

# How to build a sustainable financial system: Reflections on a work in progress

Nick Robins, Professor in Practice, Sustainable Finance  
CUSP, 6 February 2020



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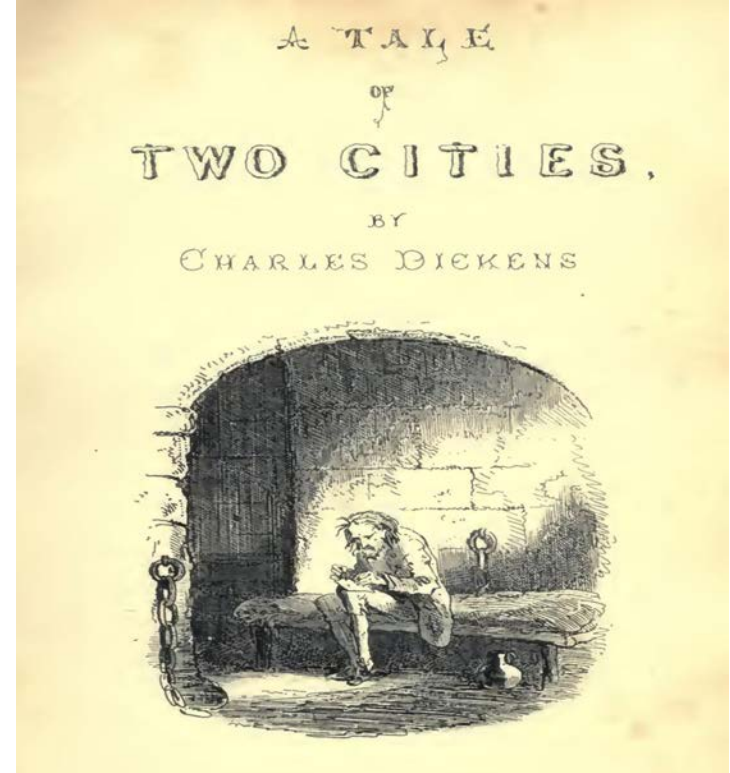


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# Building a Sustainable Financial System: a Tale of Two Cities

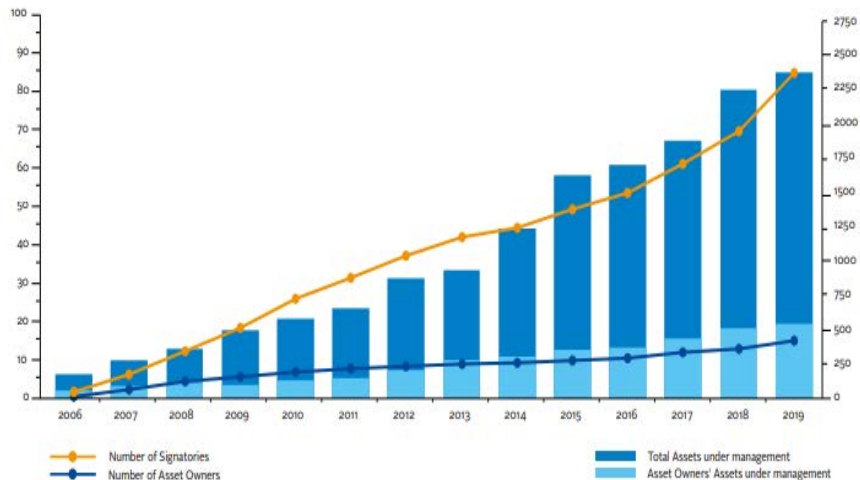
“It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of light, it was the season of darkness, it was the spring of hope, it was the winter of despair.”

**Charles Dickens,  
A Tale of Two Cities, 1859**



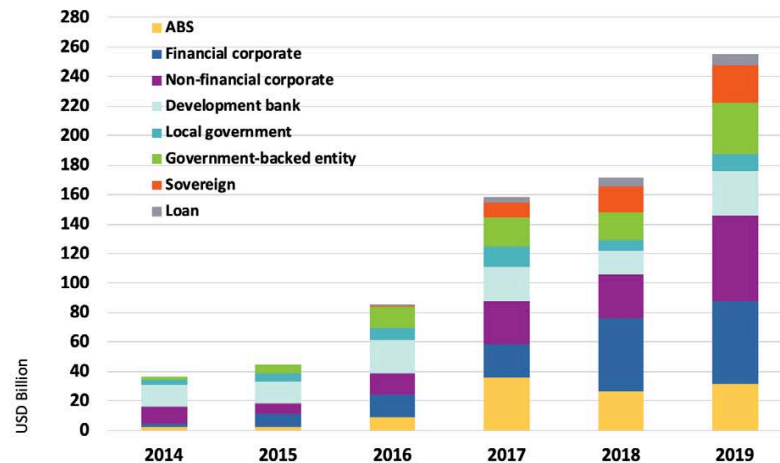
# Sustainable Finance: the Best of Times?

Never before has so much capital been committed to integrating environmental, social and governance factors in their operations...



As of April 2019

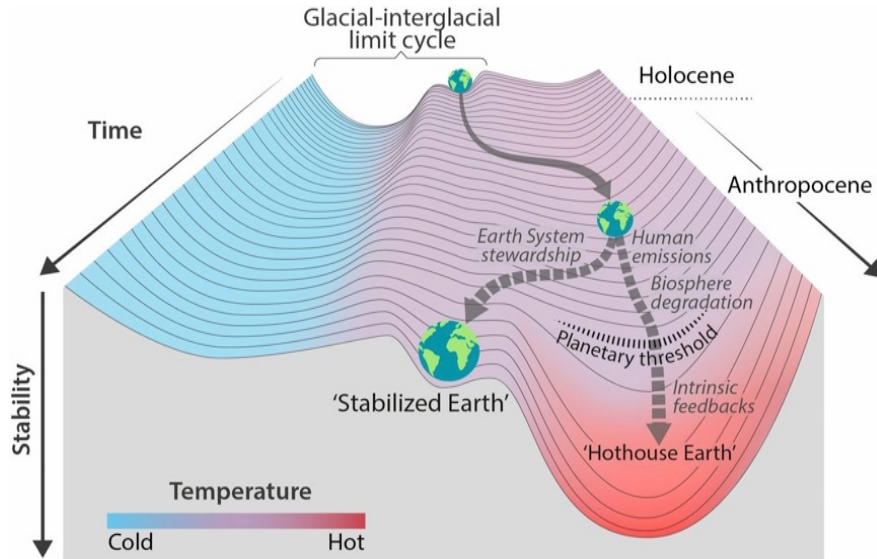
Green Bonds and Green Loans Issuance CY 2014-2019



Source: Climate Bonds Initiative. Data as of 31st Dec 2019.

# Sustainable Finance: the Worst of Times?

Never before has so much capital been out of alignment with long-term sustainable development...

