



Making markets: The City's role in industrial strategy

Sam Alvis
February 2024

With contributions from:



About the author

Sam Alvis is an associate fellow at IPPR.

Acknowledgements

We are grateful to the Green Finance Institute (GFI) for sharing their extensive cross-sector experience of both the barriers and potential solutions to capital mobilisation in the UK which have helped inform this report. We are also grateful to them for collaborating to share access to their wide network of public and private financial actors without whose insights this work would not have been possible. The GFI creates the enabling environments and financial solutions needed to accelerate the transition to a net zero economy. A particular thanks to Ryan Jude for his market insights, expertise and guidance.

Thank you to all of the financial institutions which made this report possible through their insights and data.

Within IPPR, we would like to thank **Luke Murphy, George Dibb, and David Wastell** for their advice and feedback.

Supported by

Thank you also to our sponsors Investment Association (IA) and The City of London Corporation (CoLC) for their support in the creation and publishing of this report.

The IA champions UK investment management to support British savers, investors and businesses. Their mission is to make investment better. Better for clients, so they achieve their financial goals. Better for companies, so they get the capital they need to grow. And better for the economy, so everyone prospers.

The City of London Corporation (CoLC) 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.

Download

This document is available to download as a free PDF and in other formats at: www.ippr.org/articles/making-markets-the-citys-role-in-industrial-strategy

Citation

If you are using this document in your own writing, our preferred citation is: Alvis S (2024) Making markets: The City's role in industrial strategy, IPPR and Green Finance Institute. www.ippr.org/articles/making-markets-the-citys-role-in-industrial-strategy

Contents

Summary.....	4
1. Introduction.....	6
1.1 State of affairs.....	6
2. What’s holding private finance back.....	9
2.1 Where are the investment gaps?.....	9
2.2 Current tools.....	13
3. Action - What to do next.....	32
3.1 Recommendations: Understanding and Collaboration.....	33
3.2 Recommendations: Catalyse green markets.....	34
3.3 Recommendations: Deliver wider policy and regulatory environment.....	36
3.4 International opportunities.....	37
Acknowledgements.....	39
References.....	39

Summary

To tackle climate change, we need a significant increase in public and private capital investment. The UK government estimates this figure to be £50-60 billion a year, up from around £10 billion in 2020. Effective partnership between the public and private sector is crucial to achieve this sixfold increase.

Industrial strategy will need to play a central role. But underneath an economy wide strategy, different sectors, whether that's hydrogen or home heating, face different barriers to scaling. Until these sectors generate a return comparable to non-green investment, private capital is unlikely to flow at pace.

The UK has experience in using industrial policy to deliver public goods alongside investible products. The success of the offshore wind sector in the UK was supported by the public Green Investment Bank, strategic policy interventions and an ongoing dialogue between practitioners and policymakers. In a time of high interest rates, there is an increased focus on how targeted public finance can be best used to mobilise private investment for the transition. Future industrial policies will need to integrate and catalyse private finance in a similar way.

Our research analysed what is currently holding investors back and provides recommendations as to how this partnership could work in practice, alongside an industrial strategy. The main themes that emerged were:

- **The need for a central strategy.** Policy changes have undermined investor confidence and there is a need to take forward the existing commitments in the Green Finance Strategy, connecting these in with various public investments including the new Green Industries Growth Accelerator.
- **Demand for increased use of catalytic public finance.** Current public finance tools could be deployed to greater effect. The UK Infrastructure Bank has made several important interventions to date and could play a more prominent role to catalyse the private sector through amendments to its risk appetite and mandate, potentially alongside a new fund. Green gilts could be expanded to help finance much needed interventions. Government can also make greater use of various blended finance tools, which can provide better value for money than focusing on grants.

- **Regulation must be better resourced and aligned more closely to the real economy.** Financial sector regulators are being given ever more duties, which will require more resourcing. Certain decisions would be better served by government rather than requiring private regulators to solve them. Meanwhile financial sector regulation is at risk of outpacing action in the real economy sectors and needs to ensure private sector firms can undertake the concrete steps required to meet the goals set out in new sustainable financial disclosures.

Building on this, we recommend how this new approach could be developed across three main areas:

- **Closer alignment between the government and the financial sector:** Sectoral stakeholder councils should be established to accurately monitor green investment, investor confidence, and the impact of policies to stimulate investment. Not every sector will need one, and they should focus on addressing challenges and learning from the steps taken to reduce the cost of offshore wind generation. The aim is to establish trust and provide the ability to support policy changes as well as to co-create and operationalise solutions.
- **Public investment is essential to catalyse green markets:** Sectoral councils can help identify risk-sharing opportunities with the private sector, including through direct government investments. Even with the clarity from an industrial strategy, catalytic state investment is necessary to scale investment at pace. Public funding could play a more catalytic role if a public: private mobilisation ratio became a key objective for a state-owned investment vehicle, rather than a constraining risk adjusted return target, as well as ensuring capital is recycled as sectors mature. The wider use of blended finance over grants where appropriate should also become a priority.
- **Underpin efforts with a supportive regulatory environment:** Finance is impacted both by the green finance regulatory framework and real economy, sector-specific enabling environments. Government needs to urgently deliver the 2023 Green Finance Strategy. Several key policies and regulations are delayed. Sectoral stakeholder forums will help identify solutions to sector-specific barriers, such as EPC reform and the balance of gas and electricity prices, which were cited as key priority issues during our research.

1. Introduction

1.1 State of affairs

Tackling climate change requires a significant shift in public and private capital investment. Money needs to stop flowing to polluting activities, and start flowing to new sustainable markets. This is needed to finance the rapid build out of clean infrastructure like wind turbines and electric vehicles as well as develop newer technologies like direct air capture or green hydrogen.

Currently, there is an undersupply of green finance in the UK. The Committee on Climate Change (CCC) has stated we will require around £50 billion investment per annum (in 2019 prices) (CCC, 2021), increasing from £10 billion in 2020, to get on track for net zero. The UK government agrees, stating we need £50-60 billion per annum from 2030 (UK Government, 2021a). Recent increases in inflation and interest rates will likely push up this figure. The CCC's original estimates showed the majority of this would be met through mobilising private finance. The Institute of Public Policy Research (IPPR) has previously recommended that to reach the scale of green investment required for a fair transition, the state should aim to invest £30 billion annually into net zero (Murphy et al, 2021). Public investment, targeted correctly, can lead to solutions that crowd in multiples more in private finance. With the current economic climate leading to debates about the UK Government's fiscal position, this has increased the focus on potential pools of private capital.

The Investment Association (IA) estimates that at the end of 2022 there was around £8.8 trillion total assets under management (AUM) in the UK, 11 per cent of global AUM, half of which is managed on behalf of UK-based clients (The Investment Association, 2022). More of this can be mobilised towards sustainable investments.

The global wave of industrial policy, however, is accelerating international competition for capital (The Economist, 2022). The US, China, EU, Japan, Australia, and others are all using incentives to attract private finance towards green industries. The UK was already in danger of losing out to other countries on investment (Dibb and Murphy, 2023), these global shifts will increase competition further.

For now at least, the UK remains internationally competitive in some areas, particularly financial services. London is the second most competitive financial sector in the world, after New York (Long Finance, 2023a).

The UK is also recognised as the top green financial centre (Long Finance, 2023b), in large part due to its regulatory environment and wider efforts to reduce emissions.

For the financial sector, climate has mostly been considered as a source of financial risk. Extreme heat is causing increased risk to assets, as are rising sea-levels and flooding (Butler, 2023). Risk assessments are becoming more granular and pushing insurers to leave markets (AP News, 2023). There are also risks from litigation, while policy risk like the commitments at COP28 to accelerate efforts towards the “phase-down of unabated coal power, phasing out inefficient fossil fuel subsidies, and other measures that drive the transition away from fossil fuels” (UNFCCC, 2023) will leave some fossil fuel assets stranded. The speed of climate change could create a “Climate Minsky moment” with a sudden price deflation of many assets (Miller and Dikau, 2022). Investing to mitigate this risk remains the ‘least worst’ option for investors (Financial Times, 2023).

But reaching net zero also brings financial opportunity. In developing, making, and deploying the technologies required to reduce emissions, new sectors will be created, at pace, in new locations. However, private investors require a financial return.

Until green sectors generate a risk-adjusted return that is comparable to non-green investment, capital will not flow at pace.

The UK needs a clearer, more consistent industrial strategy to achieve both growth and reach net zero (Alvis et al, 2023b). Industrial strategy aims to generate outcomes from the private sector beyond profits (for example emissions reductions) using public policy tools. The UK’s financial sector has a crucial role to play in any industrial strategy, by providing the finance to achieve its objectives.

At the same time, despite repeated promises, not enough progress has been made on new regulation to inform and change financial sector investment decisions (Alvis et al, 2023a). The Green Finance Strategy (HM Government, 2023) set out plans for implementation of important green finance regulation, but these have yet to be fully implemented. The strategy set out an approach on “financing green”, but the link to wider policy decisions needs strengthening. Real economy policy decisions since the strategy’s publication have left investors uncertain on the UK’s commitment to growing its green economy (HM Treasury, 2023) This is compounded by the wider UK market now being seen as riskier by investors (Alvis et al, 2023b).

In this paper we set out how with clear direction from government, the City could play a stronger role in supporting the UK's green industrial strategy. A greater balance of responsibilities between the state and private actors, and closer partnership on key sectors, could increase the speed and volume of green finance.

We begin with a diagnosis of what is holding the private sector back from growth and decarbonisation, including a review of current government policy, investment gaps and existing and emerging tools. We then explore how a government that may seek to provide strategic public finance to crowd-in private investment could work with the City to mobilise capital at scale and pace, closing with the potential international benefits of such an approach.

Box: Methodology

This report is a summary of our research, which includes:

- an extensive literature review
- two roundtable events with representatives from academia, NGOs, the private sector, and policymakers
- Over 30 qualitative in-depth interviews
- Original data analysis on the readiness of green financial markets.

2. What is holding private finance back?

Industrial policy is used to shape markets to deliver specific public policy objectives (Alvis et al, 2023b). Given both individual businesses and society as a whole stand to gain from the transition, an industrial strategy partnership model between the financial sector and the state can help realise these gains (Alvis et al, 2023b).

A common theme in our interviews was that the private sector has lots of capital ready to invest in the transition. The issue is not the supply of finance, but the ability to identify investable proposals that generate risk adjusted returns that are comparable to existing opportunities.

In our interviews, industrial policy as a concept was well received, but considered novel to financial sector actors. Positives included, where there were clearly shared objectives, such as emissions reductions, and clarity on responsibilities in how to achieve these shared goals. In order to set a clear direction for the financial sector however policymakers first need to understand the current state of the market.

