

Doing well by doing good: the investment story of the 21st century

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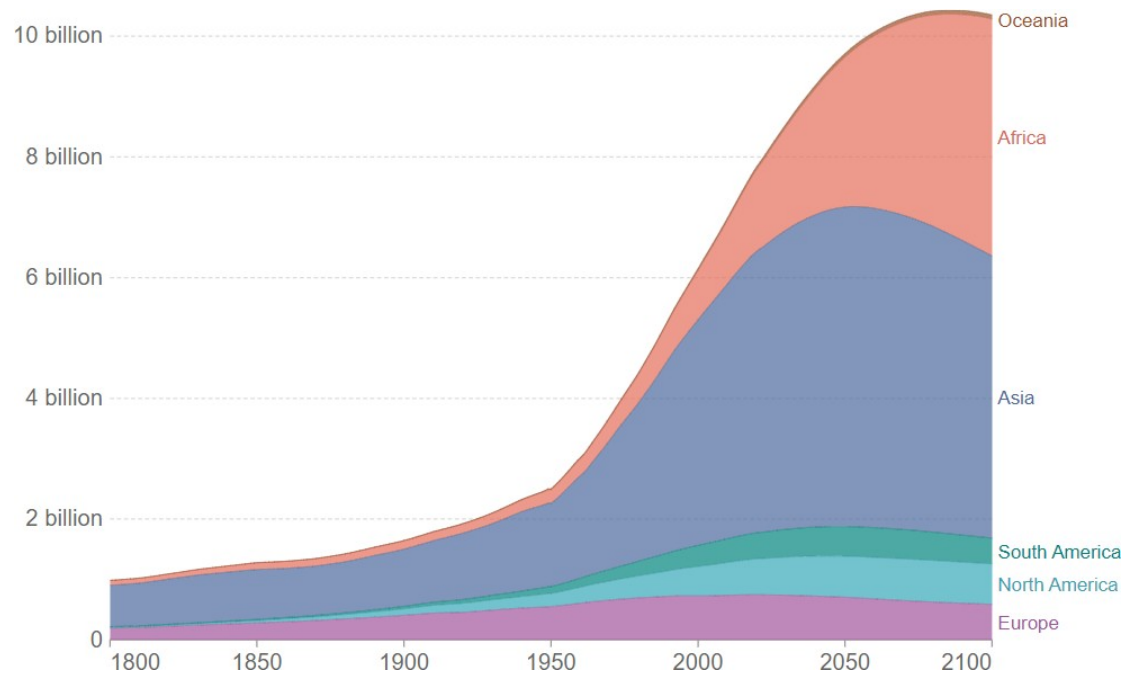
Advisory Council, Official Monetary and Financial Institutions Forum Sustainable Policy Institute

EEVII International Sustainable Housing Finance Symposium
4 October 2022

Why the next three decades are critical (1)

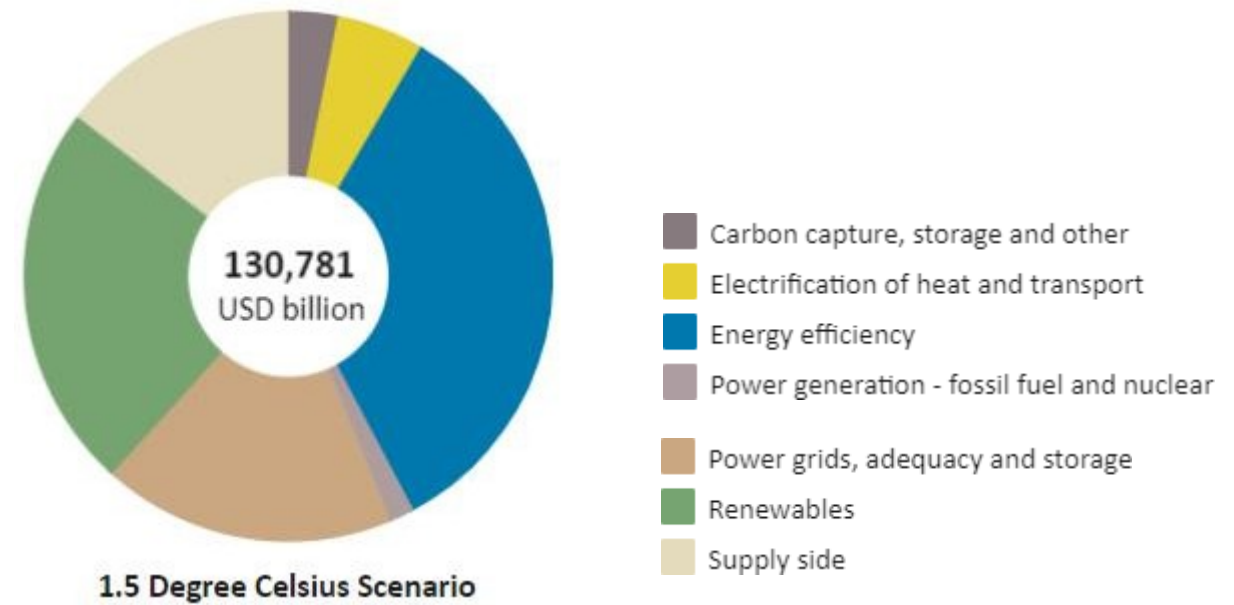
Historic demographic transitions, rising investment needs,
intense technological progress