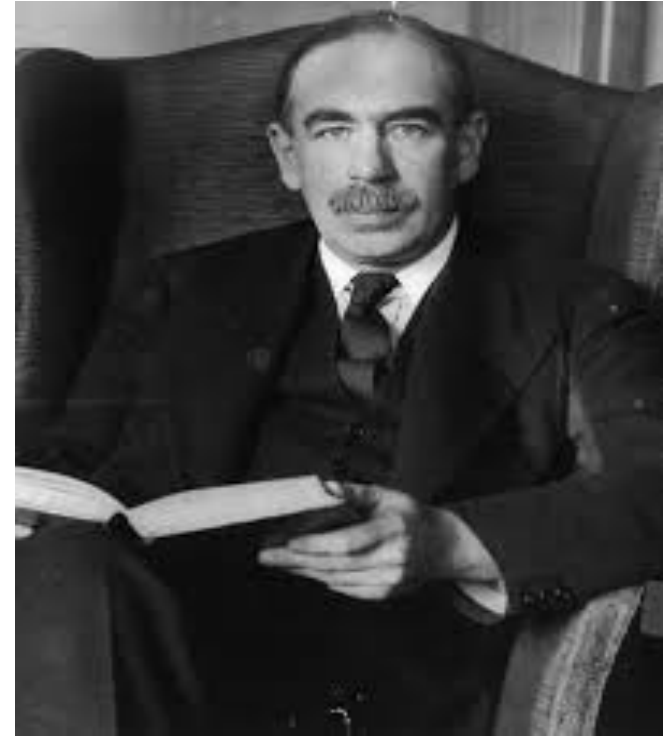


# Sustainable Finance: So What's Going On?

“It is the long-term investor, he who most promotes the public interest, who will in practice come in for most criticism, wherever investment funds are managed by committees or boards or banks.

Worldly wisdom teaches that it is better for reputation to fail conventionally than to succeed unconventionally.”

*J.M Keynes, General Theory, 1936*



# Key Themes for Today

- Designing a sustainable financial system
- Aligning the financial system with climate action
- Focus on the UK
- Taking stock: 2020 and beyond

# Designing a Sustainable Financial System



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# The Inquiry into the Design of a Sustainable Financial System

## NATIONAL ACTION



**CHINA:** green finance as a national strategy



**INDIA:** new tools for financing green energy



**ITALY:** dialogue on sustainable Finance



**MOROCCO:** roadmap for sustainable insurance

## THEMATIC ACTION

**Green Infrastructure:** supporting green asset pipelines



**Sovereign Debt:** environmental risks and credit ratings

**FinTech:** technological innovation and sustainable development

## INTERNATIONAL ACTION



G20 GERMANY 2017



SUSTAINABLE  
INSURANCE FORUM

## THE FINANCIAL SYSTEM WE NEED



**WORKING PAPERS (90+)**



**2015: 'ALIGNING THE FINANCIAL SYSTEM WITH SUSTAINABLE DEVELOPMENT'**



**2016: 'FROM MOMENTUM TO TRANSFORMATION'**



# The Imperative: Building a Comprehensive Approach to Finance

## ASSETS & ACTORS



**Banking**  
US\$135 tn



**Bonds**  
US\$100 tn



**Equities**  
US\$70 tn



**Investors**  
US\$100 tn



**Insurance**  
US\$29 tn

## MOBILISING CAPITAL REASONS FOR SYSTEM REFORM

*Climate policy,  
regulation & pricing*

*Public finance and  
development banks*

*Action within the  
financial system?*

### FIXING MARKET FAILURES

Correcting information asymmetries, short-termism, misaligned incentives

### PROTECTING STABILITY

Managing the threat to financial system functioning & stability

### SERVING THE REAL ECONOMY

Reconnecting with the needs of households, enterprise, public sector in a disruptive transition

# The Financial System We Need: Final Report

IMF/World Bank Annual Meetings, Lima, October 2015



**Mark Carney, Governor, Bank of England**

*“Green finance cannot be a niche”*

**Atiur Rahman, Governor, Bangladesh Bank**

*“Developing economy central banks have been trying to address the risks of instabilities and imbalances by promoting sustainable financing”*

**Yi Gang, Deputy Governor, People’s Bank of China**

*“China will advance green finance during its presidency of the G20 in 2016”*

# 2015: 10 Key Recommendations

1. Principles for a sustainable financial system
2. Disclosure standards convergence
3. Fiscal measures optimisation
4. Sustainability stress tests
5. Performance framework
6. Banking standards
7. Code on investor duties
8. Coalition for greening capital markets
9. Guidance for insurance regulators
10. International research collaboration



# 2017: Growing Global Momentum



## Agenda 2030 (SDGs):

Financing needs > US\$90 trillion in 15 years



## COP 21 Paris Climate Agreement:

Goal of making finance flows consistent with low GHG emissions and climate-resilient development



**China:** adopts “Guidelines for establishing a green finance system”

2016



## G20 Green Finance Study Group:

2016 summary report welcomed by G20 Finance Ministers, new tracks on Risk and Data



**FSB:** TCFD report released for public consultation

## European Union:

Sustainable Finance strategy, establishment of Expert Task Force



2017

2017



## G7 Italy 2017:

Green Finance on the agenda

# Aligning the Financial System with Climate Action



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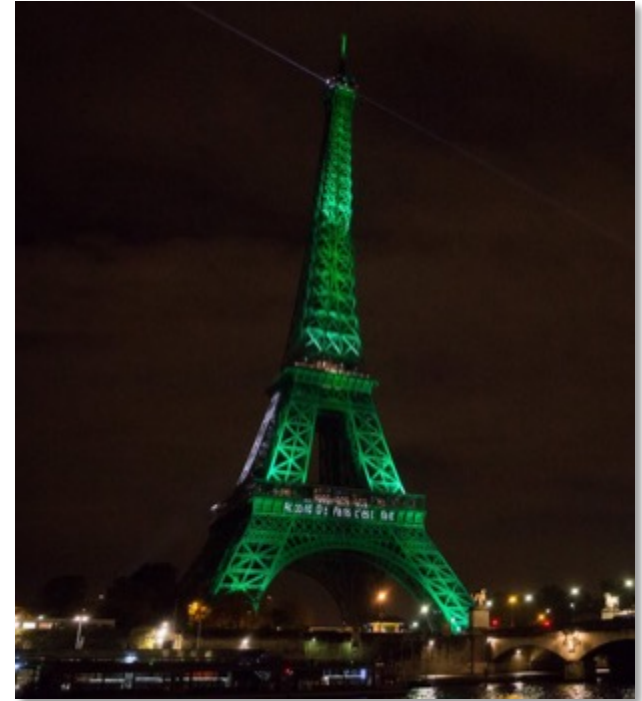
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# The Goal: Achieving Climate Consistent Finance

## Article 2.1.c of the Paris Agreement:

“This agreement...aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by:

**Making finance flows consistent** with a pathway towards low greenhouse gas emissions and climate-resilient development.”