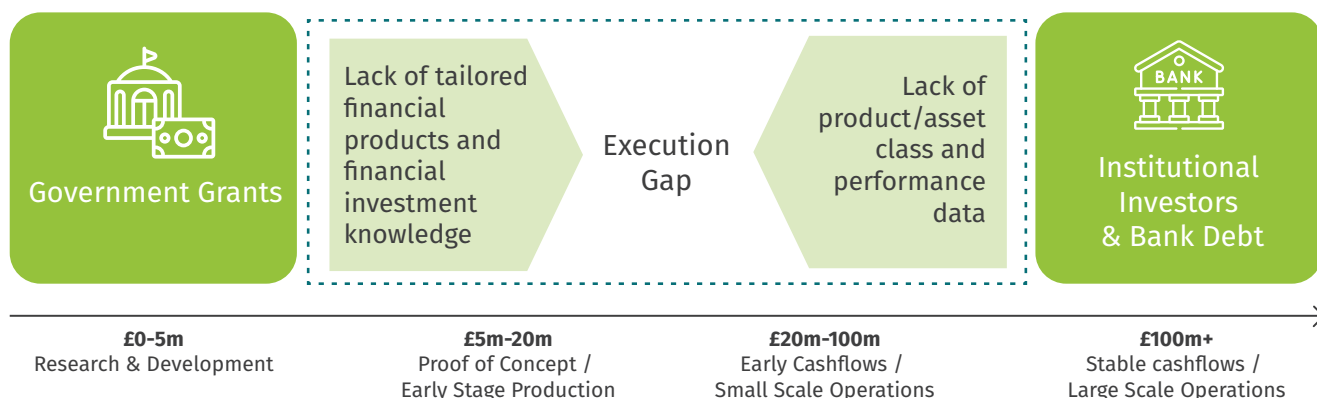
2.1 Where are the investment gaps?

Time and time again we heard while there are particular challenges in the financial sector, the most urgent barriers are in the real economy where government wants investment to go. The fundamental problem has been a lack of policy clarity and consistency – the recent change in clean heat policies, or the electric vehicle mandate were both highlighted by interviewees (CCC, 2020).

Our interviews noted that, alongside a wider lack of policy consistency, there are particular situations where private finance alone is struggling to flow at the pace required. These are:

- **Emerging technologies** with high upfront capital cost and high risk, for example carbon capture, illustrated by the “Execution Gap” in Figure 2.1.
- **Well-developed technologies** that need to be scaled faster but have challenging logistics, for example home heat and retrofit.
- **Underpinning infrastructure** critically important to the UK, where multiple sectors have an interest but poor incentives to finance (and build) at pace.

Figure 2.1: Execution gap



Source: Green Finance Institute analysis

These are not ‘green’ issues but reflect traditional challenges for the UK economy. The nature of these situations will require different financial solutions in different sectors, as the risk-return characteristics will be different across sectors.

Interviewees commented on a general trend of a lack of direction or coordination from the centre in addressing cross-sector challenges, and lack of communication with industries and investors on the risks they see and how to mitigate these. Next, we explore how these gaps fall across discrete sectors.

Sector-specific real economy investment gaps

Different aspects of the transition are at different stages of market readiness. Many ‘Green markets’ or those trying to reduce emissions are still nascent. Notable key sectors for the UK’s decarbonisation plans are not meeting their investment need. This investment gap needs plugging as soon as possible, with different sources of finance (public and private, but also specific pools of capital from the private sector) relevant for each. Table 2.1 sets out a non-exhaustive overview of the estimated investment need for key sectors.

Table 2.1:

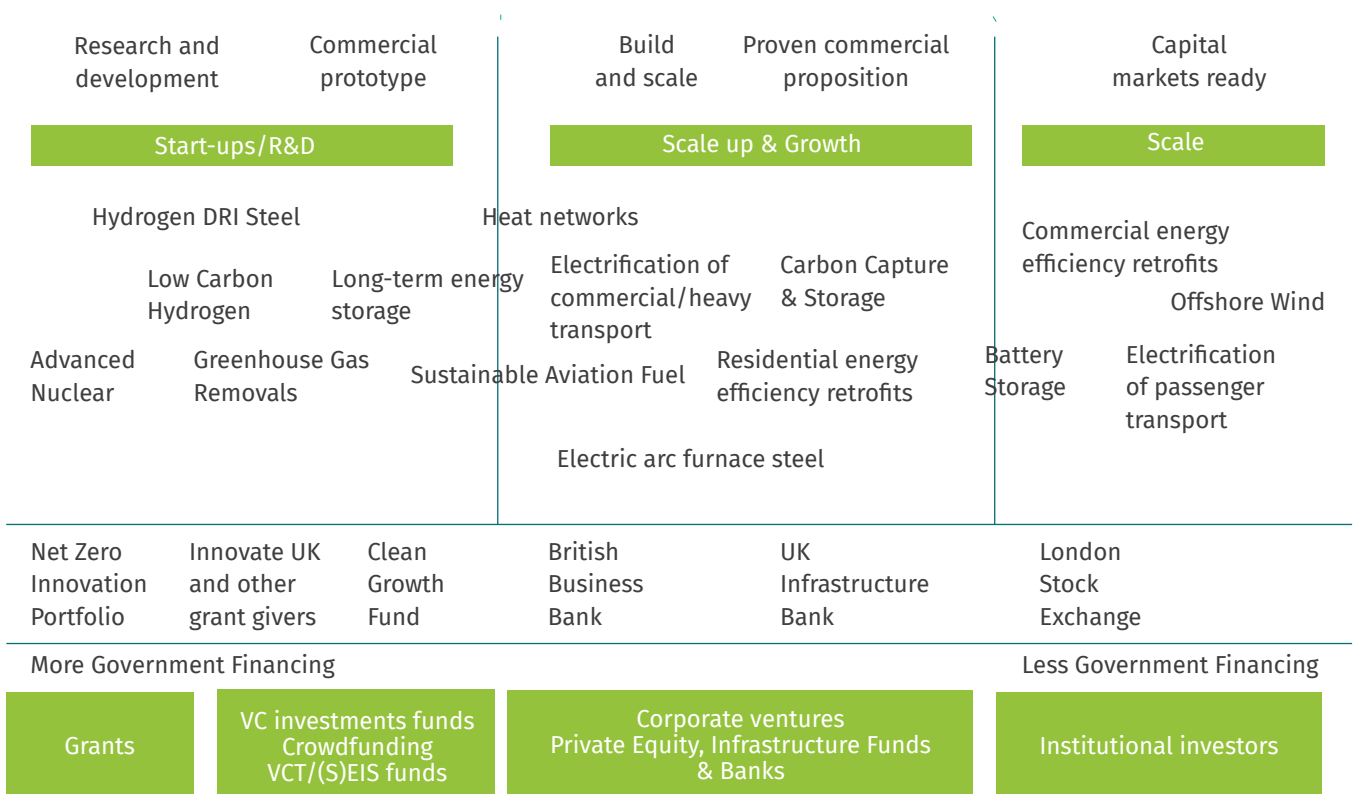
Sector	Estimated investment need	Latest figures
Energy efficiency	<ul style="list-style-type: none"> Energy Efficiency Infrastructure Group estimate: £12.7bn of public investment and £15.6bn of private investment required by 2025 (EEIG, 2021). CCC CB6: £45bn to 2035 with a total spend of £55bn by 2050 (CCC, 2020). 	<ul style="list-style-type: none"> UK Government (UKG) committed £6.6bn between 2020 and 2025 Further £6bn from 2025 to insulate homes and upgrade boilers (UK Government, 2022a) E3G analysis: existing 2025 commitments fall short by £5.24bn for energy efficiency (E3G, 2022)
Electric vehicle charging infrastructure	<p>At least £20bn by 2030 (GFI, 2023a) for cars/vans.</p> <p>For HGVs: depot-based infrastructure £11 - £24bn (GFI, 2023b)¹ public infrastructure £1 - £2bn</p>	<ul style="list-style-type: none"> Government pledged £1.6bn (UK Government, 2022b) ChargeUK: collectively £6bn by 2030 (ChargeUK, 2023)^{iv} Motor Fuel Group investing £400m by 2030 (Motor Fuel Group, 2021) Instavolt – £110m (Instavolt, 2022)
CCUS	UKIB: £8-10bn to deliver the UK’s track-1 and 2 CCUS clusters (UK Infrastructure Bank, 2023a)	<p>UKG: announced intention to mobilise £20bn for CCUS deployment including:</p> <ul style="list-style-type: none"> £1bn CCUS Infrastructure Fund (UK Government, 2023a). Business models providing revenue support.^v
Natural capital and nature-based solutions	GFI: Between £44bn and £97bn from 2022 to 2032 – with a central estimate of £56 billion (GFI, 2021).	<ul style="list-style-type: none"> UKG: target to mobilise £500m of private finance annually by 2027, increasing to £1bn annually by 2030. Private investment in nature currently stands at around £95m per year (UK Infrastructure Bank, 2022b).

¹ KPMG and GFI analysis estimate that an additional £41 - £75 billion, along with charging infrastructure, will be needed to replace entire UK HGV fleet with ZETs totaling at £50 - £100 billion.

The reasons for investment not flowing varies by sector and technology. Some sectors will require more public finance, others regulation, to help catalyse investment into the market. The UK Government’s Net Zero Strategy set out a view on the maturity of different markets, and how much government finance would be required to support them. In Figure 2.2 we provide an updated version on this graphic, showing our analysis on the maturity of different sectors, and their associated capital requirements.

As we move towards the right in Figure 2.2, the need for government support to grow the asset class or sector decreases, until it can operate completely with private finance. It’s important to note that reaching this stage does not preclude the state from investing in these assets. It is just the stage where state investment may “crowd-out” private finance. However, there may still be other policy reasons for the state to invest at this stage.

Figure 2.2: Low carbon sectors commercial maturity and associated capital requirements



Source: Authors’ analysis updating UK Government Net Zero Strategy figure

2.2 Current tools

In *Making Markets in Practice* (Alvis et al, 2023b) IPPR sets out a framework for how policymakers can build industrial policies, ie., the selection of interventions to grow sectors whilst also meeting a broader objective.

The financial sector is unusual in this regard. As financial actors invest in a range of ‘real economy’ sectors, they have an interest in how that sector is developed. For example the recent delay of regulations affecting the phase out of combustion engines was criticised as having a negative impact on investor confidence across the supply chain, as firms had invested in transitioning towards cleaner transport on the basis of the previous plans (Ford, 2023).

