

Für Mensch & Umwelt

Umwelt 
Bundesamt

Green Finance Conference

Climate related benchmarks and indices – from PABs and CTBs

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Pressure to act: The climate crisis already has strong implications



Fotos: Cevin Dettlaff / dpa, Reuters, Getty Images

IPCC: AR6 Synthesis Report: Finance is a critical enabler for accelerated climate action

AR6 Synthesis Report

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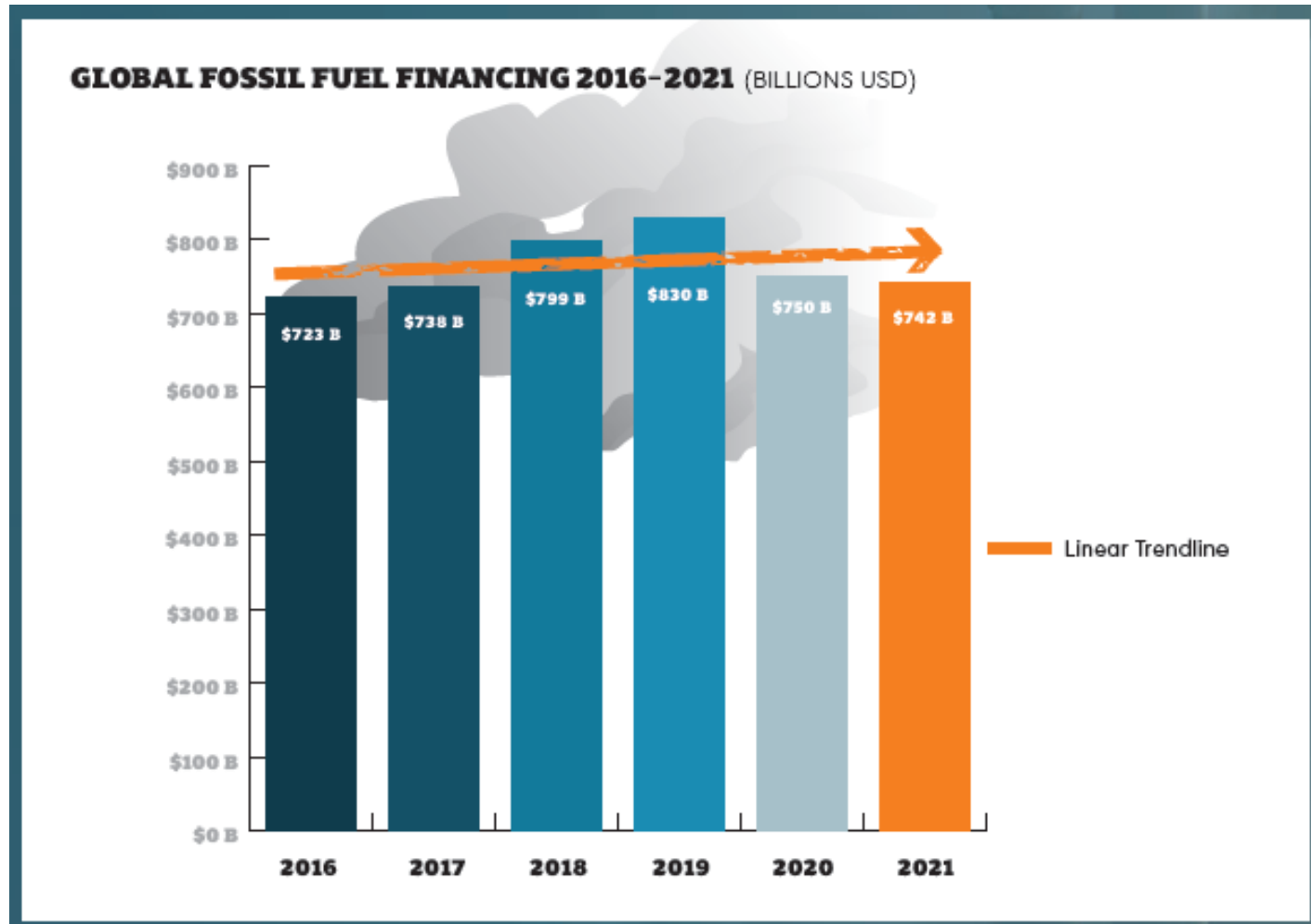
Headline Statements

