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# Sustainable development and the Agenda2030 in emerging economies

## A Positive Trade and Environment Agenda for the BRICS

10 Years of the Turin Centre on Emerging Economies:  
lessons learned and perspectives for the future

Piergiuseppe Fortunato, 29.11.2023



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# Roadmap

- A changing global scenario/the geopolitical challenge
- The climate challenge
- Policy dimensions



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## **The changing global scenario - A three words story**

Hyper-globalization

Polycrisis

Hyper-realism



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## The Hyper-globalization regime

Deep economic integration (trade, finance, regulations,...)

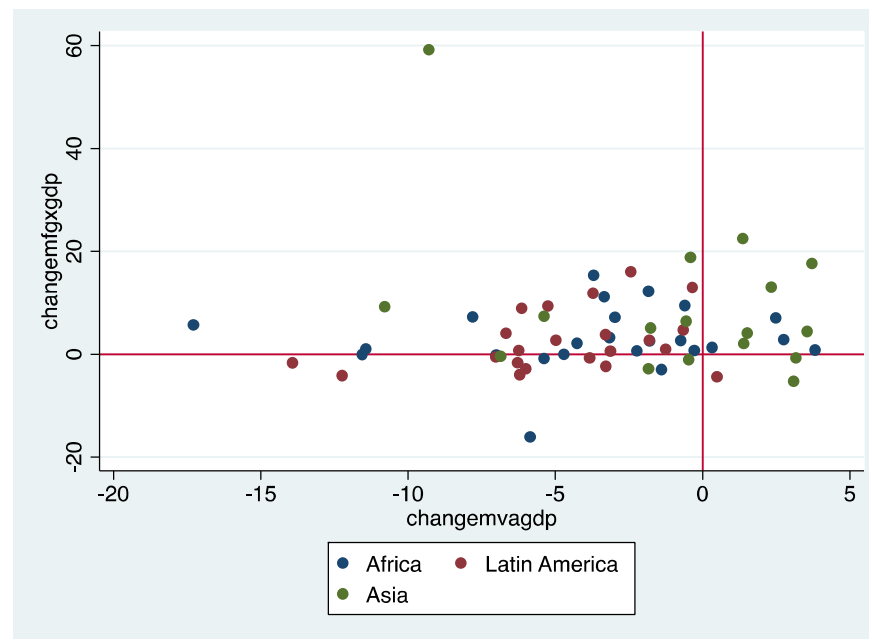
Central role of the markets

Needs of global economy before national goals (positive-sum game?)

Blind-spots: provision of global public goods (climate change, global health) & loss of political accountability &...



# Developing countries and hyper-globalization



# The paradoxes of Hyper-globalization I

The most successful economies were those that did NOT play by the rules

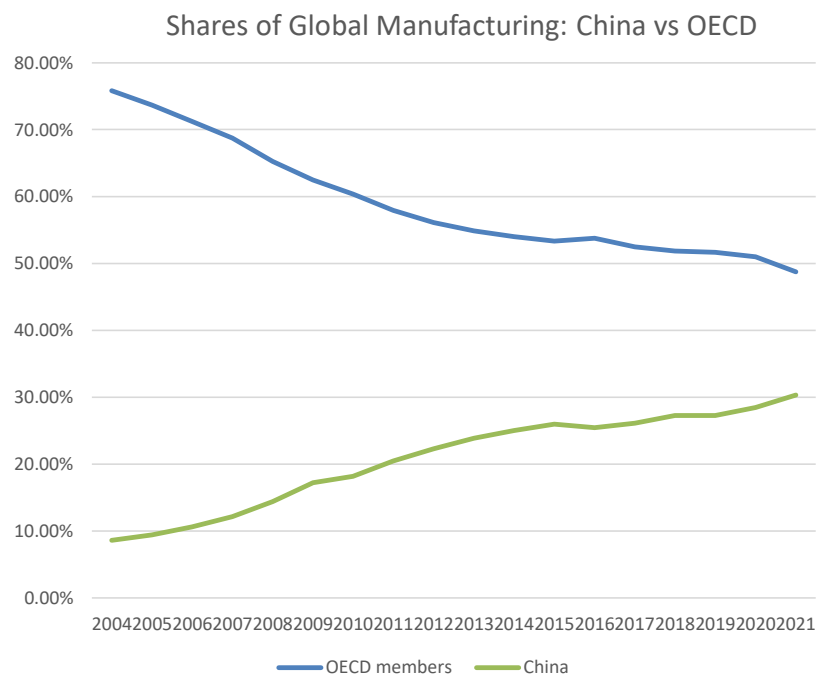
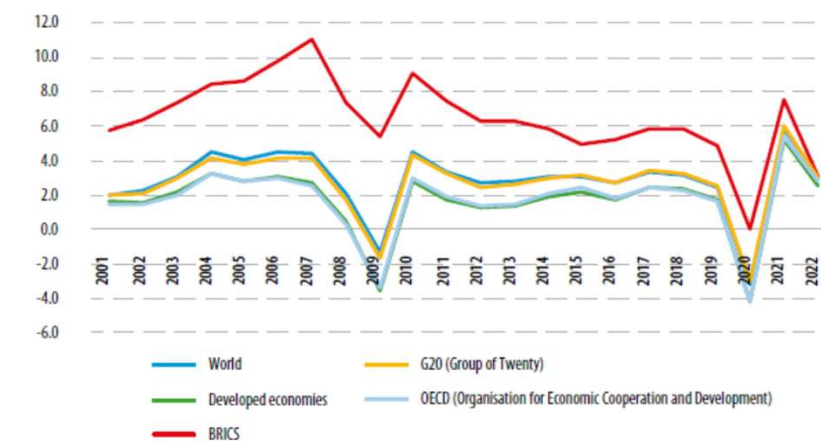


Figure 3.1: Real GDP Growth: the World and Selected Groups: 2000-2022



Data source: UNCTADStat.