# The Strategy: Orienting the Financial System Around the SDGs

## THE GLOBAL GOALS For Sustainable Development



**The Central Bankers Speak:** The “human & financial costs of climate change are having a devastating effect on our collective wellbeing”



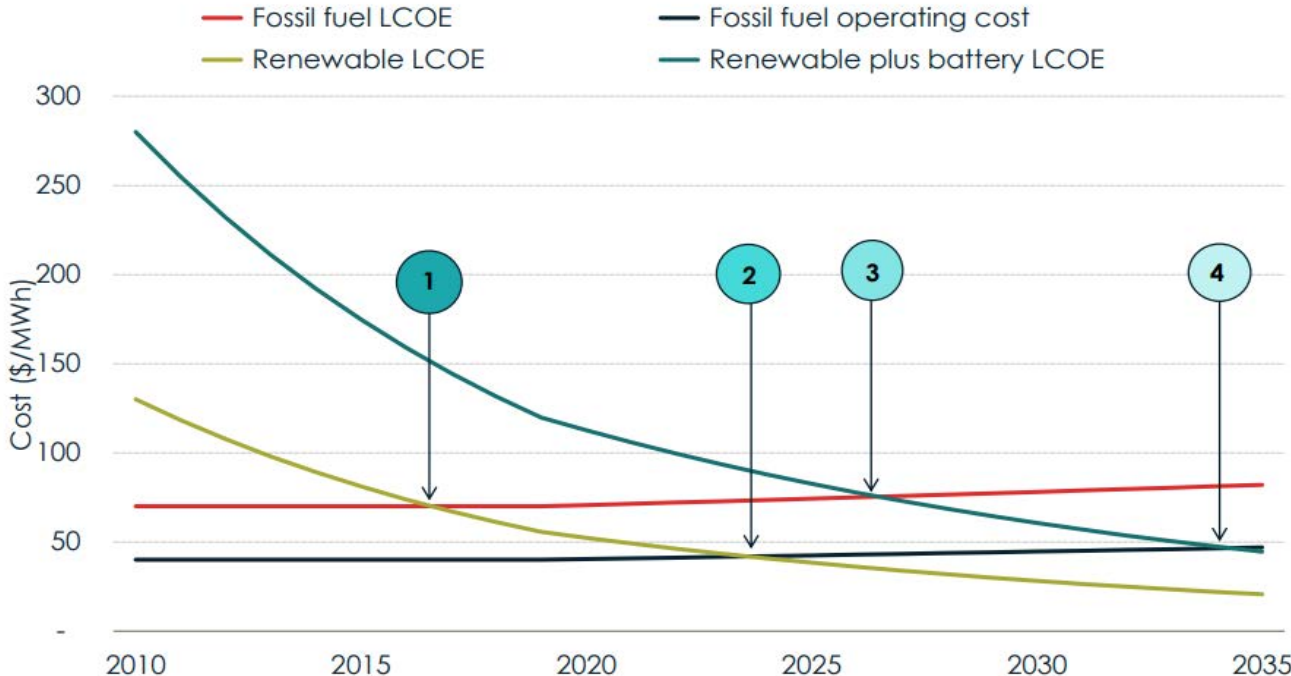


# The Just Transition: the Need for an Inclusive Approach

- The transition will bring **significant economic and social benefits**: \$26trn extra to global GDP, as well as 37m net additional jobs by 2030 (New Climate Economy, 2017)
- **Managed well**, the transition will boost growth, generate additional high-quality jobs, reduce inequality, improve health and avoid catastrophic climate damage
- **Poorly managed**, however, it could result in “stranded assets”, as well as “stranded workers”, “stranded communities” and “stranded countries”.
- **Paris Agreement**: ‘The imperatives of a just transition of the workforce & the creation of decent work and quality jobs in accordance with nationally defined development priorities’



# Technological Tipping Points Driving Capital Reallocation

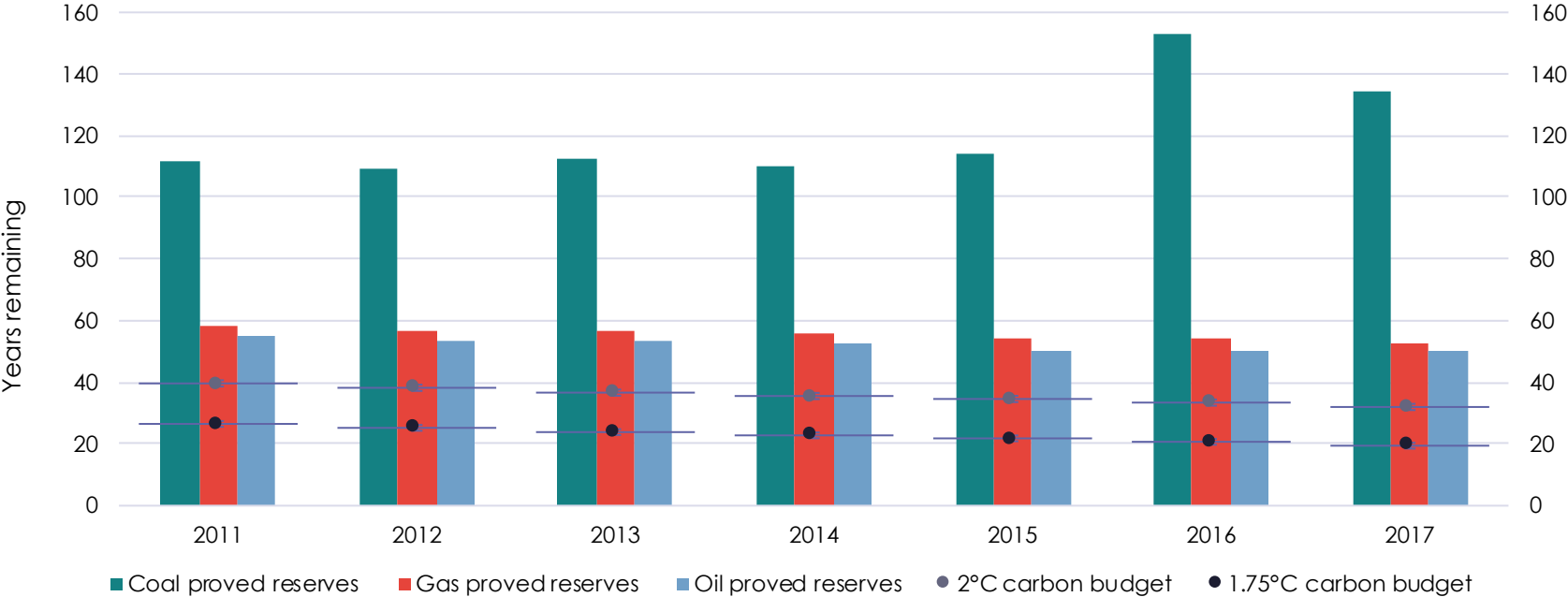


The levelised cost of energy from renewables is set to fall below the operating cost of producing power from fossil fuels in the early 2020s

