.*
123 LGIM 2024 – *Legal & General Future World ESG Developed Index Fund. Accessed 04.10.2024.*
124 COLC 2023 – *Mansion House Compact.*
125 Phoenix – *Charting the UK's Net Zero Future: Policy recommendations to unlock investment.*
126 UK Government 2023 – *Government response: Broadening the investment opportunities of defined contribution pension schemes.*
127 FCA 2023 – *PS23/7: Broadening retail access to the long-term use asset fund.*
128 ABI 2022 – *Written evidence submitted by the Association of British Insurers.*

Sovereign wealth funds (SWFs) and state investors

It is notable that a growing number of SWFs and state investors are incorporating climate-considerations into their investment processes (see case study 10). A recent survey noted that the number of SWFs with a specific mandate to address climate change had increased from 14% in 2022 to 29% in 2023. Just 2 of the 34 surveyed reported that they did not consider climate change at all in their investment decisions.[129]

Although renewable energy represents the most important climate investment theme for SWFs, the survey also shows growing interest in broader transition-related investment themes. For example, energy storage infrastructure, green hydrogen, green buildings and sustainable agriculture were rated as representing the best financial investment opportunities by the survey. There is also an increasing trend towards investing in emerging markets, with 38% citing Africa as a market that represented the most attractive investment opportunities relating to climate solutions.[130]

Case study 10 - Temasek's efforts to support the transition

Temasek, a global investment company headquartered in Singapore, has developed various strategies and approaches to leverage opportunities presented by the transition to a more sustainable economy.

Beyond investments into companies to catalyse and scale solutions, Temasek has also forged partnerships for solutions that can accelerate the transition. Examples include its partnership with BlackRock to establish Decarbonization Partners, which invests in companies targeting to de-risk technologies across areas such as clean energy, electrification, and green materials.
Temasek's partnership with HSBC to establish Pentagreen Capital has also enabled it to look beyond traditional financing approaches to address climate financing gaps. Pentagreen, a debt financing platform that supports marginally bankable sustainable infrastructure projects with an initial focus on Southeast Asia, has started providing financing support for a solar project in the Philippines and a bioenergy project across Indonesia, Thailand, Cambodia, the Philippines, and India.

Temasek is also collaborating with Allied Climate Partners, International Finance Corporation and the Monetary Authority of Singapore (MAS) on the Green Investments Partnership, which aims to increase the bankability of green and sustainable projects in Asia. This partnership is part of MAS's Financing Asia's Transition Partnership (FAST-P), a Singapore blended finance initiative to mobilise up to US$5 billion, including concessional capital, for energy transition projects in Asia. Temasek is also a knowledge partner for MAS' Transition Credits Coalition, which explores transition financing mechanisms that can improve the economic viability of financing the early retirement of coal-fired power plants.

As an owner and shareholder, Temasek also leverages its Climate Transition Readiness Framework and other dedicated platforms to engage its portfolio companies on climate expectations, their respective transition plans, and possible opportunities that can accelerate the progress on decarbonisation.
oversight.

> **There is growing interest in broader transition-related investment themes.**

[129] IFSWF 2023.
[130] Ibid.

4.8. Stewardship and engagement

Effective stewardship is crucial to the successful management of risks, opportunities and impacts presented by the transition to a low carbon economy. **Effective engagement with issuers, including companies, sovereigns and sub-sovereigns is one of the primary tools investors currently have to support real world emissions reductions.** A sole focus on reducing financed emissions through divestment risks 'paper decarbonisation' - greening the investor's own balance sheet in a way that may not necessarily contribute to greening the economy.

A key facet of this is improving information flows to create a decision-useful disclosure environment, thereby ensuring that the right information and metrics flow into and out of the system. This supports the efficient implementation and assessment of effective stewardship. **Tools like the State of Transition Report produced annually by the TPI[131] are useful waypoints for engagement between the global institutional investor community and companies on credible transition plans**, as the report can be used as a basis for engagement and an input for investment decision-making. The September 2024 TPI State of the Transition Report shows that the share of companies aligning with 1.5°C in 2050 has increased fourfold since 2021 to 30%, and a further 14% are aligned with a Below 2°C scenario. **However, it also estimates that the world's highest emitting companies will cumulatively exceed their 1.5°C emissions intensity budget between 2020 and 2050 by 61%.**

The Review heard from investors who have been developing skills and expertise to support their investee companies to manage the risks and opportunities associated with their transition. By taking a holistic view over sectors, fund managers can play an important signalling role and look to highlight best practice to investee companies (see case study 11 for one example of effective stewardship).

Stewardship approaches will vary depending on investor type and investment strategy. Active investors, who are likely to hold investments in a smaller number of companies, may assess more closely their transition plans and engage with management to discuss progress and any material risks. Some passive investors, who are likely to be investing in line with a benchmark and holding investments in many more companies, may be less likely to track and assess progress across portfolios though as transition accelerates, stewardship imperatives are likely to increase with regard to major high-emitting companies in which they hold significant interests. For active investors, key progress must be made in their ability to assess and act on transition plan disclosures from investee companies when these start to become more widespread. **Investors must develop their own approaches, understand their transition risk appetite and when engagement and escalation might be triggered, and consider the tools and frameworks they trust to support their analysis** (see case study 12).

Case study 11 - CA100+ engagement with National Grid

Climate Action 100+ ('CA100+') is a prominent example of an investor-led initiative aimed at ensuring the world's largest corporate greenhouse gas emitters take appropriate action on climate change, set emissions reduction targets and adopt and implement credible transition plans. Since its inception in 2017, CA100+ has expanded to cover 170 companies, with 75% of focus companies now having set net zero targets.

CA100+ investors have been engaging with companies to understand how their lobbying practices support their stated net zero ambitions. Engagement between CA100+ investors and investee companies has demonstrated the value of shareholder engagement. One example related to a successful discussion with National Grid in 2023 seeking the conduct of regular climate lobbying reviews and National Grid released an updated lobbying policy with a commitment to conduct such a review.[132]

[131] TPI 2024 – *TPI State of Transition Report 2024.*
[132] CA100+ 2023 – *National Grid Engagement.*

Case study 12 – Phoenix Group's approach to stewardship

Beyond the thresholds of its exclusion policy, Phoenix Group (Phoenix) embraces a stewardship approach centred on supporting investee companies' transition planning. Dialogue with company representatives is taking place through its strategic asset management partners, participation in CA100+ and the Net Zero Stewardship Initiative, and direct engagements.

Dialogue with investee companies is reviewed every year against set engagement objectives. In 2022, Phoenix defined its focus engagement list of 25 companies, which accounted for 40% of financed emissions in high-emitting sectors in corporate fixed income and listed equity holdings (using 2019 as baseline carbon footprint). Analysis was completed on each of the 25 companies against Phoenix's in-house climate change scorecard to define tailored engagement objectives. The framework is tailored by sectors and builds on the TCFD pillars.

In the past 12 months, Phoenix has advanced its dialogue on climate change with the target list of investee companies. Over that period, companies have either progressed or committed to achieve 40% of Pheonix's tailored requests to decarbonise their business model. Phoenix is committed to continuing to review its programme following its second year of dialogue, and considering different engagement strategies in case of limited progress by some target companies.

Sophisticated climate transition benchmarks are available and in use by some large pension funds to structure their passive portfolios (see case study 13). This reinforces the engagement of those funds through the CA100+ and TPI. Active managers also use benchmarks as a starting point. **For both active and passive investors, there remains an opportunity for more funds to support the further deployment and use of these benchmarks.**

Case study 13 – FTSE TPI Climate Transition indexes

FTSE Russell has developed a series of FTSE TPI Climate Transition indexes for both public equity and fixed income. A wide range of large institutional passive investors are now using these indexes (or customised versions of them) for their investment strategies.[133]

This shift from standard market capitalisation weighted indexes to climate transition indexes for passive investment strategies is an effective way to reinforce investor engagement with companies on transition issues. Companies that receive higher TPI scores will benefit from increased capital flow through this type of passive portfolio re-allocation, creating a financial incentive for companies to improve their transition strategy.

UK investors have assumed a prominent role in developing approaches to effective stewardship. The FRC Stewardship Code (introduced in 2010) set new standards to enhance the quality of engagement between institutional investors and companies and to provide investors with access to high-quality information on stewardship activities. The revised 2020 Stewardship Code raised the bar with a new definition highlighting the benefits that stewardship and long-term value creation create for "the economy, the environment and society".[134]

The Stewardship Code is currently under review. Various areas are relevant to that process including consideration of whether and how to reduce reporting burdens on underlying companies as well as the asset managers and others to whom the Stewardship Code applies. **The Stewardship Code may also present additional challenges to US headquartered asset managers in light of the active debate in the US on fiduciary duty and anti-ESG litigation.** These elements may result in calls for reshaping of wording on environmental and social factors.

The Review recommends that any revision to the Stewardship Code should consider alignment with other recent guidance, including other statutory, non-statutory and regulatory guidance as well as industry commentary, and in particular the report issued in February 2024 by the Financial Markets Law Committee[135] on "Pension fund trustees and fiduciary duties: decision-making in the context of sustainability and the subject of climate change."

[133] A number of investors have publicly announced their shift to these new strategies, including *New York State Common Retirement Fund*, *CalPERS*, *Brunel Pension Partnership*, *Church of England Pension*, and *Phoenix Group*.
[134] FRC 2023 – *UK Stewardship Code*.
[135] The UK Government recognised the key role of pension scheme trustees in the 2023 Green Finance Strategy, and the Financial Markets Law Committee has reviewed the area given the complexity of decisions around investing and systemic risks, in light of trustee appetite for further information and clarity on their fiduciary duty in the context of the transition to net zero.

Good vote disclosure on climate and environmental issues by asset managers can play an important role on indicating intent and in supporting investee companies' climate transition plans. Vote disclosure can enhance transparency and accountability, which can build trust with end-investors and stakeholders. It can demonstrate the asset managers' alignment with climate goals under its own transition plans. When asset managers disclose their voting on climate issues, it can influence the behaviour of the companies they invest in.

The Vote Reporting Group[136] is developing a voluntary standardised and comprehensive vote reporting template for asset managers to use when reporting to their clients, aligning with the provisions of the Stewardship Code. The template aims to improve transparency on asset manager shareholder voting, provide more decision-useful information to the client and reduce the reporting burden for managers. It will include climate-related categories to inform the client of the topic to which the vote relates. By using the template, asset managers can communicate their climate-related votes, and in turn, demonstrate their progress on their climate transition plans.

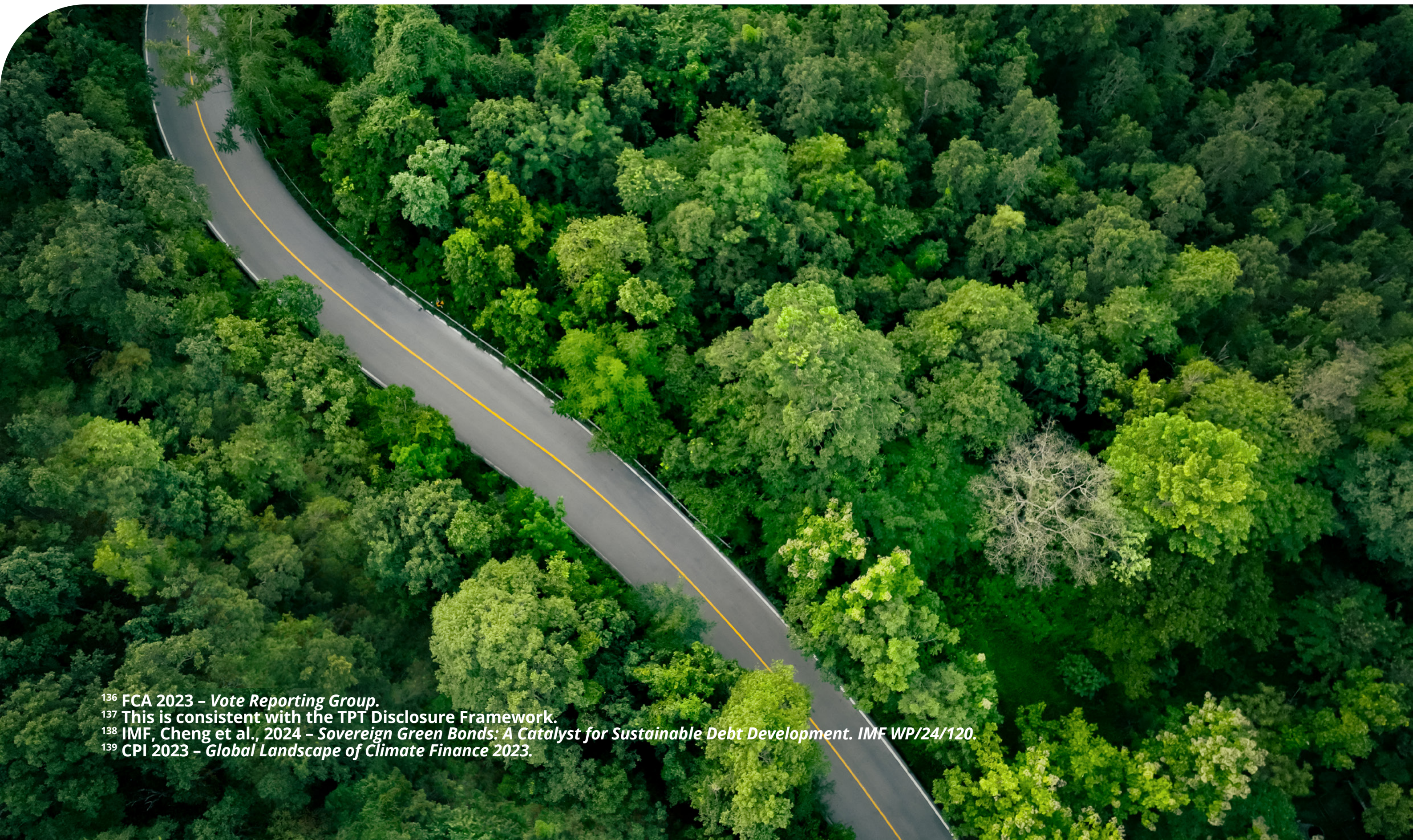
Finally, a key element of good stewardship is systemic stewardship and policy advocacy. **The Review recommends that market participants should align their policy engagement with their stated long-term transition ambition and their transition plans**[137], including demonstrably advocating for the enabling environment set out in their transition plans, with transparency of their activity and policy positions. Those who want a transition need to advocate for it in the interest of their clients and beneficiaries.

4.9. Labelled instruments

This section deals with green and sustainability-linked bonds and loans. Public information exists for the bond market, but the loan market is private, and there is therefore less information about it.

The sustainable bond market (including green, social, sustainability and sustainability-linked) has represented the main route to date for mobilising sustainable finance. **Since 2017, the global market for sustainable bonds has experienced a 17-fold increase from US$246 billion outstanding, to around US$4.3 trillion outstanding.**[138] This makes these bonds the most important contributor to green finance to date, representing over three-quarters (76%) of annual public green finance flows in 2021-2022. Debt-based expenditure is largely concentrated in the energy, transport as well as the buildings and infrastructure sectors in Asia-Pacific and Western Europe.[139]

There are now various labelled bond and loan principles in the market, aligning to thematic frameworks such as Green, Social, and Sustainability. These can broadly be separated into 'use of proceeds' and 'performance-linked' instruments (see table 7).



[136] FCA 2023 – *Vote Reporting Group.*
[137] This is consistent with the TPT Disclosure Framework.
[138] IMF, Cheng et al., 2024 – *Sovereign Green Bonds: A Catalyst for Sustainable Debt Development. IMF WP/24/120.*
[139] CPI 2023 – *Global Landscape of Climate Finance 2023.*

Table 7 - Different label types in the sustainable debt market

Label type	Background
'Use of proceeds' labelled instruments	The first labelled instruments were use of proceeds instruments which aligned to thematic market frameworks such as the the Green Bond Principles (GBP), Social Bond Principles (SBP) or Sustainability Bond Guidelines, and the LMA Green Loan Principles and Social Loan Principles. Funding from use of proceeds instruments should be used for eligible projects and activities that help meet a borrower or issuer's environmental and/or social objectives. Borrowers or issuers provide details of alignment to the Principles in a bond or financing framework that is typically published pre-issuance and reviewed by a second-party opinion (SPO) provider. Bond frameworks are public documents that can be updated periodically.
'Sustainability-linked' labelled instruments	Sustainability-linked loans (SLL) and bonds (SLBs) are general purpose instruments hence the use of proceeds is not a determinant in their categorization. They are aligned to the Sustainability-linked Loans Principles (SLLP) and the Sustainability-linked Bond Principles (SLBP). The credibility of an SLL or SLB rests on the borrower or issuer's selection of KPI(s) calibrated to sustainability performance targets (SPTs). The cornerstone of an SLL or SLB is a financial and/or structural characteristic which can vary depending on whether the selected KPI(s) reach (or not) the predefined SPT(s) - with most borrowers or issuers this currently then triggers a step-up or step-down of the margin or coupon.
Transition focussed debt instruments	ICMA, Climate Bonds Initiative and the LMA are all alert to transition focussed debt. Climate Bonds Initiative published a white paper in September 2020 on financing credible transitions and has since published frameworks to assess transition, sector criteria and guides to help corporate issuers to take advantage of sustainable finance markets for appropriate climate transition journeys ICMA sees transition as a theme that sits at entity level, which can be financed with use of proceeds bonds such as green or sustainability bonds or SLBs. To that end it provides thematic guidance in the form of the Climate Transition Finance Handbook (CTFH) which is meant to be used in conjunction with instrument-level guidance such as the GBP or SLBP. The CTFH was first published in 2020 and updated in 2023 to also cater to sovereign issuers. In order to credibly position transition focussed instruments, issuers are recommended to follow the CTFH disclosure recommendations which are outlined across its four key elements . ICMA in the CTFH states that *"Issuers are encouraged to reference the CTFH 2023 and align with the elements contained therein to communicate their greenhouse gas emissions reduction strategy. This is especially pertinent to green, sustainability or sustainability-linked instruments designated as "climate transition" bonds (which may take the form of an additional climate transition label, as is the case in certain jurisdictions)"*. In June 2024 ICMA published new guidance for financing 'green enabling projects' for those projects that are not explicitly considered 'green', but which play a critical role in supporting green projects.[140] This expansion of the labelled use of proceeds market is potentially significant. The guidance includes some indicative sectors (chemicals, industrial machinery and equipment, manufacturing, mining and metals, and technology). Environmental Finance analysis found that just 5% of the total green and sustainability bond issuance volumes to date have been from these sectors.[141]

[140] ICMA 2024 – *Green Enabling Projects Guidance.*
[141] EF 2024 – *Mining set to benefit from 'significant' ICMA 'green enabling' update.*

Size and potential of the labelled sustainable debt market

The first green bond was published in 2007, but the market only really grew following publication of the Climate Bonds Initiative's first Climate Bonds Standard in 2011, and the Green Bond Principles in 2014 for which ICMA now provides the Secretariat, The LMA has also published Green Loan Principles and Sustainability Linked Loan Principles. Table 8 and figure 9 together provide an overview of issuance volume in the labelled bond market.