# The BRICS effect

Figure 2.1a: BRICS Share of Global Trade in Goods

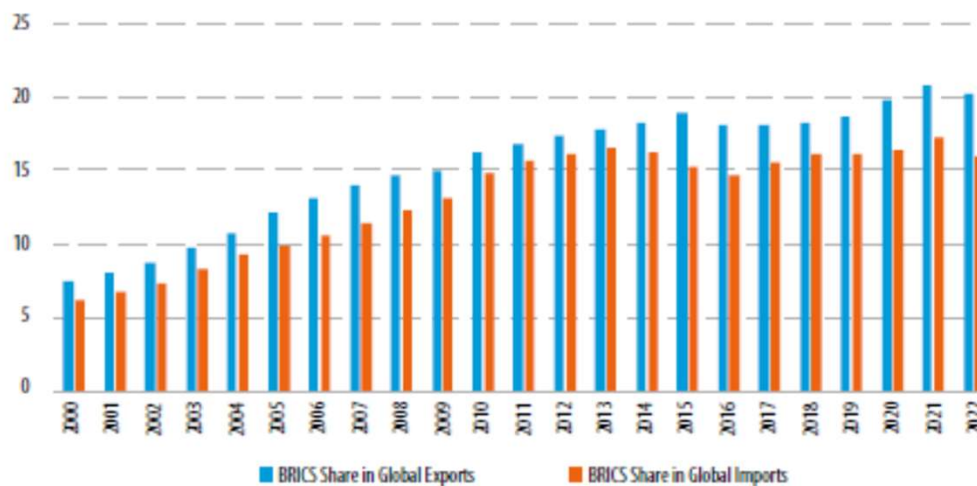
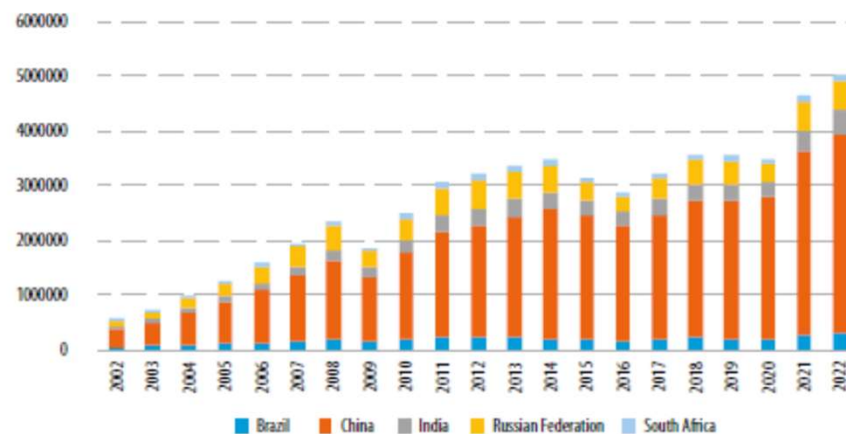


Figure 2.2: Share of Countries in Intra-BRICS Exports: 2002-2022



Source: World Integrated Solutions (WITS), COMTRADE.

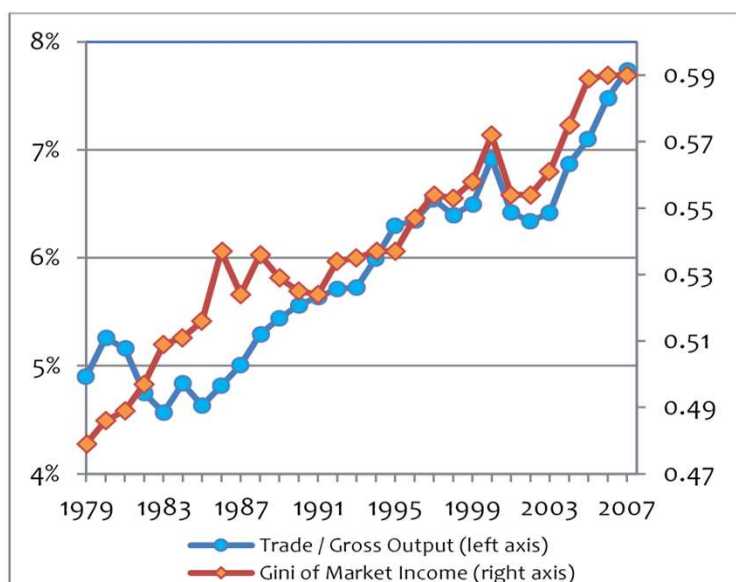
BRICS has emerged as an important trading partner for all BRICS countries. The share of BRICS in total exports and imports of all BRICS countries has increased over time (Figure 2.3).

# The paradoxes of Hyper-globalization II

Global integration (between countries) but domestic disintegration (within countries)

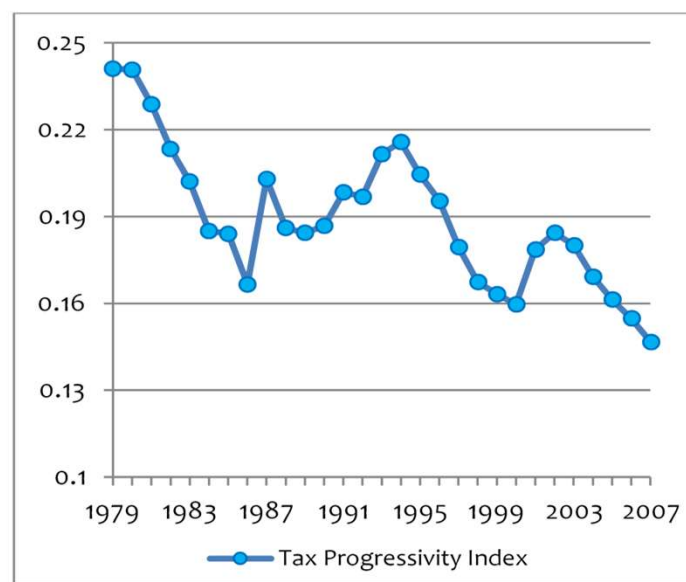
## Inequality and Redistribution in the United States

Panel A. U.S. Trade Openness and Gini Coefficient



Source: Antràs, de Gortari and Itskhoki (2017).