Source: Carbon Tracker, 2019

# Stranded Assets are now a Critical Factor for Fossil Fuel Finance

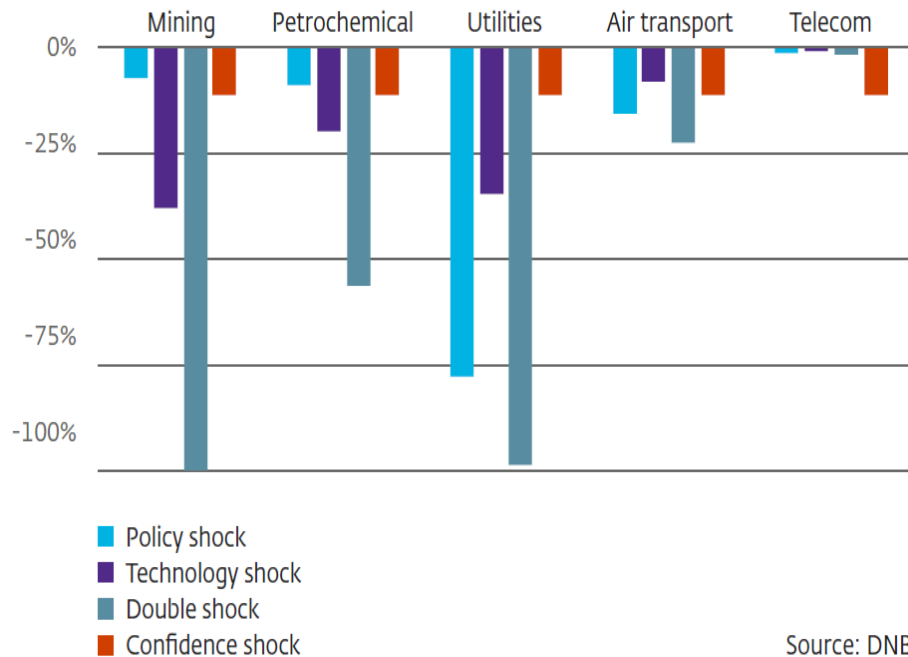
Despite the Paris Agreement and Carney's 'Tragedy of the Horizon' speech, the fossil fuel industry is not diverting from business as usual. There is an overhang in all fossil fuels, with coal reserves life exceeding the remaining "well-below 2°C" budget life by a factor of 7.



# Central Banks Focusing on Reducing Risk and Market Shaping

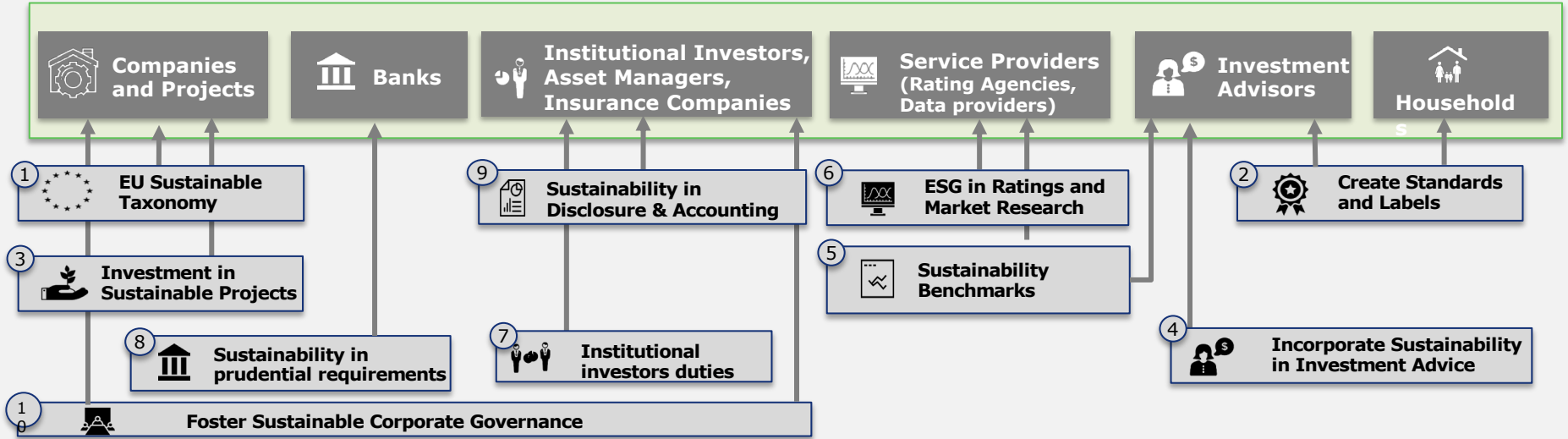
- 50+ central banks and supervisors, including, now part of the **Network for Greening the Financial System (NGFS)**
- Central banks and regulators are starting to assess the **micro- and macro-prudential risks from climate factors**
- Key tools include **disclosure requirements, climate stress testing and supervision**
- Central banks are also **integrating ESG into their own investments** and **exploring how to scale up green finance**
- Central banks starting to examine the **implications of climate change for monetary policy** (eg inflation, asset purchase programmes)


Energy Transition Risk Stress Test by DNB:  
Impact on Equity Prices





Source: DNB

# The EU: Changing the Financial Rules of the Game



**1**  Reorienting capital flows towards sustainable investments

**2**  Mainstreaming sustainability into risk management

**3**  Fostering transparency and long-termism

# The European Green Deal: a Core Focus on Finance

“We want to really make things different. We want to be the frontrunners in green financing.

But we also have to be sure that no one is left behind. In other words: This transition will either be working for all and be just, or it will not work at all. And therefore, a crucial part in the European Green Deal is the Just Transition Mechanism.”

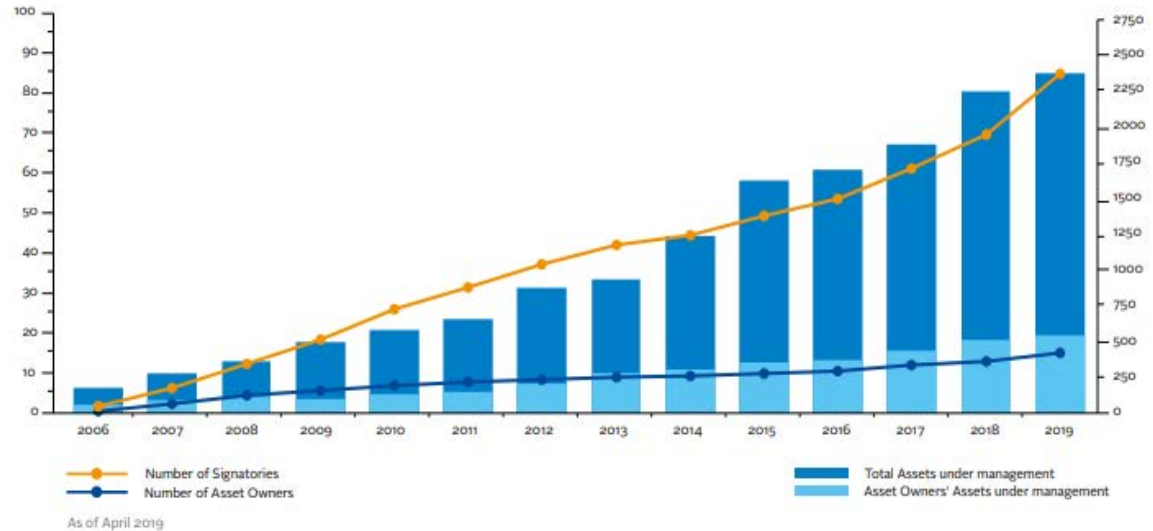
**Ursula von der Leyen, December 2019**



# Institutional Investors are Increasingly Committed – and Active

- Climate change is the highest priority ESG issue facing investors. **The PRI** is working to help investors protect portfolios from risks and to expose them to opportunities in the shift to a low-carbon global economy.
- **Climate Action 100+** is an investor initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. To date, more than 370 investors with more than USD \$41 trillion in assets under management have signed on to the initiative.

