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Making sense of green finance?

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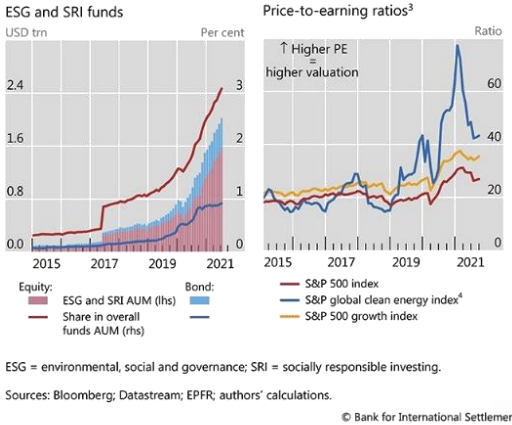
What is green finance about?

Can we make sense of a mega trend/buzzword/bubble/lie/etc.?

PRI Principles for Responsible Investment

TCFD Task Force on Climate-Related Financial Disclosures



Carbon Tracker Initiative

The Green Bond Principles

Label ISR

Finance Watch
Pour une finance au service de la société

Climate Action 100+
Global Investors Driving Business Transition

GREENFIN LABEL
FRANCE FINANCE VERTE

LUXFLAG
Supporting Sustainable Finance

GREENPEACE

RECLAIM Finance

THE SUSTAINABLE FUTURE BEGINS IN PARIS
FINANCE FOR TOMORROW

GREEN is the NEW FINANCE
From the Green Finance Institute

GFC

GREEN SWAN 2021
2-4 JUNE
GLOBAL VIRTUAL CONFERENCE

Finance in Common
The first global summit of Public Development Banks

中国金融学会绿色金融专业委员会
Green Finance Committee, China Society for Finance and Banking

IFRS International Financial Reporting Standards

GFANZ

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What is green finance about?

The solution? An illusion? Why (unfortunately) confusion matters







- Misconception and fallacies
  - The **good**, the **bad** & the **ugly** (reasons to promote green finance)
    - Financing the transition and delivering a climate consistent capital allocation
    - Mobilising private finance when public finances are stretched to the limit
    - Financial policies to make up for lack of ambition of climate policies or to advance a value based agenda
  - Overpromising/underdelivering

What is green finance about?

The making of green finance

- 2012: is finance responsible for the lack of progress in addressing climate change?
  - Finance as a proxy perpetrator for everything un-ecoconscious
    - Finance and the “no transition” team (rents)
    - Finance and the “go with the flow” team (economy)
    - But is finance holding back the transition?

- 2015: don’t let finance get in the way of an Agreement in Paris!
  - Finance matters for the transition…
    - No transition without finance (in general and with regard to the $100bn commitment)
  - … but does climate change matter for finance?
    - Reputation (the communication battle)
    - Clients’ demand and preferences (the divorced balance sheet)
    - Economics of climate change and the net zero transition