Panel B. Index of U.S. Tax Progressivity



Source: Antràs, de Gortari and Itskhoki (2017).

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## Polycrisis

Climate emergency

COVID-19

Geopolitical tensions

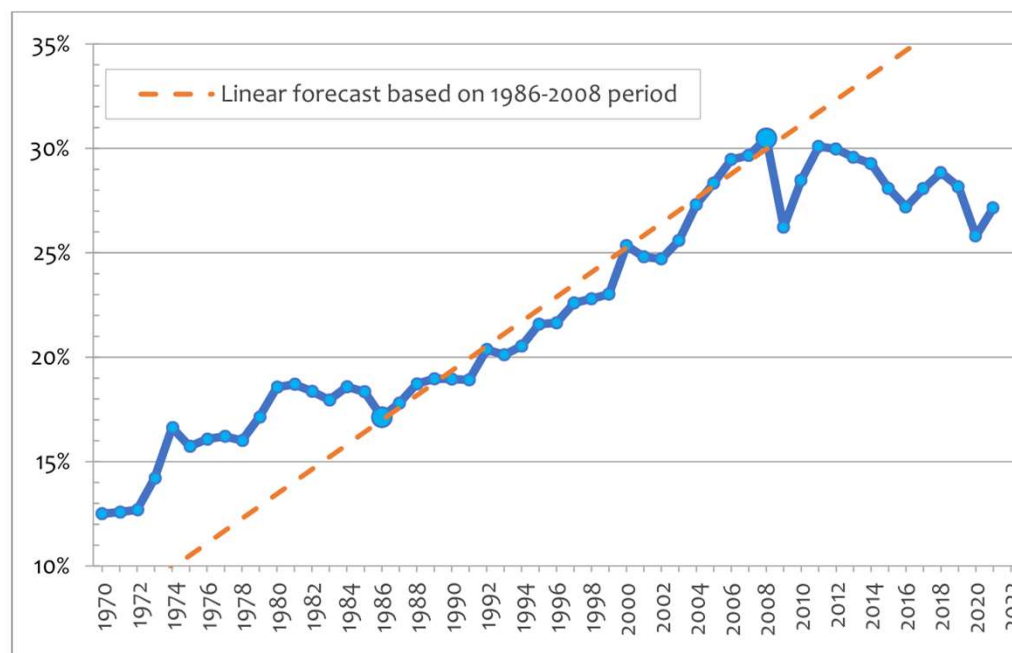
Inflation/Debt crisis

An historical precedent: pre-modern globalization and the bronze age collapse



# Slowbalization

World Trade over World GDP (1970-2021)



Source: World Bank's World Development Indicators ([link](#))



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## Hyper-realism / neo-unilateralism

Presumes inevitable conflict among countries (zero-sum game)

Increasing dominant view in many capitals (trade wars, economic sanctions, friend-shoring)

Reflected in unilateral measures adopted (e.g., CBAM)

Very grim prospects for global cooperation at times when it is most needed

Is this really the only way forward? Will trade wars and economic sanctions become a permanent feature of international trade and finance?

Ensuring national security in the absence of a global enforcer does not necessarily imply a world of conflict and minimal economic interdependence



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## How to rescue globalization? – Less is more!

Rebalancing the prerogatives of nation-states and the requirements of an open economy

**Domestic policy space.** Prioritizing domestic agenda and stability, i.e., restoring social contracts, is not inimical to open economy – it is in fact essential to it (i.e., reviving the spirit of the Bretton Woods era)

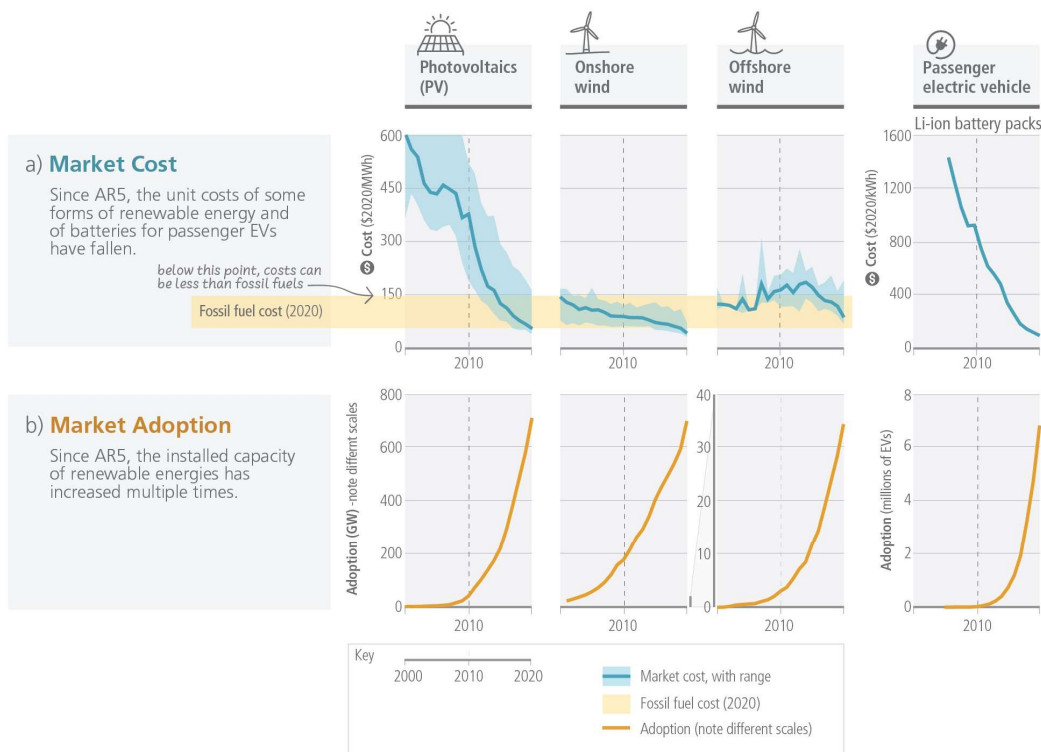
**Trade.** Permissive rules on IP (subsidies) and IPRs, and right to protect own standards/regulations/tax regimes