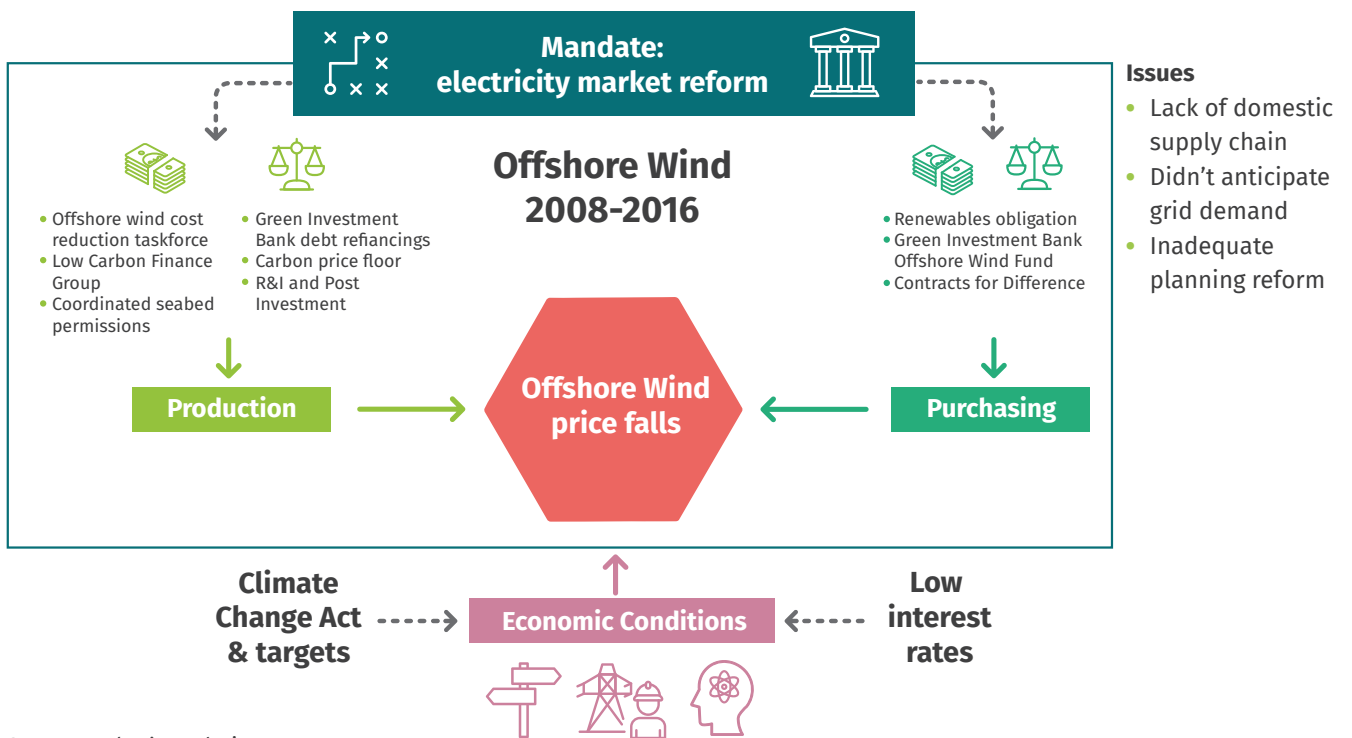
But financial firms are also a sector in their own right and have their own rules that raise or reduce the costs of investment. Drawing on our work in *Making Markets in Practice* (ibid) box 2.1 shows how the financial sector was instrumental to the development of offshore wind, alongside the government, who set clear direction and support to solve identified risks through different policy tools.

Box 2.1 – The role of finance in offshore wind’s industrial strategy

Although the term industrial strategy was never used explicitly, the UK government’s mission to update the electricity market, and make renewables cost competitive was a clear desire to shape a market to deliver a public good. IPPR’s framework in *Making Markets in Practice* (ibid) helps show how the government provided support both by reducing the costs of production and guaranteeing the price of purchasing – supported by favourable economic conditions notably low interest rates, vital for a capital-intensive industry.

To make offshore wind cost competitive, assets had to be viewed as investible by long-term investors. This involved identifying and reducing the risks that were specific to offshore wind assets, to support investment into them. As well as ‘Contracts for Difference’ (CfDs) and the Renewables Obligation scheme, the Offshore Wind Fund, and the debt refinancing from the Green Investment Bank helped reduce the associated risk and enable long-term investors to acquire offshore wind assets through the creation of financial products that could be bought and resold, guaranteeing returns for financial actors. This was supported by a private sector convened group of practitioners that identified barriers to investment and presented these to government.

Figure 2.3: Industrial strategy conceptual framework applied to offshore wind



Source: Author's analysis

In this section we explore government's current approach to supporting emissions reductions in the financial sector.

Strategies

Government has no explicit industrial strategy, although it does have a clear long-term goal in the form of the net zero target, alongside independent oversight of that goal through the Climate Change Committee. Though there is a Green Finance Strategy (ibid), and government has begun to develop sectoral transition plans there is still scope to build on these to connect net zero by 2050 with a more granular picture of the level of finance required.

Green finance strategy – important delayed regulation

Although not sufficient to mobilise capital alone, green finance regulation is an important area to green the UK's financial sector. The Green Finance Strategy developed an ambitious and leading green finance regulatory framework, building upon the 2021 Greening Finance Roadmap, with the UK Green Taxonomy, Transition Plan Taskforce (TPT), Sustainability Disclosure Requirements (SDR) and more.

However, the timelines set out in the Green Finance Strategy have been delayed, causing confusion for the financial services sector, and risking undermining the UK's position as a leading green finance sector. These regulations also support capital mobilisation, by both providing data that can help with identification of sustainable investment opportunities and to monitor progress.

Delays can cause further disconnect with emerging regulations in other jurisdictions, which UK firms may have to report against, adding additional burden to business. For example, the Green Technical Advisory Group (GTAG) – who provided independent advice on the UK Green Taxonomy to the HM Treasury – estimated that 80 per cent of UK listed firms and all UK investors who market products to European clients will need to report against the existing EU Taxonomy under the Corporate Sustainability Reporting Directive (CSRD), if the UK Taxonomy is not implemented or equivalence is not achieved (GTAG, 2023b).

As an important building block to support capital mobilisation, it is important that these regulations are delivered against a clear timetable.

Table 2.2: Green finance strategy policies and current status

Policy	Important dates in Green Finance Strategy (2023)	Latest update on policy
Increase transparency: fostering data flows from the real economy to financial firms and from financial services to end investors to inform stakeholders.		
Mandatory Transition Plans consultation	Soon after TPT framework.	Framework published by TPT Q4 2023. No update on government consultation.
Department for Business and Trade (DBT): UK Sustainability Disclosure Standards (SDS) based on IFRS Sustainability Disclosure Standards	Endorsement decision within 12 months of the first two standards' publication.	Call for evidence closed Q4 2023. Endorsement decisions by July 2024.
Financial Conduct Authority (FCA): Sustainability Disclosure Requirements (SDR) and Investment Labels	Policy Statement and final rules in Q3 2023.	Published Q4 2023.
Update the Environmental Reporting Guidelines (ERG)	Stakeholder engagement in Q3 2023.	No update.
Clarify scope 3 greenhouse gas emissions data reporting	Consultation in Q3 2023.	Launched and closed in Q4 2023. Implementation TBC.
Climate resilience assessment and disclosure guidance	Developed in the lead-up to 2024 and beyond. Approach published in 2024.	Plan expected in 2024.

Tackle deforestation-linked finance	Spotlight in 2023.	Regulations on forest risk commodities – Statutory Instrument expected in Q1 2024. Financial Investment and Deforestation Bill – 1st reading House of Commons, Q4 2023.
Incorporate Taskforce on Nature-related Financial Disclosures (TNFD) into UK policy and legislative architecture	Assessment of framework in Q4 2023.	No update.
Tools for transformation: provide tools, products and services to assist market participants with greening the financial system		
UK Green Taxonomy	Autumn 2023 consultation – disclosures will be voluntary for at least two years. Initial timeline included consultation in Q1 2022 (UK Government, 2021d).	Consultation expected in Q1 2024.
Regulation for ESG ratings providers	Launched consultation. Closed in June 2023.	Update on regulatory regime expected early 2024. ²
Reforming ESG benchmarks	Review post implementation of other measures eg. UK Green Taxonomy.	No update.
Transmission channels: government policy levers to scale up the availability of finance for the transition to a net zero, resilient and nature positive economy		
FRA-FCA: Regulatory framework for effective stewardship	Review in Q4 2023.	Discussion Paper expected in H2 2024.
Fiduciary duties to be clarified in the context of the net zero transition.	Review in Q4 2023.	Guidance published Q1 2024.
Prudential Regulation Authority (PRA): Implement Solvency UK regime	2023.	Reforms, including Matching Adjustment, in H2 2024.
Mobilise additional finance through high-integrity voluntary carbon and nature markets		
Consult on interventions to foster high-integrity carbon and nature markets	2023.	No update.
Taxation of environmental land management and ecosystem service markets	Consultation published in Q1 2023.	Response deferred until Spring 2024.

² An industry-led voluntary code of conduct for ESG ratings and data products providers was launched by the International Capital Markets Association (ICMA) and the International Regulatory Strategy Group (IRSG) in December 2023. The FCA welcomed this, as it works with government to set out next steps on regulation.

The government also committed to a market-led Transition Finance Market Review, which has since been commissioned (UK Government, 2023e). It will report back to government by July 2024.

Our interviews found the sector is at risk of 'regulation fatigue', but that it is generally comfortable with the green regulations set out by the government in the Green Finance Strategy. To maintain goodwill the sector needs: 1) clear timelines for delivery set and adhered to, to allow for preparation; 2) clarity on future expectations and evolution, and how the various policies will connect.

Green finance regulations have tended to follow the model of the Taskforce for Climate Related Financial Disclosures (TCFD), whereby once a critical mass of organisations have signed up to a voluntary initiative it becomes easier for the state to pass regulation enforcing it. However, this may start to have limits. Voluntary carbon markets for example have been criticised in the past for a lack of integrity, although this is being actively addressed through the work of the Integrity Council for Voluntary Carbon Markets and Voluntary Carbon Markets Integrity Initiative. Plans to introduce mandatory transition plans, announced by the then-chancellor Rishi Sunak at COP26, without a preceding voluntary adoption period, shows the government's willingness to adopt a different approach in certain instances (UK Government, 2021e).

Some interviewees questioned regulations built on transparency alone as driving behaviour change, rather than directing that change from the centre through a combination of enforcement on top of transparency, and market building. Data and transparency itself are important, but it must be utilised to affect policy change. Calls to track financial flows are a prime example of this.

Box 2.2: Tracking financial flows

The Net Zero Strategy and 2023 Green Finance Strategy both set out plans for the government to develop a function to “*better track private investment into the net zero economy and building towards a fuller way of tracking green investment flows in the UK – including annual private finance flows into nature’s recovery in England.*” (HM Treasury, 2023a).

The ability to track green financial flows has been supported from groups including the CCC, the Environmental Audit Committee, the National Audit Office, and the Green Technical Advisory Group.

Our interviews did flag questions around the intended purpose of a tracking function, with some concerns that too much focus on financial flows alone could exclude other material information.

Tracking against an arbitrary investment target reported across the economy, while helpful to indicate the direction of travel, will not tell the full story. If simply meeting the target is the judge of success/failure, then the tracking function may not lead to meaningful interventions.

Interviews noted that a tracking function is useful as an indicative measure to inform discussions around how real economy policies for specific sectors could be improved in order to stimulate investment that supports clear overarching objectives for different sectors. For example, it was discussed that tracking financial flows alongside targets for amounts of gigawatt (GW) capacity of renewable energy built or number of EV chargepoints delivered could lead to useful discussions around investment barriers and potential policy changes.

Communication and partnership

A clear takeaway from our interviews is that the market wishes to work closely with the public sector to co-design solutions to investment barriers. There needs to be a feedback loop to ensure policies are effective in mobilising capital towards important sectors for net zero. Attempts to do this thus far have lacked transparency, consistency, and a focus on outcomes.

Interviewees mentioned the Transition Plan Taskforce (TPT) and Green Technical Advisory Group (GTAG) as examples of cross-sector coalitions that were working towards set goals, with transparency in their advice, to develop important regulation. TPT and GTAG were praised for having a clear direction and overarching goal, set by government, and their balanced membership, providing independent advice to government.