Table 8 - Size of the sustainable bond market by label

Bond type	Issuance in 2023[142]
Green Bond	US $575 billion
Social Bond	US $135 billion
Sustainability Bond	US $161 billion
Sustainability-linked Bond	US $68 billion
Transition Bond	US $4 billion[143]

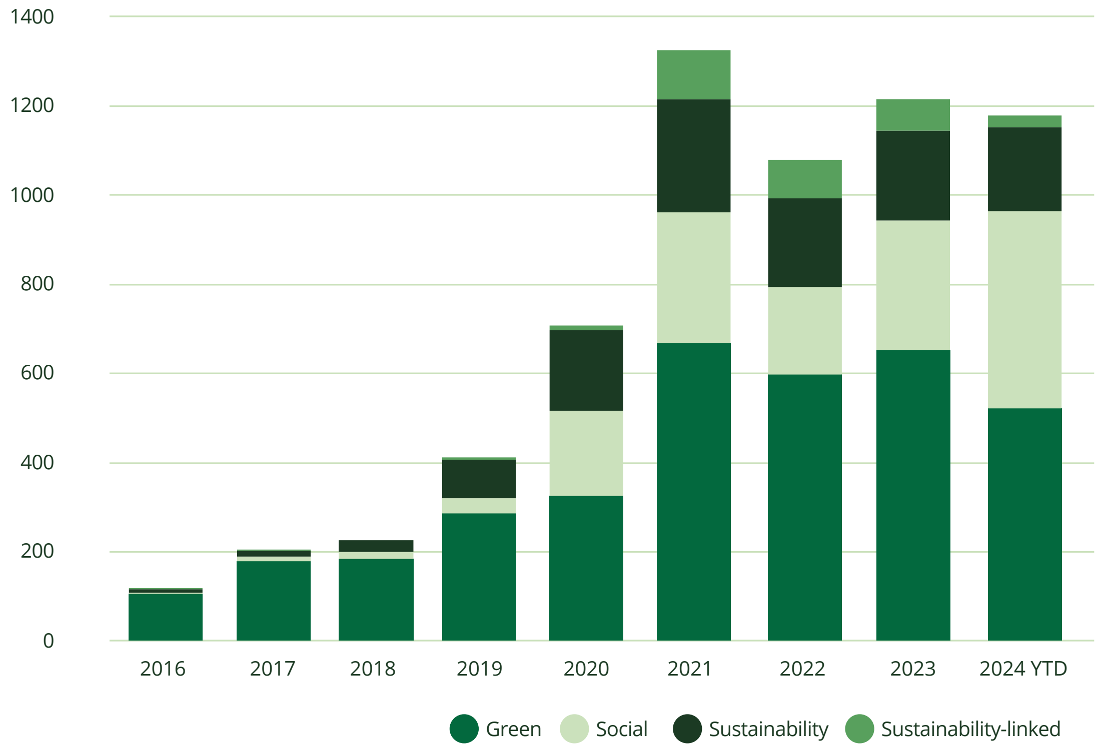


Figure 9 - Global issuance (US$ billions) of sustainable bonds since 2016
Source: Bloomberg[144]

The number of bonds or loans explicitly labelled as 'transition' is very small at present. However, interest is growing, see for example, the London Stock Exchange's introduction of a Transition Bond Segment.[145] Even so, it is likely that the larger part of finance disbursed on transition projects and activities is currently sourced through conventional bonds, green bonds (for climate solutions, and more uncontroversial 'aligning' transition activities such as energy efficiency), project finance and general corporate purpose facilities.[146] **The sustainable bond market is likely to remain an important mechanism for funding global transition activities, particularly climate solutions and green enablers.**

For this reason, where barriers exist it is important to identify them and to see how they can be addressed.

These products were developed by the market for the market, to meet interest in sustainable finance when there was little or no policy or regulation in place. Bodies such as the Climate Bonds Initiative, the International Capital Market Association (ICMA) and, in respect of equivalent instruments in the private loan market, the LMA were prescient in spearheading quality frameworks and methodologies to support these markets.

[142] Bloomberg 2023 – *Green bonds reach new heights.*
[143] Climate Bonds Initiative 2022 – *Global State of the Market of the Market Report 2022.*
[144] Bloomberg 2024 – *Analysis of Bloomberg data on global issuance of sustainable bonds since 2016.*
[145] LSEG – *Transition Bond Segment.*
[146] Table to set out relative market size for bond issuance.

Challenges have arisen more recently. This is particularly true for sustainability-linked loans which use forward-looking metrics that the issuer or borrower must achieve to avoid increased payment obligations and are not publicly traded instruments. Some challenges have also affected the sustainability-linked bond market. **As the market focusses on implementation, issuers or borrowers can face challenges with meeting their targets, and the market is still learning to differentiate between near misses, issues driven by external events, and failures which are because of strategy change or management failure.** A market that involves unambitious targets would not be delivering the sustainability components of the original product design, so a retrenchment from robust targets is also not desirable.

Labelled instruments can be attractive because they:

- **enable issuers or borrowers to demonstrate their sustainability strategy** to counterparties;
- in the case of bond issuance, **may broaden their investor base**;
- **encourage transparency and data disclosure on sustainability activities**, including their consideration in financial decision-making - forcing the market to consider risks and opportunities in an issuer or borrower making these advancements, and how this effects their credit profile;
- **enable and incentivise internal capacity building and development and delivery of strategic sustainability objectives**;
- **may obtain a pricing benefit 'greenium'**,[147] due to the perceived value of data and disclosure provided to the market; and
- **reduce reputational risks.**

For credit institutions that have sustainable finance targets these instruments offer a way of categorising transactions as financed or facilitated to demonstrate how those sustainable finance targets are being satisfied and the volume of capital being directed to drive sustainable purposes. Through this function they are also relevant to policymakers, market bodies and civil society as a rough indicator of market activity on sustainable finance topics. However, as explained later, they represent only part of the finance applied to green, transition or other sustainability purposes, as this can also be included within general purpose financing.

Sustainability-linked bonds and loans

Sustainability linked instruments are still in an early stage of development and are currently answering to feedback from the market on how to maximise their impact and credibility. While they remain in demand, there has been a reduction in popularity, as borrowers and issuers take more time to review Key Performance Indicators (KPIs) and assess them against the value of the instrument.

Respondents outlined several improvement areas for the sustainability-linked markets. These fell into five categories:

- **Need to have more evidence of integrity and ambition of the KPIs** set under instruments and ensure there is no potential for loopholes in performance assessment;
- **More data and disclosure among issuers and borrowers** will allow investors and lenders to assess and compare performance;
- **As issuers and borrowers respond to disclosure regimes and market expectations, concerns about the burden of reporting and verification will reduce** as this will be part and parcel of their reporting anyway.
- **As transition risk is further integrated into credit ratings, it helps issuers and borrowers to feel less vulnerable** in a sustainability linked instrument since they are balancing reputation and penalty costs.
- **As the market still is in early stages of reviewing these instruments, there is a perceived lack of, or an insufficient, 'greenium'.**

In June 2023 the FCA published a letter on sustainability linked loans[148] articulating borrower and investor concerns, expectations on how the market can improve, and suggested that a more prescriptive framework could improve market integrity. It noted the potential of the market and that a recent revision of the LMA's Sustainability Linked Loan Principles[149] had addressed some of these concerns. These challenges reflect an evolution in understanding on both sides of the market of the challenges in meeting emissions reductions targets and other forward-looking KPIs.

Continued improvements to the design of these products, ongoing improvement of disclosures[150] and development of comparison tools would be helpful to improve market integrity and to build up confidence in the sustainability-linked loan market in particular, which would support its ability to scale. **Mechanisms that**

[147] This is the amount by which the yield on the instrument is lower compared with the conventional instrument. Prudential regulations and IFRS 9 constrain the size, and the recent higher interest environment has made it even less significant.
[148] FCA 2023 – *FCA outlines concerns about sustainability-linked loans market.*
[149] LMA 2023 – *Sustainability-Linked Loan Principles.*
[150] The experience of Enel indicates that failure to meet targets can reflect ambitious targets rather than failure to act but that disclosure relating to these issues in very important for investors and could be improved in some instances.

go beyond the present approaches (for example, in relation to declassification triggers) are increasingly desirable to provide greater assurance for financial institutions who wish to count these products as 'transition' or 'sustainability-linked' to meet their specific targets or objectives. Investors are likely to seek greater protection such that if targets are not met, or strategy is changed, there are appropriate consequences, potentially including declassification or more meaningful pricing consequences.[151]

Not all failures to meet KPIs will lie within the control of the borrower or issuer: the TPT Disclosure Framework provides for disclosure of dependencies expressly to reflect this challenge. **Consideration is needed to enable the market to provide incentives for borrowers and issuers to issue instruments aligned with science-based pathways.** This is likely to require metrics to be reshaped to focus on performance measurements that are more clearly within the control of the issuer or borrower within the context of a transition strategy that is compatible with an appropriate pathway.

If these challenges can be overcome, with the development of more supportive national policy frameworks through which loans or bond issuance can be linked to private sector transition plans or strategies, sustainability-linked products could be a useful part of a transition finance toolkit.

Labelled products and their application to transition

Extension of this market into labelled transition finance is regularly mentioned (and was referred to in responses to the Review's Call for Evidence). To date, there have only been a relatively small number of issuances where the use of proceeds was linked to transition assets. Data on loans, which are not usually public, is hard to obtain.

Corporate borrowers and issuers in emerging markets seem to be particularly interested in using a transition label for debt instruments. This may be for several reasons:

- While the UK and many Western European countries are rapidly reshaping their energy systems, **other countries have relatively new fossil fuel power infrastructure, high growth requirements, and are facing severe impacts from climate change.**
- **Development of policy and regulatory and market strategies to encourage transition finance started slightly earlier in some of these markets** (particularly in Asia where there are several transition taxonomies).
- **Singapore, China and Hong Kong offer incentives for uptake of labelled finance** (e.g. subsidising borrower or issuer transaction costs, or lower loan interest rates).

The possibility of a transition label attracted mixed views in engagements with UK and EU companies and investors. From an investor perspective, this is primarily because the wording and market interpretation of the EU's SFDR does not readily allow for transition activities and because of concerns over greenwashing risk. The viewpoint of UK companies is discussed below. However, interest from other markets is encouraging work on a standard for transition loans which may generate interest and inform further innovation in relation to a label from bond market participants (see case study 14).

Case study 14 – LMA consideration of a transition label

- The LMA, Loan Syndications and Trading Association (LSTA) and Asia Pacific Loan Market Association (APLMA) are currently considering principles and guidance for transition loans.
- An industry-led taskforce is considering the development of formal use of proceeds focussed Transition Loan Principles (TLP) to facilitate the flow of capital to transition activities in those sectors that most need to decarbonise. A final edition of the principles is expected in November 2025.
- According to Environmental Finance Data, less than US$1 billion of labelled transition loans have been issued to date (also low for bonds).[152]
- The formation of a set of loan principles could be a catalyst for the growth of a transition loan market (as the Green Bond Principles were for green bonds). Similarly, the creation of loan principles could also encourage development of transition bond principles (as SLLP did for SLBP).
- There have so far been a handful of transactions which have specifically used the 'transition loan' label. For example, Japanese shipping firm NYK Line signed a US$300 million transition loan in January to finance the conversion of its vessels to more efficient and sustainable fuel sources.[153] The loan was labelled as 'transition' applying ICMA's Climate Transition Finance Handbook and the Basic Guidelines on Climate Transition Finance published by the Japanese government in 2021.

[151] The Review notes ongoing work of the UK Endorsement Board to consider whether to adopt the new amendments to the IFRS accounting standards IFRS 7 and IFRS 9, which include changes that would bring additional disclosure in financial statements for sustainability-linked lending.
[152] EF 2024 – *LMA exploring 'transition loan'.*
[153] NYK 2024 – *NYK secures first transition loan financing.*

UK corporate perspectives on labelled instruments and transition finance

The real economy has struggled recently with challenges created by the nascency of the labelled market. While many of the UK-based companies that engaged with the Review had considered or used a labelled instrument at one time, **corporate treasury teams felt that the costs and burden associated with these instruments outweighed the financial incentives currently on offer.** Despite this, many companies are continuing to monitor offers of labelled products in the hope that as challenges are addressed and the costs of engaging in the labelled market fall, they will be able to use labelled instruments in the future. Further, sentiment towards more established green bonds remains more positive[154].

The main barrier to using labelled instruments is the cost of disclosure and assurance. While the financial costs are still too high for many, other burdens include of the need to scale up capacity, where many companies find themselves lacking the skills or time to commit to compliance. There is often also a lack of buy-in from senior decision-makers, many of whom are balancing many different disclosure expectations from investors and regulators and are unclear on what to prioritise.

Another difficulty is that negotiating and discussing the terms of labelled financial instruments may be more time consuming and involved than non-labelled products. Even in jurisdictions where non-financial disclosure is mandatory, companies raised concerns that the disclosure formats and types of information required varied too widely between financial institutions. There is a widespread sense that decision-making at financial institutions is not transparent enough. Many companies felt unable to assess what each financial institution was looking for from them, and how important decarbonisation considerations are to analysts whose bonuses are still tied to financial returns.

Companies also have a multitude of other considerations when raising capital for their transitions. Whether to access the labelled market comes behind deciding what type of finance to raise, the often near-impossible task of gauging how much their transition will cost, and integrating transition finance into their wider business spending plan. For companies, choosing the right product for their needs is rarely simple. **Given the relative nascency of the transition finance market, the UK companies who engaged with the Review generally indicated that seeking transition labelled products will remain rare until the financial incentives to do so improve.**

The way forward

In the short term, the work of the LMA in considering principles and guidance for transition loans will be a useful route through which to flush out the current challenges with documentation, disclosure and comparability. **As national and private sector transition planning grows, this is likely to encourage public bodies and some companies to issue bonds or loans aligned to their plans.** In the next chapter the Review makes a recommendation for a market collaboration to develop metrics appropriate to transition finance. **There is also an opportunity for financial institutions to define a base case information set for issuers and borrowers to provide as part of the work of the LMA and other standard setters.**

In the medium term, mandatory disclosure of transition plans in the UK and EU will generate KPIs and assured disclosures, for the purposes of annual reporting. Some of these will be useful to labelled finance. The existence of assured corporate disclosures should reduce the burden of borrower entities.

The question of pricing is more challenging. **A 'greenium' is not of any material value in this higher interest environment.** It is not realistic to expect financial institutions to subsidise the market to any meaningful degree. Some research suggests that pricing is starting to take account of the relative transition risk of high-emitting companies.[155] It is likely that this trend will continue, particularly as work on short-term scenario analysis continues and regulators and financial institutions focus in more on this risk area.

For the UK SME market, a time-limited incentive scheme like those adopted in Asia to support SME uptake of green labelled finance, based on a limited data set supported on a data platform could be part of a wider SME focussed initiative, and would be most appropriately situated towards the end of a wider program of SME engagement and support. The incentive could be limited to a sum to cover or partially cover collection, calculation and process verification of relevant data points and time limited.

Given the findings above, **the Review recommends:**

- **The market should support the LMA's consideration of a use of proceeds transition label and define a base case information set for borrowers to provide to lenders; and**
- **the Government, with advisory input from the FCA, should consider the development of a time limited incentive scheme, modelled on, for example, the Sustainable Loan Grant Scheme adopted in Singapore[156], to support the uptake of green labelled finance; and**
- **Government should consider the best delivery partners for such a scheme once developed.**

[154] CBI 2020 – *Green Bond Treasurer Survey.*
[155] Oxford University 2023 – *Energy Transition and the Changing Cost of Capital.*
[156] MAS 2023 – *Sustainable Loan Grant Scheme.*

4.10. Retail investment

Through work to unlock productive finance and improve stewardship activity, there is an opportunity to offer more individual savers and investors the chance of participating in the transition if they wish to do so. Allowing for bottom-up demand is critical, and it also enables interested retail investors to feel directly involved in the opportunities the transition will present. In a growing number of cases, this allows them to align all or part of their savings and investments with their personal preferences. Whether through retail savings accounts, mortgages, loans, or investment products, the incorporation of transition finance themes will become increasingly important. Stakeholders highlighted the Dutch Green Projects Scheme as one example of best practice (see case study 15).

Case study 15 – Dutch Green Projects Scheme

The Green Projects Scheme was initiated by the Dutch government and implemented by the Netherlands Enterprise Association (RVO). The scheme offers retail investors tax relief for investing in qualifying green investments and provides eligible green projects with access to lower interest rates on bank loans. The Scheme supports a wide range of sustainable projects in sectors such as nature conservation, sustainable agriculture, circular economy, renewable energy, sustainable construction, sustainable transportation, and climate adaptation.

According to data from the Ministry of Housing, Spatial Planning, and the Environment, between 1995 and 2009, the Dutch Green Projects Scheme accumulated a total of €7.4 billion from 250,000 individual investors.[157] Approximately one in seven individual investors in the Netherlands holds a green bond or shares in a green fund, with the average investment being €30,000. The scheme financed approximately 6,000 projects, each receiving an average of €4 million. Popular projects included organic farming, Green Label Greenhouses, and renewable energy.[158]

It is notable that the UK's National Savings[159] product range de-prioritises green products by designing them with a significantly lower interest rate and investment limit. The green savings bond product offers interest at 2.95% gross, 3 year fixed, with a £100,000 investment cap, compared with the conventional savings bond which offers interest at 4% gross,3 year fixed, and an investment cap of £1 million. NS&I products should be recalibrated, and green products should ordinarily be offered on terms at least as competitive as conventional savings bonds.

The Review also sees the opportunity to draw a link between the UK's Green Gilt program and Green Finance Framework and its NS&I green products. While this should be tested with savers, the Review considers that there is likely to be untapped interest in investment to support a UK transition that is focussed on providing clean, secure energy, warm homes, green jobs and clean air.

Given the points above, **the Review recommends:**

- **Government to review the NS&I product range to (i) ensure its green products are offered on terms at least as competitive as conventional products, and (ii) to consider how to connect these products better with the Green Gilt program and UK public spending on the transition of its economy.**
- **Government to consider launching a tax-efficient retail investment scheme that can provide incentives for retail investors to engage with the energy transition, while pooling significant new capital for priority sectors and technologies. The scheme could be modelled on the Dutch Green Projects Scheme.**

> **"Through work to unlock productive finance and improve stewardship activity, there is an opportunity to offer more individual savers and investors the chance of participating in the transition if they wish to do so."**

[157] OECD 2023 – *Sustainable Finance Definitions in the Netherlands.*
[158] Ibid.
[159] NS&I 2024 – *Products.*

Scaling transition finance with credibility and integrity

5

5.1. Introduction and overview

This chapter discusses the concepts of credibility and integrity in relation to transition finance. This area is one of the most challenging the Review has engaged with. **Greenwashing concerns and regulatory approaches that have focussed on defining green activities currently inhibit the flow of capital to transitioning activities and companies**, particularly in high-emitting sectors. This has generated significant debate about the current state of the market and implications for delivering credibility and integrity in transition finance, with a wide spectrum of views on how best to proceed.

Definition of credibility and integrity

To enable the scaling of transition finance markets, transition-related financial products and strategies need to demonstrate credibility and integrity to satisfy market and regulatory anti-greenwash expectations. Stakeholder feedback was broadly consistent on factors considered relevant to credibility and integrity, though views differed on which components were considered as salient for credibility and which for integrity. Given this, the Review considers credibility and integrity jointly. Examples of credibility and integrity expectations include:

- an ability to demonstrate the underlying real economy activity or activities are in alignment with or necessary for a pathway or benchmark compatible with the Paris Agreement (for example, by reference to a regulatory taxonomy, a national, regional or global sector pathway, Nationally Determined Contributions (NDC) or national sector plan or science-based targets);
- governance processes in place for oversight of delivery of the strategy or activity;
- application of recognised methodologies and metrics to measure progress; and
- disclosure of progress and assurance of key metrics.

5.2. Key recommendations

Summary of key recommendations in chapter 5	Section
The Review recommends, in relation to the role of the Bank of England and the FCA: • Regular engagement between the regulators and the Climate Change Committee (CCC), Department for Energy Security and Net Zero (DESNZ), and the North Sea Transition Authority, to ensure a timely, accurate and evidence-based picture of the UK's transition is reflected in the regulatory framework. • For both the Bank of England and FCA to consider how to incorporate communication regarding transition finance into their regular rhythm of market engagement. • That the Bank of England and FCA should work with the Climate Financial Risk Forum to initiate a new workstream on transition finance, focussed on transition finance metrics for inclusion in commercial transition-related instruments, and to connect with other international markets to align on approaches. This work is unrelated to risk metrics and so the focus should be on action and impact (e.g. capital expenditure, operational expenditure, research & development, revenue growth) and using existing metrics (e.g. from ISSB, TPT, TPI, CA100+). The Review encourages the market to engage closely with the Climate Financial Risk Forum.	*5.4*
In relation to sustainable finance policy, the Review recommends: • UK financial institutions and regulators should engage actively with the European Platform for Sustainable Finance, European Commission and European Securities and Markets Authority (ESMA) regarding the review of SFDR, to support opportunities for convergence where possible. • The market should engage with, and where appropriate take up use of the 'Sustainability Improvers™' label. Regulatory approaches which actively make space for transition strategies should be welcomed. • As funds start to adopt the SDR 'Sustainability Improvers™' label, FCA and industry should engage to discuss approaches to establishing credible and robust transition pathways for demonstrating that underlying assets are fit for inclusion within the label.	*5.5*
The Review recommends that Government should move to issue its consultation on the use cases for a UK Green Taxonomy, aligned to the needs of investors, markets and the UK economy.	*5.5*

5.3. Perceptions of credibility and integrity

The Review identified four key challenges related to credibility and integrity in transition finance markets:

Challenge 1: Balancing the benefits of standardisation with the need to ensure approaches accommodate different national, sectoral and entity starting points and pathways, within the context that the dynamic nature of transition means transition benchmarks and strategies are inherently time limited.