**Finance.** Diversity in financial regulation and capital controls

**National security.** “Small yards and high fences” but for real

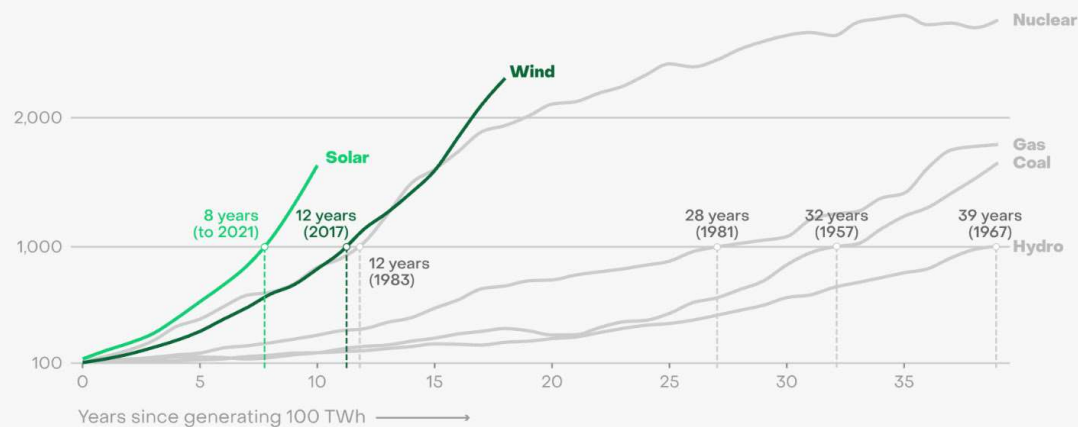


## Renewable electricity generation is increasingly price-competitive and some sectors are electrifying



## Wind and solar have scaled up faster than any other sources of electricity in history

Global electricity generation, by technology (TWh)



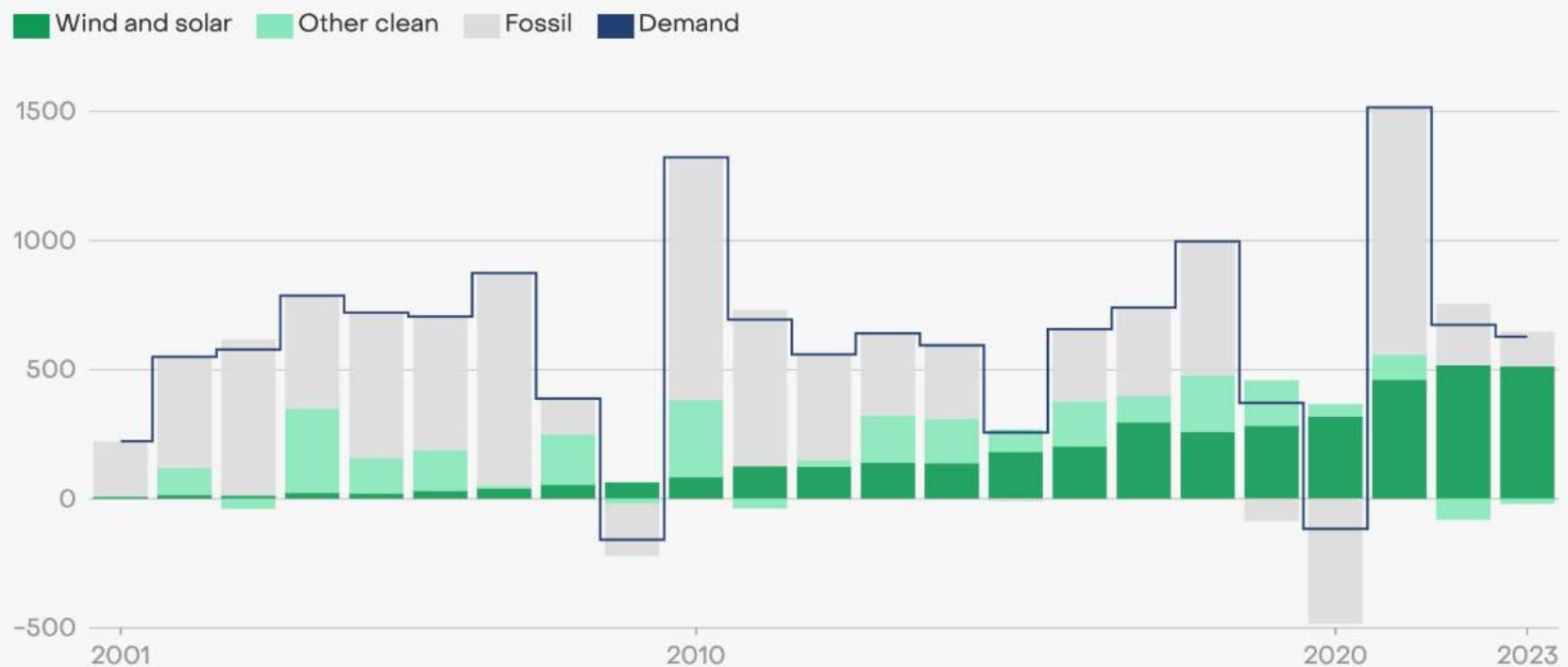
Source: Wind and solar generation data from Ember annual electricity data, nuclear, gas, coal and hydro generation data from Pinto et al. (2023)  
This graphic is based on a chart by Nat Bullard <https://www.nathanielbullard.com/presentations>