Finance, Technology and International Cooperation

- C.7** Finance, technology and international cooperation are critical enablers for accelerated climate action. If climate goals are to be achieved, both adaptation and mitigation financing would need to increase many-fold. There is sufficient global capital to close the global investment gaps but there are barriers to redirect capital to climate action. Enhancing technology innovation systems is key to accelerate the widespread adoption of technologies and practices. Enhancing international cooperation is possible through multiple channels. (*high confidence*) {2.3, 4.8}

Source: IPCC 2023

Problem: Fossil fuel financing hasn't decreased since the Paris Agreement



The financial sector is not on track to meet the Paris Agreement goals

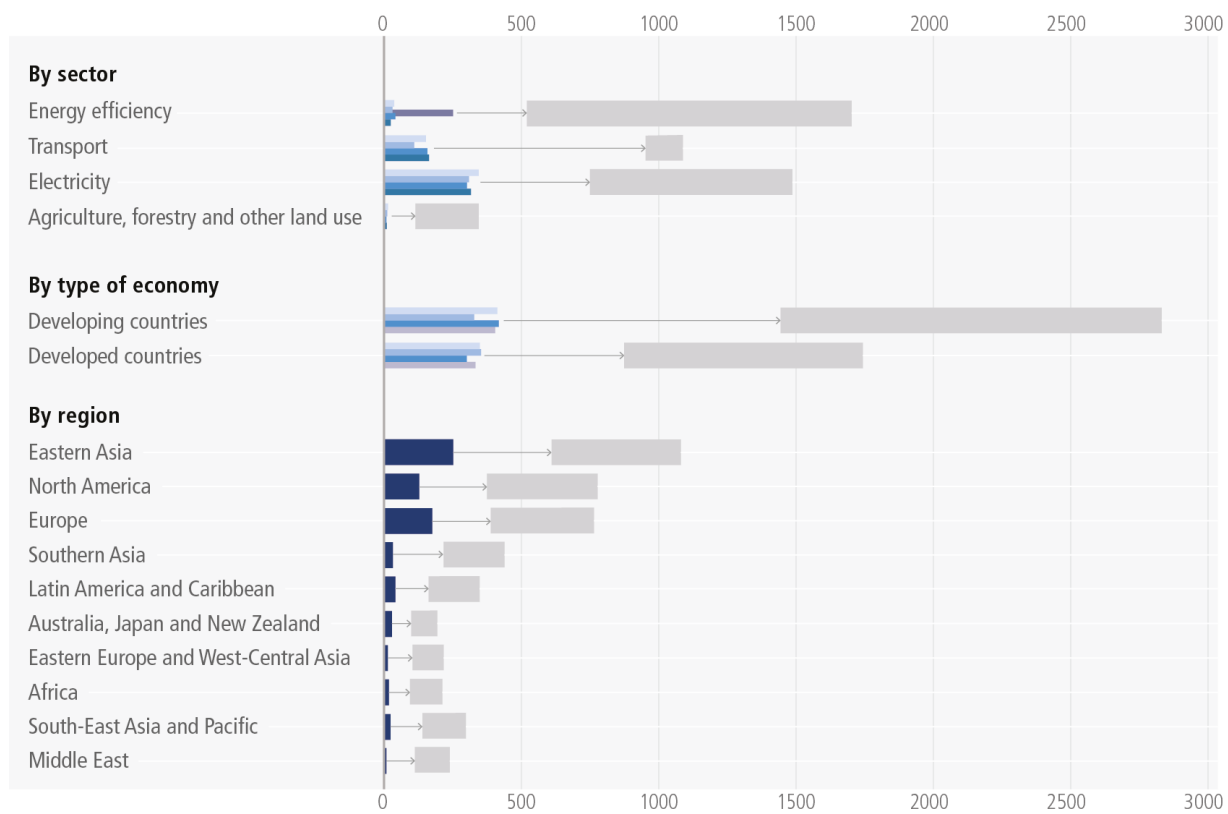
Continuous investments in fossil fuels leads to lock-in effects and increasing risks for stranded assets

Source: Banking on Climate Chaos 2022

Accelerating mitigation finance: redirecting investment flows

Higher mitigation investment flows required for all sectors and regions to limit global warming

Actual yearly flows compared to average annual needs in billions USD (2015) per year



Multiplication factors*	
Lower range	Upper range
x2	x7
x7	x7
x2	x5
x10	x31
x4	x7
x3	x5
x2	x4
x3	x6
x2	x4
x7	x14
x4	x8
x3	x7
x7	x15
x5	x12
x6	x12
x14	x28

Breakdown of average mitigation investment flows and investment needs until 2030 (USD billion)

The blue bars display data on mitigation investment flows for four years: 2017, 2018, 2019 and 2020 by sector and by type of economy and region.