- A wide range of responses pointed to tensions between taking a principle-based approach and one centred around specific guidance from Government and standardised approaches. The former affords increased flexibility and can co-exist with other regulatory approaches, while the latter can be easier to utilise and better support comparison.

  - Standardisation has value. Current lack of standardisation when considering transition finance is causing confusion and leaves some market participants wary. There was a clear view of the value of a baseline expectation which enables comparisons of different companies or activities to inform investment and credit decisions. Standardisation can also mitigate perceived greenwashing and can reduce the burden on companies seeking and providing financing.

  - But flexibility is needed. Transition finance is transitory in nature. During engagement with the Review, stakeholders suggested that a fundamental challenge is that the definition of what is credible will shift and change under different time horizons and in different circumstances and geographies. The emergence of new technologies, developments in science, market practice, regulatory approaches and government preferences – including the capacity of government to signal whether a specific technology meets their policy objective at a given time – will undoubtedly present companies and financial institutions with a shifting picture of what can be deemed credible. Consideration is needed of the differences in starting points and pathways across various contexts, including jurisdiction, sector and size of organisation. Flexibility may also be needed in the application of various metrics and frameworks and how they are utilised to support investment decision making. Further, stakeholders did not want the existing landscape to be ignored. There was a preference for finding solutions that worked with taxonomies and other regulatory regimes, rather than cutting across them.

Challenge 2: Addressing the risk of greenwashing, and of finance being classified as transition when it is not really progressing transition, which stems from a lack of clarity around the scope and application of transition finance.

- There is a consensus that **perceived and actual risk of greenwashing represents a significant impediment to a flourishing transition finance market.** Stakeholders frequently raised the reputational risk associated with financing carbon-intensive companies. This involves the risk of both 1) channelling money to companies/sectors where it is not clear that these investments are transition-focussed; and 2) the risk of criticism from external stakeholders due to a lack of understanding of or common agreement on what has been deemed credible transition finance.

- While having the right governance, systems and controls in place will support compliance with the core of regulatory anti-greenwashing approaches, **there remains a risk that stakeholders associate all financing of carbon-intensive companies with greenwashing and that financial institutions hold back in providing transition finance from fear of the public perception, regardless of the processes and controls in place to avoid actual greenwashing.** This is a real challenge for these high-emitting sectors, where significant amounts of capital are needed, and it can be hard to communicate how that capital is driving decarbonisation over years when overall emissions may remain high or increase on an absolute basis. Continued financing of these entities is also essential to ensuring a smooth and just transition in the economies which are currently heavily reliant on these industries.

- The key factors contributing to risk of perceived greenwashing are:

  - Scope and definition. There is a sense that risk of greenwashing will be exacerbated if transition finance is scaled before there is a formal, widely accepted definition.

  - High-emitting sectors. There is a lack of clarity around the trajectory and needs of high-emitting sectors as they transition.

  - Regulatory enforcement. There is discomfort around regulatory enforcement approaches to greenwashing, in part because they are new and may involve multiple regulators.

  - Risk mitigation. Lack of clarity and confidence over how best to mitigate risk of perceived greenwashing when approaching transition finance products and strategies.

Challenge 3: Current relative lack of provision for transition strategies and transition finance in UK sustainable finance policy such that financial institutions fall back on the EU framework which focusses on green.

- As outlined earlier in the Review's findings, the focus of policymakers, regulators, and the market has largely been on defining and developing the right regulatory approaches in relation to activity which is clearly green. **The Review has heard that, although this has helped to scale green finance markets, there is a relative lack of provision for transition-related strategies and transition finance in many regulatory regimes.** There can often be a binary sustainable/not sustainable approach, which raises challenges. This approach is shifting, for example with the welcome introduction of the UK FCA's 'Sustainability Improvers™' label. **However, for internationally active investment firms, for example those marketing products in the EU, a globally aligned shift is necessary.**

- This is particularly important as there are certain approaches to transition finance that might result in short-term financed emissions increases. **The current market, civil society and regulatory understanding may not provide space for these short-term increases.** This can make the case for this finance hard to articulate. For example:

  - **Activist investors** may invest more heavily in high-emitting companies, with an objective of maximising their stewardship capabilities to drive for further emissions reductions.

  - **Growth companies** that are developing and selling low carbon or climate solutions will see their underlying absolute greenhouse gas emissions profile increase, as they scale.

  - **Investments in climate solutions or necessary allocations to support EMDE transition, mitigation and adaptation** may lead to near-term increases in financed emissions. An example of this occurring is with investments in projects to retire high-emitting assets and replace them with low carbon assets. This may involve early years of high emissions, and while the replacement asset is procured, constructed and brought online (when emissions from the old unit will be amplified by emissions associated with the materials and construction of the new unit) followed by much lower emissions once the replacement is made and the older unit is retired.

Challenge 4: Some actions to deliver credibility and integrity in transition finance may have unintended impact on SMEs and EMDEs.

- **Putting in place requirements to achieve transition financing with credibility and integrity may create a burden that is outsized for smaller companies and companies in EMDEs.** The region that now accounts for the greatest volume of annual greenhouse gas emissions is Asia, not least because of the relocation of much industrial activity there by European and US companies in the 1990s and early 2000s. Making finance achievable for transition of industries in high-emitting sectors, wherever they are, is critical to the goals of the Paris Agreement. Section 6.5 explores EMDE challenges in more depth.

5.4. The role of the Bank of England and the Financial Conduct Authority

Transition concepts embedded into the regulatory framework

The Review heard clearly that regulators have a critical role to play in the development of transition finance markets. Ultimately, an increase in transition finance deployed should be indicative of increased transition-related economic activity. **This volume increase should help to reduce transition risks throughout the system, as more economic activity is aligned to the likely future state of the world.**

In line with their statutory objectives and principles, the Bank of England and the FCA have taken several important steps to integrate transition finance themes and concepts into their regulatory approaches. Whether through the introduction of a transition-related 'Sustainability Improvers™' label into the FCA's Sustainability Disclosure Requirements (SDR) and investment labelling regime, or the Bank of England's Climate Biennial Exploratory Scenario, **the UK's regulators have shown they are willing and able to take proactive steps to integrate transition finance themes and concepts where appropriate.**

The Review has welcomed ongoing and positive dialogue with both regulators through its evidence gathering and analysis process, which has helped us to better understand existing practice, and work to shape recommendations that can support continued progress and integration. Recommendations related to other regulators, including the Financial Reporting Council (FRC) are addressed elsewhere in the Review's findings (see section 4.2 and section 4.10).

Several key concepts for further consideration by all regulators were raised through the Review. They centred around:

- **ensuring regulators have access to the skills, capabilities and inputs** they need to proactively engage with this topic;
- **ensuring regulators play a prominent role, through guidance and communications, in developing market best practice;** and
- **ensuring regulators explore the full suite of tools at their disposal** to embed transition finance across markets.

Skills, capabilities, expert inputs and prioritisation

The Government has outlined ambitious plans to accelerate the UK's transition towards net zero. Meeting key targets, for example decarbonising the grid by 2030, will have a fundamental impact on the UK's economy, **including exposure of the financial system and consumers to heightened transition risks and opportunities.**

The UK's financial regulators must be equipped to respond to this shift and be able to reflect this within their prioritisation and through senior engagement. **Core to this is ensuring the regulators have the right suite of internal skills and expertise, including at a senior level, and external advice and inputs, to integrate transition-related themes where appropriate.** UK and global regulators have been building up skills and expertise over recent years, to inform their regulatory approach towards climate and ESG issues in the financial services sector.

It will be important not to overwhelm existing teams with further, increasingly complex responsibilities. The regulators have worked extensively and successfully with industry and other experts, most prominently through the Climate Financial Risk Forum (CFRF). **Expert engagement will need to evolve to ensure the regulators have access to relevant expertise on decarbonisation pathways and how to assess entity-level progress along them.**

In relation to the development of their response to Government plans, and related internal skills, capabilities and prioritisation, **the Review recommends:**

- **Remit letters:** The Review welcomes the Chancellor's commitment to revisit the placement and prioritisation of climate-related issues within the Bank of England's remit. **In the near-term, through remit letters to the Bank of England Monetary Policy Committee and Financial Policy Committee, and in the longer-term, through remit letters to the FCA and the Prudential Regulation Committee, the Chancellor has the opportunity to clarify core elements of the Government's economic plans and outline the importance of integrating key transition themes to support their delivery.**
- **Resourcing:** The market highlighted how helpful it has been to have visible, senior staff within key regulators acting as 'climate champions' over recent years. **The Review recommends similarly high-profile focus on key transition finance themes from senior staff within the regulators going forwards.** This must also be matched with

sufficient dedicated resource within key teams across the regulators to build expertise and drive work forward and to mitigate key person risks.

In relation to accessing suitable external advice and inputs, **the Review recommends:**

- **Policy inputs: Closer work between key teams within Government and key teams within both the Bank of England and FCA will be critical, as will ongoing dialogue with industry.** As more detailed policy emerges to support the delivery of the Government's decarbonisation targets, it will be important for the financial sector implications of this policy to be considered and integrated into the regulatory framework where appropriate. In particular, **the Review would recommend regular engagement between the regulators and the Climate Change Committee (CCC), Department for Energy Security and Net Zero (DESNZ), and the North Sea Transition Authority**, to ensure a timely, accurate and evidence-based picture of the UK's transition is reflected in the regulatory framework.

- **System-level analysis: Closer collaboration between the Bank of England, the FCA, the CCC and the Government will be critical, to come to a shared understanding of who has responsibility for different elements of the system-level analysis required to monitor UK progress towards net zero and market level exposure to the pace of progress globally.** While the regulators are in a position to assess transition plan disclosures of individual companies and financial institutions against a given reporting framework, they are not best placed to assess the credibility of those transition plans and the degree of alignment to a given decarbonisation pathway, responsibilities which would be better placed with the Government or a new body. Further, shared analysis of the aggregate transition picture within key sectors of both the real economy and financial services, and how these compare to decarbonisation pathways, will be an important step to take. This analysis should be used to inform future policymaking, regulatory approaches and feed back into the CCC's annual progress analysis.

- **Reporting: the Bank of England and FCA should include within their periodic reporting to the Government information on how the transition of the economy and transition finance relates to the performance of their functions.**

Considering transition within existing and emerging regulation

Finally, there have been calls throughout the Review's engagement to encourage the regulators to utilise the full suite of tools at their disposal to support the development of transition finance markets. **The Review recognises the importance of ensuring that the prudential regime is grounded in managing risk, and not used to incentivise one sector over others.**

Anecdotal issues have been raised across the market. For example, issues and timeframes associated with securing approval for the inclusion of relatively mature renewables projects within Matching Adjustment portfolios, and challenges investment firms are facing making use of the FCA's 'Sustainability Improvers™' label.

The Review does not consider it appropriate to make specific recommendations regarding these issues, as they are all related to regulatory initiatives which are either in the process of embedding or in flight. **However, the Review is clear that, given the scale of transition investment needed to reach domestic and global decarbonisation goals, regulators should identify and remove unwarranted impediments to transition finance.**

The Review encourages the regulators to be cognisant of the emergence of new types of transition-related risks as companies undertake greater levels of transition finance activity.

“Closer collaboration between the Bank of England, the FCA, the CCC and the Government will be critical.”

Identifying best practice and communications

Another key role the regulators can play is in relation to their communication with the market, and how they use their 'bird's eye view' to understand and share good practice. This is especially relevant for transition finance. Market participants are rapidly developing new approaches, products and services to scale this nascent market. Within this, there will be a need to develop consistent interpretation of the regulatory framework as to how innovative products and services may fit within it. Best practice will emerge, and the regulators are in a unique position to spread this through the market. A good example is the FCA's publication of guidance to support firms in their management of new anti-greenwashing rules.

To achieve this, **the Review recommends:**

- **Regular market updates:** The Review **recommends both the Bank of England and FCA consider how to incorporate communication regarding transition finance into their regular rhythm of market engagement.** This is especially important in relation to how supervisory activity is undertaken, and the clarity and consistency of messaging provided to firms from their supervisory teams.
- The Review recommends **the Bank of England and FCA should work with the Climate Financial Risk Forum to initiate a new workstream on transition finance**, focussed on transition finance metrics for inclusion in commercial transition-related instruments, and to connect with other international markets to align on approaches. This work is unrelated to risk metrics and so the focus should be on action and impact (e.g. capital expenditure, operational expenditure, revenue growth) and using existing metrics (e.g. from ISSB, TPT, TPI, CA100+). **The Review encourages the market to engage closely with the Climate Financial Risk Forum.**

> **The need for financial market regulators to recognise the importance of investing in transition assets is key to promoting credibility and integrity across transition finance.**

5.5. Sustainable finance policy

The need for financial market regulators to recognise the importance of investing in transition assets is key to promoting credibility and integrity across transition finance. **Yet during engagement with the Review, market participants agreed that there is a lack of nuance within existing sustainable finance policy to account for investments in transitional activities**, which have an inherently less defined profile in terms of financed emissions than pure low carbon activities. Examples include:

1. **EU SFDR:** A major fund manager pointed to the challenges of marketing transition focussed strategies to funds established in or sold into the EU. Article 9 of the SFDR precluded investment in funds where the underlying assets were transitioning. Article 8 funds may be transition funds if the sustainability characteristics of the fund and how these characteristics will be delivered and measured can be identified, but fund managers may have concerns as to ability to deliver on these characteristics in the case of transition assets.
2. **EU Taxonomy:** A construction materials multinational flagged that most of its activities fell outside the EU taxonomy, although these are sustainable construction materials that are core to the transition of the built environment. The activities are among those that were not included in the taxonomy which was designed initially to focus on low emission alternatives to the highest emitting activities.
3. **UK SDR:** Market participants are supportive of the SDR labels, use of which has been possible since 31 July 2024. However, use of the 'Sustainability Improvers™' label presents challenges, particularly when trying to evidence transition pathways for improvers, to gain scientific reassurance that the activity being financed is on a credible path.

As focus in the market shifts to financing reductions in absolute greenhouse gas emissions in the real economy, as opposed to reducing financed emissions across a portfolio, sustainable finance policy will need to continue to develop and adapt to reflect this shift. The EU regime is particularly important because of the volume of funds subject to EU jurisdictions. The Review notes that this regulatory area is under review in the EU, with particular regard to the need to enable transition strategies.

FCA's SDR

The SDR is intended to support consumers in navigating a complex investment market, minimising greenwashing and enhancing trust. There is no hierarchy embedded within the four labels introduced by the SDR - reflecting that all funds adopting the labels contribute towards delivering more sustainable outcomes. Reflecting on transition and its place within the regime:

- The SDR's 'Sustainability Improvers™' label supports consumers in identifying products where the underlying assets will be improved over time, associated with investments that could be considered as transition finance.
- This label is very new, and market participants have noted that it lacks guidance to define a credible standard against which to compare the transitioning investment. Some market participants noted that it would be helpful to have guidance on the label requirement indicating that assets are selected using a robust evidence-based standard.
- While the FCA provides detail on this point in its Policy Statement and will continue to engage and support firms through its policy implementation, the market has appetite to understand better regulator expectations of the evidence base and boundaries for this label.

The Review encourages the market to engage with, and where appropriate take up use of the 'Sustainability Improvers™' label. Regulatory approaches which actively make space for transition strategies should be welcomed.

Given the significant challenges in identifying science-led pathways that evidence an asset's likelihood of transitioning, **the Review recommends, as firms start to adopt the SDR 'Sustainability Improvers™' label, FCA and industry should engage to discuss approaches to establishing credible and robust transition pathways to demonstrate that underlying assets are fit for inclusion within the label.** Market participants should continue to engage with the FCA to highlight areas where additional guidance would support implementation and to discuss approaches to establishing credible and robust transition pathways to demonstrate that underlying assets are fit for inclusion within this label.

EU SFDR

SFDR was among the first regulations focussed on sustainable finance and implementation therefore involved a significant learning curve for regulated firms and regulators alike. The market responded to the SFDR by treating the categories of financial products as de facto labels, which was not what the system was designed to do. The roll out of SFDR has been deployed by primary and secondary level instruments coupled with a series of guidance notes and Technical Reporting Standards.

This flow has resulted in periodic changes to market understanding resulting in market participants making significant changes to fund categories. The EU is currently reviewing the SFDR and contemplating changes to address some areas that have not been used as originally contemplated and to build on learnings over the past five years. For example:

- Uncertainty over the threshold for sustainable investments in SFDR's Article 9 products led to classifying Article 9 funds as Article 8 funds in the second half of 2022.[160] This primarily impacted passive funds utilising sector-based exclusions and guidance from ESMA.
- The European Commission clarified elements of the SFDR in response to market uncertainty, including providing guidance that transitioning companies do not qualify as 'sustainable investments' for Article 9 status.[161] Key regulatory clarifications to SFDR were regularly accompanied by significant waves of fund reclassification, reflecting the uncertainty faced by the industry.[162]

Broad alignment of labelling systems across jurisdictions has also been raised as a key building block for the scaling of transition finance. Asset managers favour clarity and alignment between European and UK sustainable finance policy to facilitate the marketing and promotion of funds across the two financial markets to reduce costs and complexity for clients.

To optimise EU/UK alignment of approaches, **the Review recommends UK financial institutions and regulators continue to monitor and engage actively with the Platform for Sustainable Finance, European Commission and ESMA regarding the review of SFDR, with a view to supporting opportunities for interoperability where possible.** The UK should continue to engage with EU institutions and member states to collaborate and share lessons learned on policy implementation.

[160] MS 2023 – *ESG Fund Downgrade Accelerates.*
[161] ESAs 2022 – *Q&A.*
[162] MS 2023 – *ESG Fund Downgrade Accelerates.* The ESAs published revised standards specifying the content of SFDR disclosures in September 2022. According to Morningstar data, some 40% of funds were shifted by asset managers from Article 9 to Article 8 categorisation in the final three months of 2022. As the European Commission closed its consultation on the future of the Sustainable Finance Disclosure Regulation (SFDR) in the final quarter of 2023, Article 8 funds were registering the largest quarterly outflows on record. Specifically, investors pulled €26.7 billion (£22.8 billion) from Article 8 funds over the period. Those with no commitment to sustainable investments were disproportionately affected.

Developing core metrics for transition finance impact

The lack of high-quality, consistent climate and sustainability-related data at both national and company level was highlighted as a key barrier to credibility and integrity by many respondents, compounded by an absence of appropriate benchmarks and metrics against which to measure and demonstrate progress. Differences in countries' net zero commitments and NDCs exacerbate existing complexities with accessing comparable and information and data to facilitate decision making.

There are two key types of metrics that can enable a comprehensive understanding of corporate progress, ensuring that transition finance effectively supports the global shift towards a low carbon economy.

- **Forward-looking metrics** to evaluate private sector transition plans and ambitions, identify whether they align with sector- and region-specific pathways, and assess potential Paris Agreement compatibility at portfolio and investee level. This enables a more sophisticated engagement on expectations and performance, supporting investor stewardship activities.

- **Backward-looking metrics** can, if considered over appropriate timeframes, assess the effectiveness of implemented transition finance initiatives by analysing past performance and outcomes. This can provide an indication of whether financial interventions have successfully driven progress towards established climate goals, allowing for necessary adjustments and recalibrations.

While historical and point-in-time metrics (e.g. financed emissions) provide useful insights, they may not capture the broad, whole-economy decarbonisation impact of climate solutions nor the emissions reduction potential of high-emitting exposures. **Projecting the planned, forward-looking emissions reduction of real-economy companies is a potentially useful but underdeveloped mechanism that in time may support the scaling of transition financing strategies.**

The development of robust transition focussed metrics is an important objective for transition finance. At a time of increased scrutiny by regulators over labelled instruments and financial product naming, the development of metrics that can support investments' contribution to the transition will help institutions justify their involvement in these sectors and incentivise investors to provide capital - regardless of the label. Such metrics might include the proportion of turnover, capital expenditure, operational expenditure or research & development relating to transition activities. Some financial institutions would appreciate a robust methodology that enables them to internally classify and measure 'transition finance', to track progress towards net zero commitments and understand how financing decisions are supporting real-economy transition objectives.