EMBER



## Growth in wind and solar met 82% of the global electricity demand rise in 2023

Annual change in electricity generation (TWh)



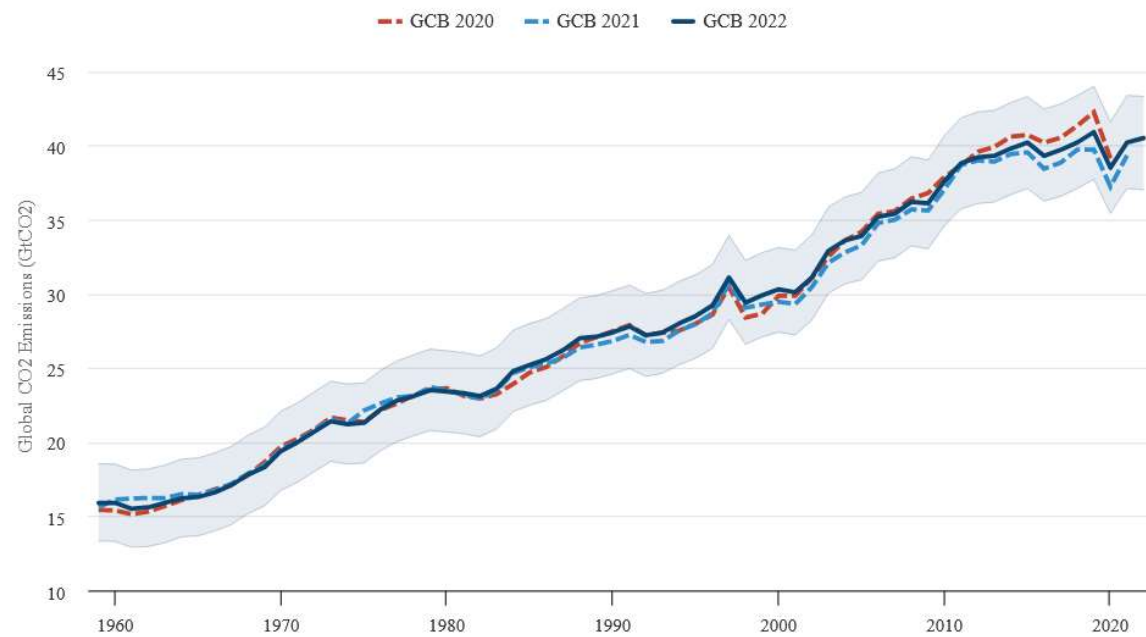
Source: Annual electricity data, Ember

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# Reality check

Global CO<sub>2</sub> emissions (fossil and land use) from the past three Global Carbon Budgets



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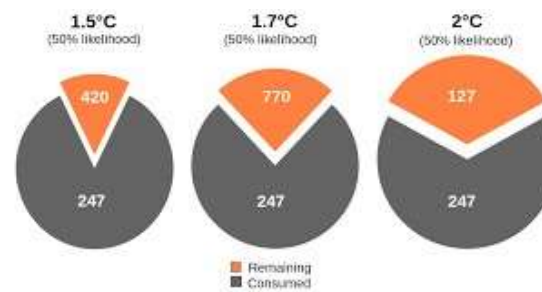
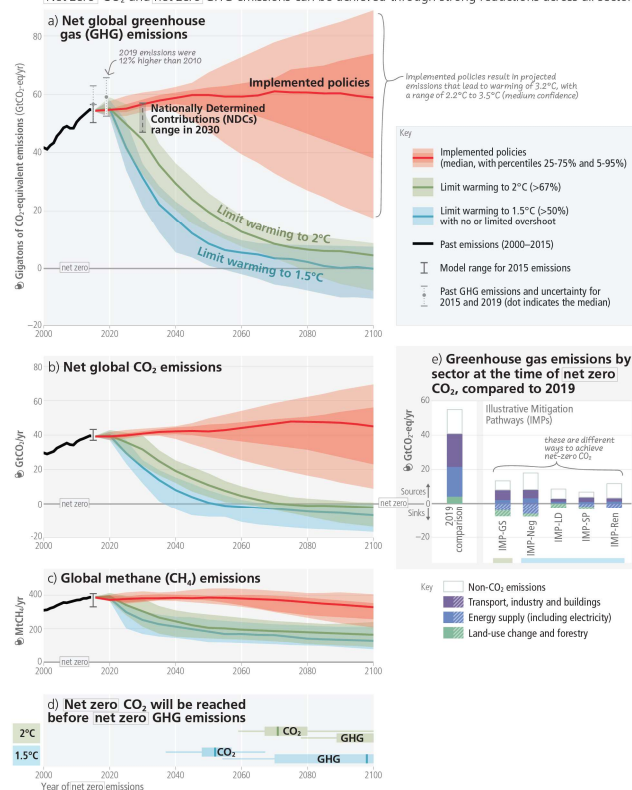




# How much margin do we have left?

Limiting warming to 1.5°C and 2°C involves rapid, deep and in most cases immediate greenhouse gas emission reductions

Net zero CO<sub>2</sub> and net zero GHG emissions can be achieved through strong reductions across all sectors



Far from the target!