PRI signatories' assets under management (left axis) and number of signatories (right axis)



# Investor Support for the Just Transition

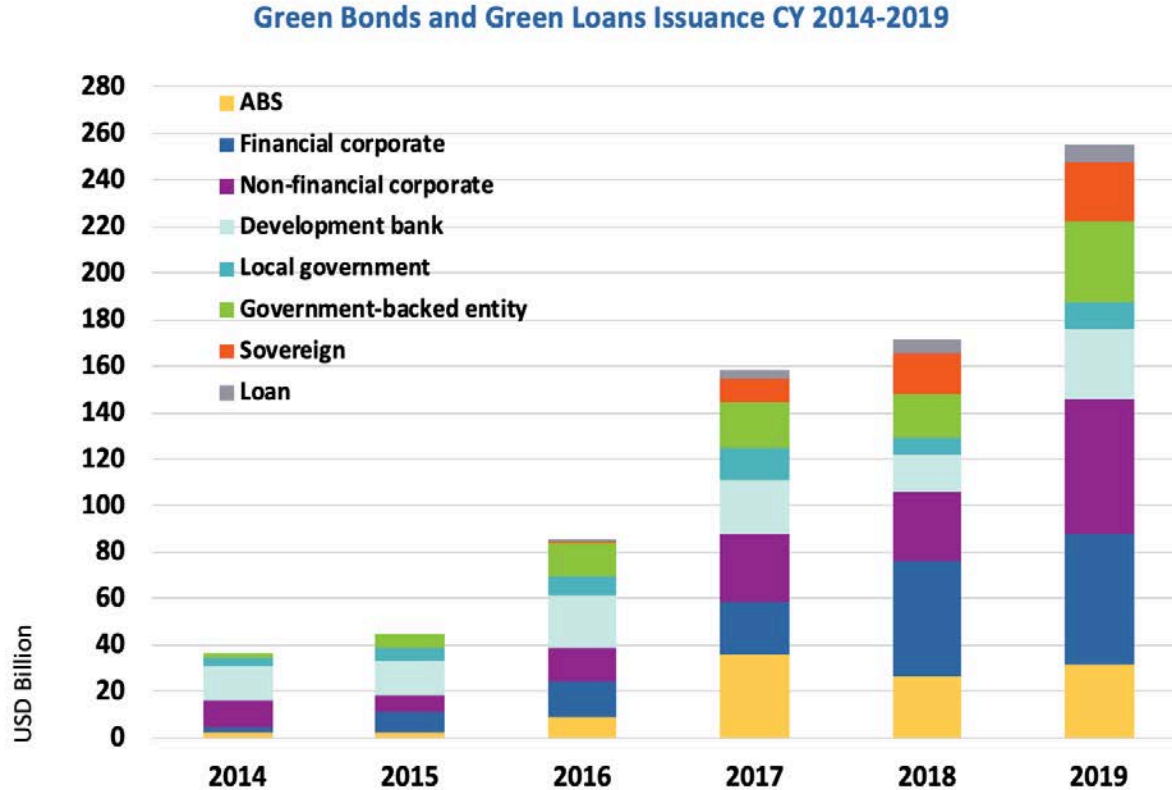
- The Statement of Investor Commitment to Support a Just Transition on Climate Change  
Currently signed by **159 institutions with more than \$10 trillion in AUM.**

<https://bit.ly/2QbVY9Q>





# Green Bonds: New Markets are Reallocating Capital



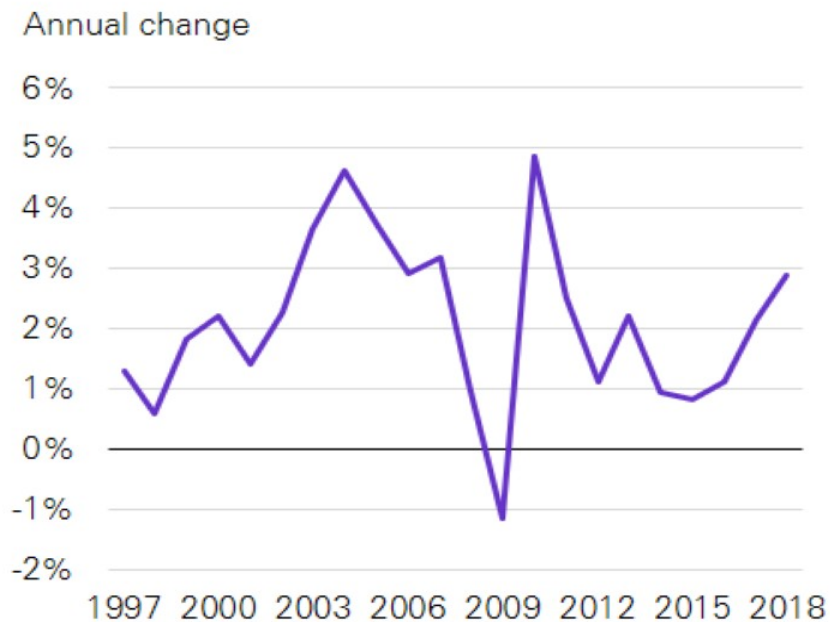
Source: Climate Bonds Initiative. Data as of 31st Dec 2019.

# The Harsh Reality: Carbon Pollution Continues to Increase

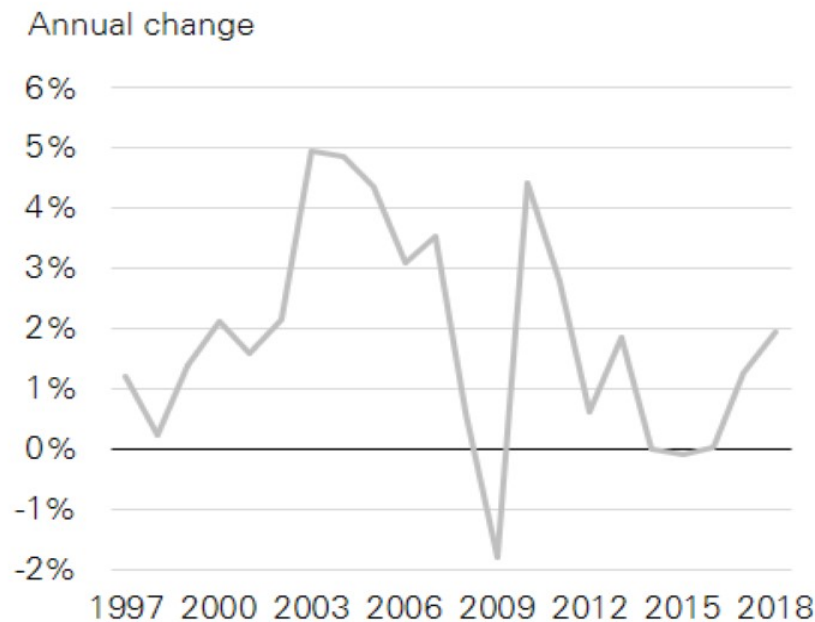
## Growth in primary energy and CO<sub>2</sub> emissions