Work in these areas is reflected in some public transition finance frameworks but remains nascent and is primarily only applied at activity-level. As one example, the Japanese Ministry of Economy, Trade and Industry considered the impact that a singular focus on the metric of 'financed emissions reductions' may have in hindering transition finance. It proposed a set of 'complementary metrics' to better support transition finance, which included both metrics to measure efforts on real-economy transition, as well as execution capability for decarbonisation-related measures.[163]

At an industry level, GFANZ, PCAF, IIGCC and other bodies have initiated work on methodologies for forward-looking indicators, and further efforts are ongoing within the sector with the aim of consolidating key metrics. **During engagement with the Review, stakeholders agreed that there is a need for further consolidation and testing of forward-looking metrics.** It was suggested to the Review that **focussing work initially on indicators that relate to matters substantially within the control of the borrower or investee could be a useful next step.**

While many market participants consider a common methodology for assessing such strategies will be necessary and will need to be developed in parallel to mandating transition plans, any approach should be balanced to ensure that such metrics are not so complex that they cannot be implemented by financial institutions, nor understood by investors. **Care should be taken to avoid lengthy debate about the delivery of a perfect metric.** If the market – industry, regulators, Government, civil society – can coalesce around core metrics, or a qualitative or narrative approach, this may be sufficient. It is also important to ensure that metrics do not overstate the impact of the financial sector on a transition that will be driven primarily by their clients and investee companies supported by effective real economy policy. **The Review recommends the key next step in relation to transition metrics should be taken by the Climate Financial Risk Forum and encourages companies and financial institutions to engage actively with this work.**

[163] Japan Public and Private Working Group on Financed Emissions to Promote Transition Finance, 2023. *2050 Carbon Neutral.*

Taxonomies

Review feedback on the role and importance of taxonomies varied. In principle, science-based taxonomies could act as a critical credibility and integrity tool, setting out - at a jurisdictional level - which economic activities are aligned with net zero. However, there are practical challenges with developing workable and user-friendly taxonomies, such as ensuring an appropriate scope and designing quantitative criteria that are robust but not overly complex. Further, the efficacy of taxonomies will be limited in the absence of clear sectoral decarbonisation pathways and policy incentives. There are also challenges with extending pure green taxonomies to cover transition activities more broadly.

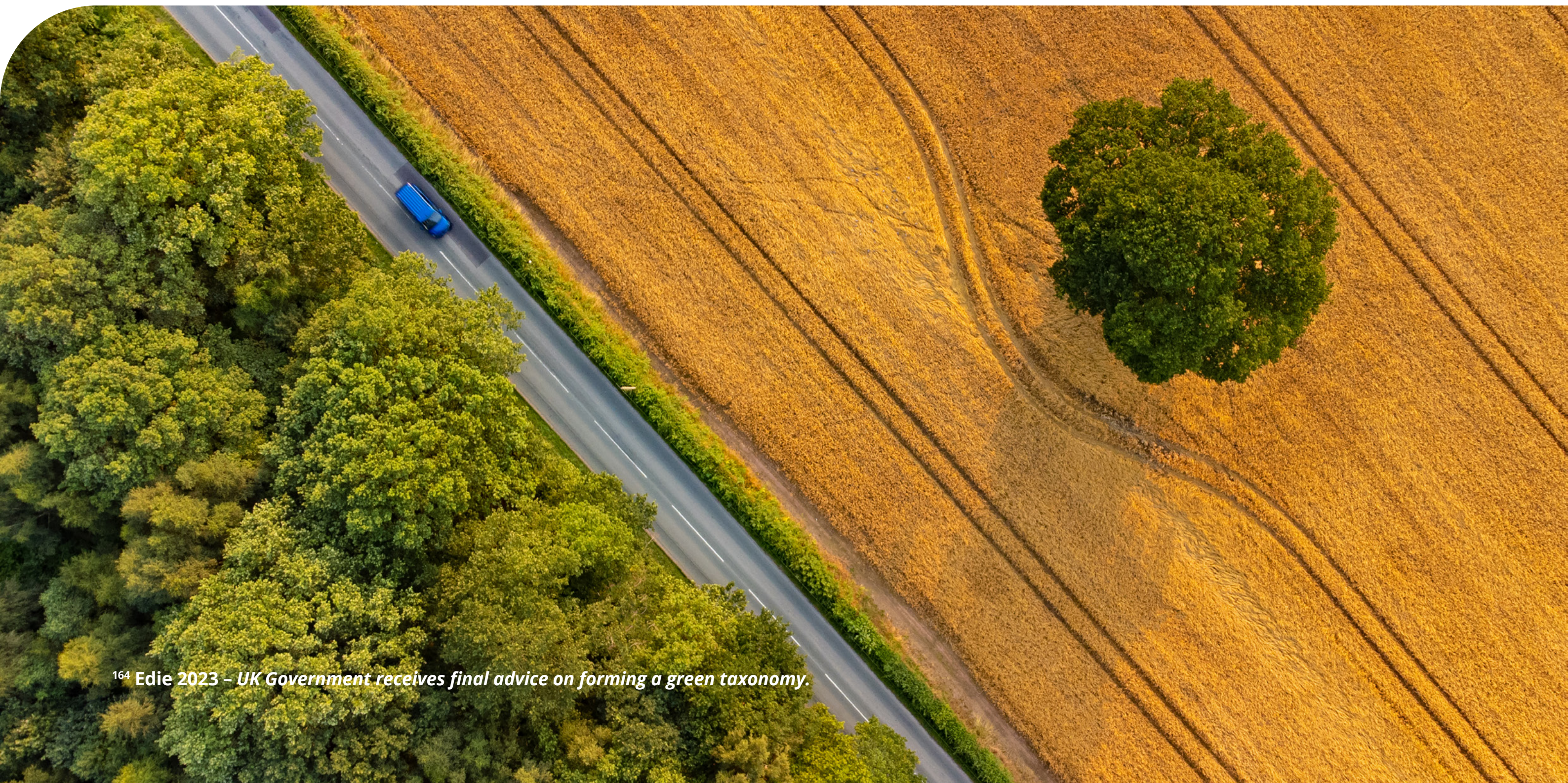
A UK green taxonomy
The Review considers the development and publication of green taxonomies has been helpful for those activities addressed. In the UK, while significant work has already been done to date by the Green Technical Advisory Group (GTAG),[164] the market is still waiting for an update from Government on its proposed approach to the UK Taxonomy.

The Review recommends that Government should move to issue a consultation on the use cases for a UK Green Taxonomy, aligned to the needs of companies, investors, markets and the UK economy. This consultation should clarify the UK Government's planned approach and provide an opportunity for stakeholders to consider how a taxonomy can sit alongside the Review's proposed principles-based approach to assessing Transition Finance and the Government's proposals to mandate transition plan disclosure.

Moving from green to transition taxonomies
Green taxonomies are relatively widely used globally. According to GTAG, there are 47 taxonomies in place or in development. These primarily focus on the classification of 'green' economic activities.

Some taxonomies incorporate transitional elements (e.g. the Singapore-Asia Taxonomy for Sustainable Finance which utilises a 'traffic light' approach). These approaches seek to address transition activities which are not 'green' but may form a time-bound role in a credible transition pathway with the right guardrails. Over time, governments and regulators may seek to incorporate such transitional elements to expand the reach and usability of their existing green taxonomies.

Some stakeholders highlighted several key challenges with the development and use of taxonomies in the context of transitional activities. **It was noted that a static taxonomy cannot keep up with developments in emerging technologies and the dynamic nature of transition activities.** Therefore, **a rigid classification of activities could lead to the exclusion of activities with decarbonisation benefits.** Some stakeholders considered that the market has sufficient frameworks and that additional taxonomies are not needed for the purposes of transition activities. However, **if governments or international organisations are considering developing national or common terms taxonomies to address specific transition activities, feedback to the Review indicated that those activities would need to be appropriately time bound and/or bound to follow a progression framework such as a traffic light system to show how those activities will change over time to remain aligned with a credible decarbonisation pathway.**



[164] Edie 2023 – *UK Government receives final advice on forming a green taxonomy.*

Scaling transition finance in emerging markets and developing economies

6

6.1. Introduction and overview

Supporting transition finance in emerging markets and developing economies (EMDEs) will be critical for achieving the world's collective climate goals. It also presents an opportunity for the UK and its financial and professional services sectors to support and pursue decarbonisation efforts and sustainable growth. By 2030, EMDEs (excluding China) will require at least US$1 trillion per year from international partners, including governments, multilaterals and private capital providers to support their total green finance needs.[165]

This chapter provides an overview of the main opportunities and challenges for mobilising transition finance in EMDEs, as well as practical and actionable recommendations for the UK Government and other UK stakeholders. These include support for the wider adoption of national sector pathways, regulatory adjustments to avoid unjustifiable barriers to EMDE investment, and a more strategic deployment of bilateral and multi-lateral public finance.

[165] IHLEG & LSE, Songwe et al., 2022 – *Finance for climate action: Scaling up investment for climate and development.*

6.2. Key recommendations

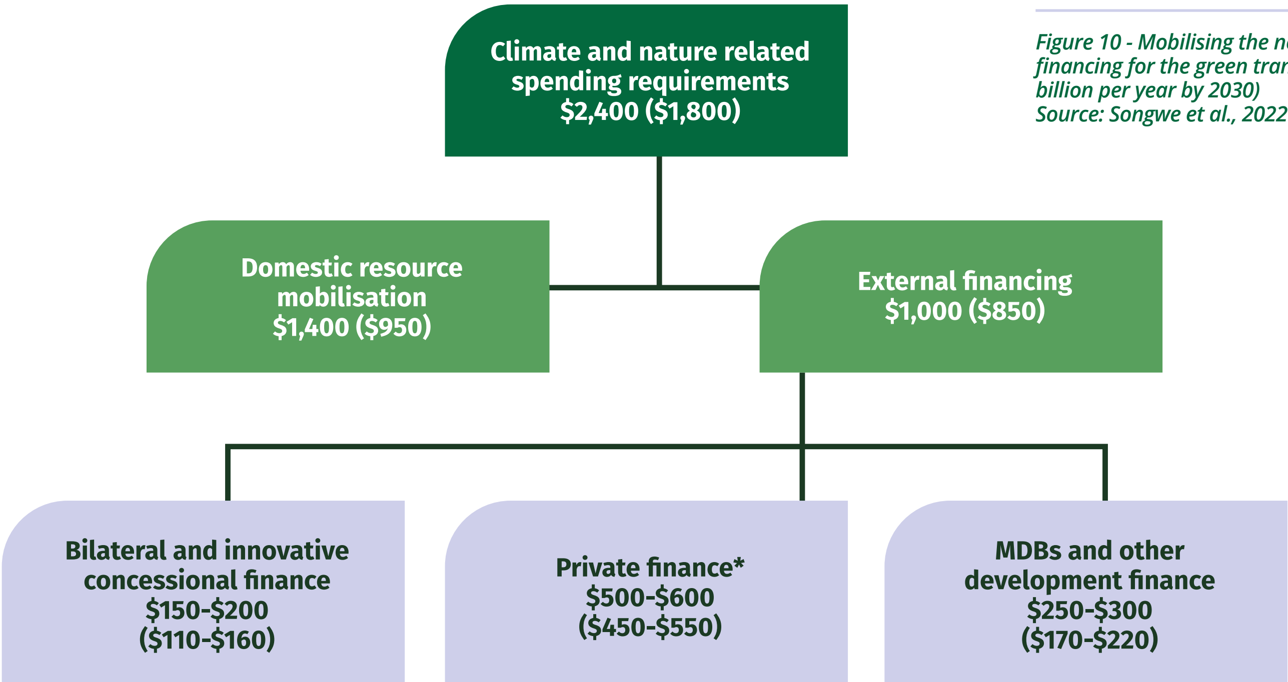
<table>
<tr><th>Summary of key recommendations in chapter 6</th><th>Section</th></tr>
<tr><td>The Review recommends international advocacy for national sector pathways and planning. Government should:
• The Review recommends that the UK Government supports the development of credible science-based national sectoral pathways by interested EMDEs
• The Review recommends that regulators provide further guidance on how to apply the Prudent Person Principle (PPP) in EMDE contexts,
• The Review recommends that financial institution disclosures, and regulatory disclosure requirements are broadened to acknowledge that absolute financed greenhouse gas emissions - in certain EMDEs and in certain sectors - could increase before they go down.</td><td>6.5</td></tr>
<tr><td>The Review recommends UK to maximise the use of its levers to leverage private capital into EMDE transition:
• UK Government should continue to support EMDEs interested in developing country platforms in high-emitting sectors, building on the experience of the JETPs in the energy sector. Platforms can help ensure a broad set of local and global partners understand the intended pathways and agree they are ambitious.
• UK Government should continue to extend its support to BII and other mechanisms for project preparation, development of private sector transition plans and transition finance opportunities in EMDEs.
• FCDO should continue funding off balance sheet concessional finance to enable BII to increase risk appetite for investment in nascent climate technologies and business models.
• UK Government should support the development of voluntary reporting standards for non-listed SMEs by IPSF and engages with EU institutions including EFRAG on its work in this area. Further, it recommends that the UK supports MDBs to explore the potential for piloting a subsidised credit line for SMEs in high-emitting sectors combined with a digital data-reporting solution.

In relation to the UK’s role as a shareholder in MDBs, the Review recommends:
• UK advocates for MDBs to explore ways of incentivising the issuance of sovereign-labelled bonds in support of Paris-aligned national transition planning and transition-focussed development.
• UK strongly discourages MDBs from commercial green projects where their involvement is unlikely to be additional, and that the UK encourages MDBs to continue with originate-to-distribute business reforms, including through distributing investment products for investors specifically focussed on transition finance.
• UK supports MDBs to continue providing technical assistance to countries wishing to mobilise investment to deliver their NDCs.</td><td>6.6</td></tr>
</table>

6.3. Opportunities for transition finance in EMDEs

To meet Paris Agreement goals, the scale and speed of finance will have to increase dramatically, especially in EMDEs. **The Independent High-Level Expert Group on Climate Finance (IHLEG) estimated that by 2030, EMDEs will need US$2.4 trillion for climate-related investments, a four-fold increase from current levels.**[166] At least US$1 trillion of this will need to come from 'external' international sources, including US$500-600 billion from private finance (see figure 10).

Figure 10 - Mobilising the necessary financing for the green transition (US$ billion per year by 2030)
Source: Songwe et al., 2022[167]



Note: Incremental investment from current levels is indicated in parentheses.
*More than half of this private finance would be directly and indirectly catalysed by MDBs, other development finance institutions, and bilateral finance.

Within this US$600 billion private finance need, investment will be required to accelerate the phaseout of coal fired power generation in the energy and manufacturing sectors. Transition finance will also be necessary to reduce the emissions of other sectors with high decarbonisation potential, such as cement, agriculture, forestry and other land use (AFOLU), buildings and infrastructure, or waste.

Mobilising private capital for transition finance for these sectors represents an opportunity for EMDEs to attract finance to accelerate low carbon economic growth (for example through the repowering project replacing current coal fired assets with clean power). This will help drive global decarbonisation as well as reducing the exposure of the global financial system to systemic environmental and financial stability risks. This benefits financial hubs such as the UK, which are inevitably exposed to such risks through the financial and insurance markets as well as supply chain and commodity dependencies.

Transition finance can also facilitate other strategic priorities of EMDE economies. These include economic, social and environmental objectives, such as adaptation, resilience, nature positive action, food and energy security, decent work and economic growth and financial market development, in addition to mitigation. Indeed, if it is to scale up, it must respond to these priorities.

[166] IHLEG & LSE, Songwe et al., 2022 – *Finance for climate action: Scaling up investment for climate and development.*
[167] Ibid.

6.4. State of the market

The current state of the global transition finance market reveals a significant shortfall in meeting the needs of emerging markets and developing economies (EMDEs).

The OECD estimated that in 2022, mobilised private climate finance for developing countries totalled US$21.9 billion, or 19% of the total US$115.9 billion of climate finance committed by developed to developing countries that year, and just 3.7% of total needs.[168] Instruments such as equity and market-rate debt dominate the current landscape, while blended finance solutions and private sector contributions, crucial for scaling private investment, remain insufficient.

Barriers such as project preparation bottlenecks, inadequate policy frameworks, high costs of capital and a lack of national sectoral emissions reduction pathways continue to impede the effective scaling of transition finance in EMDEs. Addressing these challenges requires enhanced capacity throughout the transaction pipeline, proven blended finance mechanisms and improved regulatory frameworks to better support the financial needs of these regions.

EMDEs also face higher exposure to physical climate risks coupled with reduced adaptation capacity, and run significant social risks associated with early closure of high-emitting assets that may employ large numbers of people. **These factors need to be considered within transition finance frameworks in EMDEs.**[169]

Public and private transition finance

Most of the climate finance provided to EMDEs comes from multilateral public sources (US$50.6 billion), bilateral public sources (US$41 billion), with a smaller share committed by export credits (US$2.4 billion).[170] Figure 11 shows the breakdown of climate finance mobilised by developed countries from 2013-2022.

At present, balance sheet (equity) and market-rate debt represent the main instruments for channelling climate finance to and within EMDEs (38% and 35%, respectively).[172] **Smaller shares are attributable to concessional capital or blended finance solutions that are needed to mobilise private finance, such as subsidised project-level debt, 'first loss' guarantees or grants.** Increasing the availability of blended finance represents a key tool for mobilising private finance to the levels required across all these instruments. **At present, such blended finance falls well-short of global needs, totalling US$11.6 billion in 2023.**[173]

The problems with current blended finance practice in EMDEs are manifold, and not exclusive to transition finance. Blended finance tends to be focussed on large middle-income countries, but even so leverage ratios are low. Of every dollar of concessional capital mobilised US$4.1 in commercially priced capital (incl. public), only US$1.8 was sourced from private sector investors.[174]

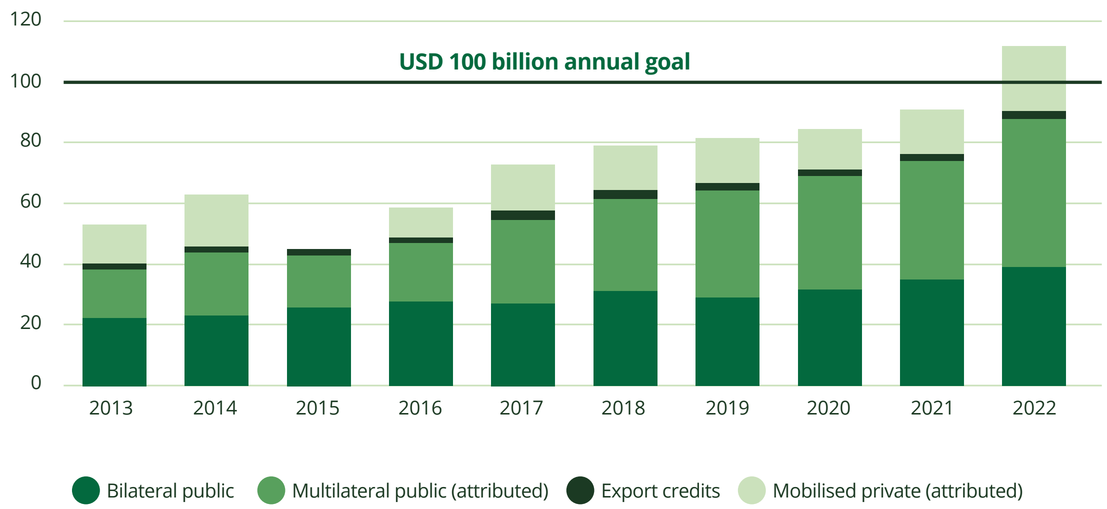


Figure 11 – Climate finance provided and mobilised in 2013-2022 (US$ billion) Source: OECD (2024)[171]

[168] OECD 2024 – *Climate Finance Provided and Mobilised by Developed Countries in 2013-2022.*
[169] For example, the recent move by Climate Bonds Initiative to bundle transition and adaptation activities within green bond frameworks responds to this need. Many countries' sustainable finance taxonomies also have a strong focus on adaptation.
[170] CPI 2021 – *Global Landscape of Climate Finance.*
[171] OECD 2024 – *Climate Finance Provided and Mobilised by Developed Countries in 2013-2022.*
[172] CPI 2021 – *Global Landscape of Climate Finance.*
[173] Convergence 2024 – *2023 State of Blended Finance Report.*
[174] Ibid.