Bringing back nature in the picture

Unprecedented rate of change in at least the last 2000 years

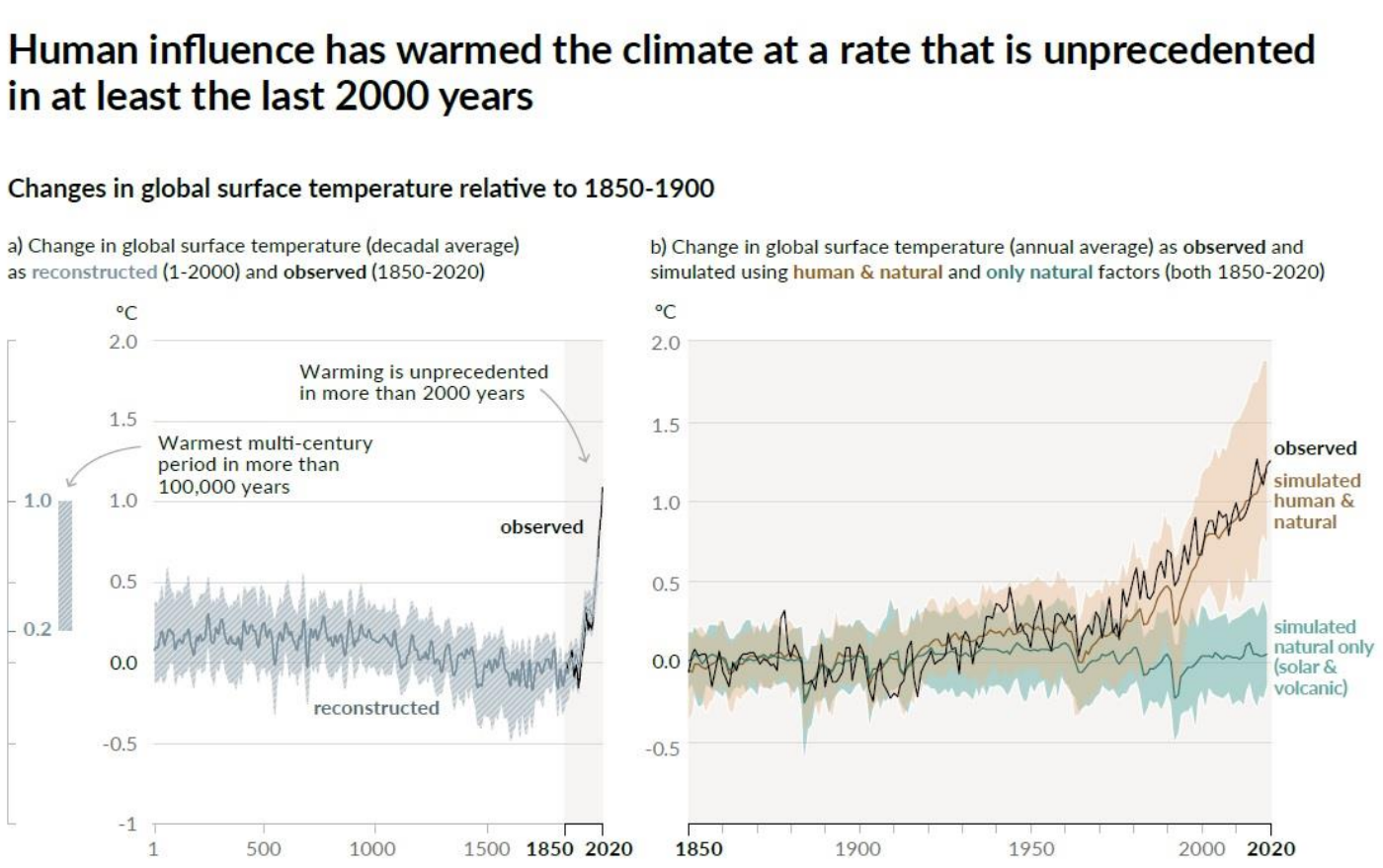
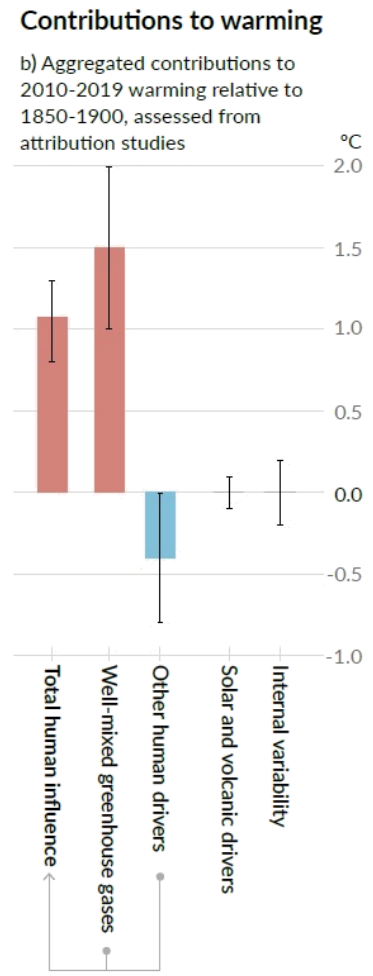