World population by region, projected to 2100



Source: UN / Our World in Data

Cumulative global investment needs to 2050

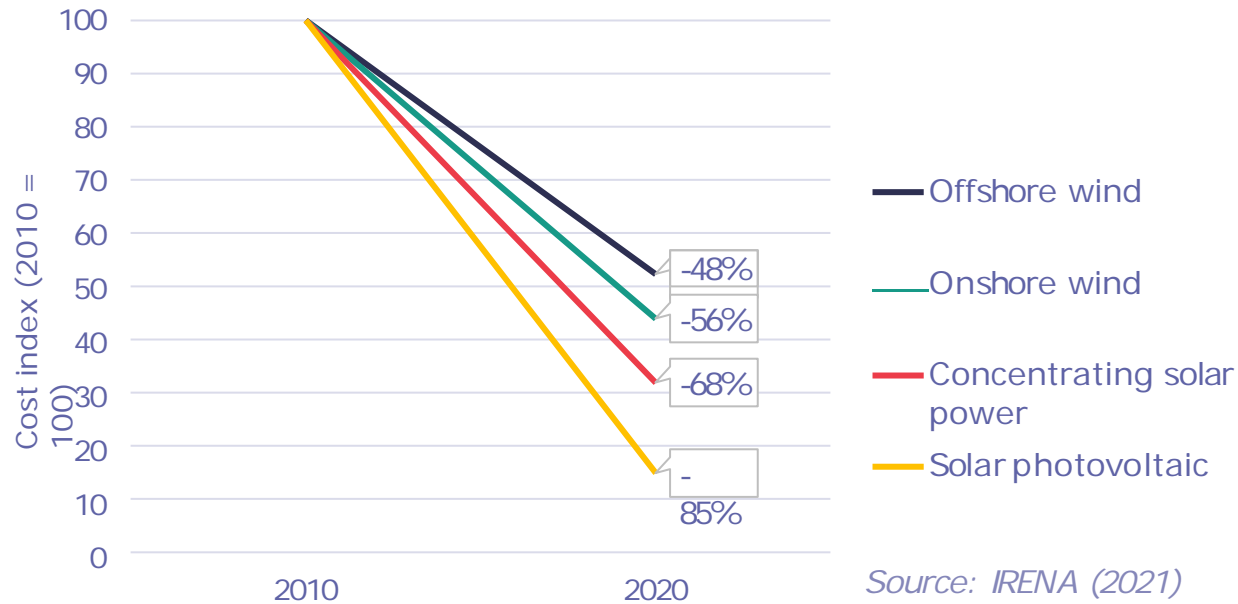


Source: IRENA 2021

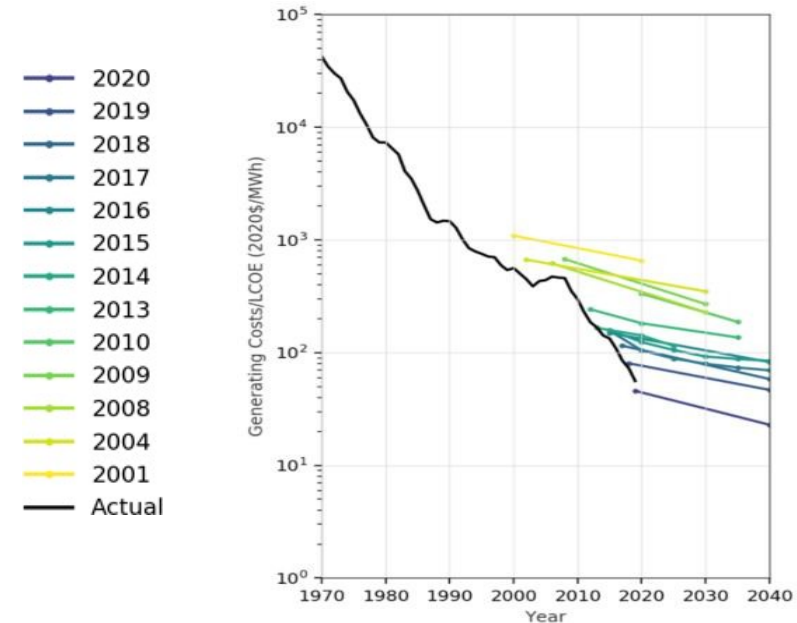
Why the next three decades are critical (2)