The type and structure of public finance support required to scale up transition finance will vary by sector and geography. In general, early-stage project level public equity finance and grants, technical assistance, as well as concessional loans (such as subsidised credit lines for SMEs), will be required within least developed countries (LDCs) that have limited liquidity and financial market development. **This is especially true where decarbonisation will be driven in high-emitting sectors where ticket sizes are typically smaller**, principally in the AFOLU sector.

In middle income countries such as India, or in energy and infrastructure sectors where deal sizes are much larger, there is greater potential to scale blended finance solutions through dedicated funds or by supporting the working capital needs of companies and investors. Not all sectors will require concessional capital. The energy sector has already experienced a noticeable jump in investment activity driven by donor capital pools dedicated to climate outcomes through renewable energy development. More capital through blended finance solutions will be needed to decarbonise companies in other high-emitting sectors, such as cement or manufacturing.

Sovereign bonds

Sovereign green bonds (SGBs), which represent most sovereign sustainable bond issuances, represent one-fifth (20%) of the overall green bond market,[175] and around 5% of total sovereign bond issuances.[176] While sustainable bond issuances still play a relatively small role for debt management offices (DMOs) compared to conventional bonds, there is significant potential and opportunity for further growth.

The potential for further growth is especially high in EMDEs, where the issuance of sustainable debt generally (sovereign and corporate) remains well below that of advanced economies (0.51% of total GDP versus 3.41%, respectively). There has already been a sharp pick-up in the issuance of sustainable debt in some jurisdictions, including Chile, Turkey, Mexico and India.[177] Furthermore, unlike more advanced economies SGBs play a much smaller role (39% of thematic issuances) compared to sustainability or SLBs (54% of issuances).[178] Capacity for this asset class to grow appears strong, including in relation to transition activities. However, **not all EMDEs will be in the position to take on more sovereign debt.** Alternative financial instruments (including debt relief, debt-for-nature/climate swaps, or grant-based financing) will need to be considered where debt burdens are too high.

Previous experience suggests that the issuance of sovereign sustainable debt has a positive impact on a nation's corporate bond market. Issuance of sovereign sustainable bonds permits the development of a green yield curve improving pricing of green corporate bonds (though 'greeniums' are slight). Evidence suggests that although sovereign sustainable bond issuances have in general been slower than corporate issuances, where they have been issued, they have nonetheless driven improved overall liquidity as well as improvements in the quality of corporate disclosures and verification of sustainable issuances.[179]

Recent sustainable bond issuances have started to demonstrate a more strategic approach that could support transition finance. Transition-focussed use of proceeds or sustainability-linked bonds (e.g. Uruguay's Sustainability-Linked Bond) have been issued where the bond framework is shaped by a national transition strategy or NDC. These have the potential to become an important tool for AEs and EMDEs looking to raise transition finance to fund the public component of their national transition strategy. Specifically, such bonds provide a:

- link between fiscal and climate planning;
- signal of national commitment;
- mechanism for transparency; and
- basis for MDB-led sustainability linked sectoral loans (see Uruguay's SLB in case study 16).

Where the transition strategy is robust, it may also offer an opportunity to relax fiscal constraints on the issuer, through a comparison of the contribution to a Paris aligned global transition that the present investment will make against estimated costs to that government of more severe warming scenarios. To start unlocking these options, significant improvements in data availability and methodologies will likely be required, as sovereign credit ratings do not yet fully account for climate risks.[180]

[175] MSCI 2023 – *How Sovereigns Have Changed the Green-Bond Market.*
[176] Cheng et al., 2022 – *Sovereigns and sustainable bonds: challenges and new options. BIS Quarterly Review.*
[177] IMF 2023 – *Financial Sector Policies to Unlock Private Climate Finance in Emerging Market and Developing Economies.*
[178] Luxembourg Green Exchange 2024 – *LGX DataHub.*
[179] IMF, Cheng et al., 2024 – *Sovereign Green Bonds: A Catalyst for Sustainable Debt Development.*
[180] Klusak et al., 2023 – *Rising Temperatures, Falling Ratings: The Effect of Climate Change on Sovereign Creditworthiness.*

6.5. Barriers to scaling transition finance for EMDEs

The current gap between private finance flows into EMDEs and the needs of these countries arises for a range of reasons. **In large part it reflects more general barriers to investing in emerging markets,** such as challenging investment climates, the limited availability of investment opportunities or an unfavourable risk-return profile, regardless of whether they are targeted towards decarbonisation or not.

Additional challenges arise in relation to transition-focussed investments and financial products in EMDEs. **Chief among these can be a lack of science-based national emissions reduction sector pathways to anchor the credibility and integrity of the finance and so protect parties from greenwashing risk.** Related challenges include the policy focus on green activities in key investor markets disincentivising investment in transition activities and regulatory fragmentation. Uruguay's Sovereign Sustainability-Linked Bond issuance is a good example of efforts to address some of these barriers at a sovereign level (see case study 16).

General barriers to all investment into EDMEs

The Review's engagements reiterated many common challenges that disincentivise private capital allocation from the UK and other OECD countries to EMDEs and reinforce existing findings. These included:

- **Debt crises:** EMDEs have limited fiscal headroom and limited capacity or desire to absorb new debt.
- **Investor risk-return expectations:** Investors often have high-risk aversions due to perceived high risks and low returns.
- **Limited investment opportunities:** There are insufficient large, bankable projects that appeal to institutional investors.
- **Higher costs of capital:** Due to currency risks, increased transaction costs due to information asymmetries, or poor credit ratings.
- **Underdeveloped banking sectors and capital markets:** This creates exit risks and information asymmetries.

Case study 16 – Lessons from Uruguay's Sovereign Sustainability-Linked Bond (SSLB)[181]

Uruguay's SSLB was issued in October 2022, attracting 188 investors of which 21% were investing in Uruguayan debt for the first time. Total demand for the bond was nearly triple (US$3.96 billion) the amount that Uruguay decided to issue (US$1.5 billion), with a low new-issue concession. The design of the Bond, which benefitted from technical assistance from the Inter-American Development Bank as well as financial advice from the four underwriter banks, had several unique features:

(a) It links the cost of sovereign debt to meeting decarbonisation and forest-protection goals, as set out in Uruguay's Nationally Determined Contribution (NDC) under the Paris Agreement. In essence, the Bond makes Uruguay's environmental commitments (on reducing greenhouse gas emissions intensity and nature/biodiversity conservation), financially binding. This was a big leap for an emerging market country.

(b) It was the first-ever global sustainability-linked instrument to feature a two-way pricing structure, with both a step-up *and* step-down coupon mechanism. Investors therefore reward the country by lowering borrowing costs if Uruguay *outperforms* its targets, while raising the cost of funding if Uruguay does not deliver on its goals.

(c) While the Bond has a 10-year maturity, it sets ambitious interim sustainability targets as early as year 2025. These signal credibility compared to long-term targets. Additional commitment to sustainability goals was provided by deliberately excluding a *force majeure* clause.

(d) For the design of the SSLB, the country moved to higher frequency annual reporting of greenhouse gas emissions. Uruguay also set up annual external verification on Key Performance Indicators (KPIs) from the United Nations Development Program. Accurate reporting, timely availability, transparent disclosure and credible external verification are critical components of the SSLB Framework underpinning this bond issuance, and a key value proposition for investors.

(e) The country developed the institutional and governance foundations across four different ministries (Economy and Finance, Environment, Industry and Energy and Agriculture and Livestock), to ensure that monitoring, reporting and verification of KPIs was done in a timely and consistent manner across administrations. This whole-of-government approach was essential to the Bond, which was as much about G as it was about E (in ESG).

[181] Uruguay Sovereign Debt Management Unit 2022 – *Sustainability Linked Loan Framework.*

Several organisations are focussing on how to unpick these more general demand and supply side barriers (for example, through the Bridgetown Agenda and the World Bank Private Sector Investment Lab) and this Review does not duplicate that work. **The Review recommends that the UK Government continues to promote affordable local currency finance, mitigation of foreign exchange risk, deepening local capital markets and the mobilisation of domestic savings pools.** The UK should use its convening power and presence at international forums to advocate for increased and improved data access for investors to lower risk premiums and enable greater investment in transition projects in EMDEs.[182]

Barriers that are greater for green, sustainability and transition investments

Many general barriers are amplified for transition focussed investments and financial instruments in EMDEs. These include:

- **Project preparation bottlenecks:** The available pipeline of projects is often too narrow for institutional investors, and larger projects can suffer a lack of expertise in preparation or underestimate the costs and time involved.[183]
- **Policy framework issues:** Policy frameworks (such as fossil fuel subsidies) may create disincentives for investing in transition or green finance. These disincentives exist not only for EMDEs, but in many AEs as well.
- **High costs of capital:** as in developed markets, the cost of capital for financing clean, transitional or enabling technologies is typically expensive due to the forward-looking nature of net zero technologies (and associated demand uncertainties)
- **Information asymmetries:** The lack of high-quality, reliable and comparable data in EMDEs is worse for transition or green finance, leading to higher perceived risks. However, evidence from the Global Emerging Markets Risk Database (GEMs) already shows that some of these risks are overstated.[184]
- **Reporting requirements:** Transition-labelled financial instruments may involve greater reporting burdens than for conventional products, including detailed annual reports on impact and progress against KPIs (such as emissions reduction). The limited geographic coverage or proprietary nature of ESG-ratings represent an additional barrier for meeting these additional reporting burdens in EMDEs.[185] A MOBILIST study found that ESG data for EMDEs was either lacking or scored poorly, with companies in advanced economies performing better.[186]
- **SME access to credit:** Efforts to decarbonise high-emitting SMEs have been inhibited by lack of access to credit, cited as the main obstacle for SMEs who want to join sustainable global value chains.[187]
- **Balancing sustainability and interpretations of fiduciary duty:** Some investors may shy away from more expensive green or transition-labelled instruments if they provide similar cashflows to conventional instruments.[188]

Barriers that are specific to transition investments and instruments

- **Lack of National Sector Pathways:** Although global sectoral pathways can be applied to EMDE investments, they do not necessarily consider the local realities and development needs of many EMDEs where emissions have not yet peaked, or where the net zero pathway runs beyond 2050. To invest in these opportunities, transition finance needs appropriate guardrails in place to ensure the transition of the asset or activity towards a pathway that is consistent with the long-term temperature goal of the Paris Agreement. This requires development of country appropriate emissions reduction pathways, broken down by sector or sub-sector in EMDEs.

The Review's engagements in EMDEs highlighted that there is strong demand from EMDE actors for contextualised national or sub-regional sector pathways and metrics which can enable them to undertake transition planning. This was also supported by evidence gathered by the TPT.[189]

The Review recommends that the UK Government supports the development of credible science-based national sectoral pathways by interested EMDEs, which are aligned with global Paris-aligned pathways while acknowledging the local context and starting points of EMDEs. **The Government can advocate at the upcoming COP29 and G20 Summits to expand technical support and knowledge sharing available to EMDEs to develop emissions reduction strategies and promote the use of the forthcoming COP30 to formalise and standardise approaches to transition finance as part of the negotiations under Article 2.1(c) of the Paris Agreement.**

[182] For example, the UK could effectively exercise influence through FSD Africa or the Global Emerging Markets (GEMS) Risk Database Consortium.
[183] EU HLEG 2024 – *High-Level Expert Group on scailing up sustainable finance in low-and middle-income countries.*
[184] Moody's 2021 – *Emerging Markets: Green Finance and Transition Challenges.*
[185] For example, high exposure to physical climate risks also harms the credit rating of sovereign issuers, especially from EMDEs. For international investors who report financed emissions in their sovereign portfolio under PAI 15, the rising emissions profile of many EMDEs may also deter investment.
[186] Mobilist 2023 – *Resetting the ESG Investment Paradigm to Support Emerging Markets & Developing Economies.*
[187] GPFI 2017 – *GPFI 2017 Work Plan.*
[188] This does not necessarily consider other benefits from ESG-labelled issuances, such as higher-quality investor base or greater reliability in volatile markets. It is likely to be a particular concern for North American investors where fiduciary duty anti-ESG arguments are common.
[189] TPT 2024 – *Opportunities and challenges relating to the use of private sector transition plans in EMDEs.*

The EU has already pledged to support EMDEs in their development of sectoral transition pathways by sharing its experience from the EU initiative for Transition Pathways for European industrial ecosystems.[190] The UK should make equivalent knowhow available with or in parallel to this, building on its existing International Climate Finance (ICF) programming.

Barriers specific to UK investors

UK regulators have made significant efforts to develop international standards, carry out international engagements and reduce prudential regulatory barriers that have previously been cited as impediments to EMDE investment by institutional investors. Regulators, including the FCA and the Prudential Regulation Authority (PRA), routinely organise roundtables to understand where there are issues, take an active role in IOSCO and in engaging with IFRS, the TPT, the International Platform on Sustainable Finance (IPSF) and broader technical capacity building.

Reforms have already been implemented including:

- **The removal of the limit on the amount of the matching adjustment (MA) that can be claimed from sub-investment grade assets under Solvency UK**, which previously limited an insurer's allocation of assets to many EMDEs by subjecting them to higher capital requirements.[191]

- **Expanding the range of eligible assets beyond those that provide fixed income to those with highly predictable cash flows**, which could also benefit allocation to EMDEs.[192]

- **UK Government recently reformed the risk margin which will allow insurers to release more capital from reserves,**[193] responding to studies demonstrating that the previous margin was not commensurate with actual risk.[194]

However, barriers remain including:

- **Trust-based fiduciary duties:** The UK Pensions Act requires pension fund investments to be 'appropriately diversified' and mainly invested in 'regulated markets'. This principles-based regulation determines the standard of care that applies to the firm managing investments, but in practice some firms may apply it in a risk-averse way that constrains EMDE investment. **The Review recommends that regulators provide further guidance on how to apply the Prudent Person Principle (PPP) in EMDE contexts**, in light of current understanding of physical, transition, and legal risks and their materiality, particularly over the horizon appropriate to the liabilities to beneficiaries, and where a public de-risking element is involved. Such guidance could help pension funds consider whether and how to invest in these markets, for example where blended fund arrangements offer an improved risk profile. Similar guidance is already in place for insurance companies under Solvency UK.[195]

- **Focus on carbon footprint:** Under current market approaches to Paris-Aligned Benchmarks, investors are encouraged to reduce the carbon-intensity of their portfolio, which is indirectly likely to reduce their ability to invest in many EMDE markets. For EMDEs that have not yet reached peak emissions, even if they are on a Paris-aligned pathway, the current weight attached to financed emissions and financial institutions' 2030 milestones could sit uneasily with the sector pathways that many EMDE economies are likely to follow. **The Review recommends that financial institution disclosures, and regulatory disclosure requirements are broadened to acknowledge that absolute financed greenhouse gas emissions - in certain EMDEs and in certain sectors - could increase before they go down** as part of economy level decarbonisation. It also recommends providing regulatory clarity over how to use indicators or synthetic data to justify EMDE investments as sustainable when no assured data is available.

- **Blended finance fatigue:** The Review's engagements noted a growing sense of blended finance fatigue among market actors. This reflects the bespoke, relatively small and tailored nature of blended finance deals to date, which can take up to 5 years to complete but have limited transferability or scalability.[196] The UK securitisation framework can support the development of transition securitisation. Holistic review of this regime and its interplay with the wider transition and sustainability regulations will be needed before any transition securitisation-specific reforms are introduced. Any changes, if introduced, should be applied with proportionate and principles-based approach, avoiding unnecessary costs and complexities.

[190] EU HLEG 2024 – *High-Level Expert Group on scailing up sustainable finance in low-and middle-income countries.*
[191] PRA 2023 – *Second policy statement on Basel 3.1.*
[192] PRA 2024 – *PS10/24.*
[193] UK Government 2023 – *The Insurance and Reinsurance Undertakings Regulations 2023.*
[194] PRA 2023 – *CP12/23.*
[195] PRA 2024. SS1/20 – *Solvency II: Prudent Person Principle.*
[196] NGFS 2024 – *Scaling blended finance for EMDEs.*

6.6. Scaling the market for transition finance for EMDEs

Removing barriers and taking advantage of the opportunities that the transition finance market brings for both the UK and EMDEs will require intervention from a range of actors and market participants. In this section the Review considers some stakeholders key to the success of such a goal and the activity they could be required to undertake.

UK Government

Alongside holding shares in MDBs, the UK has various other diplomatic and financial levers that it can use within a whole-of-government climate strategy. This would allow the UK to play its part in the global race to transition to a Paris-aligned world, with one focus being on the opportunities for the UK real economy and financial and professional services to support the global transition in alignment with wider UK energy, trade and foreign policy objectives.

Combining the UK's diplomatic and public funding levers with an appreciation of what is needed to unlock international private capital could make a big difference, in the short term. **The Review found there was appetite on the part of private capital and financial institutions to invest if MDBs or DFIs or other funds could reduce the risk profile of investments by taking a 'first loss' tranche.** However, institutions struggle to navigate the public finance terrain and to know where to look for public institutions willing to consider such an approach.

The tools available for UK diplomacy to steer public international finance towards transition finance include its membership of international bodies, such as the G20 or UNFCCC. Previous UK climate leadership has contributed to the genesis by those bodies of several highly effective international climate initiatives, such as NGFS, GFANZ, TPT and the ISSB. The opportunity for public-private coalitions to continue working to solve the challenges of transition finance for EMDEs through these organisations is clear.

The JETPs offer an example of a high-profile international model which can be learnt from and built on going forward to achieve effective high level international collaboration in this space.[197] **The Review recommends that the UK Government continues to support EMDEs interested in developing country platforms in high-emitting sectors, building on the experience of the JETPs in the energy sector.**

Platforms can help ensure a broad set of local and global partners understand the intended pathways and agree they are ambitious.

Adopting this more integrated approach will require a degree of internal alignment between Government departments and a pivot to a less 'separate' development approach. There are also real complexities inherent in the transition for EMDEs. For example, JETP experience has shown the challenges associated with repowering solutions for high-emitting, recently constructed coal fired power plants, which include addressing complex offtake arrangements, just transition factors and significant development needs and ambitions.

During its international engagement, the Review noted an appetite in other markets to collaborate with the UK on problem solving at commercial institution and market level. Cross-market initiatives could be used to supplement and operationalise higher level diplomatic activity and to share the burden of developing new methodologies across the world.

In this context, the strength of embassy or High Commission level relationships and knowledge can be a real differentiator. For example, a small team in the British High Commission in Singapore has built strong relationships across that market which increases opportunity for UK/Singapore co-operation in the sustainable finance area. UK Export Finance has also developed a network located in embassies and High Commissions which focusses on identifying opportunities for UK involvement, including in the transition finance area. The Review heard of other countries and regulators adopting this approach, including the Banque de France, which has representation in Singapore.

The UK Government also has public financial tools it can deploy that offer a complementary role to its diplomacy and advocacy as a member of international bodies. These include its ICF portfolio, which has committed £11.6 billion to support mitigation, adaptation and nature-related spending between 2021/22 to 2025/26.[198] Through this it can co-invest with IFIs and private finance to pilot and demonstrate climate and transition structures.

[197] Where the UK is an active player and GFANZ takes an active role in bridging the public-private divide.
[198] UK Government 2023 – *UK International Climate Finance Strategy.*

There are opportunities for focussed use of guarantees at Government or PFI level. **Guarantees can help reduce real and perceived risks in EMDEs, improve the risk-return profile of investments, and broaden the investment base.** They are particularly prevalent in low-income countries, where there is greater demand for risk mitigation due to the higher exposure to political or macroeconomic instability.[199] Use of guarantees could be time-limited 'originate-to-distribute', such that once projects are past their riskiest stages, the PFI makes a rapid exit from the project and transfers to the private sector where possible and appropriate, rather than holding the assets on their balance sheet ('originate-to-hold').

The Review recommends strategic and catalytic deployment of UK grant funding, working with relevant investment instruments or institutions to:

- **Undertake product development work to enable 'originate-to-distribute' funding solutions.** Continue UK Government policy on leveraging private capital and starting to increase support for pooled and concessional structuring to make transition finance more attractive to institutional investors.
- **Revisit UK Government policy on international support for energy assets** with UKEF and BII to assess whether current policy has appropriate flexibility to support the credible transition of companies in high-emitting sectors - including **finance of early retirement of EMDE coal fired power assets** - and clarify as required.
- **Develop a single concessional framework for ODA funding to cover development, transition and resilience, setting out clear priorities and quick wins alongside longer-term goals.**

UK Public Finance and Development Finance Institutions

UKEF, BII and FCDO all have and can continue to play a major role in scaling, and creating the right environment to scale, Transition Finance flows to EMDEs.