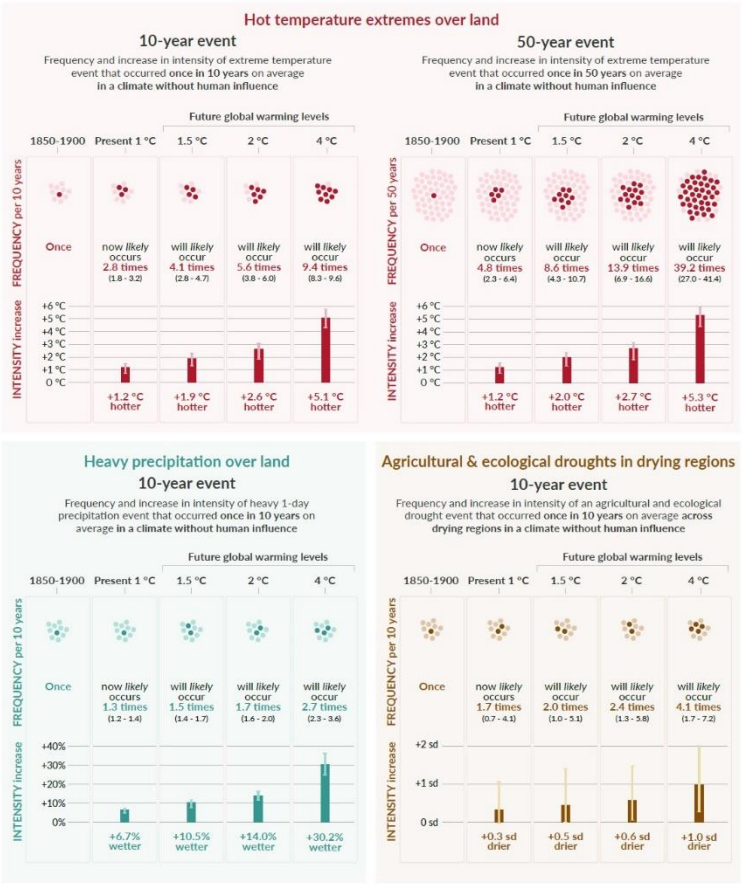
Figure SPM.1: History of global temperature change and causes of recent warming.



Bringing back nature in the picture

An unlivable planet? Today is barely the beginning

Projected changes in extremes are larger in frequency and intensity with every additional increment of global warming

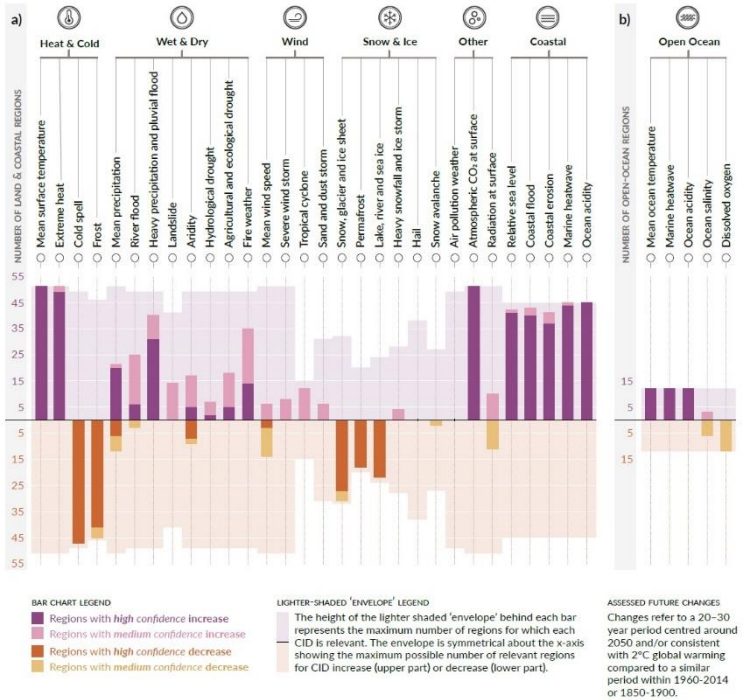


Multiple climatic impact-drivers are projected to change in all regions of the world

Climatic impact-drivers (CIDs) are physical climate system conditions (e.g., means, events, extremes) that affect an element of society or ecosystems. Depending on system tolerance, CIDs and their changes can be detrimental, beneficial, neutral, or a mixture of each across interacting system elements and regions. The CIDs are grouped into seven types, which are summarized under the icons in the figure. All regions are projected to experience changes in at least 5 CIDs. Almost all (96%) are projected to experience changes in at least 10 CIDs and half in at least 15 CIDs. For many CIDs there is wide geographical variation in where they change and so each region are projected to experience a specific set of CID changes. Each bar in the chart represents a specific geographical set of changes that can be explored in the WGI Interactive Atlas.

interactive-atlas.ipcc.ch

Number of land & coastal regions (a) and **open-ocean regions** (b) where each **climatic impact-driver** (CID) is projected to increase or decrease with ***high*** *confidence* (dark shade) or ***medium*** *confidence* (light shade)