Historic demographic transitions, rising investment needs,
intense technological progress

Renewable power technologies: decreases in levelized
cost of electricity



Actual versus IEA projected LCOE of solar PV



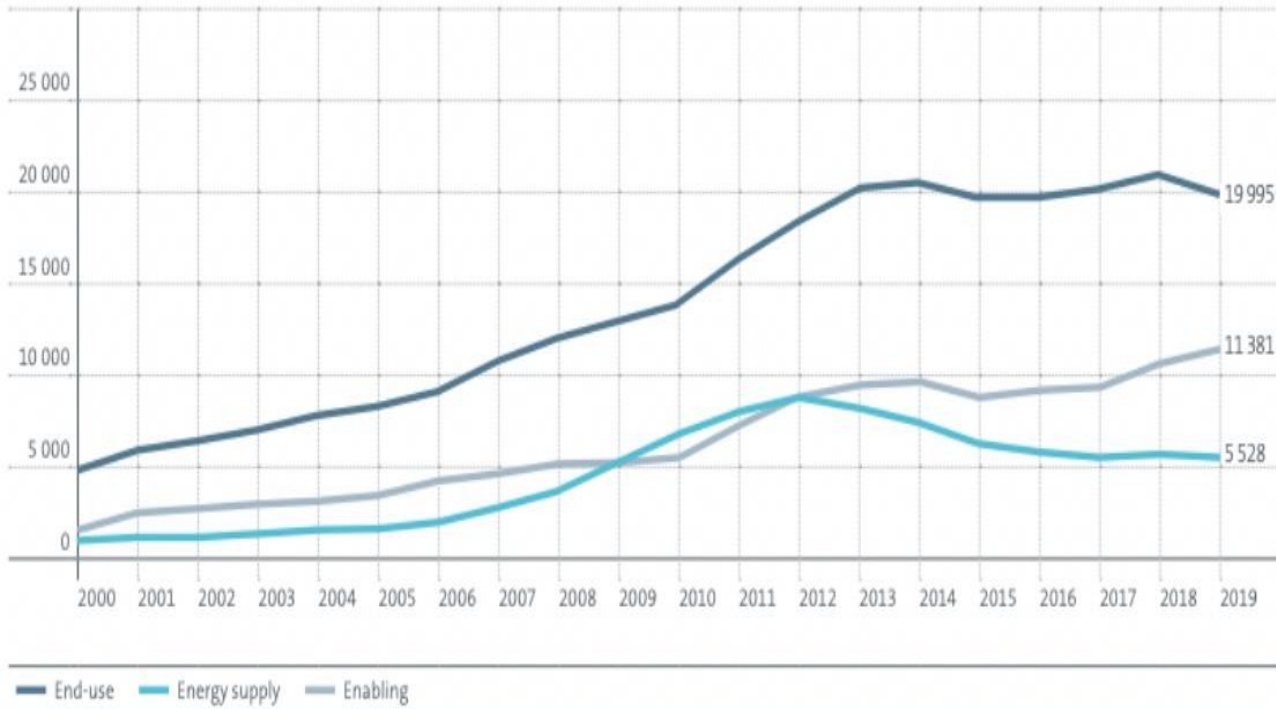
Renewables with storage now competitive (without subsidy or carbon price in much of the world). In 2020, solar/wind was the cheapest form of new power generation in countries representing over 70% of GDP (SYSTEMIQ, 2020).

Capital costs for renewables continue to fall much faster than those for conventional technologies. Strong increasing returns to scale in technologies and in discoveries. Much of it unanticipated.