The grey bars show the minimum and maximum level of global annual mitigation investment needs in the assessed scenarios. This has been averaged until 2030.

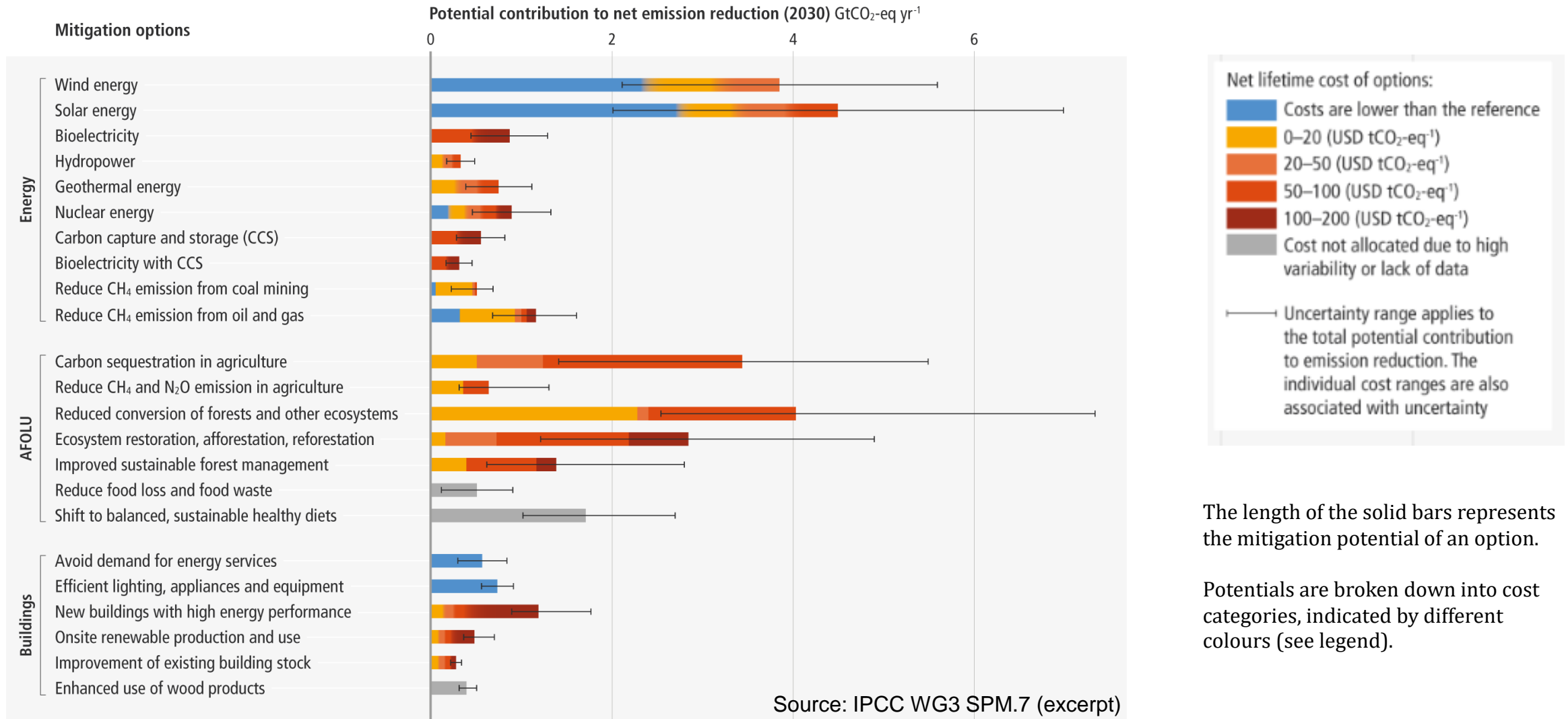
Yearly mitigation investment flows (USD 2015/yr) in:

- 2017
- 2018
- 2019
- 2020
- IEA data mean 2017–2020
- Average flows
- Annual mitigation investment needs (averaged until 2030)

*Multiplication factors indicate the x-fold increase between yearly mitigation flows to average yearly mitigation investment needs. Globally, current mitigation financial flows are a factor of three to six below the average levels up to 2030.