More relevant to this paper's focus on mobilising capital to support industrial policy, the Low Carbon Finance Group was cited as an example of industry and policymakers working together to mobilise capital into a specific industry. Recent specific government-convened groups have struggled. The Energy Efficiency Taskforce was cited as a good example in terms of its governance and setup, with a good mix of participants, convened by government and with transparency on members and minutes. However, it was disbanded before it could publish any outputs (UK Government, 2023f).

Remit is also important. The Net Zero Council is looking to develop transition plans for whole sectors, and has now completed several, including steel, cement and hospitality. A key next step is to operationalise these plans – combining policy, with industry commitments and finance made available. Identifying business change and estimating the capital required to achieve this is the easier part to deliver, but ensuring progress is being made is more difficult.

To address this, the City of London Corporation has recommended the development of a UK FPS (Financial and Professional Services Sector) Partnership Council, “a strategic partnership between government, industry and regulators” (City of London Corporation, 2023). Their proposed council would not only set out a strategy, but monitor progress against it, citing Singapore (Monetary Authority of Singapore, 2023) and EU (European Union, 2023) approaches to monitor and report progress on sustainable finance strategies.

Interviewees noted that increased collaboration also means difficult decisions can be made more effectively. Citing recent changes to EV policy, interviewees commented that a platform for regular, dialogue would have meant government could have explained its rationale for changes, seek feedback, and if necessary allowed industry to adapt. In the absence of partnership, course correction is difficult.

Public investment

The government has successfully deployed public funding to lower the costs (risk) of purchasing (investing) in green markets, for example the recent Green Industries Growth Accelerator (UK Government, 2023g). The challenge is partly rhetorical. Government claims it is market led, and will not go toe-to-toe with public investment for example in America (Honeycombe-Foster, 2023).

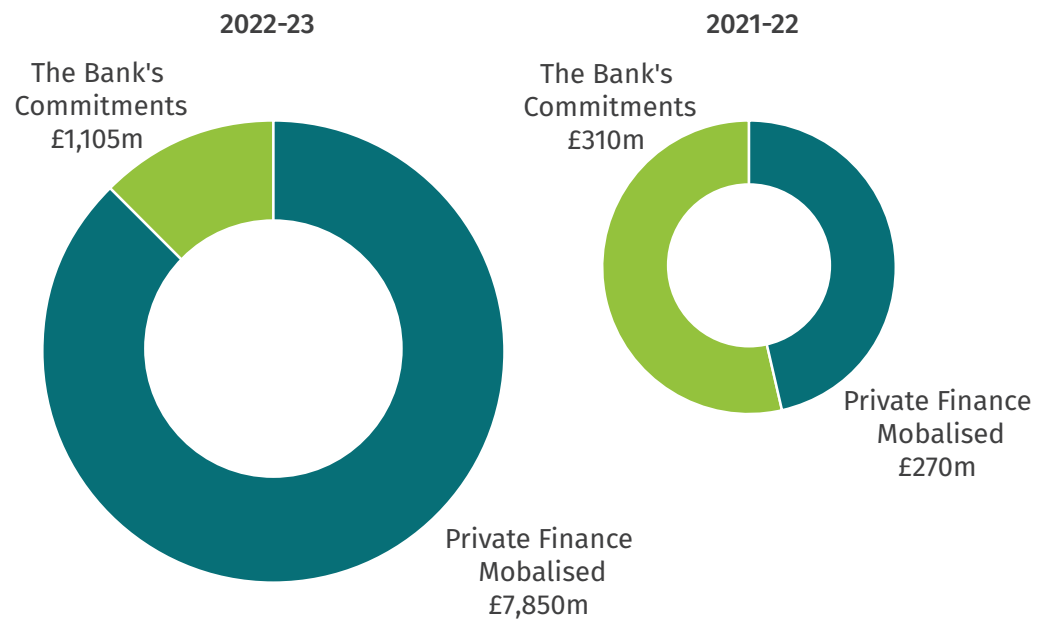
Here we look at two major policies from the UK Government, the UK Infrastructure Bank and the Green Gilt Programme.

Public sector banking – the UKIB

The UK Infrastructure Bank (UKIB) is a public investment bank dedicated to supporting net zero and levelling up through infrastructure investment. Its strategic plan sets out its aim to crowd-in private capital and generate a positive financial return, whilst supporting green infrastructure (UK Infrastructure Bank, 2022a). The UKIB has an important role to play in the transition. However, for the UKIB to play a fuller role in catalysing green lending and investment it requires an evolution of its mandate (Alvis & Murphy 2022).

UKIB publishes an annual report detailing its progress, with its performance against its investment principles. This includes that an investment “is expected to crowd-in significant private capital.” The latest report showed the progress UKIB made on this important investment principle in its second year relative to its first – a positive sign on the bank’s progress on mobilising private capital into various crucial sectors (UK Infrastructure Bank, 2023b). A state-owned investment bank continues to be a crucial institution.

Figure 2.4: UKIB investment summary 2022-23



Source: UKIB Annual Report and Accounts 2022-23

However, interviewees were keen to see UKIB crowd in more private capital. This would require a re-evaluation of the bank's risk appetite.

An investor's target return is linked to its risk appetite. As we show above, many of the green sectors in need of capital are nascent and therefore carry a higher risk premium. However, UKIB is currently constrained by a portfolio level return on equity target of 2.5-4.0 per cent, set by HM Treasury (UK Infrastructure Bank, 2022a). Although it can provide lower cost of capital than private sector firms, interviewees suggested its combination of a lower-risk appetite and commercial strategy means it may risk crowding out rather than crowding in private investment. Some higher-risk sectors, most in need of catalytic support, may not be feasible investments currently.

Interviewees had comments on other ways UKIB could be further empowered to achieve greater impact:

- UKIB having an extended or altered remit, enabling it to make riskier investments.
- Increasing capitalisation was stressed as important
- A potential separate fund, working at an earlier investment stage than UKIB, was also raised. This could be inside UKIB or separate. IPPR has previously recommended the creation of a National Investment Fund (NIF) to operate alongside UKIB and other state investment banks (Gasparin S and Dibb G, 2023).

Green gilt programme

Green bonds are debt instruments issued to raise finance to invest in 'green' projects. Globally green bonds are growing, last year was the first year that green bonds raised more than oil and gas financing, though oil and gas firms are currently cash rich (Quinson, 2022).

Gilts are bonds issued by the UK government. The UK government has successfully used green gilts to finance capital investment since 2021. The UK's first green gilt was 12 times oversubscribed (UK Government, 2021b). This means that, had the government planned to borrow more at that time, that up to £72 billion may have been available to invest in the green gilts programme which could have gone to public investment in the transition. Increased borrowing will be subject to the incumbent government's fiscal rules, but this level of enthusiasm for the issuance is positive.

The first green gilt issuance also priced lower than other government gilts, leading to an implied saving of £28 million to HM Treasury (HMT) versus issuing a comparable traditional gilt (Financial Times, 2022a). This should not always be expected with green gilts, and the associated premium should narrow as they become a regular occurrence.

The government borrowed £16 billion via green gilts in FY 2021/22, £9.9bn in FY 2022/23 and plans to borrow £10bn in FY 2023-24. Details of how the government spent the money raised via the green gilts is published in the annual Allocation and Impact Report (UK Government, 2023b).

Plans to seed a state-backed investment vehicle and to increase government spending on net zero could be done via the existing green gilt programme. Currently 50 per cent of the expenditure is earmarked for new green spend, and 50 per cent for expenditure that occurred in the 12 months prior (UK Government, 2021c). Government could change this to 100 per cent alignment to current and future expenditure. A future government could also plan to borrow more on an annual basis via green gilts.

Understanding different pools of private capital

For a government looking to be a more active investor in the transition, understanding when different pools of capital in the City would look to invest is important. This will support the state in targeting priority sectors that are particularly lacking. Figure 2.5 summarises different pools of capital that invest equity at different stages in the maturity of an infrastructure sector.

Debt is crucial too. Debt investors are more risk averse, and will require certainty on cashflow to invest in emerging infrastructure, and hence expect lower returns. Government can support through creating revenue streams (like with CfDs) or through lowering the cost of debt (through guarantees). Interviewees noted that it is more difficult to get debt into earlier stage technologies and infrastructure, but that cheaper debt is a crucial part of reducing the cost of capital. The growth of the UK's offshore wind market provides a good example of how this can support growth of a new asset class (Kingsbury, 2017).

If the state is seeking to mobilise private capital through co-investment, understanding the different pools of capital is particularly important. Such a vehicle may, for example, co-invest with firms delivering infrastructure during the construction phase of an asset, then, once operating, the state could sell its stake to a pension fund. Selling the asset will mean the taxpayer receives a return, commensurate to the risk taken on, and enable the fund to recycle the public capital, reinvesting it into catalysing the next priority sector.

Successfully exiting an investment would show future private equity funds the sector is a viable investment at construction stage, enabling the market to expand construction, without government needing to provide ongoing public money. This would move the sector to the right in Figure 2.2.

Figure 2.5: Illustrative investor landscape



	Venture Capital	Growth Equity	Infrastructure Private Equity	Infrastructure Investment Funds	Pension Funds
Illustrative Ticket size	\$10m-\$100m	\$50m- \$200m	\$100m-\$1bn	\$100m- \$2bn	\$200m- \$2bn
Stage of Asset Life and Types of Investments Targeted	<ul style="list-style-type: none"> • Project Development • Pre-Construction • Construction • Deep Tech • Tech Enablement 	<ul style="list-style-type: none"> • Project Development • Pre-Construction • Construction • Tech-Enabled Services • Advanced Manufacturing 	<ul style="list-style-type: none"> • Pre-Construction • Construction • Operational • Development Platforms • Asset Retrofits • Large Buyouts 	<ul style="list-style-type: none"> • Pre-Construction • Construction • Operational • Long-term Contracted Assets • Defensive Sector • Derisked Asset 	<ul style="list-style-type: none"> • Operational • Long-term Contracted Assets • Defensive Sector • Derisked Asset
Typical Required Return	25% +	20-25%	18-23%	10-15%	8-12%
Global Market Size/AUM/ Funding/ Investment	\$2.45tn (2022) AUM (Preqin, 2023a) \$128.3bn (funding raised 2021) (Reuters, 2022)	\$920bn (2021) AUM (Financial Times, 2022b) \$132bn (funding raised 2021) (McKinsey & Company, 2023)	\$4.2tn (2021) AUM (Preqin, 2023b) \$940bn (funding raised 2021) (Harvard Law School, 2022)	\$130bn (funding raised per annum) \$61trn (2022) AUM (Statista, 2022)	\$52.9trn (2021) AUM (Thinking Ahead Institute, 2022)
Time Horizon	3-7 Years	3-7 Years	5-10 Years	7-15 Years	12 + Years

Source: Green Finance Institute analysis

Case Study: Green investment bank offshore wind fund

Pension funds now regularly invest in offshore wind assets. This is because the long-term contracted asset provides the stable cashflow that pension funds require to meet their fiduciary duty.