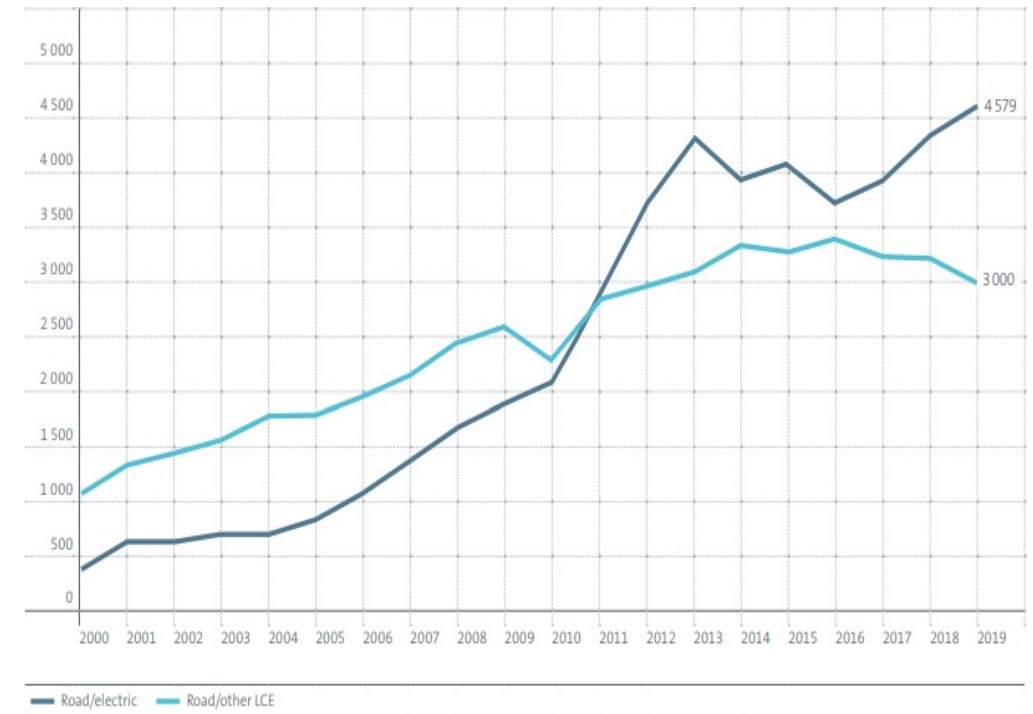
Why the next three decades are critical (3)

Historic demographic transitions, rising investment needs, intense technological progress

Global growth of IPFs in clean energy supply, enabling and end-use technologies, 2000-2019



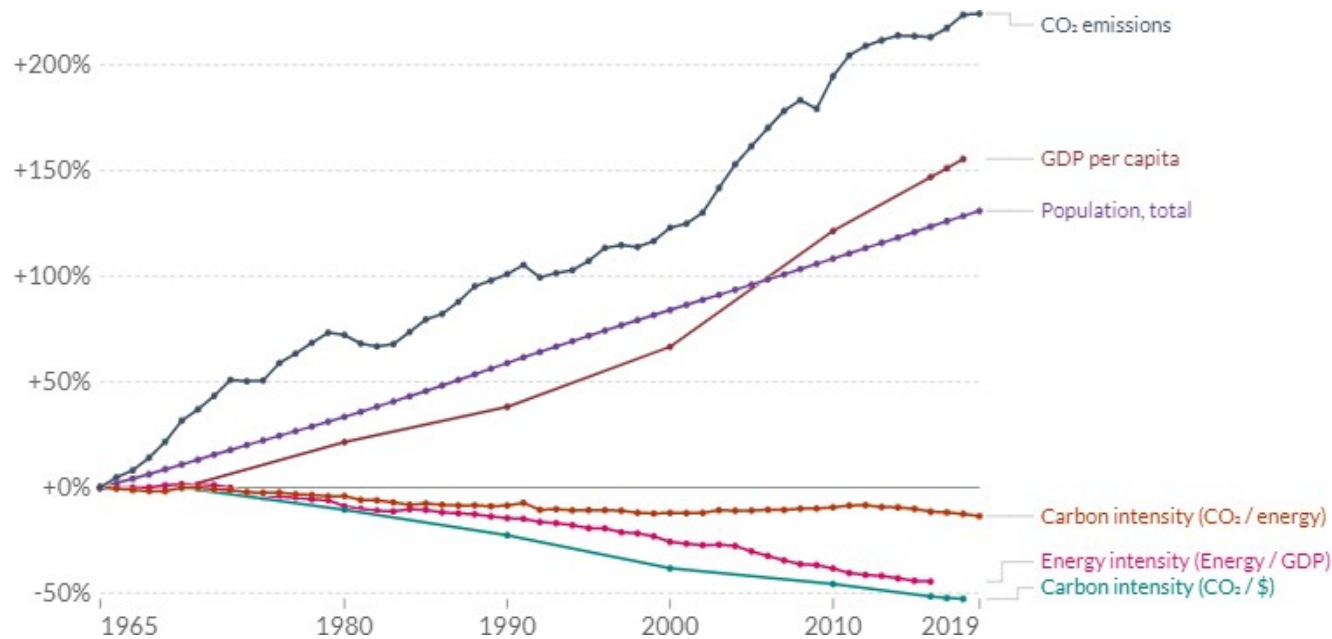
Global growth of IPFs in electric vehicles versus other LCE technologies for road transportation, 2000-2019