Source: IPCC Synthesis Report 2023

Investment options are clear: IPCC reports highlight efficient mitigation technologies

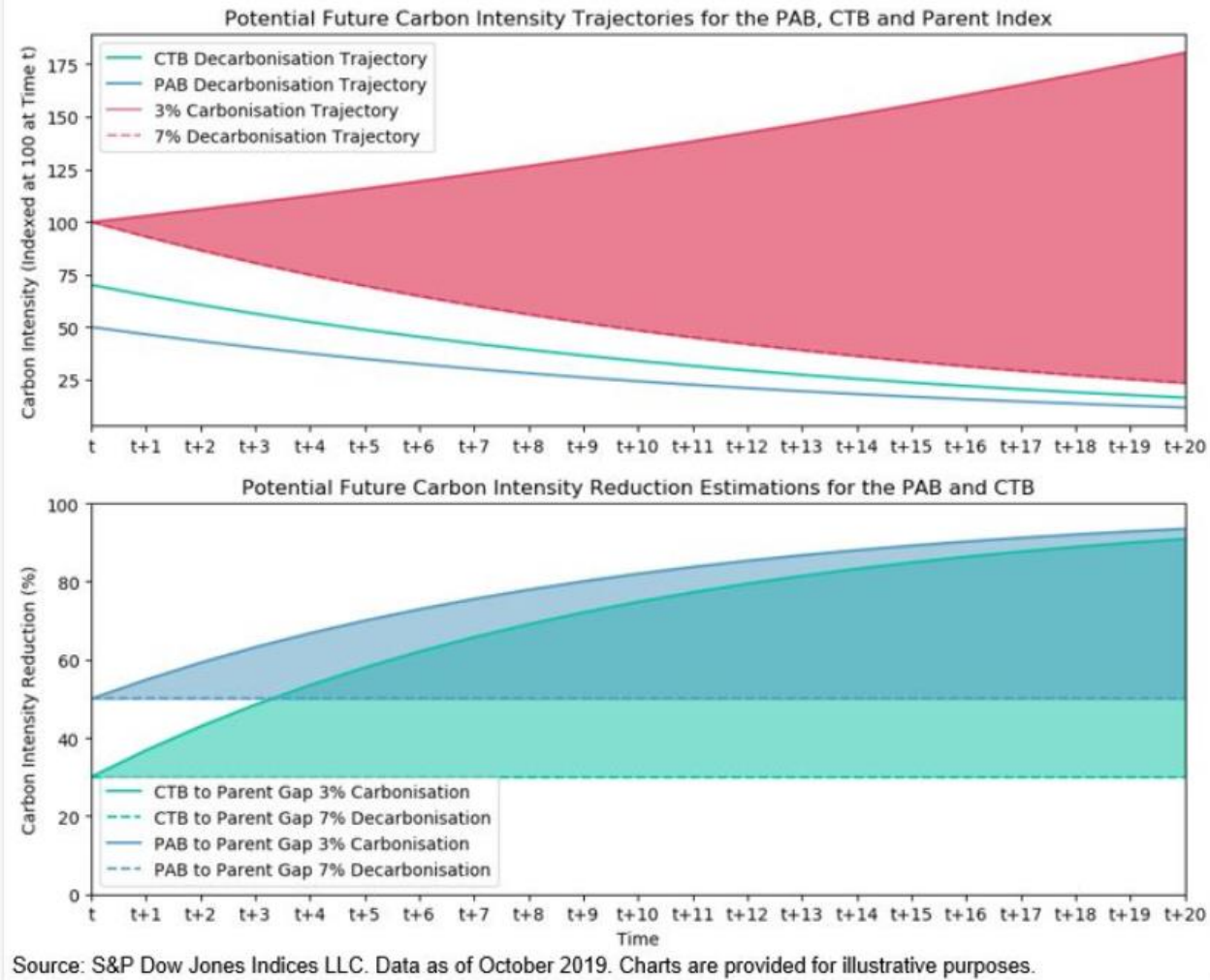


The length of the solid bars represents the mitigation potential of an option.

Potentials are broken down into cost categories, indicated by different colours (see legend).

EU Benchmark Regulation

Exhibit 1: PAB and CTB Potential Trajectories



The EU has established Paris-aligned and Climate Transition Benchmarks in order to accelerate redirecting financial flows towards sustainable activities.

PAB and CTB are useful tools for investors to decarbonize their portfolios, to incentivize transition finance, and to increase transparency on their investments.

Both aim at **climate neutrality by 2050 and are predicted on the Paris Agreement framework**. They aim at a yearly decarbonization rate of at least 7 per cent.