Bringing back nature in the picture

It is not too late (just yet)! But better not waste the next 15 years

Table SPM.2: Estimates of historical CO_2 emissions and remaining carbon budgets. Estimated remaining carbon budgets are calculated from the beginning of 2020 and extend until global net zero CO_2 emissions are reached. They refer to CO_2 emissions, while accounting for the global warming effect of non-CO_2 emissions. Global warming in this table refers to human-induced global surface temperature increase, which excludes the impact of natural variability on global temperatures in individual years. {Table TS.3, Table 3.1, Table 5.1, Table 5.7, Table 5.8, 5.5.1, 5.5.2, Box 5.2}

Global warming between 1850–1900 and 2010–2019 *(°C)*	Historical cumulative CO_2 emissions from 1850 to 2019 *($GtCO_2$)*
1.07 (0.8–1.3; *likely* range)	2390 (± 240; *likely* range)

Approximate global warming relative to 1850–1900 until temperature limit *(°C)**(1)	Additional global warming relative to 2010–2019 until temperature limit *(°C)*	Estimated remaining carbon budgets from the beginning of 2020 *($GtCO_2$)* — *Likelihood of limiting global warming to temperature limit*(2)*					Variations in reductions in non-CO_2 emissions*(3)
		17%	*33%*	*50%*	*67%*	*83%*	
1.5	0.43	900	650	500	400	300	Higher or lower reductions in accompanying non-CO_2 emissions can increase or decrease the values on the left by 220 $GtCO_2$ or more
1.7	0.63	1450	1050	850	700	550	
2.0	0.93	2300	1700	1350	1150	900	

*(1) Values at each 0.1°C increment of warming are available in Tables TS.3 and 5.8.
*(2) This likelihood is based on the uncertainty in transient climate response to cumulative CO_2 emissions (TCRE) and additional Earth system feedbacks, and provides the probability that global warming will not exceed the temperature levels provided in the two left columns. Uncertainties related to historical warming (±550 $GtCO_2$) and non-CO_2 forcing and response (±220 $GtCO_2$) are partially addressed by the assessed uncertainty in TCRE, but uncertainties in recent emissions since 2015 (±20 $GtCO_2$) and the climate response after net zero CO_2 emissions are reached (±420 $GtCO_2$) are separate.
*(3) Remaining carbon budget estimates consider the warming from non-CO_2 drivers as implied by the scenarios assessed in SR1.5. The Working Group III Contribution to AR6 will assess mitigation of non-CO_2 emissions.