Primary energy growth



CO<sub>2</sub> emissions from energy use



# A Focus on the UK

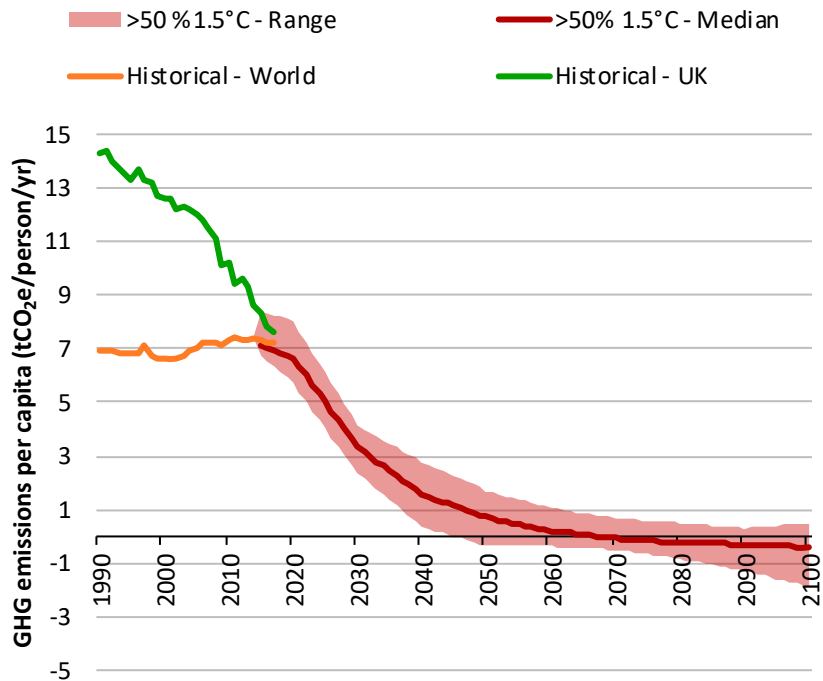


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# Finance: a Crucial Role in Reaching Net Zero by 2050



Source: Committee on Climate Change, May 2019

## Increased Quantity of Capital

1% of GDP - extra UK investment requirement in 2050 according the CCC's net zero report

## Improved Quality of Capital

More long-term and integrating environmental and social factors

**Mark Carney:** “The development of a more sustainable financial system is not moving fast enough for the world to reach net zero.” 8 October 2019

# The Scorecard: how is the UK Performing in Climate Policy?

	Target	Actual	Met?
Renewable energy	85 TWh	96 TWh	Yes
Car emissions (new cars)	107.5 gCO <sub>2</sub> /km	124.5 gCO <sub>2</sub> /km	No
Direct emissions from industry	8% below 2012 levels	13% below 2012 levels	Yes
Lofts insulated	545,000 per year	43,000	No
Walls insulated	290,000 per year	100,000	No
Agricultural non-CO <sub>2</sub> emissions	37.2 Mt CO <sub>2</sub> e	30 Mt CO <sub>2</sub> e	No
Afforestation	15,000 ha	13,400 ha	No
Landfill emissions	74% below 2007 levels	62% below 2007 levels	No

Source: Committee on Climate Change, July 2019

# The UK: Green Finance Strategy

- **Greening Finance:** expectation that all large companies and asset owners report according to TCFD by 2022
- **Financing Green:** establishing Green Finance Institute; seed capital for building efficiency
- **Brexit:** Strategic questions about regulatory alignment with EU, a National Investment Bank post-EIB
- **“Levelling Up”:** “It is vital we make sure that this clean growth is inclusive, benefitting people across the UK”



# Pensions Funds in the Vanguard: Northern LGPS

- **Net Zero:** The Northern LGPS's goal is for 100% of its assets to be compatible with net zero by 2050.
- **Just Transition:** “The Northern LGPS will also give consideration to supporting the objectives of a Just Transition to a low-carbon economy, and will actively engage with the social aspects of responding to climate change. We consider this fits well with our objective of seeking to ensure a **regional dimension** to our Responsible Investment activities.
- **Place:** The Greater Manchester Pension Fund allocated 5% of its assets to an Impact Portfolio to have a positive local impact, as well as generate a commercial return.



BB Scaffolding Services, a Manchester-based business and one of GMPF's impact investments through the Enterprise Ventures SME Loans Fund

# Banking Sector Starting to Shift

- The new Principles for Responsible Banking signed by 130 banks with \$47 trillion in assets, including in the UK
- **Sustainable Improvement Loans:** ING was the first to arrange a loan for Philips with a margin linked to the company's sustainability performance improvement.
- **Green Mortgages:** Barclays launched a green mortgage with a 10 bps discount for new properties with EPC A or B.
- **Green Business Lending:** Lloyds has launched a green lending product offering a 20bps lower interest rate.
- **Green, Social & Sustainability Bonds:** RBS has issued a social bond focused on SMEs in deprived areas



PRINCIPLE 1:  
**ALIGNMENT**



PRINCIPLE 2:  
**IMPACT &  
TARGET SETTING**



PRINCIPLE 3:  
**CLIENTS &  
CUSTOMERS**



PRINCIPLE 4:  
**STAKEHOLDERS**



PRINCIPLE 5:  
**GOVERNANCE  
& CULTURE**



PRINCIPLE 6:  
**TRANSPARENCY &  
ACCOUNTABILITY**



# Green Bonds in the UK: not in the Top 20 but Potential for Expansion?

## A UK Sovereign Green Bond in 2020?

A UK sovereign green bond or broader sustainability bond could provide an important signal ahead of COP26 in Glasgow.

## Growing corporate green bond issuance?

Yorkshire Water listed its first sustainability bond on the London Stock Exchange in April 2019

The company will spend the money on projects that have an environmental or social benefit, or both

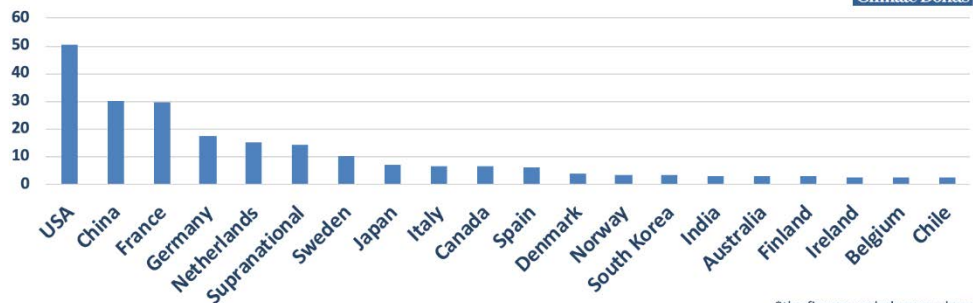
The £350m issuance with 22 year tenor was five times oversubscribed

## A Green municipal bond market?

The UK lacks the thriving municipal 'green bond' market that can be found in other European countries (such as Sweden).

Crowdfunding models could, however, change this. A model is currently being trialled by Leeds City Council that would see solar arrays funded by a crowd-funded municipal bond.

Top 20 2019 Green Bond Issuance (USD bn) as at 31st December



\*the figures exclude green loans

# The Bank of England: Stress Test and Temperature Alignment



Guidance also specifies that participants would estimate the temperature alignment of their current portfolio.