As in any maturing sector, this was not always the case. In 2014, pension funds investing in UK offshore wind was a relatively new concept. The UK-government owned Green Investment Bank (GIB) stepped in and, instead of investing its own public capital, it raised a fund, meaning the GIB would be managing private capital for the first time.

At first financial close, GIB Offshore Wind (OSW) Fund had raised \$436 million of capital from UK pension funds and a sovereign wealth fund (Green Investment Group, 2015). Two operating assets were immediately transferred into the fund from GIB, Rhyl Flats (90 MW) and Sheringham Shoal (317 MW), selling equity stake respectively into the GIB OSW fund.

This proved the case for UK pension funds to invest into UK offshore wind, and pension funds now see offshore wind as a safe investment (Schroders, 2022). The final investment the fund made was a 44 per cent equity stake in

Lincs offshore wind farm (270 MW), bought from the private sector – Centrica and Siemens Project Ventures. At this stage, the investors included five UK local authority pension funds, managing the pensions of 700,000 UK citizens.

The state played a crucial role in catalysing the ability for long-term investors to invest in the offshore wind sector – first investing equity via the GIB, then managing the pension fund capital and selling the public stakes into this new fund. This allowed GIB to recycle its capital to invest into development of more new assets.

Financial regulators

UK regulation has predominantly focussed on mitigating risk, rather than driving particular outcomes or ‘good’. Yet, compared to other jurisdictions, the UK has an expansive view of climate risk, considering a broad range of impacts relevant and material. That has allowed for some significant progress from regulators in addressing climate change.

Regulation applies both to the financial sector directly and to the real economy which it is financing. That means investors must be aware and understand both. There was general consensus that the green finance regulations set out by the government in the Green Finance Strategy are good, but Table 2.2 covered the delays in their implementation. However, when these regulations are implemented, are regulators adequately resourced and collaborating enough to support their successful implementation and evolution?

State of the current regulators

The regulation of finance and green finance is spread across many actors. Below we focus on the Financial Conduct Authority, because of its centrality to regulation and how its challenges are emblematic of the others.

- The **Bank of England** is responsible for the monetary and financial stability. It oversees climate as a systemic financial risk, including performing climate stress tests and assessing if capability gaps exist in PRA-regulated firms. The **Prudential Regulation Authority** (PRA), a part of the bank, connects systemic risk to the financial soundness of firms – this includes specific financial industries like insurance.
- The **Financial Conduct Authority** oversees the conduct of financial markets and firms. It oversees individual firm disclosures. As well as its core regulatory objectives, the FCA has a subsidiary goal to develop policy ‘with regard to’ net zero.
- The **Pensions Regulator** protects workplace pensions to ensure members receive their expected benefits. They look at how pensions trustees should manage climate risk, disclose and support climate investment.

- Corporate governance is overseen by the **Financial Reporting Council** (FRC) including reporting, audit and actuary. They support best practice in climate risk reporting and governance. The FRC also manages the UK Stewardship Code, a voluntary code with a focus on ESG, that asset owners, asset managers and service providers can become signatories to.
- HMG will establish the **Audit, Reporting and Governance Authority** (ARGA) as the successor to the FRC. HMG intends to give ARGA statutory footing to operate on an independent basis.
- Financial regulators are also supported by the **Environment Agency**, the UK's environmental regulator, who work directly on climate and nature risk in the real economy.

While government sets the framework and laws which regulators operate in, the regulators are independent in how they develop, implement and oversee policy. This can mean regulators having multiple competing duties. The FCA has three regulatory objectives, consumer protection, financial integrity and effective competition. There is also a secondary objective recently added by the government to promote UK international competitiveness, and a further layer down a request to 'have regard to' net zero.

Differing duties imply trade-offs. Since Brexit, financial regulators have inherited new responsibilities and broader remits including climate disclosures, stretching resources (Fotherby, 2023). Interviews highlighted the FCA's strength in policy development, but also the need for more resources for the FCA to play a greater role in oversight and enforcement. One interviewee flagged that the US Securities and Exchange Commission in America has issued prominent greenwashing fines to big players like Deutsche Bank and Goldman Sachs (U.S. SEC, 2023; U.S. SEC, 2022); , while the FCA has not yet issued any. However, this should be balanced against the FCA's intended process, which is often more pragmatic, and aimed at resolving problems before they reach this stage. The FCA has been clear that they did not want to impose fines straight away (Financial News, 2022).

The FCA's recent guidance on sustainability disclosures and labels, in response to investor concerns that green terms were not well understood or always genuine, were received positively by the market. This relates specifically to the labels firms can apply to 'green' products, to avoid greenwashing and improve clarity (Financial Conduct Authority, 2023).

The EU's comparable regulation to achieve this was criticised for blurring the lines between labels and disclosures, leading to the European Commission recently consulting on updating their regime to potentially mirror the FCA's well-received approach on areas such as labels and naming and marketing rules (KPMG, 2023). This shows the leadership position that the UK can continue to take on these emerging regulations, even when a follower rather than the first to implement a new regulation.

Many consider the FCA a global leader in this area, and the regulator is putting significant resource into leading international work (IOSCO/ISSB) on sustainability standards. Interviewees agreed that the ISSB standards (IFRS sustainability standards) are important for international interoperability and could deliver a strong international baseline for reporting if endorsed on a consistent basis globally, giving investors consistent and comparable information for their investment decisions.

Interviews mentioned two emerging issues may face the FCA when it comes to green finance. The first is the connection of financial services which they oversee, to the real economy, which they do not have direct remit to oversee. The second is that a principles-based approach to regulation runs into difficulties with some green finance policies that can be more related to standardisation.

This is one of the reasons IPPR has previously suggested the regulation of climate transition plans should sit in a new regulator, or branch of government. (Alvis et al, 2023a) A different approach, but with the same goal could be to give more powers to the FRC/ARGA to do the same, as GTAG recommended as one option for the future institutional home of the UK Green Taxonomy (GTAG, 2023a).

Discussions around ESG regulations have become increasingly political and while independent regulators support government policy, this should not remove the state's responsibility and oversight when it comes to tackling climate change as a wider issue. Too much responsibility being given to the regulators can remove valuable data and information from government, such as decarbonisation finance barriers, that underpin industrial strategy.

Case study: Pensions industry

Occupational pensions schemes hold significant assets. The government has made progress regulating the sector to improve climate change governance, through the 2021 Pensions Act. This for example requires the publication of climate-related financial risk, and a statement of how schemes are addressing that risk (UK Government, 2021f). This provides a strong basis for regulating other financial institutions.

Both political parties are now recognising the potential value that the pensions industry could bring to infrastructure investment and supporting businesses to grow more broadly. This includes the Mansion House reforms, where the chancellor announced reforms that aim to unlock an additional £75 billion for high growth businesses from pension schemes, by increasing the allocation in default funds to unlisted equities to 5 per cent by 2030 (UK Government, 2023c).



The government has promised to consult on scheme consolidation or coordination to allow smaller schemes to invest in high-growth areas like green tech; is launching new growth funds for pension funds to access; and has updated guidance for example to the Local Government Pension Scheme on allocation to private equity investments (UK Government, 2023d). Similar recommendations were made in Labour's 'Start-up, Scale-up' review (Labour Party, 2022). Such efforts have success elsewhere for example IFM investors – a collective investment vehicle owned by 17 Australian pension funds. This could build on for example the experience of local authority pensions in a de-risked offshore wind sector.

Blended finance

Blended finance has traditionally been interpreted as a tool to support developing economies, but it is also relevant to the UK. Blended finance involves many different types of investments. The government's Green Finance Strategy defines it as *“a catch-all term that covers financial products or structures that combine different funding sources aimed at lowering the risk profile of specific companies or projects and ultimately attracting private capital”* (HM Treasury, 2023). The UKIB is a prominent example. Some of the conclusions in this paper, with public-private collaboration to scale investment, fit the definition of 'blended finance'.

A recent report from the LSE Grantham Institute set out a comprehensive, non-exhaustive list of public instruments and policy tools that can be used to catalyse private investment in blended finance models (Gordon, 2023).

Table 2.3: Catalytic instruments and policy tools that can be used in blended finance structures

Category	Instruments	Key features
Grants	- Repayable and non-repayable grants	Capital that is paid without any expected repayment or compensation
Unfunded instruments/contingent liabilities	- Guarantees - Insurance - First-loss facilities	Instruments to protect/compensate commercial investors for risk or loss
Anchor investment	- Pari passu [equal footing] equity or debt in sponsored funds and co-investment structures	Initial investment in a start-up, often to serve as a quality indicator to other, often more risk-averse, investors, or those less familiar with the potential investment(s)
Concessional return funded structures and securities	- Subordinated debt - Subordinated equity	Subordinated or junior capital protects senior investors by taking a lower ranking and hence prior losses on the value of the security
	- Securitisation	The process of transforming a pool of illiquid assets into tradable financial instruments either on a 'true sale' or 'synthetic' basis
Results-based incentives	- Outcomes contracts - Outcomes funds - Development impact bonds	Offer investors incentives to achieve the desired outcomes or results, tying at least a portion of payments to achievement
Policy instruments	- Tax credits - Subsidies - Risk reduction mechanisms eg. price floors	Incentives funded by government to offset market failures – either through direct payments or reductions in cost/tax rebates
Partnerships	- Syndication - Co-creation - Co-management	Typically, partnerships formed between MDBs/DFIs and commercial investors where the latter can benefit from the former's market knowledge, sourcing capabilities, or even their preferred creditor status

Source: (Gordon, 2023)

There is broad support to improve blended finance use and understanding. The Environmental Audit Committee recently recommended that that “Government should set out in one document all its different blended finance models, cross-checking them against its various sector roadmaps both to ensure that solutions are targeted towards the investment gaps that need to be filled, and also to ensure that institutions such as UKIB are supporting the right projects with appropriate levels of investment.” (Environmental Audit Committee, 2023).

Increasing effectiveness of public finance: guarantees over grants

Different types of blended finance can achieve considerably different leverage ratios of public to private capital. For example, interviews highlighted that repurposing public money set aside for grants, to be used as targeted debt guarantees, could improve the leverage ratio.

A state guarantee only ‘costs’ the exchequer if a loan defaults. Default rates on loans, particularly infrastructure loans, are historically very low. Moody’s provide an in-depth analysis of infrastructure loans across the world, demonstrating that the loan loss rate over a 20 year period is only around 1% in Western Europe (Kelhoffer, 2021). If this loss rate was experienced on loans made to green infrastructure developers, private investment from pension and insurance sectors could be crowded in by public finance at multiples that significantly exceed those seen under the current grant approach.

This would be a more effective use of public money. Several examples were provided, mainly focussing on encouraging lenders to provide debt to a sector that is struggling to access it due to a perceived risk, such as the lack of past performance data, making the more risk-averse debt investors apprehensive about lending.

An example is EV charging infrastructure. To date, local authorities (LAs) have heavily relied on public capital, provided either as direct government grants and/or loans from the Public Works Loans Board. The On-street Residential Charging Scheme (ORCS) has been the main form of grant available for LAs. ORCS originally provided up to a maximum of 75 per cent of project capital costs (falling to 60 per cent and now 50 per cent). LAs receiving ORCS funding have rarely used less than the maximum grant budget.