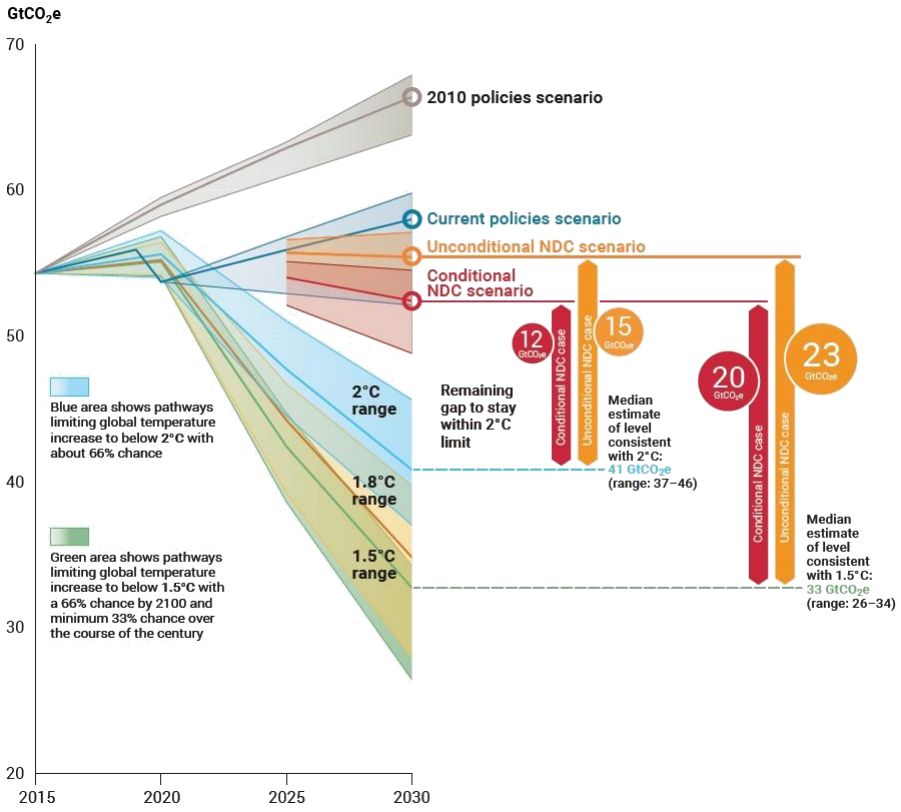
Place your bets…

- **4 chances out of 5** to stay within **1.5°C**
  - 7.5 years of remaining carbon budget in Jan. 2020: less than **5 years** now!
- **2 chances out of 3** to stay within **1.7°C**
  - **15 years**
- **1 chance out of 2** to stay within **2°C**
  - **29 years**
- By the way, **net zero** is not an option, the **only question is when**

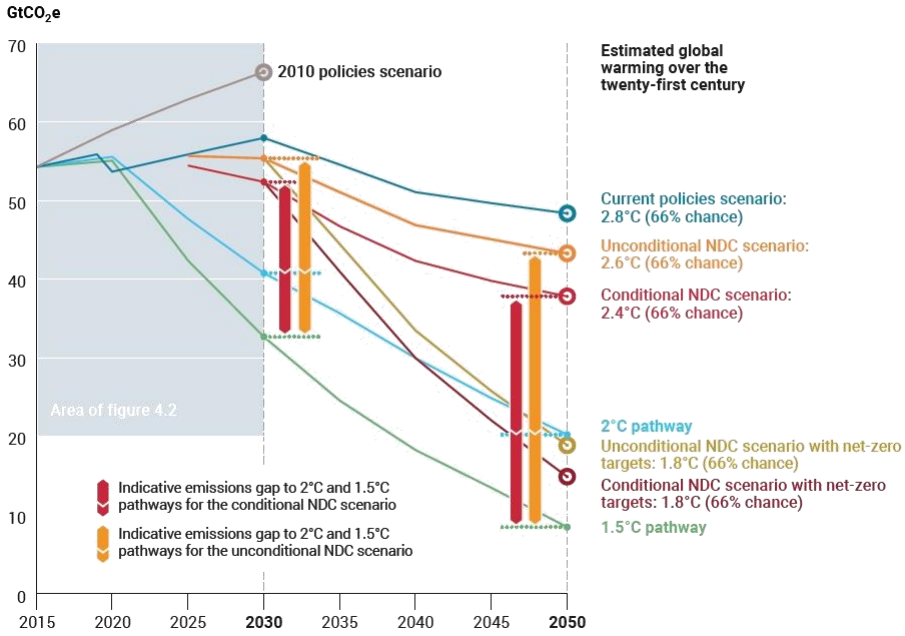
Bringing back nature in the picture

It is working (but not fast enough yet)

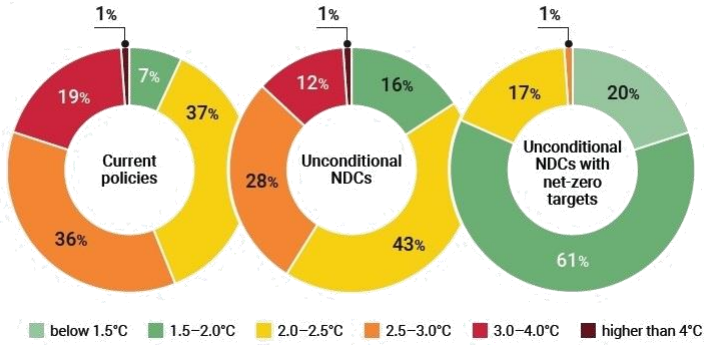
GHG emissions under different scenarios and the emissions gap in 2030 (median estimate and tenth to ninetieth percentile range)



Projections of GHG emissions under different scenarios to 2050 and indications of emissions gap and global warming implications over this century (medians only)