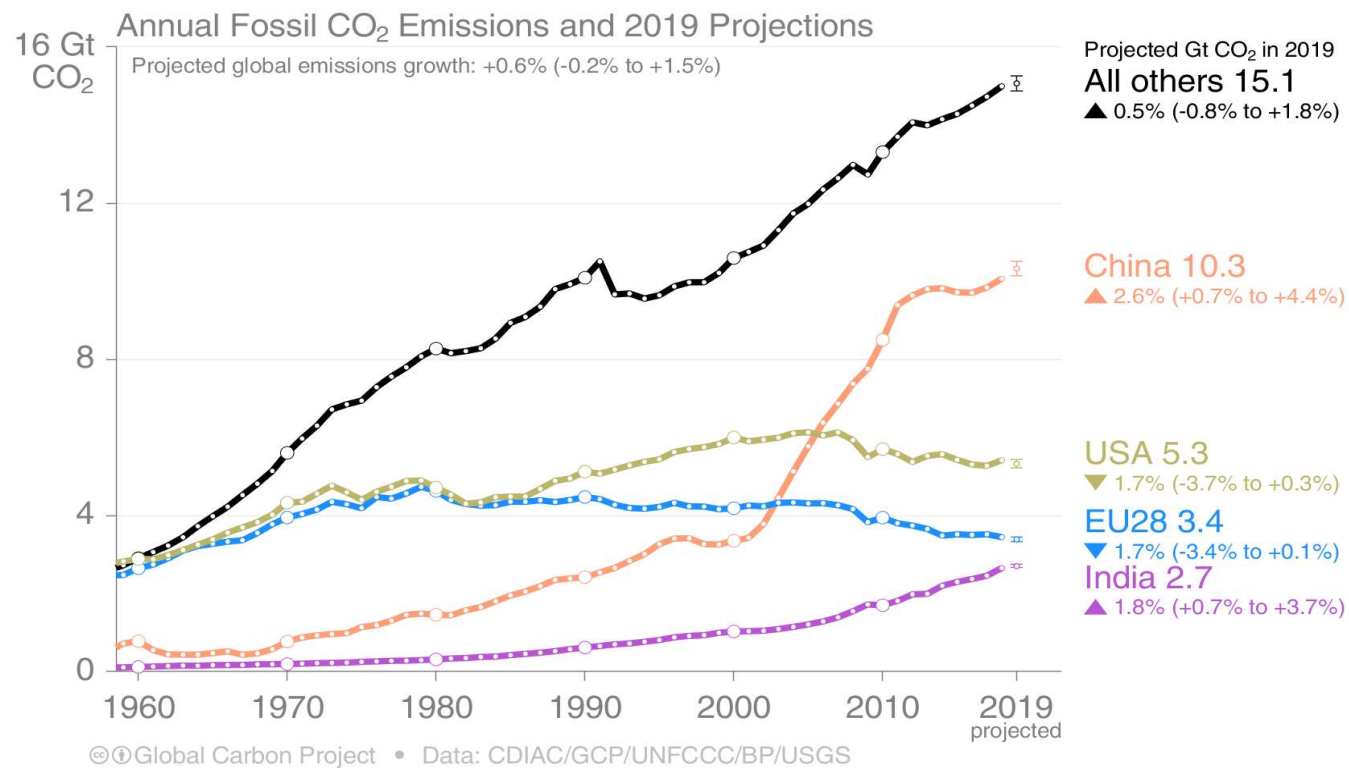
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## Why are we not making enough progress?