To encourage loans being made available to chargepoint operators instead, the grant money that is currently deployed could be repurposed to instead support guarantees provided by government (which can be scaled back when the market is more mature). The expected loan loss rate would not only reduce the upfront cost but would also result in a significant saving to

the taxpayer over the life of the infrastructure assets – which could catalyse an efficient debt market to continue the roll out of EV charging infrastructure across the UK.

Shifting focus of public finance also provides other opportunities. Grants sit on the 'production' side of IPPR's industrial policy framework. By using a guarantee and saving public money, grants could instead support consumers to, for example, purchase electric vehicles to use the chargepoints, hence sitting on the "purchasing" side of the framework.

This gives a more efficient approach to scaling up charging infrastructure in the UK. Similar approaches were described in other sectors and technologies, with specific nuances, as they move to the right on figure 2.2, away from being grant dependent.

This could be achieved through existing schemes. The existing UK Guarantees Scheme is managed by the UK Infrastructure Bank (UKIB). A survey of financial services firms, asking whether respondents were using the scheme, showed that this could be more widely accessed and understood. 86 per cent of respondents had heard of the scheme, but only 10 per cent had used it at the time (Hamilton, 2023).

Case study: Utilisation linked finance

Other innovative finance solutions to de-risk investment into charging infrastructure are also being developed, such as Utilisation Linked Finance (ULF), which solves for short-term demand concerns, and can also further reduce the reliance of this area on government grants (GFI, 2024).

Traditional financing structures that have been used to date in the EV charging infrastructure roll out have often resulted in installations of chargepoints following short term commercial returns in areas of high EV density, where demand already exists. This is driving a disparity in the speed of installation, leading to gaps in infrastructure. Key areas that risk being left behind are those that do not currently have high EV density, but need the infrastructure in order to transition. This includes rural areas and locations subject to seasonal fluctuations in visitor numbers. Failure to cater for future demand in these areas risks an unjust and delayed transition.

A key challenge to deploying charging infrastructure is utilisation risk. In particular, investors and installers have identified uncertainty of short to medium term utilisation rates, driven by lack of historic and forecasted data, as being a key barrier to installation in areas where traffic flows are less predictable.

ULF is an innovative financial solution that can de-risk investment in charging infrastructure in these identified areas, either through a loan or through asset finance. ULF can be structured so that payments are linked to the usage of the chargepoint, therefore, payment only commences once the chargepoints are revenue generating. The payments increase as utilisation grows allowing installers to build ahead of demand.

With a pilot ULF underway in EV charging infrastructure, the structure could be used to unlock investment for equipment in other sectors pivotal for the net zero transition in the future.

3. Action – What to do next

The main themes that emerged from our research, showing what is holding the City back from investing were:

- **Long-term strategy.** Without the long-term clarity for future growth or potential for returns, and investable transition plans, investors will not invest. The chopping and changing of previously-clear policy pathways has damaged investor confidence.
- **Catalytic public finance.** Regulation alone is insufficient to mobilise the level of capital required to meet the net zero challenge, yet is the core focus of government's efforts currently. Industrial policy should draw on a broad range of tools to meet the specific nature of the challenge, in this case emissions reductions, including mobilising appropriate private capital into priority sectors through blended finance solutions.
- **Sector-specific policy interventions.** Financial sector regulation is outpacing action in the real economy sectors, leaving private sector firms unable to take concrete steps beyond disclosure. More focus must also be given to solving sector-specific policy and regulatory barriers.
- **Partnership and monitoring progress.** The private sector is trying to manage increasing expectations, but with little government support or guidance, and no function to track investor confidence and growth of markets in a constructive way.

For the City to support industrial strategy, all stakeholders must recognise that there needs to be a greater balance of responsibilities between the state and the private sector, but crucially that this should drive greater ambition ie, additional behaviour to what the private sector was doing before (Mazzucato and Rodrik, 2023).

Our recommendations for how the City fit into an industrial policy approach are therefore:

1. The government and the financial sector need to work from the same page, with greater shared **understanding and collaboration.**
2. Government investment needs to **catalyse green markets** to crowd-in private finance. This means creating risk-sharing opportunities with the private sector, as it did for offshore wind, including through the government investing directly itself in priority sectors, when appropriate.
3. This should go in lockstep with the increased contribution and ambition expected from financial institutions through **green finance regulation** and, arguably more importantly for capital mobilisation, addressing **sector-specific financial barriers in the real economy to create the opportunity.**

This will then also provide the opportunity to drive **international interoperability and progress.**

3.1 Recommendations: Understanding and collaboration

To accurately monitor green investment levels, investor confidence and the impact of policies to stimulate investment, the government must prioritise setting up sector-based stakeholder councils. These councils must have the ability to support policy changes, co-create and operationalise solutions.

- 1. Publish an industrial strategy identifying priority sectors:** the cornerstone of catalysing investment is long-term clarity and clear plans for priority sectors. This should be set out in an industrial strategy, highlighting the main sectors for public-private collaboration to mobilise capital at scale and pace.
- 2. Sectoral pathways underpinning investment plans:** the work to develop sector transition pathways must be completed, to show the real economy outcomes the investment will be supporting. This must necessarily be done on a sector-by-sector basis, identifying the needs of each area as per Figure 2.3. These pathways will include estimates on financing needs and inform an investment flows tracking function.
- 3. Establish sectoral stakeholder councils:** the government must understand and streamline its coordinating function to deliver the sectoral pathways and accompanying investment plans. The Net Zero Council could incept these councils for those sectors that require public-private collaboration. These should function with the following core principles:
 - a. Government-set targets:** government sets the overarching steer for each priority sector group, eg. for energy, this could be net zero grid by 2035 (Conservative Party policy) or 2030 (Labour Party policy). This could be linked to CCC Carbon Budgets.
 - b. Transparency:** minutes, members and outputs from the groups must be published.
 - c. Ongoing information sharing:** once pathways are completed, the groups should continue to meet, using the tracking function to identify where policies are not having the desired effect. This could serve a similar role as the Low Carbon Finance Group did for renewable energy, but with a clear government mandate for each sector.
 - d. Balanced membership:** membership should comprise relevant practitioners in the financial services industry, entrepreneurs and industry experts, alongside trade unions and workers, who are crucial to the social partnership approach to industrial strategy, and policymakers who can act on recommendations with urgency.

4. **Tracking financial flows to inform policy making:** important for monitoring progress is the ability to track financial flows. This should be coordinated by HM Treasury. Flows should have three figures reported per sector each year: CCC estimated investment target/government intended investment target; cumulative financial commitments from public and private actors (including, but not limited to, transition plans by the private sector, and relevant lines in government budgets); and actual disclosed backward-looking investment figure. This data would be presented to sectoral stakeholder councils alongside contextual information on non-financial objectives. The purpose of tracking is not to meet the estimated target, but to understand why public finance and policy is mobilising more or less finance than expected.
5. **Begin Tracking Immediately:** the UK Government should build on its previous commitment to track green financial flows by tracking public investment into green industry through already established government green finance initiatives, such as the UK Green Gilt Programme, UK Infrastructure Bank and assigned government grant pots. Any private co-investment alongside this should also be immediately tracked.³
6. **Full transparency on progress:** annual financial flows data must be published and publicised, alongside the actions taken following discussions with sectoral stakeholder councils. This will enable scrutiny by independent bodies, such as the CCC, empower government-supported bodies such as the Green Finance Institute and UK Infrastructure Bank to develop solutions, and for the wider market to engage. This must be easy to find and regularly updated (we recommend annually in the first instance).

3.2 Recommendations: Catalyse green markets

Even with the clarity that an industrial strategy will provide, catalytic state investment is necessary to scale investment at pace.

The sectoral stakeholder councils are intended to identify financing needs, and reach agreement between the public and private sectors over what is required. The next stage from this is to identify the type of financing mechanism, whether that is public, private, debt or equity, and the appropriate combination. However, the current main vehicles are not adequately equipped to make the investments required to establish new green markets at pace.

³ The UK Green Taxonomy and Sustainability Disclosure Requirements are expected to require certain institutions to disclose their revenues, capex, loan book and portfolios against the UK Green Taxonomy. This is anticipated to be segregated by sector and activity – which may enable more granular tracking of the success of government policy to mobilise capital to certain areas, when used alongside Sectoral Pathways and targets. Once the Green Taxonomy and SDR are operational, they may be able to be used to track financial flows more accurately.

IPPR has previously recommended the formation of a National Investment Fund (NIF) (Gasperin S and Dibb G, 2023) to take a risk-appropriate approach to financing. Here, we set out recommendations for principles that such a publicly backed investment vehicle should be underpinned by:

- 1. Be focused on a private capital mobilisation ratio, not a returns target.** Focusing overtly on financial returns can mean public sector organisations become protective of balance sheets and don't take enough risk. A leverage ratio target across the NIF would ensure a focus on catalytic interventions that only the state can provide. Crucially this should be an average allowing the NIF to operate across different markets if needed. Home insulation for example is likely to have a lower ratio of 1:1, whereas surface transport is likely 1:8 (Cambridge Econometrics, 2021).
- 2. Recycle capital as sectors adequately mature.** The NIF by mandate should be aiming to step in to support market growth where the private sector is not investing currently, with targeted investment. It should be aiming to do something additional to the private sector rather than just aiming to replicate a private finance function with public funds. By co-investing equity and selling the asset to long-term patient capital once operational, the taxpayer earns a return on its investment and helps de-risk the asset class going forward, as was the case for offshore wind. This then frees up the NIF to re-invest in the next growth sector, catalysing further growth.
- 3. Identify and regularly review priority sectors.** Industrial strategy should have identified priority sectors, which will inform the initial investment remit for the NIF. This must be reviewed on an ongoing basis to ensure the market has not sufficiently matured such that involvement is crowding out private capital. We initially recommend a review of a sector 5-years after NIF's first investment.

This approach to state-backed equity co-investment referenced above must work alongside other crucial ways to build green markets and mobilise other forms of finance:

- 4. Repurpose grant money for more productive state support,** reusing money earmarked for grants to instead provide loan guarantees, reducing the cost of borrowing. This assessment will be possible by working with sectoral stakeholder councils to discuss appropriate state support for different technologies and infrastructure investments.
- 5. Support organisations to better access existing schemes.** The government must work with the private sector and update schemes if required, such as the UK Guarantee Scheme, to ensure they are accessible by the range of company sizes working in diverse sectors required for the transition.
- 6. Learn from international examples.** Potential models include the Loans Programme Office (LPO) in the US Department of Energy and the Clean Energy Finance Corporation (CEFC) in Australia. The LPO explicitly supports technologies that have yet to find a commercial market, both with financing, non-financial support for business development and

ongoing technical and project management advice. The CEFC is broader, resembling the UK Green Investment Bank. Although an independent bank with a clear investment mandate, directive funding from the Albanese government have been directed to specific challenges in scaling green tech, most notably recently through the ‘Rewiring the Nation’ programme to bolster electricity grids in each of Australia’s states. (Department of the Chief Minister, 2024).

3.3 Recommendations: Deliver wider policy and regulatory environment

Regulation will struggle to facilitate finance and shift its flow towards green alone, but it can play a supportive role in aligning incentives and reflecting priorities in the real economy.