UK Export Finance (UKEF)

UKEF is the UK's export credit agency (ECA) and a government department. It has an aggregate capacity of £60 billion (increased in 2023 from £50 billion)[200] to support British exporters and overseas buyers on commercial terms through leveraging private finance with government-backed guarantees, loans, and insurance products. In 2023/24 UKEF provided £8.8 billion of financing of which £2.7 billion was in support of UK exports in official development assistance (ODA) eligible countries.

UKEF could contribute to the development of this market by:

- **Increasing its financing and guarantee capacity** in line with the export credit agencies of comparable economies.
- **Accelerating its own transition plan and its transition products.**
- **Scoping market appetite for an untied investment loan/guarantee program for UK exporters and investors** and assessing the effect of comparable products by other ECAs (for example JBIC, SACE).
- **Working with other ECAs to continue to build incentives for transition into OECD frameworks and to create opportunities in other forums** including the Net Zero Export Credit Alliance (see also the recommendation in relation to MDBs involving ECAs through the Alliance).
- **Enabling guarantees or other financing to be provided for activities relevant to UK critical mineral and other critical material supply** (e.g. metals).
- **Blending of BII and/or other ODA or MDB funding with UKEF and private sector finance** to offer concessional terms.[201]

Within the broader theme supporting adoption of a whole-of-government approach for government finance, an integrated approach should apply to UK public finance applicable in EMDEs. This should include setting and publishing targets, metrics and reporting on progress. **The Review recommends that the UK Government mandates annual impact reporting or embedding of transition-related metrics within existing impact reporting by UK PFIs and DFIs where this is not already existing practice.**

British International Investment (BII)

British International Investment (BII, formerly CDC) is the UK's well-regarded development finance institution, with over 75 years of experience investing patient, flexible capital to support private sector growth and innovation. It invests to help solve the biggest global development challenges, including poverty reduction, the economic empowerment of women, and tackling climate change. With total net assets of £8.5 billion it

[199] OECD 2023 – *Scaling Up the Mobilisation of Private Finance for Climate Action in Developing Countries.*
[200] UK Government 2023 – *UKEF capacity to increase by £10bn. British Businesses set to benefit from £10 billion boost to UK Export Finance support.*
[201] The Review heard the Austrian ECA has adopted these blending solutions successfully.

makes over £1 billion of new Paris aligned investment commitments each year. Since it launched its climate strategy three years ago, BII's climate finance assets have steadily risen and now make up 23.6% of its overall portfolio. It has also published guidance on how it can achieve climate goals alongside its development impact mandate, and that it considers transition finance as a key route to doing so.[202]

BII could contribute to the growth of the EMDE transition finance market by:

- **Utilising future opportunities for BII to work more systematically with other DFIs** (e.g. via the group of European DFIs).

- **Use of de-risked public-private funds** – in which BII or MDBs can absorb first losses by investing in junior or subordinated equity tranches that could catalyse private capital for transition finance projects, including from asset managers, private equity or venture capital funds with traditionally low engagement in blended finance deals.[203] BII could prioritise co-investment in equity stakes via an originate-to-share **(OTS)** business model, and has itself advocated to shift its portfolio in this direction.[204] The recently announced facility[205] to derisk institutional capital for climate-related investments in EMDEs could be extended to include transition finance.[206]

- **Develop a more agile source of concessional capital**, especially for early-stage transition finance opportunities in EMDEs with less developed capital markets. Such support is particularly relevant to transition finance sectors such as manufacturing or agriculture, where transaction sizes are currently small and decarbonisation technologies are still at an early stage of commercialisation and deployment. **The Review recommends that such support could be achieved by the UK Government in two ways:**

  • **Support Project Preparation Facilities (PPFs)** for viable transition projects from early conceptualisation through to different stages of project development. BII has the experience and structures in place to support this with BII Plus, which already provides support on feasibility assessments and project structuring, including technical, commercial and environmental due diligence. Grant-based technical assistance, including through bilateral programming by FCDO and DESNZ, could be targeted towards transition projects in EMDE opportunity sectors with a limited pipeline of investable opportunities. **The Review recommends that the UK Government continues to extend its support to BII and other mechanisms for project preparation, development of private sector transition plans and transition finance opportunities in EMDEs.**

  • **Provide grants for first-of-a-kind scale funding** or subsidised loans for first movers and pilot projects. Investment portfolios such as BII's Catalyst or Kinetic provide a more flexible approach to risk in nascent markets, including venture capital and accelerator funds. A dedicated investment portfolio for transition finance in high-emitting sectors in EMDEs could help BII or other UK Government financing mechanisms target transition opportunities, either as a standalone fund or as part of a larger fund that is co-financed by the NWF or private institutional capital providers. **The Review recommends that FCDO should continue funding off balance sheet concessional finance to enable BII to increase risk appetite for investment in nascent climate technologies and business models.**

Foreign, Commonwealth and Development Office (FCDO)

In 2019, the UK pledged to double its ICF to £11.6 billion between 2021/22 and 2025/26. This includes £3 billion on development solutions that protect and restore nature and £1.5 billion on adaptation. According to the 2023 Climate Finance Strategy, accelerating the clean energy transition in both energy-producing and energy-consuming sectors is a critical component of ICF funding. Areas of focus include support for the Just Energy Transition in coal-reliant areas (e.g. through JETPs in South Africa), coordinating international actions to accelerate global sectoral transitions in high-emitting sectors, and support for the Ayrton Fund, which focusses on high-priority areas such as energy storage and hydrogen in developed and developing countries.

This TA needs to be tailored to the needs and contexts of countries and projects that are interested in it. The UK has already demonstrated this can be done in collaboration with Colombia and India, where the UK PACT programme provided capacity building support to develop enabling conditions for green financial markets. Similar 'upstream' TA could in future be strategically coupled with public financing from MDBs

[202] BII 2023 – *Climate Strategy. Climate Change Strategy - British International Investment.*
[203] Ibid.
[204] Ibid.
[205] UK Government 2024 – *PM UNGA speech.*
[206] The facility is currently focussed on utility-scale climate infrastructure, such as renewable energy generation and transmission; other climate infrastructure, such as water, waste-to-energy, and battery storage; green finance, through banks and specialist finance companies that lend to climate-focussed companies; and investments that deepen capital markets for gender finance.

or PFIs. **The Review recommends ICF to consider expansion of 'upstream' support for uptake by low-income EMDEs working to strengthen their regulatory, institutional and infrastructure planning frameworks.**

There are several areas where UK ODA funding could be effectively targeted towards scaling transition finance in EMDEs:

- **Providing funding towards the development of a simple and accessible data-reporting solutions** to address the capacity gap that high-emitting SMEs face in EMDEs. Such a platform could be piloted in conjunction with a subsidised credit line issued by an MDB or PFI that local banks can extend to SMEs that report progress on decarbonisation using the platform, such as the support the UK Government provides through the Global Climate Partnership Fund (GCPF). There are likely to be opportunities to partner with other markets which are ahead of the UK in their thinking on SME focussed data reporting, such as Singapore and Hong Kong. **The Review recommends that the UK Government supports the development of voluntary reporting standards for non-listed SMEs by IPSF and engages with EU institutions including EFRAG on its work in this area. Further, it recommends that the UK supports MDBs to explore the potential for piloting a subsidised credit line for SMEs in high-emitting sectors combined with a digital data-reporting solution.**

- **Continue funding and expand the scope of existing guarantee schemes.** These schemes have proven to be an effective mechanism for mitigating heightened risks in lower-income EMDEs. Existing schemes that focus on traditional climate solutions should expand to include transition finance. Examples include the Green Guarantee Company (GGC) and GuarantCo. For example, the GGC was established with anchor funding from the FCDO and provides investment grade (BBB) guarantees to improve the credit rating of climate-focussed borrowers in EMDEs. **The Review recommends the expanded use of bilateral ODA-funded equity investments and guarantees.**

- **Use ODA and ICF funding to leverage private finance**, for example as part of pooled public-private funds or to de-risk private capital investments that target transition finance opportunities in EMDEs.

Multilateral Development Banks (MDBs)

MDBs can support transition finance in several ways, including by:

- **Implementing policies and guidance on transition finance**, such as ensuring fossil fuel exclusion policies are appropriately drawn to allow for credible early asset retirement and repowering projects and to set conditions for investing in high-emitting focus sectors. Application of these policies provides signals and reassurance to other private and public investors who might otherwise be concerned about the reputational risks associated with a particular EMDE transition finance opportunity. However, where these conditions are too stringent, they can also serve to impede finance to decarbonise high-emitting sectors in EMDEs.

- **Providing technical assistance (TA) and knowledge transfer to clients**, particularly to EMDE sovereigns seeking to transition to a low carbon economy

- **Fostering collaboration between governments, financial institutions and other relevant stakeholders.**

- **Financing or co-financing transition finance projects**, including through direct financing and the use of blended finance instruments such as loan guarantees. Catalytic financing instruments are the most influential lever that MDBs have to mobilise private transition finance.

Since 2023, MDBs have used the Joint Methodological Principles for Assessment of Paris Agreement Alignment to guide their approach to climate and transition finance. The Joint Methodological Principles consist of six building blocks (BBs):[207]

1. Alignment with mitigation goals.
2. Adaptation and climate-resilient operations.
3. Accelerated contribution to the transition through climate finance.
4. Strategy, engagement and policy development.
5. Reporting.
6. Alignment of internal activities.

[207] EBRD 2022 – *EBRD and the Paris Agreement.*

To date, MDBs have focussed on implementing the first two building blocks ('Alignment with mitigation goals' and 'Adaptation and climate-resilient operations') to ensure that any new financing or operations are Paris-aligned. MDBs have also focussed on provision of TA to clients wishing to develop their strategy, engagement and policy development with respect to Paris-alignment (BB4). **Future emphasis will need to fall more on increasing contributions to climate (and transition) finance** as part of ongoing MDB reform efforts (BB3) and elevating existing operations and legacy investments with the Paris Agreement (BB6), including through improved reporting and transparency (BB5).

To date, almost all MDB support for transition finance (outside of proven climate solutions) has been in the form of TA to clients to 'develop services for countries and other clients to put in place long-term strategies and accelerate the transition to low-emissions and climate-resilient development pathways'.[208] Three examples relevant to transition finance include:

- **Support to debt management offices (DMOs) in EMDEs:** As an example, the World Bank offers a dedicated sustainable finance business line that provides TA to sovereigns looking to issue green or sustainability-labelled bonds, ensuring the integrity and market attractiveness of the proposed instrument. Together with IADB, this support resulted in Uruguay and Chile successfully piloting SLBs.[209] MDBs can also provide financing solutions, such as the African Development Bank's (AfDB's) US$400 million partial loan guarantee to Senegal's Sustainability Bond. **The Review recommends that the UK advocates for MDBs to explore ways of incentivising the issuance of sovereign-labelled bonds in support of Paris-aligned national transition planning and transition-focussed development.**

- **Long-Term Low Emissions Development Strategies (LT-LEDS):** MDBs have developed joint principles for Long-Term Strategy (LTS) Support.[210] These principles help clients develop a macro-level view and engage the full range of relevant government stakeholders involved in these strategies. There has also been a focus on supporting countries on just transition aspects, such as diagnostic tools showing where jobs will be lost. These strategies take a long-term view (e.g. 2050) but work back in 5-year increments that cascade right down to 5-year plans that include the investments, public loans and policies that need to be prioritised.[211]

- **Private client support to develop transition plans:** MDBs support clients to develop transition plans. This has enabled them to move away from their traditional focus on project finance and towards supporting entities. For example, EBRD has a Client Corporate Governance Facility that helps companies improve practices, including their transition plans. The IFC has provided TA to Egyptian banks seeking to develop transition plans due to their high exposure to export-oriented sectors affected by the EU's Carbon Border Adjustment Mechanism (CBAM).

The work of the Asian Development Bank (ADB) in supporting transition finance in EMDEs should be noted. Through its Energy Transition Mechanism (ETM) it finances projects and country-specific ETM funds to retire coal power assets early. Given the complexity and time taken to structure deals, more needs to be done across MDBs to support the scaling of this model. Separately, the CIF has supported the Accelerating Coal Transition (ACT) programme, which several MDBs (AfDB, ADB or EBRD) have supported the implementation of in various countries (e.g. South Africa, the Philippines and Macedonia).

Key considerations for the UK as a shareholder

Among market actors, the Review found some frustration that (apart from the ADB) MDBs are not providing sufficient direct financial support or de-risking instruments to nascent transition projects in EMDEs. MDBs generally have conservative investment profiles, high capital adequacy ratios, and a desire to maintain high credit ratings. **The Review recommends that the UK strongly discourages MDBs from commercial green projects where their involvement is unlikely to be additional.**

This reflects a more general problem that goes beyond transition finance – the G20's Independent Expert Group (IEG) has called on MDBs to triple their non-concessional and concessional finance to focus on riskier deals that have the potential to mobilise private capital,[212] rather than participating in market-rate loan or equity deals that have low mobilisation rates and do not necessarily require public support. There have also been calls to scale up MDB budgets (e.g. through reform of capital adequacy frameworks) as part of the broader MDB reform agenda.[213] **The Review recommends that the UK encourages MDBs to continue with originate-to-distribute business reforms, including through distributing investment products for investors specifically focussed on transition finance.**

[208] AFDB 2023 – *MDB's alignment approach to the Paris Agreement.*
[209] World Bank 2024 – *Green Bonds.*
[210] EIB 2024 – *MDB Principles for LTS support.*
[211] Ibid.
[212] IEG 2023 – *Strengthening MDBs.*
[213] G20 2023 – *New Delhi Leaders' Declaration.*

Although the UK has limited leverage as one shareholder among many, it could support and engage with other shareholders on the growing momentum for MDBs to make greater use of:

- **'First loss' guarantees and other blended finance solutions** to support EMDEs seeking to decarbonise their economies. Several inputs to the Review demanded greater support in the form of equity instruments or guarantees, especially as this support can provide demonstration effects and help establish benchmarks and assurance for other investors that are still concerned about reputational risks. Taking junior tranches in equity funds has proven a useful model for mobilising private finance by reducing the credit risk of other investors to an investment-grade level. For example, the IFC's equity investment of US$125 million in the emerging market green bond (AP EGO) fund leveraged a total of US$2 billion from other investors, and significantly increased demand for emerging market green bonds.[214] A similar instrument could be envisaged for transition-focussed equities. **The Review therefore recommends that the UK takes action to create a new (or expand an existing) public-private equity fund focussed on scaling up transition finance for higher-emitting sectors in EMDEs. The Review also recommends that the UK uses its shareholdings to encourage MDBs to involve ECAs in financing transition of the global economy through the Net Zero Export Credit Alliance (including risk transfer from MDBs).**

- **Reform mandates:** The Review identifies that some MDBs perceive that such a shift would run counter to their mandate or governance which may therefore need near term adjustments. To address this, the UK and other shareholders could encourage MDBs to update their purpose and governing charter documents via a special resolution to recognise the ongoing climate emergency and the crucial role that MDBs can play in supporting decarbonisation through transition finance.[215] There is also potential for smaller financial institutions (e.g. domestic commercial banks, pension funds and insurance companies) to work with MDBs to create bolder and more transformational products, including ones that attract such investors.

- **The UK can also play a more direct role in supporting MDB co-financing models**, for example through innovative mechanisms such as the Climate Investment Funds (CIF) Capital Market Mechanism (CCMM). CCMM is designed to issue bonds on capital markets, secured against the future loan repayments from historic CIF investments in clean energy. In so doing, the CCMM will allow payments from these loans to be converted into new climate finance that can be invested today, without the need for new contributions; issuing up to US$7.5 billion over the next decade for new clean energy projects in EMDEs. This could also include the decarbonisation of the industrial sector through the CIF's Industrial Decarbonisation (CIF ID) Programme, alongside capitalisation efforts from donor countries. CIF ID is the world's first large-scale concessional finance initiative aimed at mobilising climate finance to accelerate the industrial green transition in EMDEs. The programme focuses on supporting energy intensive industries in the manufacturing sector by scaling up innovative solutions with both technical assistance and capital investment, helping them reduce carbon emissions and contribute towards achieving net zero goals. **The Review recommends that the UK support the operationalisation of the Climate Investment Funds (CIF) Capital Market Mechanism, alongside the capitalisation of the CIF Industrial Decarbonisation Programme to cover transition finance.**

The use of transformational funding has another indirect effect. The number of UK (or European) headquartered commercial bankers and fund managers with the skillset to support private sector investment in more complex transactions and sectors in EMDE countries is relatively limited. Given the complexity that these structures often involve and the impact this has on return, these people may have limited bandwidth to allocate to this part of their business. **Creating catalysing opportunities will encourage the growth of UK capacity to invest in these areas, as well as building capacity in the EMDE market concerned.** There is therefore an additional value beyond the direct effects of the transactions.

Despite the need for more direct transition finance support from MDBs, it is important to recognise the success of existing technical assistance efforts. The World Bank and IADB's technical support to Chile and Uruguay's SLBs provides a model that can be replicated in other EMDE sovereigns seeking to establish credible an market-oriented KPIs for similar instruments. Further support to KPI- or NDC-linked transition instruments can be provided by MDBs in the form of results-based payments for meeting decarbonisation targets financed through carbon monetisation[216]. **Engagements with the Review also highlighted the**

[214] Bolton et al., 2020 – *Global Public-Private Investment Partnerships.*
[215] Deloitte 2022 – *Shareholder-led MDB reform.*
[216] Pay-for-success instruments have already been developed for social impact bonds, but could be applied to environmental projects. There are examples of environmental impact bonds that have been structured for US municipal projects.

importance of MDBs' Long-Term Strategy support. The upcoming COP29 presents an opportunity to expand Long-Term Strategy support to develop high-quality national transition planning in tandem with ambitiously updated NDCs. **The Review recommends that the UK supports MDBs to continue providing technical assistance to countries wishing to mobilise investment to deliver their NDCs.**

A major impediment to the expansion of this support remains client country interest, which does not always intersect with MDB priorities on the climate transition. Despite offering significant support and technical assistance to clients around transition finance, the Review's engagements reported muted demand for this support. This was linked to capacity constraints in EMDE governments and public bodies, data challenges (e.g. for forward-looking data), market fundamentals being tipped in favour of fossil-based investments, higher costs and regulatory burdens, as well as reputational risks. **Continued engagement by MDBs to ensure support and technical assistance is shaped to take account of the needs and constraints of EMDE governments and public bodies should be an ongoing priority.**

> **The UK can play a more direct role in supporting MDB co-financing models.**

Delivering on the ambitions of the Review

7

7.1. Introduction and overview

The UK benefits from an existing leadership role in green and sustainable finance which stands it in good stead to take advantage of the opportunities presented by the transition finance market. The recommendations made by this Review represent an ambitious roadmap to establish the UK as a global transition finance hub. Three crosscutting factors must be considered in delivering on the ambitions of the Review, **improved communication, capacity building** and **governance**.

7.2. Key recommendations

Summary of key recommendations in chapter 7	Section
Communicating the transition All stakeholders, including Government and regulators, should consider how to champion an understanding of transition finance within their organisation. This may include: • articulating the core elements of transition finance; • a clear public endorsement of the role and urgency of developing a robust transition finance market, from Ministers and senior officials; and • endorsing market best practice approaches to transition finance.	*7.4*
Capacity building Government should convene working groups, supported by the Transition Finance Council, market, regulators and key education providers to assess the critical skills gaps across organisations and develop proposals to fill those gaps.	*7.5*
Establishment of a Transition Finance Council Government should establish a Transition Finance Council, housed within the City of London Corporation. The Council should: • Act as a central hub of thought leadership in relation to transition finance in the UK, bringing together the broad range of stakeholders engaged through this Review. • Provide a governance and delivery function for tracking and implementing the recommendations set out throughout this document and periodic reporting on implementation.	*7.6*

7.3. Establishing UK leadership in transition finance

The UK is already a leading hub for climate action and green finance,[217] driven by innovative financial institutions, a strong professional services sector and its ability to attract climate and finance expertise from across the region. This includes practitioners from within the market itself as well as academia, civil society and various climate and green finance bodies.