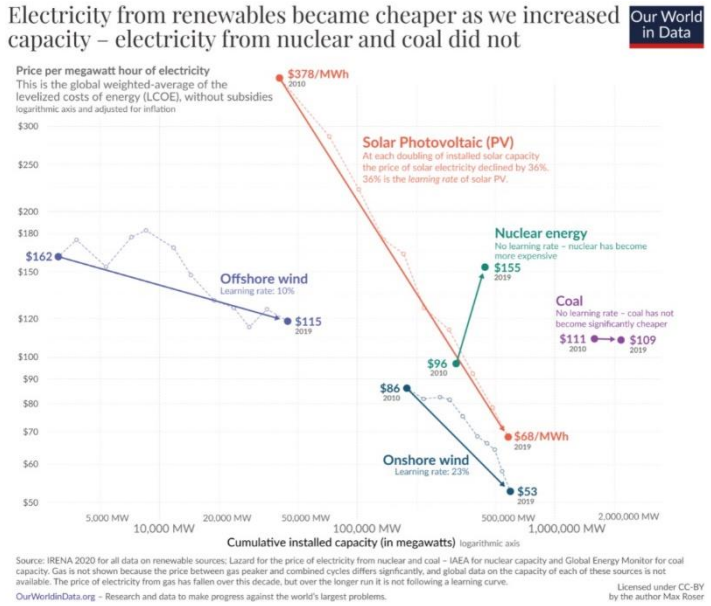
Range of global warming outcomes projected if current policies (left), unconditional NDCs (middle), and unconditional NDCs combined with net-zero targets announced by countries (right) are achieved.

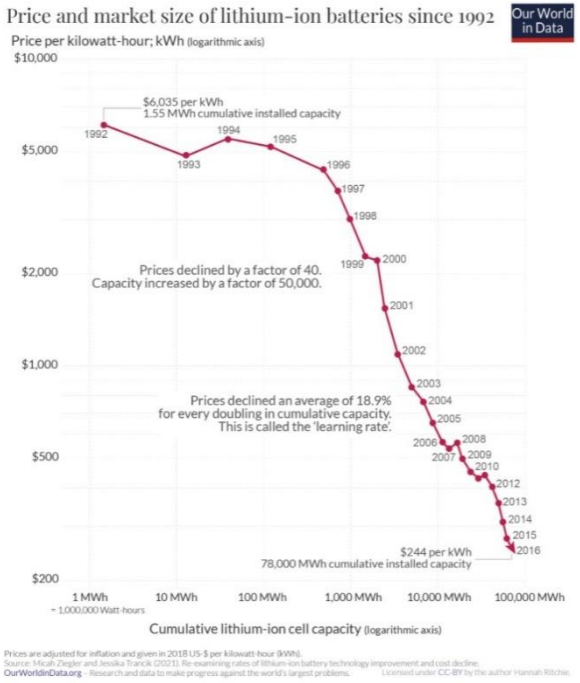


An industrial revolution in the making

The microeconomics of the net zero transition

- **Electricity production from renewable**: at cost and (soon) at scale (~40% GHG emissions)