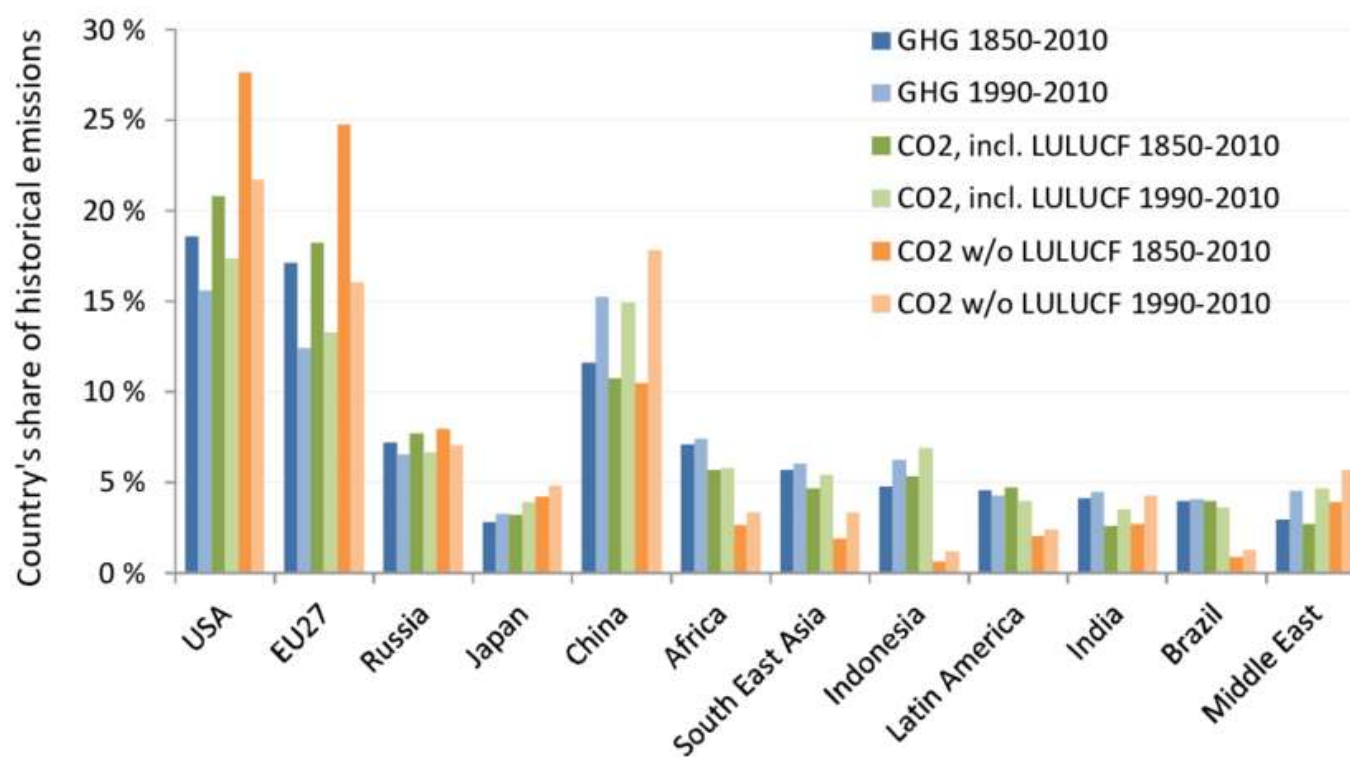
- **Technology:** functions in the economy, like producing **critical materials** required to embody our inventions, that do not depend on electricity and for which we still do not have a viable green alternative. Aluminum, ammonia, cement and steel: under BAU we'll need more, extremely difficult to replace and carbon intensive.
- **Market:** relative prices not enough, anticipated returns are not yet comparable to those of fossil fuels (price volatility related to unbundling of electricity mkts)
- **Structural:** changing the sources of energy production from fossil fuels to wind and solar will impact trade, industry, government finance, and the labor force (e.g. India, Indonesia...)...need to build new economies...
- **Political economy:** early retirement of capital stock (200 gigawatts of fossil fuel-based electricity-generating) and distribution of resources (e.g. Mpumalanga, Alberta, Yasuni...)



## And geography....(where emissions are growing?)



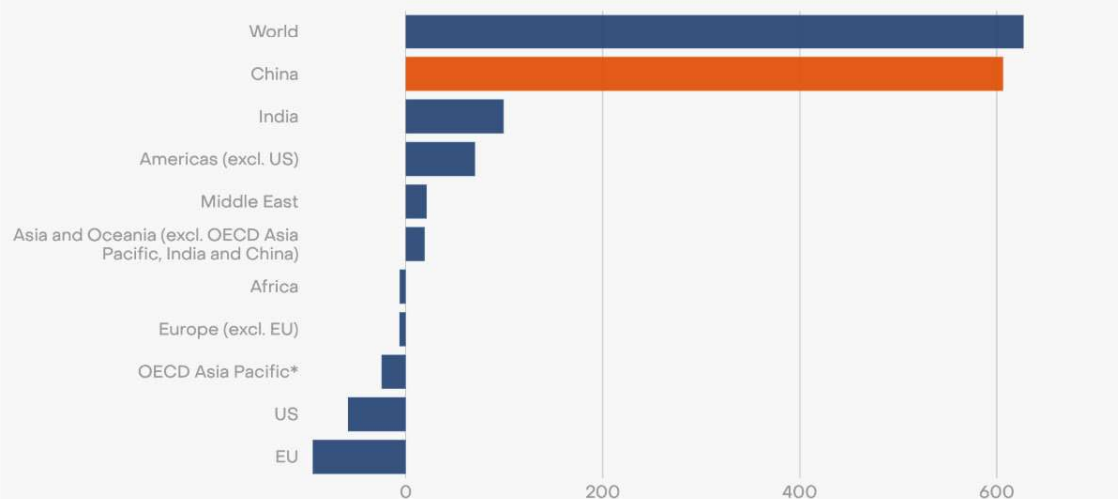
## Second-hand smokers



# Development and electricity demand

**China was the main driver of global electricity demand growth, while the EU and US saw sharp falls**

Change in electricity demand in 2023 (TWh)



Source: Annual electricity data, Ember  
\*South Korea, Japan, Australia and New Zealand