Source: IEA / European Patent Office

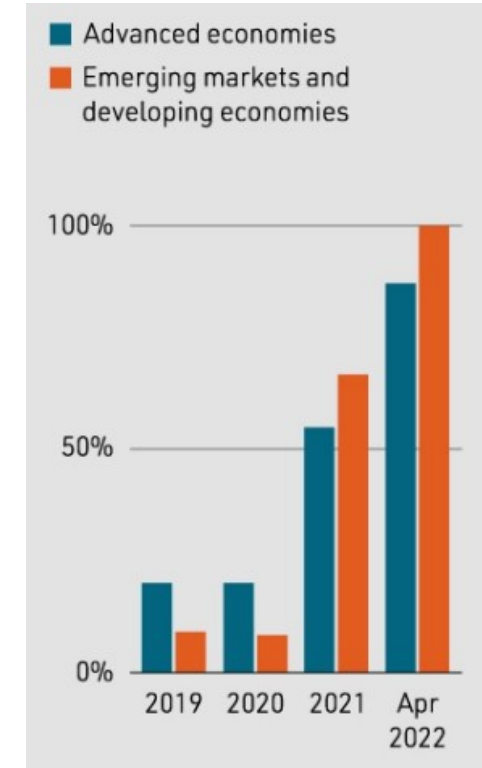
Triple challenge: Covid recession & geopolitical tensions & build back better

World GDP & emissions: % change in the four parameters of the Kaya identity



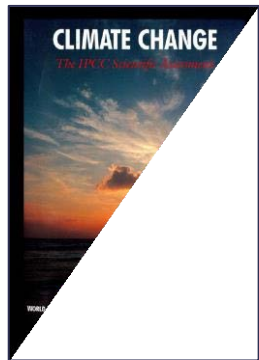
Source: Our World in Data based on Global Carbon Project; UN; BP; World Bank; Maddison Project Database

Countries with inflation above target

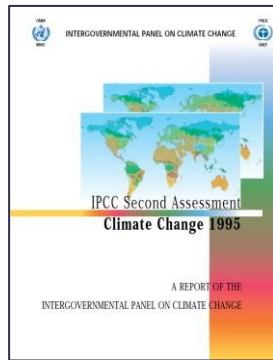


Source: World Bank (2022)

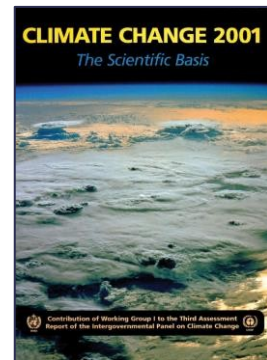
Urgency and opportunity of climate action now even clearer (1)



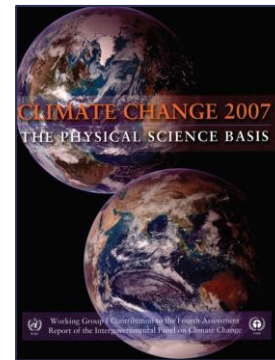
1990



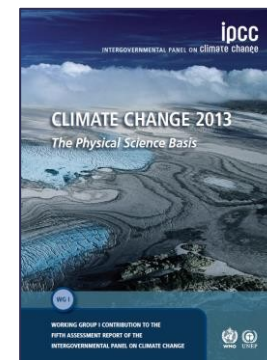
1995



2001



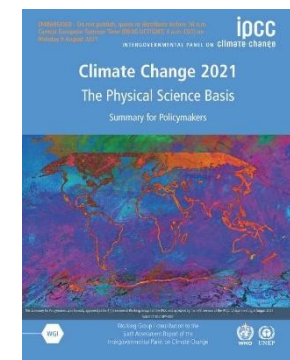
2007



2013



2018



2021

"There is ***new and stronger evidence*** that most of the warming observed over the last 50 years is attributable to human activities."

"An increasing body of observations gives a collective picture of a ***warming world and other changes*** in the climate system."

– *Third IPCC Assessment Report, 2001*

"It is ***unequivocal*** that human influence has warmed the atmosphere, ocean and land."

"Human-induced climate change is ***already affecting*** many weather and ***climate extremes*** in every region across the globe."

– *Sixth IPCC Assessment Report, 2021*

"The world faces ***unavoidable*** multiple climate hazards over the next two decades with global warming of 1.5°C. Even temporarily exceeding this warming level will result in ***additional severe impacts***, some of which will be ***irreversible***."