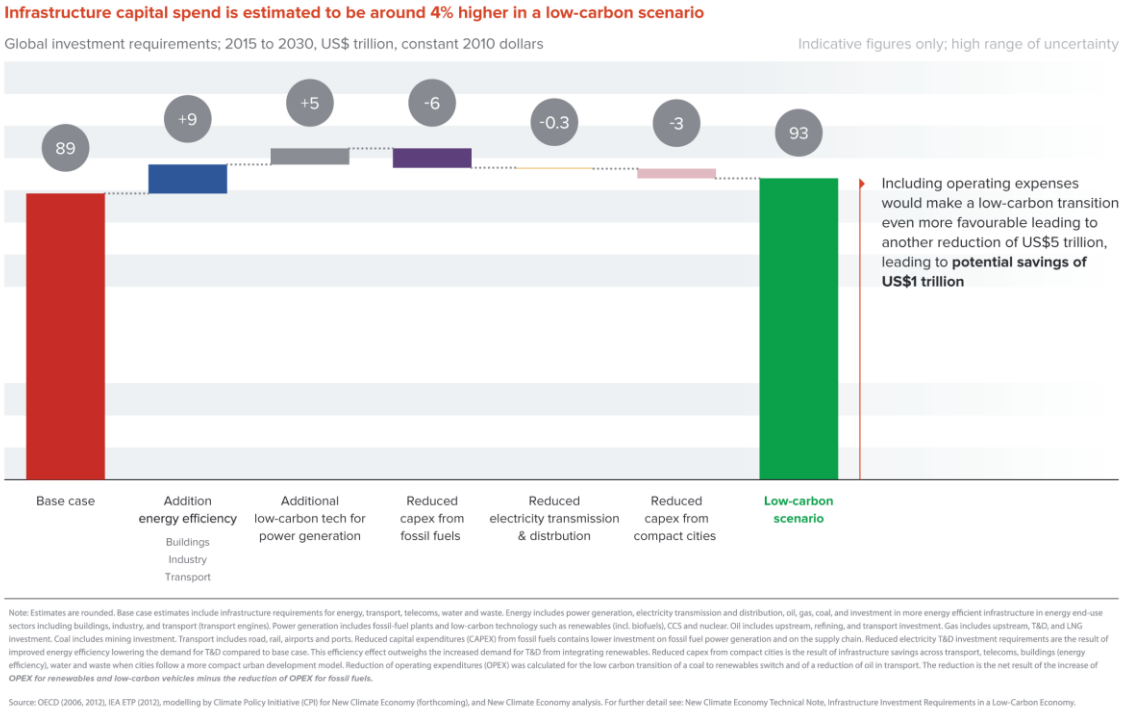


- Some **technical solutions** to other problems and some clear (yet sometimes hard to implement) **policy solutions**

An industrial revolution in the making

The macroeconomics of the net zero transition

- **Investments toward net zero transition**: lagging behind but make no mistake, it is not the big numbers that matter



- Additional investment: **~USD 300bn/year** (think subprime CDO)

⇒ **From a macro perspective, it's a capital allocation question!**

What is green finance about?

Green finance in the context of the strategic shift in perspective

- Climate change can (should) be framed as **a macro development**
  - Bringing back **nature in the picture**
    - Account for a change in climate with (very) real macro consequences
    - There is no alternative to net zero: not if but when
  - A constraint **driven industrial revolution** in the making
    - Technically feasible, economically reasonable
    - Scale and timing: macro trumps micro

- **Climate change is meaningful for finance**
  - Grasping the full scale of climate opportunities
  - Building better bridges into the future to better allocate capital
    - Reassessing the future (climate change & transition) we factor in our financial decisions

What is green finance about?

The two sides of green finance

- The **visible side** of green finance: **financing green investment**
  - Assessing the actual risk-return of green projects
    - Technological risks, long(er) term/system perspective
    - Take off risks and (climate) policy dependence
    - Financial innovation and policy support
  - Feeding in an unquenchable demand while avoiding greenwashing

- The **dark side**: delivering **climate consistent capital allocation**
  - Reassessing the risks of all climate relevant projects (physical & transition risks – myopia & inconsistent expectations)
  - Aligning investment decisions with actual prospects

What is green finance about?

The two sides of green finance

<table>
<tr><th></th><th colspan="2">Financing green investment</th><th colspan="2">Achieving climate consistent capital allocation</th></tr>
<tr><td>Banks</td><td colspan="2">green loans</td><td rowspan="2">climate ST & prudential policy</td><td></td></tr>
<tr><td>Insurance companies</td><td colspan="2" rowspan="2">thematic investments (esp. real assets)</td><td rowspan="2">shareholder engagement</td></tr>
<tr><td>Institutional investors</td><td></td></tr>
<tr><td>Investment funds</td><td colspan="2">green label & thematic funds</td><td colspan="2">SRI label & ESG investing</td></tr>
<tr><td>Development banks</td><td>blended finance</td><td colspan="2">alignment</td><td></td></tr>
<tr><td>Capital markets</td><td colspan="2">green bonds</td><td colspan="2">ETS, carbon futures
cat bonds & climate derivatives</td></tr>
<tr><td>Disclosure</td><td colspan="2">green taxonomy</td><td colspan="2">climate financial disclosure</td></tr>
</table>

The fundamental question in green finance

Are climate risks priced in or not?

- Most policy decisions hinge on the **pricing of climate risks** (or absence thereof)
  - Microprudential regulation/macroprudential policy
  - Monetary policy operations
- A lot of private sector practices implicitly rely on the **assumption that climate risks are not priced**
- **Mixed evidences**
  - Climate change developments are increasingly priced in…
  - … but:
    - to which extent?
    - what is the “right” baseline for pricing?
    - is the a “market implied” baseline?

Green finance: beyond climate?

Expanding the reasoning in a consistent way

- **Nature blind** economic decisions
  - Not just climate change and (while not unrelated to climate change) cannot be reduced to climate change
  - Nature related risks can be **more local**, **more granular** (≠ less material)
  - Need for a tractable framework to account for a wide range of phenomena
    - Physical & transition risks
    - Combination of planetary boundaries & ecosystem services