This report has stressed the need for public-private socialisation to identify the barriers to financing the real economy. However, throughout the research it became clear there were obvious and immediate barriers government can address to begin the process.

- 1. Co-create solutions to sector-specific barriers.** Barriers are most evident in the sectors trying to grow rapidly, for example home heating and electric vehicles. The stakeholder councils should work together to create solutions to these barriers. Initial ones identified in our interviews and research include:
 - **Buildings:** Accelerating reform of Energy Performance Certificates (EPCs), to enable more accurate representation of benefits from energy efficiency measures. Readjusting the balance of policy levies from electricity to gas will also support an increase in demand, which simply having finance ready to invest will not solve itself, as will Minimum Energy Efficiency Standards. Other regulatory issues, such as legacy issues with Section 56 and 75 of the Consumer Credit Act, have made lenders nervous to provide finance for green home improvements.
 - **Transport:** For EVs, grid connections for EV charging, as well as planning and highways regulations, and discrepancy between the powers that local authorities have. This all adds to uncertainty and therefore dissuades investment and has further knock-on effects, for example people cannot benefit from charging at home, which typically is cheaper than using public charge points.
- 2. Deliver the Green Finance Strategy:** The 2023 Green Finance Strategy outlines the tools and policies required to support the greening of the UK financial sector. However, many crucial aspects have been delayed. The Government must commit to a timeline for delivery of these policies and implement this as soon as possible.

3. Level the playing field: Having been born out of private sector voluntary initiatives, regulation currently only applies to some financial institutions. Non-listed firms for example are not covered by climate related regulation. Voluntary initiatives do exist, for example the British Private Equity and Venture Capital Association (BCVA) helped set up the Private Equity Reporting Group (PERG), which seeks to hold members to similar standards. The lack of formal regulation, however, could still risk providing an incentive to ‘take-private’ and avoid regulation, and therefore for consistency government should consider widening the applicability of the policies set out in the Green Finance Strategy.

Our interviews gave no clear rationale for additional duties for current financial regulators. As discussed, existing duties are already numerous, and potentially in competition. Government has a role in helping regulators prioritise their duties, and the government may wish to revise and consolidate plans. However, the main concerns that emerged from our research were of potential resourcing constraints, if regulators are continued to be given wider responsibilities, and of coordination between financial and environmental regulators.

Financial sector regulators are already starting to collaborate. However, there is a role for **government to formalise regulatory collaboration and connect financial sector regulators with regulation of the real economy.** The TPT provides a model for this, as does the Climate Finance Risk Forum, jointly led by the FCA and PRA. Internationally, there are further examples such as the Network for Greening the Financial System and President Biden’s recently executive action in the US. (The White House, 2021). This latter example involves the Secretary of the Treasury, alongside the Chair of the Financial Stability Oversight Council convening relevant financial regulators to ensure both efficient sharing of financial risk but also coordinate current and required actions to tackle it.

UK regulators have independently begun working together and sharing information and produced joint papers on climate action. This can be empowered by resourcing and coordination from central government.

3.4 International opportunities

The City is the world’s leading green finance centre. Implementing the recommendations set out above will consolidate the UK’s position, especially as other countries seek to become more sustainable. However, other countries efforts will also create opportunities for the UK. Others will look to learn from the UK on implementing policies and regulation – as seen by the European Commission recently consulting on whether – as one of several options – to potentially recast the Sustainable Financial Disclosure Regime rules to align to the FCA’s approach to labelling.

Developing nations will not have the same level of resources as the UK to act and will require support. This need for both developed nations with strong financial centres and developing nations to align with emerging policies will provide an opportunity for UK soft power to support other nations. Catalysing new green markets will also open up investment opportunities both for the UK to attract Foreign Direct Investment into emerging clean industries in the UK, and for UK-based financial institutions to provide financing to developing nations. The UK used COP26 as a good platform for some of its key sustainable finance announcements, such as the TPT, and future COPs could do similar – alongside other international meetings. Below we include three specific ways the UK can leverage its position to support international progress.

- 1. Promote regulatory international interoperability:** With a proliferation of green finance regulation globally, and given combination of the UK's progress on green finance and the influence of the City, the UK has an opportunity to build a usable toolbox that can be used to support countries across the world, so the negative impacts of fragmentation are not felt across jurisdictions. GTAG set out the risks from lack of interoperability for the UK Green Taxonomy (GTAG, 2023b) , and the same applies for other tools. Promoting the work of the TPT presents a particularly important opportunity.
- 2. Advocate regulatory toolbox at international fora:** The UK has a seat at the table at leading global fora, such as the International Platform on Sustainable Finance (IPSF), G7, G20, Coalition of Finance Ministers for Climate and International Organization of Securities Commissions (IOSCO). The UK should offer to support and lead international interoperability efforts being coordinated by these groups, including, but not limited to, the G20's Sustainable Finance Working Group (which lists international interoperability as a goal), the Common Ground Taxonomy work via IPSF and the ISSB Working Group. This role will be undertaken by different actors in different circumstances, including HMT, ministers and the FCA, and efforts should be coordinated by a central team in HMT.
- 3. Develop additional institutional capability:** UK organisations such as British International Investment, the Private Infrastructure Development Group (PIDG) and GuarantCo are playing an important role providing a range of development finance interventions. These include direct private equity investment, infrastructure debt and guarantees. To help these organisations deploy more capital in more markets, there is an argument for new sector focussed capability that works with both investors and governments to develop more risk-sharing opportunities. These institutions would analyse barriers to capital flow and works with governments to develop solutions. As they develop viable sector pathways, this will support scale across regions to increase the supply of capital and lower friction costs for developing viable pipelines of projects.

Acknowledgments

The views expressed in this report are solely those of the authors. It was developed from contributions, insights and feedback from the market. Many thanks as well as to all of the financial institutions and market actors which made this report possible through their insights and feedback, including:

Association of British Insurers
Aviva
Aviva Investors
Bankers for Net Zero
Blackrock
British Private Equity and Venture Capital Association (BVCA)
Cantor Fitzgerald
CapGroup
Columbia Threadneedle Investments
Confederation of British Industry
DWS
E3G
Fidelity International
Global Counsel
Goldman Sachs
Hargreaves Lansdown
HSBC
Impax Asset Management
Invesco
Investec
J.P. Morgan
Legal & General
M&G
NatWest Group
Premier Miton Investors
Santander UK
Schroders
Schroders Greencoat
ShareAction
Standard Chartered Bank
UK Finance
UK Sustainable Investment and Finance Association (UKSIF)
WWF

References

- Alvis et al, Institute for Public Policy Research (2023a). The end of greenwashing.** <https://www.ippr.org/research/publications/the-end-of-greenwashing>
- Alvis et al (2023b) Making markets in practice, IPPR**
<http://www.ippr.org/research/publications/making-markets-in-practice>
- Financial Conduct Authority (2023) Sustainability Disclosure and Labelling Regime Confirmed.** <https://www.fca.org.uk/news/press-releases/sustainability-disclosure-and-labelling-regime-confirmed-fca>
- AP News (2023) California insurance market rattled by withdrawal of major companies.** <https://apnews.com/article/california-wildfire-insurance-e31bef0ed7eeddcde096a5b8f2c1768f>
- Butler, Chatham House (2023) Climate change threatens to cause the next economic mega-shock.** <https://www.chathamhouse.org/2023/07/climate-change-threatens-cause-next-economic-mega-shock>
- Cambridge Econometrics (2021) 'Putting the UK on course for net zero – a fairer, stronger and greener economy', private paper**
- Charge UK (2023) ChargeUK launches as the voice of the EV charging industry.** <https://www.chargeuk.org/post/launch>
- City of London Corporation (2023) Vision for Economic Growth – a roadmap to prosperity (theglobalcity.uk)**
- Committee on Climate Change (2020) The Sixth Carbon Budget: The UK's path to Net Zero.** <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf>
- Committee on Climate Change (2021) Independent Assessment of the UK Net Zero Strategy.** <https://www.theccc.org.uk/wp-content/uploads/2021/10/Independent-Assessment-of-the-UK-Net-Zero-Strategy-CCC.pdf>
- Department of the Chief Minister, Australian Capital Territory (2024) Rewiring the Nation.**
<https://www.dccew.gov.au/energy/renewable/rewiring-the-nation#:~:text=Rewiring%20the%20Nation%20is%20our,Australian%20Government's%20Powering%20Australia%20plan.>
- Dibb & Murphy, Institute for Public Policy Research (2023) Now is the time to confront UK's investment phobia.** <https://www.ippr.org/blog/now-is-the-time-to-confront-uk-s-investment-phobia>
- E3G (2022) The Spring Budget and the Retrofit Revolution: E3G Briefing.** https://www.e3g.org/wp-content/uploads/The-spring-budget-and-the-retrofit-revolution_E3G-briefing.pdf

Environment Audit Committee (2023) The financial sector and the UK's net zero transition.

<https://committees.parliament.uk/publications/42316/documents/210501/default/>

European Union (2023) Carriages preview | Legislative Train Schedule (europa.eu) <https://www.europarl.europa.eu/legislative-train/theme-a-europe-fit-for-the-digital-age/file-fintech-action-plan>

Financial News (2022) UK regulator's ESG boss says greenwashing fines 'will come'. <https://www.fnlondon.com/>

Financial Times (2022a) UK's debut 'green gilt' sale draws blockbuster demand. <https://www.ft.com/content/1683822e-aa50-4d0b-8c7a-ddc7d511962d>

Financial Times (2022b) Growth equity booms as investors embrace private markets. <https://www.ft.com/content/1683822e-aa50-4d0b-8c7a-ddc7d511962d>

Financial Times (2023) Lex in depth: how investors are underpricing climate risks (ft.com). <https://www.ft.com/content/899472a8-e5e2-4fde-bc91-7e548ba35294>

Ford (2023) Ford statement on 2030 | Great Britain | Ford Media Center Fotherby (2023) Managing climate risk.

<https://www.aldersgategroup.org.uk/content/uploads/2023/06/AG-Espresso-Briefing-Managing-climate-risk-D4.pdf>

Gasperin S and Dibb G (2023) Growing green: A proposal for a national investment fund, IPPR. <http://www.ippr.org/research/publications/growing-green>

Gordon (2023) Investing in our future: practical solutions for the UK government to mobilise private investment for economic, environmental and social policy priorities. LSE Grantham Institute

<https://www.lse.ac.uk/granthaminstitute/publication/investing-in-our-future-practical-solutions-for-the-uk-government-to-mobilise-private-investment-for-economic-environmental-and-social-policy-priorities/>

Green Finance Institute (2021) The Finance Gap for UK Nature.

<https://greenfinanceinstitute.co.uk/wp-content/uploads/2021/10/The-Finance-Gap-for-UK-Nature-13102021.pdf>

Green Finance Institute (2022) Guide to Electric Vehicle Infrastructure.

<https://www.greenfinanceinstitute.com/wp-content/uploads/2022/10/CDRT-Handbook-FINAL-1.1-13Oct22.pdf>

Green Finance Institute (2023a) Delivering Net Zero: Mobilising Public and Private Capital for Zero Emission Trucks.