The credibility of PABs/CTBs is ensured by ESMA's competence to grant permission to market benchmarks in the EU.

PAB & CTB: Differences between both benchmarks

Minimum standards	EU Climate Transition Benchmark	EU Paris-aligned Benchmark
Risk-oriented minimum standards		
Minimum Scope 1 + 2 (+3) carbon intensity reduction compared to investable universe	30 per cent	50 per cent
Scope 3 phase-out	From 23 December 2022: Scope 3 emissions from transport, construction, buildings, basic materials, and manufacturing need to be included. From 23 December 2024: Scope 3 emissions from remaining sectors need to be included	
Baseline exclusions	Line 1: Yes Line 2: Controversial Weapons Line 3: Societal Norms Violators	Line 1: Yes Line 2: Controversial Weapons Line 3: Societal Norms Violators
Activity exclusion	No	Coal (1per cent + revenues) Oil (10 per cent + revenues) Natura Gas (50 per cent + revenues) Electricity producers with a carbon intensity of lifecycle GHG higher than 100g CO2e/kWh (50 per cent + revenues)

Source: Löffler/Rink (forthc.)

PAB & CTB: Minimum standards

Minimum standards	EU CTB	EU PAB
Opportunity oriented minimum standards		
Year-on-year self-decarbonization of the benchmark	At least 7% on average per annum: in line with or beyond decarbonisation trajectory from the IPCC's 1.5°C scenario (with no or limited overshoot)	
Minimum green share/brown share ratio compared to investable universe (Voluntary)	Equivalent	Factor 4
Minimum allocation	Minimum exposure to sectors highly exposed to climate change issues is at least equal to equity market benchmark value	

Source: Löffler/Rink (forthc.)

Almost all major providers already offer indices that meet the requirements of CTBs and PABs. CTBs and PABs are often based on an existing index (often called parent index), e.g. the MSCI World Climate Paris Aligned Index and the S&P 500 Net Zero 2050 Paris-Aligned ESG Index.

The CTBs and PABs offered by different providers differ in the methodological approach to index construction, the data sources for scope 1, 2 and 3 emissions, and the handling of sector allocation, i.e. in terms of systematic sector underweighting/overweighting or neutral sector allocation.

EU PAB & CTB: Market adoption

- The number of companies referring to both instruments is increasing.
- Greenwashing could explain the volatility of reference to climate-related benchmarks.
- German Länder Hesse, North-Rhine Westfalia, Baden-Württemberg, and Brandenburg decided to apply PAB-standards on their pension funds in 2023 (currently €11 billion).
- **Currently, the benchmarks only cover climate issues.** Instruments to benchmark Biodiversity and ecosystems, water protection, circular economy, and pollution protection goals are still missing.

PAB & CTB: Risks and opportunities

- **Diversification:** the analysis of various index providers shows that the investable universe remains sufficiently large to allow diversification by sector, geography and company size.
- **Tracking errors:** the tracking error remains manageable, for example in the 0.5-2% range for S&P.
- **Return on investment:** portfolio value fluctuations seem to decrease, i.e., the portfolio behaves more calmly in times of strong market movements.
- **Transition risks:** PABs and CTBs could help to reduce transition risks in portfolios. However, by design, the data used in CTBs and PABs are backward-looking and thus only a limited indicator of reduced transition risks that will only materialize in the future.
- **Greenwashing:** CTBs and PABs can remedy Greenwashing, as they are clearly aligned with the goals of the Paris Climate Agreement and should be understood as a democratically-legitimized framework of sustainable investing.
- **Transparency and comparability:** the requirements of CTBs and PABs create a minimum level of transparency and comparability between sustainable indices. This strengthens confidence in corresponding products.

Key take aways

- The climate crisis is already present, **the financial sector is currently not on track to meet its Paris agreement obligations**
- Investments in climate change mitigation and **adaptation needs to be accelerated for all sectors and regions**, but investment opportunities in sustainable activities are available and well-known.
- **Climate Transition and Paris-aligned Benchmarks can be useful tools** to decarbonise investment portfolios, accelerate transition finance, and prevent greenwashing and underline environmental ambitions
- **CTBs and PABs have the potential to decrease transition risks for investors**, to decrease portfolio fluctuation, and to provide stable returns on investments
- The **credibility of CTBs and PABs is enhanced by ESMA's** competences to regulate benchmarks
- **Currently, the instruments only cover climate**, instruments for biodiversity and ecosystems, circular economy, water, and pollution protection are still missing.

Thank you!

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