"People and ecosystems ***least able*** to cope are being ***hardest hit***."

– *IPCC, February 2022*

Urgency and opportunity of climate action now even clearer (2)

Factbox: Nearly 560,000 still without power in Florida after Hurricane Ian

Reuters



Wildfire still raging in southwestern France, more evacuations

Reuters



Heatwave: Fires blaze after UK passes 40C for first time

19 July · Comments



re in the village of Wennington on the outskirts of



World Business Legal Markets More



Droughts, Ukraine war push global grain stocks toward worrying decade low

By Tom Polansek

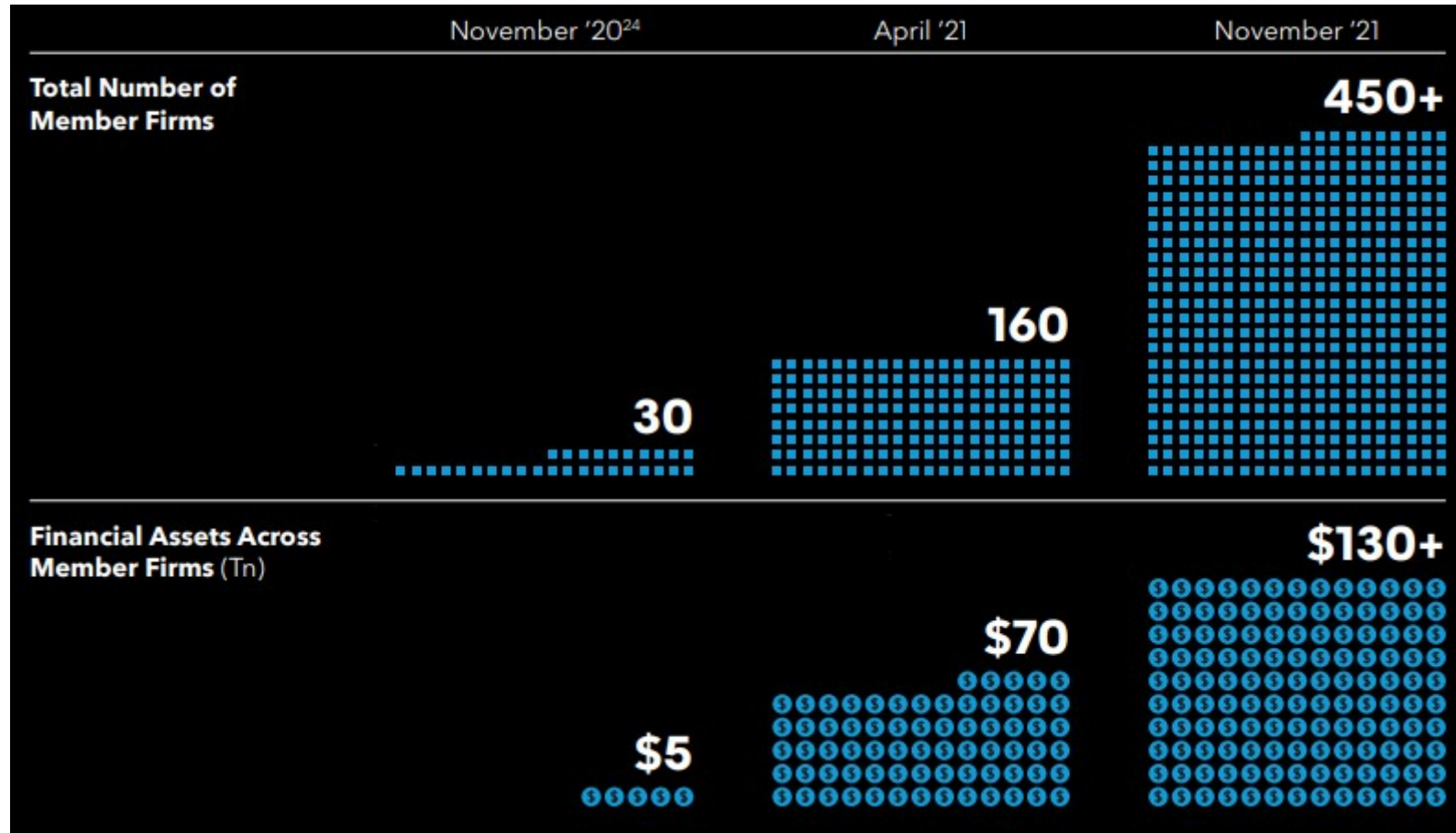


Why has progress been slow?