UK domestic action on climate change provides a testing ground through which new products and services, including those which showcase successful public-private partnership, can be trialled and proven for wider adoption. For example, over £300 billion has been invested in UK renewable energy since 2010, and the introduction of the Contract for Difference structure proved to be a very successful incentive mechanism which has been replicated elsewhere.[218] **UK companies have shown that they can scale the capital, contractual and technical work required to deliver infrastructure projects at national scale with appropriate regulatory frameworks in place.**

Internationally, the UK played a key role in establishing the Task Force on Climate-Related Financial Disclosures (TCFD) and was one of eight founding members of the Network for Greening the Financial System (NGFS). In 2021, under the UK's Presidency of COP26, the important role of finance in facilitating the global transition gained greater recognition globally. During the Presidency, the Government set out steps to become a world leader on transition plans and worked with others to establish the International Sustainability Standards Board (ISSB), Global Financial Alliance for Net Zer (GFANZ), and Transition Plan Taskforce (TPT).

At a market level, the UK was an early mover on sustainable finance, with the Bank of England recognising climate change as a systemic financial risk and the London Stock Exchange Group pioneering a dedicated green bond segment. **The UK continues to have one of the highest numbers of companies with ambitious net zero targets.**[219] Continuing to deliver on targets will refresh the UK's reputation as a leading market and good place to do business.[220]

UK financial institutions and other stakeholders see an opportunity to build the profile of the UK sustainable finance market. Stakeholders mentioned the longstanding efforts of President Macron and his administration to unlock commercial opportunities for French companies and institutions in this area with some admiration. There is an opportunity for Ministers to adopt a similar strategy. **Areas the UK Government should consider amplifying include the investment in and significance of London Climate Action Week, providing senior Ministerial support to encourage foreign direct investment and transactional flow, and more conscious, strategic deployment of our soft power, convening and hosting strengths.** This includes making the most of organisations active in the UK such as GFANZ, the Sustainable Markets Initiative and the International Transition Plan Network (ITPN).[221]

7.4. Communicating the transition

To effectively embed the recommendations set out in this Review, communicating the role and benefit of an effective transition finance market will be important. Key issues which will need to be communicated clearly and coherently include:

- **The scale and timeline of the opportunity.**
- **The dynamic nature of the transition.**
- At a high-level, **the key assumptions underpinning the decarbonisation pathways of high-emitting sectors.**
- At a high-level, **the current understanding of the technology and market-readiness of critical climate solutions** and their decarbonisation potential.
- **The role of different stakeholders in engaging with and supporting the development of the market.**
- **The significant potential for the finance, insurance and professional services sectors** to enable delivery of the transition, which can be significantly scaled up with ambitious real economy policy and regulation.
- **The limitations in a narrow approach to 'green' which does not make room for the more nuanced decarbonisation needs in high-emitting sectors** (particularly in EMDEs) where market participants are required to exercise judgement based on the information available.
- **The important role of transition planning in transition finance** (both its potential, and its current limitations as a voluntary process).
- **The benefits of transition finance in supporting global climate ambition, economic growth and job creation, energy security, and a resilient and just transition.**

[217] ZYEN 2023 – *Global Green Finance Index.*
[218] UK Government 2023 – *Powering Up Britain: Net Growth Plan.*
[219] SBTi 2023 – *Monitoring Report.*
[220] However widespread delivery failure would create the opposite effect and undercut the competitiveness of the UK in this space.
[221] The ITPN was launched at Climate Week NYC 2024 and will support international exchange, learning and collaboration in transition planning.

These communication considerations should apply across the market. Everyone in the sustainable and transition finance ecosystem has a responsibility to share and promote knowledge of the transition, and **the Review recommends that all users of this Review, including market, Government, regulatory and civil society organisations, consider how to champion an understanding of transition finance themes within their organisation.** This may include:

- **articulating the core elements of transition finance;**
- **a clear and public endorsement** of the role and urgency of scaling a robust transition finance market, from Ministers and senior officials; and
- **endorsing market best practice** approaches to transition finance.

7.5. Capacity building

Demand for green finance jobs in the UK is increasing. PwC estimate green jobs in the UK's financial services sector increased three times from 2019 to 2023. The research also shows that **financial services firms are not doing enough to upskill the existing workforce, and that new entrants will not be enough to plug the skills and expertise gap.**[222]

Building competence levels in sustainable finance, the energy transition, and real economy policy (and how these areas intersect) is something that companies, financial institutions, professional services firms, government, regulators and the education sector all need to consider. **Most parts of the ecosystem are vulnerable to dependency on a small number of experts in this domain, which hinders governance, risk management, product development, client engagement and more.** This applies both to green jobs and the greening of more traditional roles in financial services (where, arguably, the upskilling of core financial services roles can have as much or an even greater impact than the creation of new sustainability-focussed jobs). **This will be amplified when it comes to transition finance, given the judgement and nuance often needed when providing services and advice, and the reliance of market participants on external advisors.**

Stakeholders raised several skills challenges impacting the transition finance market, including the challenges that senior decision-makers face in trying to build the right depth of expertise across climate science, real economy policy implications, and sustainable finance. For many companies and financial institutions which have had resources focussed on the need to respond to disclosure requirements, a unique set of skills is required to embed that response at a more strategic and operational level, especially when engaging with customers, from SMEs to large companies. **For policymakers and senior officials, the level of financial innovation likely to be required, including from public funds and public financial institutions, to leverage the levels of private capital necessary to fund the transition will represent a step-change in current capabilities.**

Experts of all kinds face difficulties in understanding how change is achieved outside their own domain area. For example, the deep technical knowledge on how the transition is to be delivered sits with engineers and scientists who have little to no understanding of finance. In contrast finance specialists may fail to appreciate essential technical details which at micro-level (e.g. what technologies need to be integrated to make a single CCUS project work) and macro-level (what role hydrogen will play in the global transition) will determine whether the transition can be achieved at the significant scale needed). Further, neither financiers nor engineers tend to have the social science knowledge, in terms of understanding consumer behaviours, norms and decisions, which is not critical in decarbonising the electricity system but will be *absolutely central* to decarbonising buildings and agriculture, where millions of individual actions will determine the outcome.

Many of the building blocks to address these issues are in place. The UK is home to some of the best universities in the world, with a wide range of courses aimed at developing foundational skills and a smaller number of more advanced courses. The UK-based, but in many cases global, professional bodies, covering technical aspects of the financial and professional services sector, have established a wide range of certification programmes and training courses across climate and ESG issues. Through the Sustainable Finance Education Charter (SFEC), there is opportunity to share best practice between bodies, and establish an appropriate degree of alignment between professions, recognising the integrated nature of the sustainable and transition finance ecosystem.

[222] PWC 2023 – *Job greening in the UK financial sector.*

The UK also has an ecosystem that provides international thought leadership. For example, the UK Centre for Greening Finance and Investment (CGFI), the Cambridge Institute for Sustainability Leadership (CISL) and LSE Grantham's Centre for Economic Transition Expertise (CETEx) and several others drive innovative academic thinking across the market, building skills around new approaches. In addition, the Financial Services Skills Commission (FSSC) convenes the financial services sector to identify and address key skills gaps, with green skills being a key focus. Green skills amplify demand for existing skills prioritised in financial services, such as data analysis or relationship management, as well as new technical knowledge. **The Review's engagement also underlined the extraordinary wealth of expertise and capability concentrated in UK-based civil society bodies. This thought leadership hub is truly world leading.**

Responses to the Review's Call for Evidence, and evidence gathered through its stakeholder engagement process, **highlighted roles for different parts of the ecosystem to improve sustainable and transition finance skills and qualifications which ultimately underpin a robust market.** Respondents suggested that Government should look to use its convening power to support the sharing of best practice within markets. New knowledge, skills and expertise are being developed within the UK's market and ensuring best practice approaches are being shared will be crucial. **The Government should consider ways to break down siloes within the market, e.g. ensuring academic thought leaders are learning from front-office financial services teams and vice versa and that Government teams are learning from both.**

This should be complemented by a broad focus on integration of transition finance skills across industry roles (whether sustainability focussed or not) and into relevant professional qualifications.

The Review recommends that, through Government convened working groups, and supported by the Transition Finance Council (see below), the market, regulators and key academic and professional education providers should, building on the work of the SFEC and FSSC, come together to assess the critical skills gaps across organisations and develop proposals to fill those gaps. This may include considering guidance for longer-term learning, development and qualification plans for key decision-makers, senior managers, officials and other critical staff, and, for relevant bodies, working with education providers to refine their offering, assessing specific areas which should be viewed as a professional practice over time (e.g. the Review heard evidence that carbon accounting should be treated as such). Building on feedback about the approach taken by Singapore (see case study 17), the Review recommends the close involvement of the FCA, to inform its long-term engagement with the market on skills and expertise.

Case study 17 - Sustainable finance learning and development in Singapore[223]

Call for Evidence respondents highlighted Singapore's approach as an effective framework for sustainable finance learning and development. This consists of several components:

- US$35 million in funding set aside to support upskilling and reskilling, and develop specialists in sustainable finance over the next three years.
- Detailed market research outlining the specific roles expected to grow and emerge in response to client demand.
- A Sustainable Finance Jobs Transformation Map which lays out the expected impact of sustainability trends and developments on jobs in the financial services sector, and maps the right skills that finance professionals will require to meet regional demand.
- An Institute for Banking and Finance Skills Badge to recognise industry professionals' acquisition of sustainable finance skills.

[223] MAS 2024 – *MAS support for upskilling financial services sector.*

7.6. Embedding the Review: the Transition Finance Council

The Review has enjoyed extensive and active engagement from a wide range of experts and practitioners across the market, regulators and Government. Through the duration of the process, momentum has been building, with increasing interest from a variety of stakeholders and other markets which are seeking opportunities to collaborate with the UK and to understand how the UK will take forward the outputs of this Review. To carry this momentum forward, **the Review recommends that Government establishes a Transition Finance Council (the Council), housed within the City of London Corporation.**

The success of a UK based transition finance market and the effective implementation of the Review's recommendations hinges on clear, supportive signals from Ministers and a cohesive push across Government to implement the recommendations, and more broadly to sell the UK as a home for credible transition finance throughout the UK and internationally. This top-down momentum is crucial in pursuing this opportunity and demonstrates the Government's commitment to cross-departmental collaboration and close partnership with industry. **A critical step in this direction will be the commissioning of the Transition Finance Council. By maintaining a regular presence in its governance structure, Ministers will demonstrate the Government's commitment to the transition finance agenda, and dedication to working closely with market actors towards delivery of the Review's recommendations.**

The Council will become the motivating force commercially and the central hub of thought leadership in relation to transition finance in the UK, bringing together the broad range of stakeholders engaged through this Review, including civil society and standard setting organisations. The Council will also add a critical layer of accountability to the UK's transition finance market, providing a governance and delivery function for tracking and supporting the implementation of the recommendations set out by the Review.

The Review recommends the Council focusses on:

- Prioritising systems and approaches for **aggregating and sharing market best practice and thought leadership on transition finance**, contributing to clarity on the objectives and opportunities of transition finance, and supporting capacity building across market, governments, and regulators.
- Tracking the delivery and implementation of the recommendations outlined in this Review, **providing regular updates to the market on progress** and any barriers encountered.
- **Engaging stakeholders on the Guidelines for Credible Transition Finance** put forward in this Review, and working with the market and financial services trade associations to support implementation.
- **Optimising and promoting the competitive position of the UK as a leading transition finance hub**, including through the growth of London Climate Action Week.

The Council must not operate in a silo. The Review is also recommending the reformation of the **Net Zero Council**, the establishment of a **Transition Finance Lab**, the development of a transition finance workstream in the **Climate Financial Risk Forum**, and a range of other recommendations for the market and policymakers. The Review is clear that close collaboration between these entities will improve the effectiveness of them all, **and the Council should take responsibility for bridging work underway within each.**

> **“The Review has enjoyed extensive and active engagement from a wide range of experts and practitioners across the market, regulators and Government.”**

Glossary

Table 9 - Glossary

Term	Definition
Paris-alignment	holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change.
Bankable	refers to the degree to which a project, or another commercial transaction requiring finance, is structured so as to represent an acceptable overall risk to lenders.
Blended finance	refers to funding interventions which combine public and private funding, with the aim of lowering risk and attracting private investment.
Carbon budget	refers to a restriction on the total amount of greenhouse gases that can be emitted over a five-year period. The UK was the first country to set legally binding carbon budgets.
Carbon lock-in	refers to when high-emission infrastructure or assets (existing or new) continue to be used, despite the possibility of substituting them with low-emission alternatives, thereby delaying or preventing the transition to near-zero or zero-emission alternatives.
Climate Biennial Exploratory Scenario	refers to a publication by the Bank of England exploring the financial risks posed by climate change for the largest UK banks and insurers, and includes three scenarios exploring both transition and physical risks, to different degrees.
Climate finance	refers to local, national or transnational financing – drawn from public, private and alternative sources of financing – that seeks to support mitigation and adaptation actions that will address climate change.
Climate Financial Risk Forum (CFRF)	refers to a forum chaired by the FCA and PRA that brings together senior financial sector representative to share their experiences in managing climate-related risks and opportunities.
Concessional capital	refers to below market rate finance provided to overcome risks that cannot be addressed on purely commercial terms.
Contract for Difference (CfD)	refers to a private law contract between a low carbon electricity generator and the Low Carbon Contracts Company (a UK government-owned company), which incentivises investment in renewable energy by providing developers of projects with high upfront costs and long lifetimes with direct protection from volatile wholesale prices and protects consumers from paying increased support costs when electricity prices are high.
Credibility and integrity	refers to an ability to demonstrate the underlying real economy activity or activities are in alignment with or necessary for a pathway or benchmark compatible with the Paris Agreement (for example, by reference to a regulatory taxonomy, a national, regional or global sector pathway, Nationally Determined Contributions (NDC) or national sector plan or science-based targets).
Decarbonisation pathways / sectoral decarbonisation pathways	refers to pathways to provide an understanding of the pace of emissions reduction that can be achieved over time, as well as the choices, trade-offs, and implications of those emissions reductions.
Financed emissions	refers to the portion of gross greenhouse gas emissions of an investee or counterparty attributed to the loans and investments made by an entity to the investee or counterparty.
‘First loss’	refers to a financial position which is last in the order of payment and is accordingly the first to bear the loss if the credit quality of the exposure deteriorates.
Forward-looking metrics	refer to metrics that project companies’ future climate risks and provide actionable information on how portfolios are positioned for the global climate transition.

'Greenium'	refers to pricing benefits based on the logic that investors are willing to pay extra or accept lower yields in exchange for sustainable impact.
Greenwashing	refers to a practice where sustainability-related statements, declarations, actions, or communications do not clearly and fairly reflect the underlying sustainability profile of an entity, a financial product, or financial services. This practice may be misleading to consumers, investors, or other market participants.
Guidelines for Credible Transition Finance	refers to the guidelines developed by the Review (in consultation with stakeholders) to provide steps towards a common framework for assessing when financing an activity or entity credibly amounts to transition finance (see section 1.6 of this report).
High-emitting sectors	refers to sectors with high levels of greenhouse gas emissions, such as aviation, trucking, shipping, steel, aluminium, cement/concrete, and carbon dioxide removal.
IFRS sustainability disclosure standards	refers to the two inaugural sustainability disclosure standards – IFRS S1 and IFRS S2 – issued by the ISSB on 26 June 2023.
IFRS S2	refers to the IFRS sustainability disclosure standard for climate-related disclosures.
Interoperability	refers to the alignment of the disclosure requirements between two or more sets of standards to enable compliance with those standards. Increased interoperability can improve efficiency for entities that report under those sets of standards.
Key Performance Indicators (KPIs)	refers to a measurable value that demonstrates how effectively a company is achieving key business objectives. KPIs are critical (key) indicators of progress toward an intended result. KPIs provide a focus for strategic and operational improvement, create an analytical basis for decision making, and help focus attention on what matters most. (Source: LMA Sustainable Lending Glossary 2023).
Mansion House reforms	refers to a set of reforms presented by the former Chancellor in 2023 that aimed to enable the financial services sector to unlock capital for key industries and increase returns for savers.
National transition plan	refers to emerging work outlining sovereign-level transition planning, which outlines stronger strategic orientation; a deeper focus on whole-of-government planning; and coherent policies, pathways and investment plans that target a just, equitable, low-emissions, climate-resilient economy.
Net Zero Data Public Utility	refers to a centralised repository of global company-level greenhouse gas emissions data.
Net Zero Council	refers to a partnership between the UK government, business and finance, providing cross-cutting strategy across major business sectors to deliver the UK's net zero target.
Offtake agreement	refers to an agreement to purchase all or a substantial part of the output or product produced by a project.
Just Energy Transition Partnerships	refer to a funding model created to help certain countries transition away from fossil energy and toward clean energy in a way that also addresses social issues associated with such an energy transition.
Just transition	involves anticipating, assessing, and addressing the social risks and opportunities of the transition to a low-greenhouse gas emissions and climate-resilient economy, as well as ensuring meaningful dialogue and participation for impacted groups (including workers, communities, supply chains, and consumers) in transition planning.
Productive finance	refers to investment that expands productive capacity, furthers sustainable growth and can make an important contribution to the real economy.

Public finance institution (PFI)	refers to a financial institution which is owned by a state or municipality.
Stewardship	refers to the use of influence by institutional investors to maximise overall long-term value, including the value of common economic, social and environmental assets, on which returns and client and beneficiary interests depend.
Strategic ambition	refers to an entity's overarching aims for its transition plan. This will comprise the entity's objectives and priorities for responding and contributing to the transition towards a low-greenhouse gas emissions, climate-resilient economy, and set out whether and how it is pursuing these objectives and priorities in a manner that captures opportunities, avoids adverse impacts for stakeholders and society, and safeguards the natural environment.
Sustainable finance	refers to the process of taking due account of environmental, social and governance (ESG) considerations when making investment decisions.
'Sustainability Improvers™' label	refers to a label in the UK's sustainability disclosure requirements and investment labels regime. The label may apply to financial products that aim to improve or pursue positive environmental and/or social outcomes indirectly through investing in assets with sustainability characteristics that have the potential to meet a robust, evidence-based standard of sustainability.
Transition activities	refers to activities described in categories 1, 3 and 5 of the TFCS.
Transition assets	refers to assets with sustainability characteristics that have the potential to meet a robust, evidence-based standard of sustainability.
Transitioning entities	refers to entities described in categories 2 and 4 of the TFCS.
Transition Finance Classification System (TFCS)	refers to an illustrative system developed by the Review to support the market with classifying and understanding transition finance.
Transition Finance Council	Refers to a body that the Review proposes the UK Government sets up to support transition finance communication and capacity building, and report on the progress of the Review's recommendations.
Transition Finance Lab	refers to a body that the Review proposes the UK Government sets up to create a formalised mechanism for the private sector to design and test innovative financing structures and feedback on key policy enablers for the transition finance market.
Transition Plan Taskforce (TPT)	refers to the taskforce launched by HM Treasury in 2022 to develop the gold standard for private sector climate transition plans. Its materials were informed by global engagement with financial institutions, real economy corporates, policymakers, regulators and civil society.
Transition risk	refers to risk associated with the pace and extent at which an organisation manages and adapts to the internal and external pace of change to reduce greenhouse gas emissions.
TPT disclosure framework	refers to the disclosure framework developed by the TPT which sets out good practice for robust and credible transition plan disclosures.
Transition plan	refers to an aspect of an entity's overall strategy that lays out the entity's targets, actions or resources for its transition towards a lower-carbon economy, including actions such as reducing its greenhouse gas emissions.

List of figures and tables

Figures

Tables

Appendix 1: Evidence summary and methodology

The Review used a range of techniques for research gathering with a priority on wide engagement with all actors engaged in, or planning to engage in, this nascent market. Research and analysis was conducted around five main topics:

1. Scope of Transition Finance
2. Ensuring the Credibility and Integrity of Transition Finance
3. Barriers to the Applications of Transition Finance
4. The opportunity for investments, products and services to advance transition finance globally
5. Building the UK as a global hub for transition finance

These broad pillars ensured consistency in engagement across all market groups and allowed participants to share their insights and experiences relevant to the Review's core questions, without limiting wider conversation.

The expert group provided governance and scrutiny over the workplan and findings as well as reviews of internal papers and each draft of the final report. This group met five times across the Review's duration. Expert advice was supplemented by trusted subject matter experts where necessary for specific sections. The expert group was appointed to ensure that the wide range of stakeholders participating in the market was represented. The group fed back on the workplan for each phase of engagement and reviewed each major output before it was shared with external stakeholders. The Review additionally engaged with officials from commissioning departments, the Financial Conduct Authority and the Bank of England throughout the process.