<https://greenfinanceinstitute.com/wp-content/uploads/2021/12/Delivering-Net-Zero.pdf>

Green Finance Institute (2023b) Delivering Net Zero: Unlocking Public and Private Capital for Zero Emission Trucks.

<https://www.greenfinanceinstitute.com/wp-content/uploads/2023/11/Delivering-Net-Zero.pdf>

Green Finance Institute (2024) Utilisation Linked Finance.

<https://greenfinanceinstitute.com/>

Green Investment Group (2015) UK Green Investment Bank announces first close on world's first offshore wind fund.

<https://www.greeninvestmentgroup.com/en/news/2015/uk-green-investment-bank-announces-first-close-on-worlds-first-offshore-wind-fund.html>

Green Technical Advisory Group (2023a) Creating an institutional home for the UK Green Taxonomy.

<https://www.greenfinanceinstitute.com/wp-content/uploads/2023/10/GTAG-Final-Report-on-Institutional-Home.pdf>

Green Technical Advisory Group (2023b) Promoting the international interoperability of a UK Green Taxonomy.

<https://www.greenfinanceinstitute.com/wp-content/uploads/2023/02/GFI-GTAG-INTERNATIONAL-INTEROPERABILITY-REPORT.pdf>

Hamilton (2023) Energy Transition Investment Confidence: Mapping UK Government Decision-Making and Tracking Delivery | UKERC | The UK Energy Research Centre

Harvard Law School Forum on Corporate Governance (2022) Private Equity: 2021 Year in Review and 2022 Outlook.

<https://corpgov.law.harvard.edu/2022/02/09/private-equity-2021-year-in-review-and-2022-outlook/>

Honeycombe-Foster (2023) <https://www.politico.eu/article/jeremy-hunt-joe-biden-uk-chancellor-swipes-at-bidens-massively-distortive-inflation-reduction-act/>

HM Treasury (2023) Mobilising Green Investment - 2023 Green Finance Strategy.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1149690/mobilising-green-investment-2023-green-finance-strategy.pdf

InstaVolt (2022) InstaVolt secures £110m of debt funding to accelerate investment into EV charging infrastructure across the UK.

<https://instavolt.co.uk/instavolt-secures-110m-of-debt-funding-to-accelerate-investment-into-ev-charging-infrastructure-across-the-uk/#:~:text=15th%20June%202022-,InstaVolt%20secures%20%C2%A3110m%20of%20debt%20funding%20to%20accelerate%20investment,charging%20infrastructure%20across%20the%20UK>

Kelhoffer (2021) Examining Infrastructure as an Asset Class

<https://www.moodyanalytics.com/articles/2020/examining-infrastructure-as-an-asset-class>

Kingsbury (2017) Shaun Kingsbury on offshore wind: The coming of age of a new asset class (greeninvestmentgroup.com)

KPMG (2023) The European Commission's review of SFDR.

<https://kpmg.com/xx/en/home/insights/2023/09/the-european-commissions-review-of-sfdr.html>

Labour Party (2022) Start-up, Scale-up: Making Britain the best place to start and grow a business. https://labour.org.uk/wp-content/uploads/2022/12/WEB-17247_22-Start-up-review-v12-ALT-2.pdf

Long Finance (2023a) Global Financial Centres Index.

<https://www.longfinance.net/programmes/financial-centre-futures/global-financial-centres-index/>

Long Finance (2023b) Global Green Finance Index 12 Report.

<https://www.longfinance.net/programmes/financial-centre-futures/global-green-finance-index/>

Mariana Mazzucato and Dani Rodrik (2023) Industrial Policy with Conditionalities: A Taxonomy and Sample Cases.

https://www.ucl.ac.uk/bartlett/public-purpose/sites/bartlett_public_purpose/files/mazzucato_m._rodrik_d._2023._industrial_policy_with_conditionalities_a_taxonomy_and_sample_cases.pdf

McKinsey & Company (2023) A winning strategy for growth investors at a time of uncertainty. <https://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/a-winning-strategy-for-growth-investors-at-a-time-of-uncertainty>

Miller & Dikau, Institute for Public Policy Research (2022) Preventing a climate Minsky moment. <https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2022/03/Preventing-a-climate-Minsky-moment.pdf>

Monetary Authority of Singapore (2023) Sustainable Finance (mas.gov.sg)

Motor Fuel Group (2021) £400 million planned investment in 2800 ultra-rapid 150kw EV chargers across 500 sites in the UK over the next 10 years. <https://www.motorfuelgroup.com/400-million-planned-investment-in-2800-ultra-rapid-150kw-ev-chargers-across-500-sites-in-the-uk-over-the-next->

Murphy et al, Institute for Public Policy Research (2021) Fairness and Opportunity. <https://www.ippr.org/research/publications/fairness-and-opportunity>

Preqin (2023a) Venture Capital 2023 Global Report.

<https://www.preqin.com/portals/0/documents/preqin%20global%20report%202023%20venture%20captial.pdf>

Preqin (2023b) Global Private Equity Report 2023.

<https://www.preqin.com/insights/global-reports/2023-private-equity>

Quinson (2023) Green Bonds Take Big Lead Over Fossil-Fuel Debt Deals -

Bloomberg <https://www.bloomberg.com/news/articles/2023-07-05/green-bonds-take-big-lead-over-fossil-fuel-debt-deals?leadSource=uverify%20wall>

Reuters (2022) US venture capital deals notched all-time high \$330 billion in 2021. <https://www.reuters.com/business/finance/us-venture-capital-deals-notched-all-time-high-330-billion-2021-2022-01-14/>

Schroders (2022) How wind farms can power pension returns. <https://www.schroders.com/en-gb/uk/institutional/insights/how-wind-farms-can-power-pension-returns/>

Statista (2022) Managed Assets in Investment Funds Worldwide.

<https://www.statista.com/statistics/273704/managed-assets-in-investment-funds-worldwide/>

The Economist (2022) Many countries are seeing a revival of industrial

policy. <https://www.economist.com/special-report/2022/01/10/many-countries-are-seeing-a-revival-of-industrial-policy>

The Energy Efficiency Infrastructure Group (2021) 2021 Budget and Spending

Review. https://www.theeig.co.uk/media/1109/eeig_2021-budget-and-spending-review_0721.pdf

The Investment Association (2022) Investment Management in the UK 2022-

2023. <https://www.theia.org/research/publications/investment-management-in-the-uk-2022-2023>

The White House (2021) Executive Order on Climate-Related Financial Risk.

<https://www.whitehouse.gov/briefing-room/presidential-actions/2021/05/20/executive-order-on-climate-related-financial-risk/>

Thinking Ahead Institute (2022) Global Pension Assets Study 2023.

<https://www.thinkingaheadinstitute.org/news/article/global-pensions-soar-us56-trillion-record/>

UK Government (2021a) Net Zero Strategy.

<https://www.gov.uk/government/publications/net-zero-strategy>

UK Government (2021b) Second UK Green Gilt raises further £6 billion for green projects.

<https://www.gov.uk/government/news/second-uk-green-gilt-raises-further-6-billion-for-green-projects#:~:text=The%20order%20book%20was%2012,green%20bonds%20in%20the%20world.>

UK Government (2021c) Green Gilt Framework Design LP.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1002579/20210630_UK_Government_Green_Financing_Framework_-_large_text.pdf

UK Government (2021d) Greening Finance: A Roadmap to Sustainable

Investing (publishing.service.gov.uk)

UK Government (2021e) Chancellor: UK will be the world's first net zero financial centre - GOV.UK (www.gov.uk)

UK Government (2021f) The Social Security (Disclosable Events) (Amendment) Regulations 2021.

<https://legislation.gov.uk/uksi/2021/857/introduction/made>

UK Government (2022a) Autumn Statement 2022.

<https://www.gov.uk/government/topical-events/autumn-statement-2022>

UK Government (2022b) Tenfold expansion in chargepoints by 2030 as government drives EV revolution.

<https://www.gov.uk/government/news/tenfold-expansion-in-chargepoints-by-2030-as-government-drives-ev-revolution#:~:text=Backed%20by%20%C2%A31.6%20billion,find%20nearby%20chargepoints%20via%20apps>

UK Government (2023a) CCUS Investment Roadmap.

<https://assets.publishing.service.gov.uk/media/64a29b7d06179b00131ae94e/ccus-investment-roadmap.pdf>

UK Government (2023b) UK Green Financing Programme Allocation and Impact Report, 2023.

https://assets.publishing.service.gov.uk/media/651446cdb1bad4000d4fd916/HMT-UK_Green_Financing_Allocation_Impact_Report_2023_Accessible.pdf

UK Government (2023c) Chancellor's Mansion House Reforms to boost typical pension by over £1,000 a year.

<https://www.gov.uk/government/news/chancellors-mansion-house-reforms-to-boost-typical-pension-by-over-1000-a-year>

UK Government (2023d) Local Government Pensions Scheme.

<https://www.gov.uk/government/consultations/local-government-pension-scheme-england-and-wales-next-steps-on-investments/outcome/local-government-pension-scheme-england-and-wales-next-steps-on-investments-government-response>

UK Government (2023e) Transition Finance Market Review.

<https://www.gov.uk/government/publications/transition-finance-market-review>

UK Government (2023f) Energy Efficiency Taskforce Review.

<https://www.gov.uk/government/groups/energy-efficiency-taskforce>

UK Government (2023g) Billions of investment for British manufacturing to boost economic growth - GOV.UK (www.gov.uk)

<https://www.gov.uk/government/news/billions-of-investment-for-british-manufacturing-to-boost-economic-growth>

UK Infrastructure Bank (2022a) UKIB Strategic Plan 2022.

https://www.ukib.org.uk/sites/default/files/2022-06/UKIB%20Strategic%20Plan%202022%20-%20Full_1.pdf

UK Infrastructure Bank (2022b) DISCUSSION PAPER Our role in Natural Capital Markets.

https://www.ukib.org.uk/sites/default/files/2022-06/UKIB%20Strategic%20Plan%202022%20-%20Full_1.pdf

UK Infrastructure Bank (2023a) UKIB Strategy Update: Private Sector Investments.

<https://www.ukib.org.uk/sites/default/files/2023-09/UKIB-Strategy-Update-Private-Sector-Investments.pdf>

UK Infrastructure Bank (2023b) Annual report and accounts 2022-23.

https://www.ukib.org.uk/sites/default/files/2022-06/UKIB%20Strategic%20Plan%202022%20-%20Full_1.pdf

UNFCCC (2023) COP28 Agreement Signals “Beginning of the End” of the Fossil Fuel Era.

<https://unfccc.int/news/cop28-agreement-signals-beginning-of-the-end-of-the-fossil-fuel-era>

U.S. SEC (2022) SEC.gov | SEC Charges Goldman Sachs Asset Management for Failing to Follow its Policies and Procedures Involving ESG Investments

U.S. SEC (2023) SEC.gov | Deutsche Bank Subsidiary DWS to Pay \$25 Million for Anti-Money Laundering Violations and Misstatements Regarding ESG Investments

GET IN TOUCH

For more information about the Institute for Public Policy Research, please go to www.ippr.org

Institute for Public Policy Research

Registered Charity no. 800065 (England & Wales),
SC046557 (Scotland), Company no, 2292601 (England & Wales)

The progressive policy think tank