Climate risk variables		Macrofinancial variables	
Physical variables	Transition variables	Macroeconomic variables	Financial market variables
<ul style="list-style-type: none"> <li>• Global and regional temperature pathways.</li> <li>• Frequency and severity of specific climate-related perils in regions with material exposure (including UK flood, subsidence and freeze).</li> <li>• Longevity.</li> <li>• Agricultural productivity.</li> </ul>	<ul style="list-style-type: none"> <li>• Carbon price pathways.</li> <li>• Emissions pathways (aggregate, and decomposed into world regions and sectors).</li> <li>• Commodity and energy prices (including renewables), by fuel type.</li> <li>• Energy mix.</li> </ul>	<ul style="list-style-type: none"> <li>• Real GDP (aggregate and decomposed by sector).</li> <li>• Unemployment.</li> <li>• Inflation.</li> <li>• Central bank rates.</li> <li>• Corporate profits (aggregate and decomposed by sector).</li> <li>• Household income</li> <li>• Residential and commercial property prices.</li> </ul>	<ul style="list-style-type: none"> <li>• Government bond yields for major economies.</li> <li>• Corporate bond yields for major economies (investment grade and high yield).</li> <li>• Equity indices.</li> <li>• Exchange rates.</li> <li>• Bank Rate.</li> </ul>

# The UK: the Transition Needs to be Fair and Seen to be Fair

*“If the impact of the move to net-zero emissions on employment & cost of living is not addressed & managed, & if those most affected are not engaged in the debate, **there is a significant risk that there will be resistance to change, which could lead the transition to stall.**”*

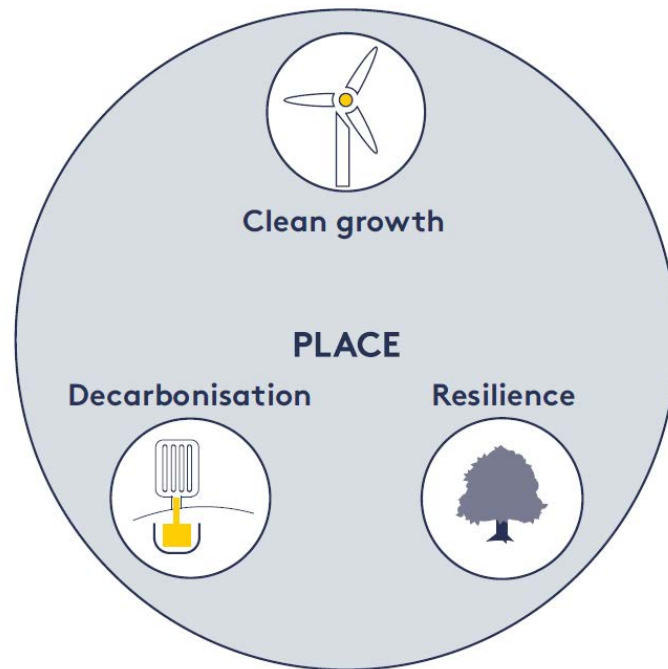
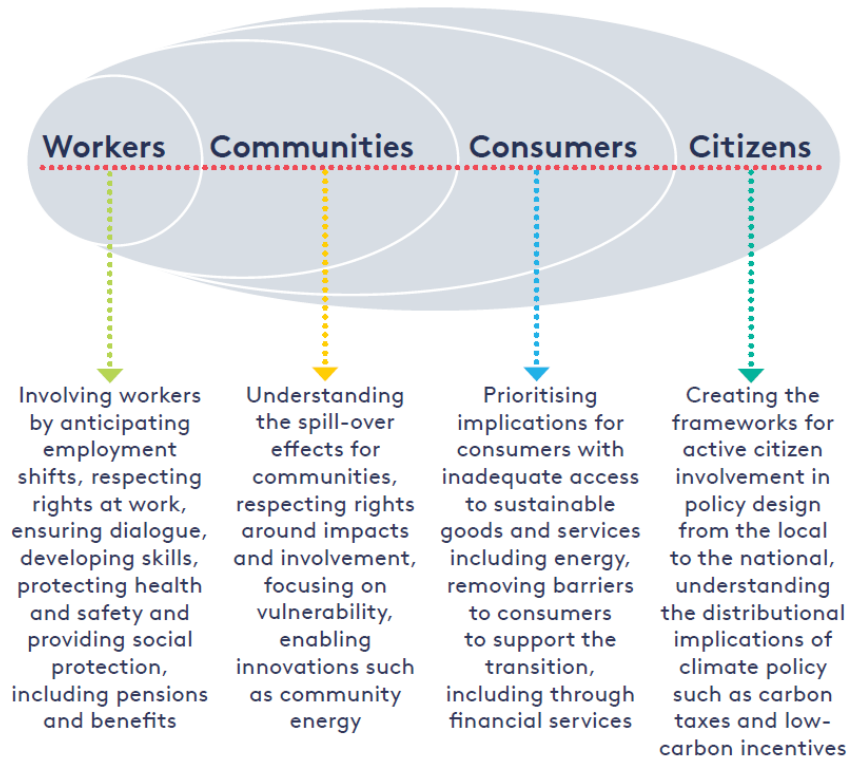
*“HM Treasury should develop a strategy to ensure **this is fair, and is perceived to be, fair.***

*A broader strategy will also be needed to ensure **a just transition across society**, with vulnerable workers and consumers protected.”*

**Committee on Climate Change, May 2019**

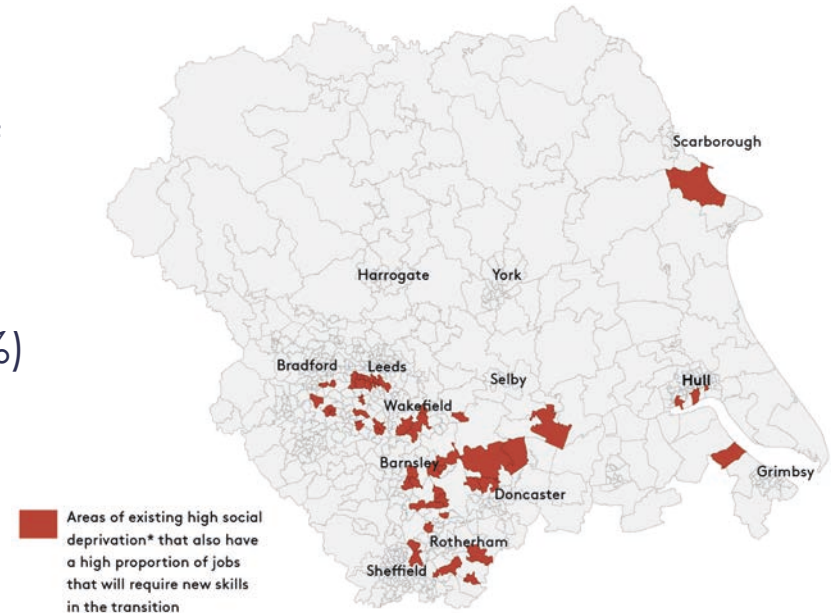


# Financing the Just Transition: Key Elements



# Sizing the Challenge: 1 in 5 of UK Jobs could be affected

- **Scale:** Around 6 million people have skills for which demand could grow or require reskilling in the transition
- **Regions:** The East Midlands, West Midlands as well as Yorkshire and the Humber have the highest proportions of jobs exposed
- **Sectors:** Construction (60%), manufacturing (50%) and transport (46%) most exposed
- **Place:** Some of the jobs requiring reskilling could be areas already with high deprivation