The Review began with an assessment of literature on this topic to date. Over 110 documents were reviewed. The majority of these addressed transition finance directly with the rest addressing related topics or providing context on overlapping areas, for example, taxonomies created in other jurisdictions and research papers on sectoral pathways. The literature analysed came from government (e.g. G20 Sustainable Finance Working Group, EU Commission and Government of Japan draft principles papers on transition finance), civil society (e.g. papers from E3G and Rocky Mountain Institute on challenges and opportunities) or financial institutions and associations (e.g. transition frameworks and position papers created by major banks).

From this literature review a long list of research questions and topics was created. This related to key areas for further discussion based either on their importance to the functioning of the market or as areas where there was not yet a commonly agreed approach.

Using the five key research topics as headings, the Review produced a Call for Evidence to further explore these key areas. The Call for Evidence ran for six weeks from March to May 2024. 57 responses were submitted in that period. Respondents represented a wide range of industries and worked across geographies although, unsurprisingly, 80% of respondents operated at least in part in the UK, but the Review was pleased to receive feedback from organisations operating across a broad range of jurisdictions. Figures 12 and 13 show the breakdown of respondents by sector and geography.

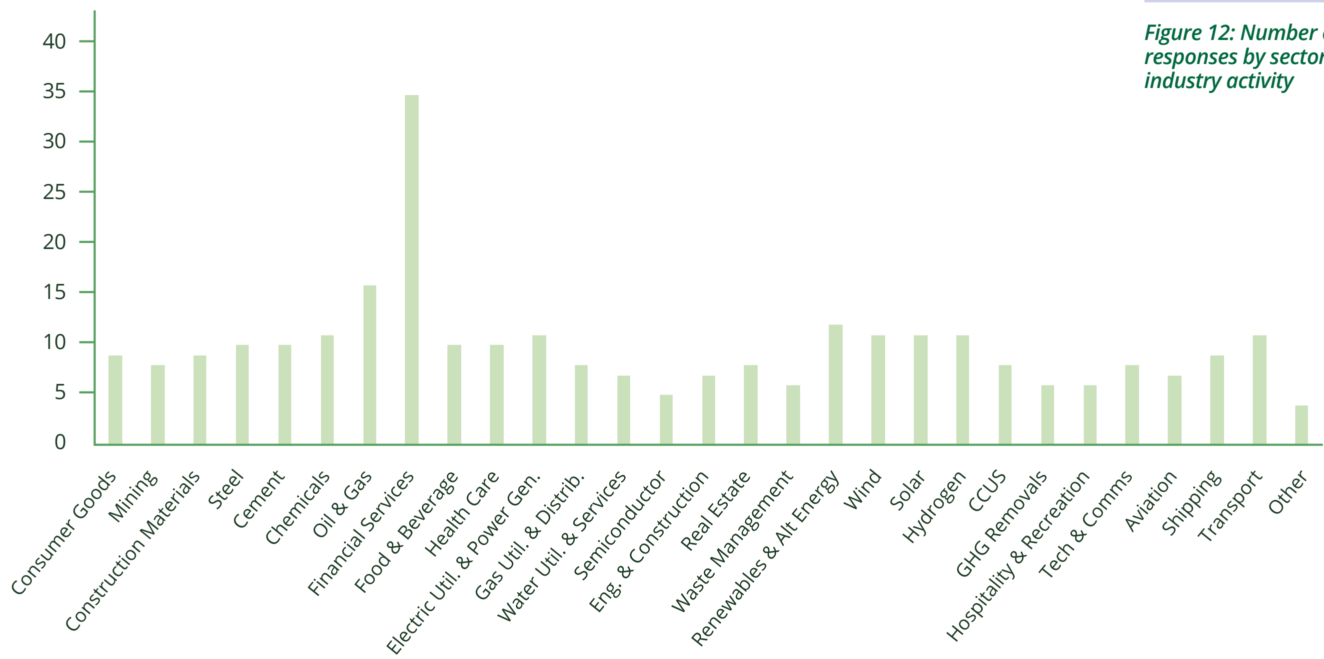


Figure 12: Number of responses by sector / industry activity

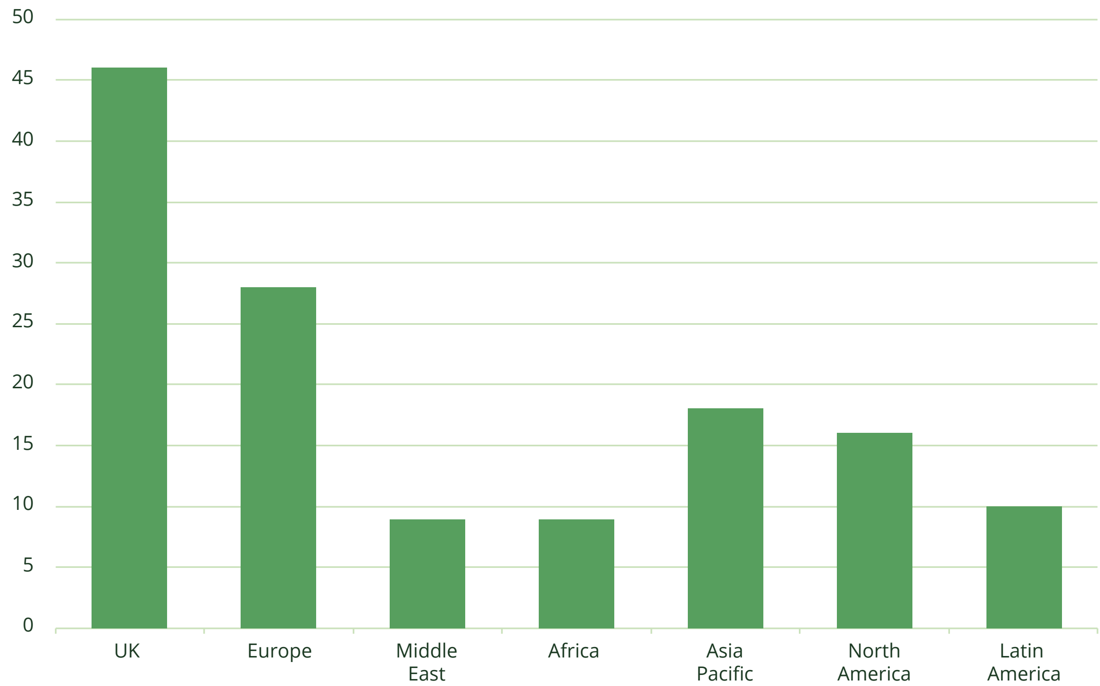


Figure 13: Number of responses by region

Note: Several respondents operate across multiple jurisdictions

Analysis of Call for Evidence responses highlighted many further key topics for discussion. Using this list, and other topics raised in the literature Review or through conversations with the expert group, the Review conducted two rounds of workshops and bilateral engagements. The first round focussed mostly on gathering further information of key topics, particularly areas where there were gaps in the Call for Evidence responses, or areas where there was not strong consensus. The second round of engagement was focussed on sense checking the findings of the Review and testing suggested recommendations. Overall the Review hosted or participated in over 40 dedicated stakeholder workshops and 200 bilateral engagements, primarily in the UK but also internationally.

The Review identified early that it was likely to receive fewer responses to its Call for Evidence from corporate issuers compared to other major stakeholder groups. To address this, it established an outreach program to ensure issuer views and input were captured. Engagement activity involved roundtables (including a cross-sectoral roundtable with members of the Association of Corporate Treasurers) and a series of bilateral conversations and sectoral roundtables[224] that gave insight into real-economy sector specific contexts and challenges.

The findings from these engagement rounds informed the final draft and recommendations included in this paper. The Review was conducted over nine months. Diversity of opinion and ensuring that a wide range of relevant stakeholders had their views represented for consideration were central aims of the Review's methodology.

[224] Power, Mining, Built environment, Materials and Chemicals, Aviation, Hydrogen, and Carbon Capture, Utilisation and Storage.

Appendix 2: Thought leadership used by the Review

Table 10 - Key transition finance publications leveraged by the Review

Key transition finance publications leveraged by the Review	
ClientEarth - Guardrails to address greenwashing of climate transition finance[225]	This paper sets out guidelines for policymakers to plug the global regulatory gap in climate transition financing and tackle the rise of greenwashing in the market. The paper provides an analysis of 'transition washing' in labelled transition finance instruments.
Climate Bonds Initiative – Navigating Corporate Transitions[226]	This paper presents a new tool designed to aid financial institutions in assessing and categorising companies by their transition credibility and maturity. It builds from a mapping of the landscape of corporate transition frameworks, offering a practical application for financial institutions to effectively manage their transition assessments.
G20 Sustainable Finance Working Group – 2022 Sustainable Finance Report[227]	In 2022 the G20 Sustainable Finance Working Group developed a set of 22 high-level principles on transition finance, centred around five pillars (identification of transition activities and investments, reporting, instruments, policy measures, and assessing and mitigating negative social and economic impacts). The report also includes several recommendations on strengthening the transparency and credibility of financial institutions' voluntary net zero and sustainability commitments.
GFANZ – Financial Institution Net-zero Transition Plans – Fundamentals, Recommendations, and Guidance[228]	This document presents voluntary, globally applicable recommendations on the elements of a net zero transition plan with accompanying guidance, examples, and case studies, aimed at financial institutions. Sector-specific alliances under GFANZ's framework have also developed guidance addressing sub-sector specific issues (e.g. the Net Zero Banking Alliance's Transition Finance Guide and Developing Metrics for Transition Finance publication).
GFANZ – Technical Review Note on Scaling Transition Finance and Real-economy Decarbonisation[229]	This technical note by the GFANZ Secretariat develops its four Transition Finance strategies (climate solutions, aligned, aligning, and managed phaseout). These are now being tested through work involving a diverse set of global financial institutions.
The Institutional Investors Group on Climate Change (IIGCC) – Net Zero Investment Framework[230]	The Net Zero Investment Framework is a guide for institutional investors to set targets and produce related net zero strategies and transition plans. It supports investors to transition their investment portfolios and increase investment in the range of climate solutions to enable the transition.
International Capital Markets Association (ICMA) – Climate Transition Finance Handbook[231]	The Climate Transition Finance Handbook is a high-level, principles-based guidance for issuers, investors and other stakeholders involved in transition finance. The handbook seeks to provide clear guidance and common expectations on the practices, actions and disclosures to be made available by issuers when raising funds for their climate transition strategy.
International Platform on Sustainable Finance (IPSF) - Implementing transition finance principles – Interim report December 2023[232]	This document presents an overview of the ongoing IPSF work on transition finance, building upon the foundational Principles outlined in the 2022 IPSF Transition Finance report for robust transition targets (target-setting principles) and for demonstrating the capacity to achieve those targets (delivery principles). The interim report identifies four dimensions of transition finance: credibility, disclosure, financing, and assessment. These dimensions encompass various principles, strategies, and considerations for effectively transitioning to a sustainable and climate-resilient economy.

[225] ClientEarth 2023 – *Guardrails to address greenwashing of climate transition finance.*
[226] CBI 2024 – *Navigating Corporate Transitions.*
[227] G20 2022 – *2022 G20 Sustainable Finance Report.*
[228] GFANZ 2022 – *Transition planning.*
[229] GFANZ 2022 – *Transition Finance and Real Economy Decarbonization.*
[230] IIGCC 2024 – *Net Zero Investment Framework 2.0.*
[231] ICMA 2023 – *Climate Transition Finance Handbook.*
[232] IPSF 2023 – *International Platform on Sustainable Finance - Implementing transition finance principles - Interim report.*

OECD – Guidance on Transition Finance: Ensuring Credibility of Corporate Climate Transition Plans[233]	This guidance sets out elements of credible corporate climate transition plans. Based on extensive stakeholder consultations, including an industry survey, the guidance provides market actors, policymakers, and regulators with a comprehensive overview of existing transition finance approaches, identifying the main challenges and solutions.
Rocky Mountain Institute (RMI) – Transition Finance Resource Hub[234]	RMI, working closely with UK banks, developed a Resource Hub for practical guidance, insights on frequently asked questions, and case studies to highlight lessons learned from previous transactions. This includes several 'how to' guides aimed at financial institutions.
Transition Plan Taskforce (TPT) - Disclosure Framework[235]	The TPT brought together leaders from across finance, business, civil society, governments, and academia to develop a sector-neutral Disclosure Framework for best practice transition plan disclosures, alongside a suite of implementation guidance and sector guidance. The 'gold standard' Disclosure Framework is supplemented by sector-specific guidance for Asset Managers, Asset Owners, Banks, Electric Utilities & Power Generators, Food & Beverage, Metals & Mining, and Oil & Gas.

[233] OECD 2022 – *Guidance on Transition Finance: Ensuring Credibility of Corporate Climate Transition Plans.*
[234] RMI 2024 – *Transition Finance Resource Hub.*
[235] TPT 2023 – *Disclosure Framework.*

Appendix 3: Terms of reference

Background

The 2023 Green Finance Strategy announced that the government will commission a review into how the UK can become the best place in the world for raising transition capital.

Transition finance definition

'Transition finance' refers to financial products and services that support higher emitting companies and activities to decarbonise over time. These instruments are generally used by companies seeking to reduce greenhouse gas emissions and should be part of a credible decarbonisation pathway that is consistent with global climate and nature goals.

Purpose

The Transition Finance Market Review will consider what the UK financial and professional services ecosystem needs to do to become a leading hub for and provider of transition financial services – by facilitating UK and international companies and investors to invest to align with credible net zero pathways.

Now is an opportune time to convene market experts to look systematically at how to ensure transition finance instruments are developed and structured with high-integrity, leveraging UK based financial services expertise, including in a way that unlocks long-term capital. This will include understanding the best ways to stimulate innovative solutions and scale up financing mechanisms across the investment ecosystem – including private and publicly listed companies, and assurance of debt and loans.

Objectives

The review convenes real economy companies, financial institutions, professional services firms, regulators, policymakers, and civil society to research, develop ideas, identify opportunities, and showcase best practice to signal UK financial services' competitive edge internationally and secure market share. The Review will use its convening power to drive further leadership on transition finance.

Its focus will be on the role of the private sector. It will consider what market tools would be most impactful, and explore how best to create the conditions for:

- **scaling transition focussed capital raising with integrity.** We want to scale transition finance and grow the UK market for transition finance services, which should be designed as attractive, investible instruments to unlock long-term capital (such as sustainability linked debt and transition bonds), while maintaining the integrity of climate goals and helping to build trust in financial solutions
- **maximising the opportunity for UK based financial services** to develop, structure and export high-integrity transition finance services
- **positioning the UK's professional services ecosystem as a global hub** - supporting this innovative activity and ensuring market confidence (legal, audit, consultancy, data and analytics, skills and education).

Priority areas of focus

The Review will organise its work into a number of workstreams. These could include, for instance, the role and definition of transition finance, financing instruments, credibility and integrity, frameworks and standards, global alignment and incentives to scale the market.
Precise outputs will be determined by the mid-point (see Duration), but the Review will produce recommendations and any appropriate tools for the market (for example, best practice guidelines, case studies) under the above mentioned workstreams in the first instance.

Leadership and structure

This is an independent Review commissioned by the Treasury Lords Minister and the Minister for Energy Efficiency and Green Finance and led by Vanessa Havard-Williams, who will be supported by a panel of advisors and a secretariat.

The panel should aim to incorporate representatives from across the financial services sector, including issuers, banks, advisory, investors and other market participants and experts from civil society and academia. It should also work with experts such as the City of London Corporation, Transition Plan Taskforce, Climate Financial Risk Forum, the CGFI Centre of Excellence for Transition Finance, and the London Stock Exchange Group.

Government and regulatory observers will include HM Treasury (HMT), the Department for Energy Security and Net Zero (DESNZ), the Financial Conduct Authority (FCA), the Bank of England, UK Export Finance (UKEF), and the Department for Business and Trade (DBT). The government should be able to observe and learn from the panel's work on an ongoing basis.

The Review lead, panel and secretariat will embark on an outreach programme to engage extensively with stakeholders across industry, academia, the third sector and relevant parliamentary groups to inform the content of the Review and ensure a joined-up approach to UK action.

Roles and responsibilities

- **Review lead:** will take overall leadership of the Review, set the overarching strategy for achieving the Review's objectives, oversee and agree workplans, drive the work of the Review, lead the expert panel, ensure alignment with related initiatives, convene and chair meetings, and deliver and have final editorial rights over the Review's final report to Ministers and the market. The government will subsequently publish the report
- **Expert panel:** will provide evidence-based advice to the Review lead and may be asked to lead or join Review workstreams, or other avenues of inquiry set by the Review lead, attend and contribute to meetings, share the latest intelligence in particular from their areas of expertise to support delivery of the Review's workplan; be ambassadors for the Review and report to the Review lead on their work
- **Review Secretariat:** will support the Review lead and panel with coordination and facilitation, develop and execute workplans, track progress, write and circulate papers, agendas and readouts, organise meetings and ensure they are run effectively. The secretariat will also coordinate any research requirements of the Review
- **Government working group (in HMT/ DESNZ):** will monitor the effectiveness of the Review in meeting its intended objectives, ensure timely and ongoing updates for Ministers and regularly review whether there is a need to make changes to the ways of working; the working group will report to the HMT and DESNZ senior responsible owners (SROs)
- **City of London Corporation:** will second staff to the secretariat, physically host the working space for the secretariat, and will also provide external consultancy support and physical office / event / meeting space
- **Ministers:** will commission the Review, receive the Review's final report, and judge if/ when the Review should wind down.

Duration

The Review will run for an initial 6 months, with a possibility to extend to 9 months. HMT and DESNZ Ministers will review the outputs and role of the Review during the initial period and decide whether it should continue, or submit its report.

Ways of working and governance

The Review will recommend what market tools and solutions are deemed to create the conditions for market expansion with high-integrity. When discussing and identifying solutions, the Review will work within the parameters of existing government regulation, policy, and funding envelopes, including the need to meet our statutory net zero target, our energy security objectives, as well as the Public Sector Equality Duty.

Additionally, the review has the scope to make recommendations to government on how to galvanise further market innovation and growth, and on the longer-term direction of policy and regulation, so long as there is evidence to inform any recommendations and they support the Review objectives. The UK government will be solely responsible for making its own policy and spending decisions.

The secretariat, government working group and FCA will meet regularly and the secretariat will provide monthly written updates of the Review's work, detailing activities, outputs and forward plans. These updates will coincide with regular meetings between the Review lead and the Review SROs. All meetings will be conducted as hybrid meetings.

Meeting agendas and papers will be circulated by the secretariat at least 2 working days in advance of meetings. Records of meetings will be circulated by the secretariat within 2 weeks of meetings.

Considerations

The Review will also take the following into account in carrying out its work:

- the Review will leverage and align with ongoing Transition Plan Taskforce work and have regard to HMG's forthcoming transition plan consultation, as well as the FCA's further work to implement TPT-aligned disclosures alongside its implementation of UK-endorsed International Sustainability Standards Board (ISSB) reporting standards. It will be important that any thinking the Review does on transition KPIs is consistent with HMG's work on transition plan disclosures, as well as the forthcoming UK Green Taxonomy consultation
- it should consider international comparisons and prioritise international coherence and interoperability
- it will have regard to the UK Listing Review led by Lord Hill and its recommendations on how to encourage more high-quality UK equity listings and public offers, along with the government's response
- it will have regard to the policy approaches in our 2023 Green Finance Strategy, Net Zero Growth Plan and the Energy Security Plan, the forthcoming Voluntary Carbon Markets guidance, our Net Zero Investment Roadmaps, and the FCA's work on transition finance and investment labels. It may also wish to consider or take into account the independent reviews of Net Zero (led by Chris Skidmore MP) and Pro Innovation Regulation (led by Patrick Vallance)

TFMR

Transition Finance Market Review

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About the City of London Corporation:

The City of London Corporation is the governing body of the Square Mile dedicated to a vibrant and thriving City, supporting a diverse and sustainable London within a globally successful UK.

We aim to:
• Contribute to a flourishing society
• Support a thriving economy
• Shape outstanding environments

By strengthening the connections, capacity and character of the City, London and the UK for the benefit of people who live, work and visit here.

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About the Global City campaign:

The Global City campaign is the City of London Corporation's overarching initiative to promote the UK as a world-leading international financial centre.

It showcases the UK as a great place for financial and professional services firms to invest, locate and grow.

theglobalcity.uk