- The **politics** have moved forward & backwards: From financial crisis & Euro area crisis to Paris agreement, to Trump presidency, to China, EU & US converging on climate. Politics now again in tension following Russian invasion of Ukraine.
- The **economics** need to adapt: Market failures need to be addressed. Relative prices are distorted (e.g. subsidies for fossil fuel industries, environmental & health externalities of pollution and inter-generational justice not factored into prices)
- The **political economy** needs to change: Governments remain dependent on fossil fuel revenue, trade associations lobbying in support of vested interests. Belief that there is a trade-off between economic growth and climate action.
- The **institutions** and **infrastructure** are not fit for purpose: Need to improve energy markets, disincentivise high-carbon infrastructure investment and R&D.

Rare moment in time: 'the financial stars align'

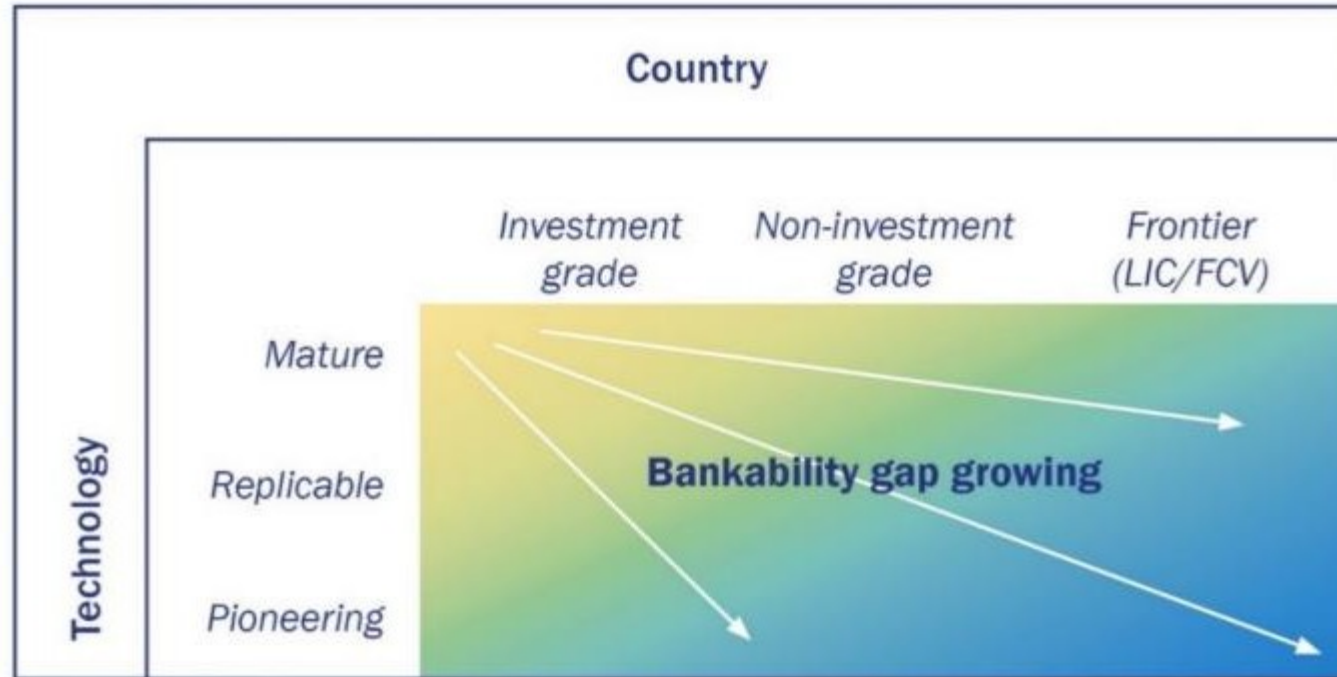
GFANZ and race to zero membership and the financial assets they represent



Source: GFANZ progress report

But finance fails to connect to needs

Bankability gap at the geographic and technological frontiers



Source: *Blended Finance for Scaling up Climate and Nature Investments*, GRI (2022) <https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2021/11/Blended-Finance-for-Scaling-Up-Climate-and-Nature-Investments-1.pdf>

How can the rest of the financial system re-align itself?