# Financing Place-based Climate Action: Focus on Yorkshire

Decarbonisation	<b>Drax Power Station, Selby</b> , <i>listed equities</i>
	<b>Advanced Manufacturing Research Centre, Sheffield</b> , <i>listed equities</i>
Clean growth	<b>Siemens Gamesa &amp; Green Port, Hull</b> , <i>listed equities</i>
	<b>Wellington Place, Leeds</b> , <i>real estate</i>
	<b>Citu, Leeds</b> , <i>real estate</i>
	<b>Energise Barnsley, Barnsley</b> , <i>fixed income</i>
Resilience	<b>Yorkshire Water</b> , <i>fixed income</i>

Location of our seven case studies within Yorkshire and the Humber



# The UK Investor Roadmap: Priorities for Action

- **Investment Strategy** – set clear investor expectations on the just transition.
- **Corporate engagement** – use shareholder voice to drive the just transition across the economy.
- **Capital allocation** – deploy capital to support positive social and environmental impacts.
- **Policy advocacy** – call on the UK government to introduce a strategic framework for the just transition.
- **Learning and review** – establish effective ways of listening to, learning from and partnering with stakeholders.



# How to make a difference in 2020?



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# COP26/Climate: Finance and Investment Priorities

1. **Secure net zero alignment as the system target:** through forceful stewardship, capital reallocation, accountability.
2. **Accelerate the pace of system change:** work with regulators and policymakers to reconnect with the real economy.
3. **Channel finance to the South:** work with development banks to build the pipeline of investable assets.
4. **Prepare for disruptive shocks:** climate impacts already eroding assets; abrupt policy & market action the norm.
5. **Broaden the scope of climate action:** think beyond energy to the whole economy and consider the social dimension.



United Nations Framework  
Convention on Climate Change

COP 26



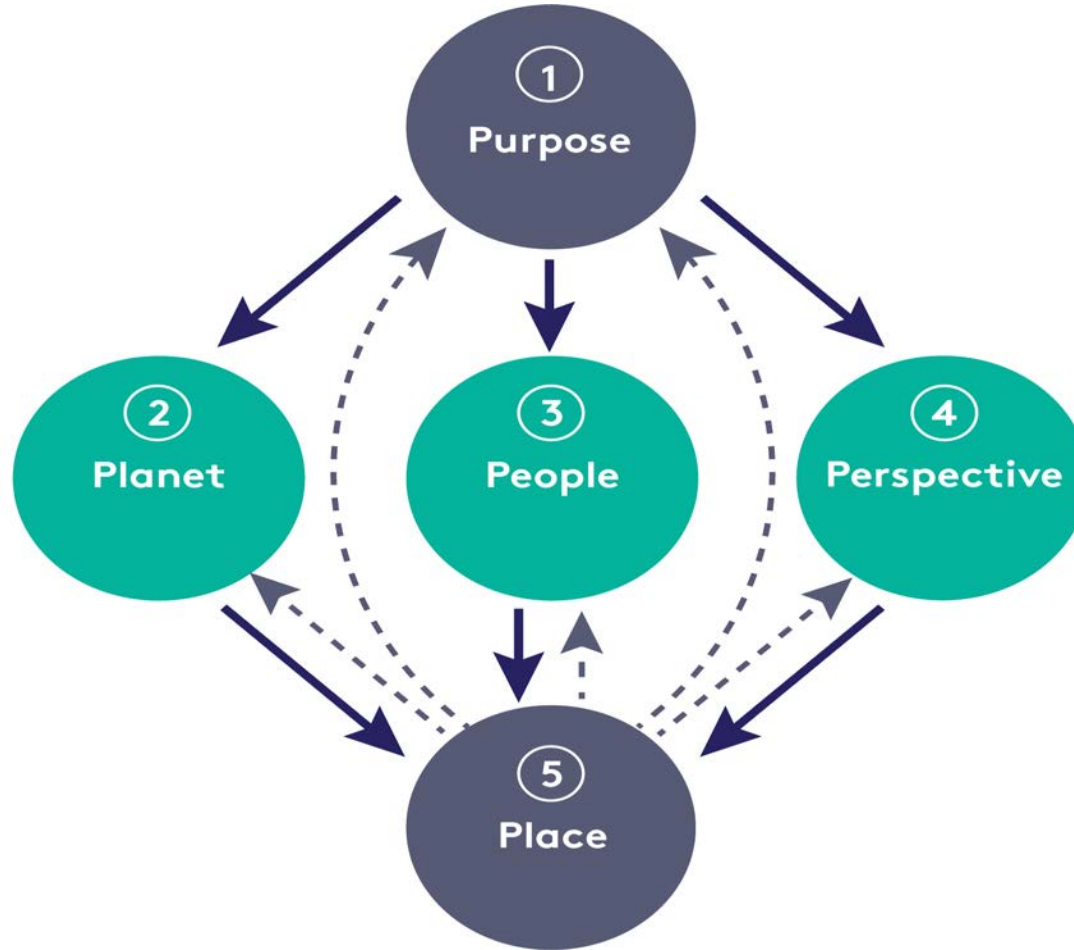
# COP15/Biodiversity - Finance and Investment Priorities

1. **Assess system dependence on natural capital:** soil degradation, water quality & conservation, species loss.
2. **Integrate natural capital across asset classes:** listed equities, sovereign bonds, agriculture & forestry
3. **Back nature-based solutions to climate:** engage with companies to stop deforestation in supply chains
4. **Advocate for policy reforms that value nature:** far behind climate, includes agriculture policy and central banks.
5. **Support financial innovation:** encourage operational ways of supporting conservation in new funds and issuance (eg sovereign green bonds).

## Convention on Biological Diversity



# Conclusion: Critical Next Steps for a Sustainable Financial System



## Epilogue: Be bold, be open, experiment, take action

“There is no reason why we should not feel ourselves to be free to be bold, to be open, to experiment, to take action, to try the possibility of things.

And over against us, standing in the path, there is nothing but a few old gentlemen, tightly buttoned up in their frock coats, who only need to be treated with a little friendly disrespect and bowled over like ninepins.

Quite likely they will enjoy it themselves – once they have got over the shock”

***John Maynard Keynes, 1931***

# Find out more

## **The Guide to Investor Action on Climate Change and the Just Transition**

<http://www.lse.ac.uk/GranthamInstitute/news/new-report-shows-it-is-vital-for-investors-to-support-a-just-transition-for-workers-institutions-with-us5-trillion-in-assets-back-efforts-to-link-climate-action-to-social-inclusion/>

## **The Global Investor Statement**

<https://www.tfaforms.com/4694571>

## **The Investor Role in the Just Transition in the UK**

<http://www.lse.ac.uk/GranthamInstitute/publication/financing-inclusive-climate-action-in-the-uk-an-investor-roadmap-for-the-just-transition/>

## **The role of Banks in the Just Transition**

<http://www.lse.ac.uk/GranthamInstitute/publication/banking-the-just-transition-in-the-uk/>

## **Sovereign Bonds and the Just Transition**

<https://www.responsible-investor.com/articles/financing-fast-and-fair-climate-action-why-governments-need-to-issue-just-transition-sovereign-bonds-and-how-they-could-do-it>

## **Contact**

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