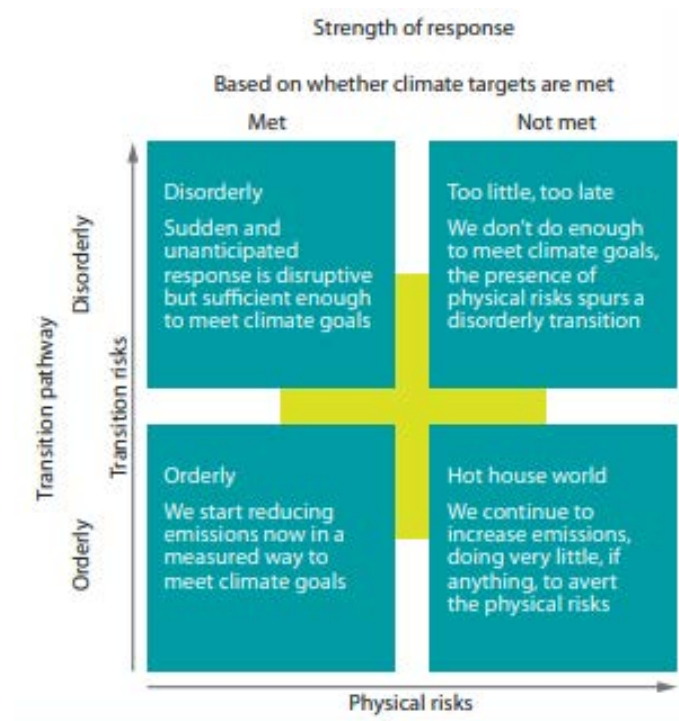
What can finance ministries do?: Correcting market failures: economic toolkit of subsidies, taxes (e.g. on carbon), incentives, direct public investment

What can central banks do?: Embed climate variables in macro modelling, green prudential policy (e.g. transition plans and stress tests), responsible investment of portfolios

What can development banks do?: Derisking, concessional finance, issuing sustainable bonds, supporting sustainable capital markets

Data challenges: an excuse for inaction?

When balancing the need for robust and comprehensive data against the opportunity cost of inaction, central banks should be cognisant of the risk that acting early with imperfect information could be less costly than acting only once stronger data standards have emerged.



Source:

https://www.ngfs.net/sites/default/files/medias/documents/ngfs_monetary_policy_operations_final.pdf

The good news: strong public pressure to address crisis, particularly from young people

Climate Change and Future Generations Lawsuit in Colombia: Key Excerpts from the Supreme Court's Decision

10-18-21 | WORLD CHANGING IDEAS

I'm a student activist: Here's how we pushed Harvard University to finally divest from fossil fuels

After years of pressure, the university announced it would remove oil, gas, and coal from the investments of its \$53 billion endowment. One of the members of the student organization who worked on the campaign explains how—and why—they fought the country's richest school.



'Historic' German ruling says climate goals not tough enough

Judges order government to strengthen legislation before end of next year to protect future generations

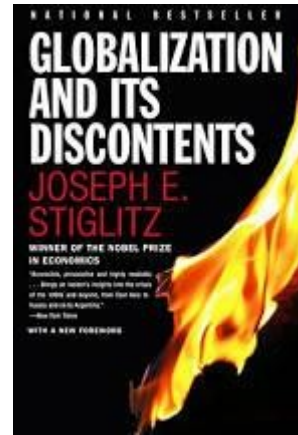


restation, ruling
Colombian
/ excerpts from



rt's decision was 'a huge win for the

Climate action and its discontents?



Parliament 'misled' over cost of net zero target, say Conservative MPs

Having scrutinised data used by the government's advisory body, a group of Tory backbenchers believe their financial calculations are flawed

By Edward Malnick, SUNDAY POLITICAL EDITOR

25 September 2021 • 4:43pm

Not only about managing risk, also about more attractive economies

Understanding the co-benefits - and linking through them climate action to issues that the public care about - can help policy-makers prioritise policy options that have a greater chance of public support for such changes (in the face of occasional public opposition to the transition)

- Sustainable investments are not only about managing risk, but can also lead to a more attractive form of development compared with the dirty paths of the past.
 - **Health:** Better air quality from reductions in pollution; Healthier diets; increased wellbeing from access to energy efficient homes
 - **Economic:** Savings on fuel bills (especially for energy importing countries; improvements in productivity through reduced traffic and better health
 - **Social:** Reduced fuel poverty and inequality; protection from energy price increases
 - **Resilience:** Reduction to dependence on fossil fuel; improved energy and water
- conflict over access to resources

The growth story of the 2020s



Source: <https://www.ft.com/content/a4cf5b10-17ad-42a9-9a3d-f678f3d443da>

To leaders in China, India and Australia who are yet to deliver 2030 targets, I say this: it is in your economic self-interest to accelerate your shift from coal-based electricity and start to address your looming transport emissions. The green economy is the **growth story of the 2020s**: 35m new green jobs are expected by 2030.

-Christiana Figueres, UNFCCC Executive Secretary 2010-16