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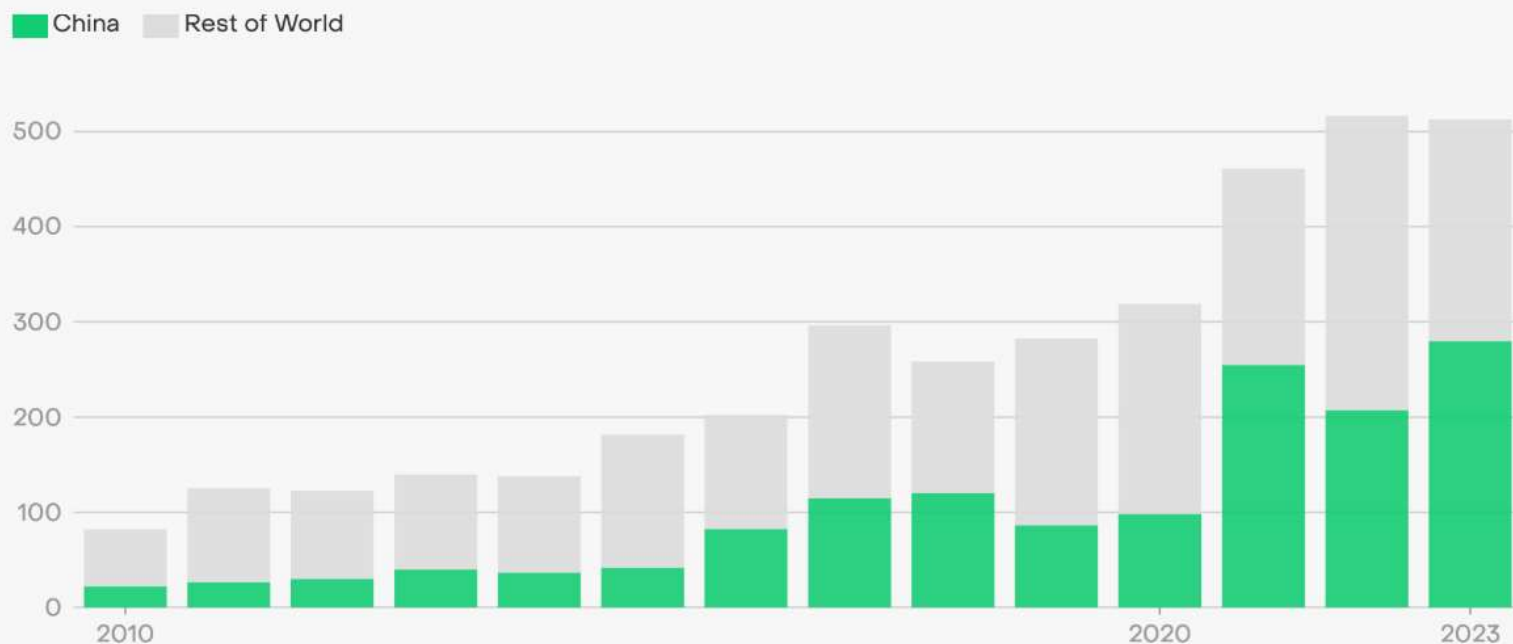
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	Low Growth	High Growth
High per-capita energy consumption	G7: US, Europe, Japan	China
Low per-capita energy consumption	Sub-Saharan Africa	India



## More than half of the global additions in wind and solar generation came from China in 2023

Annual additions of electricity generation from wind and solar (TWh)



Source: Annual electricity data, Ember

**EMBER**

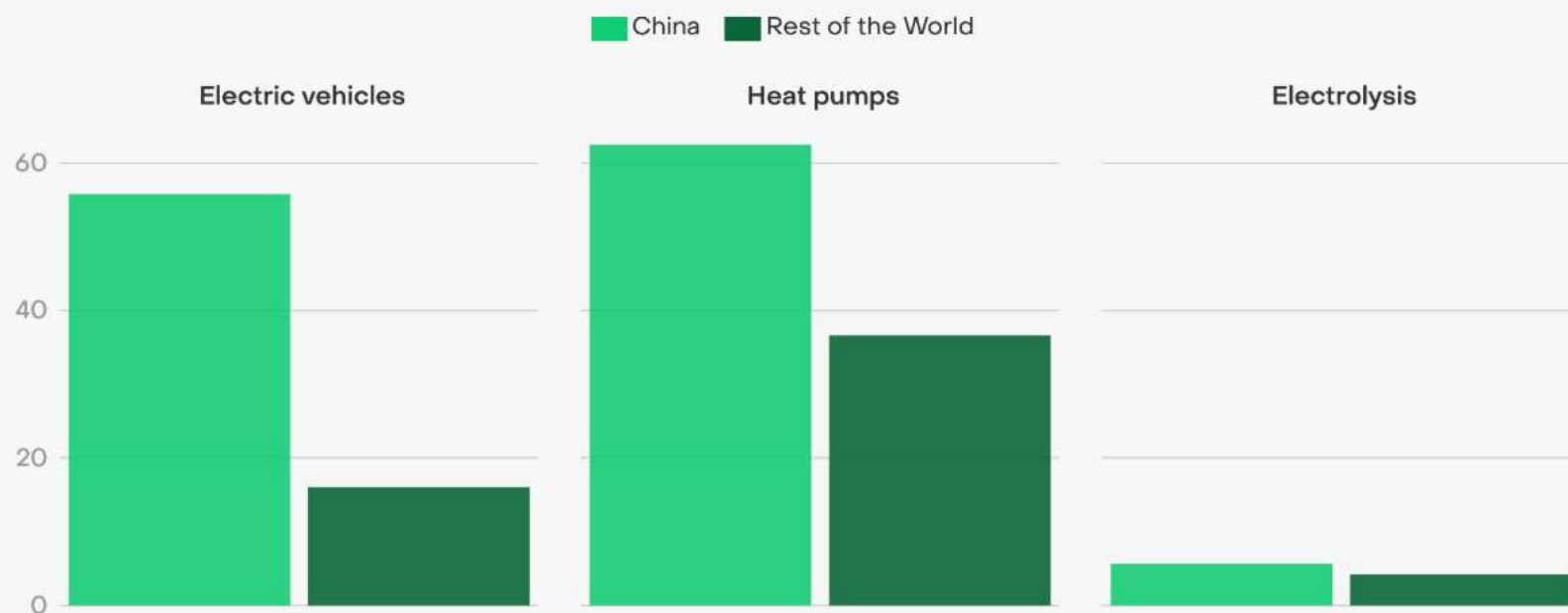
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## China deployed key low-carbon technologies far more quickly than the rest of the World combined in 2023

Additional demand per technology (TWh)



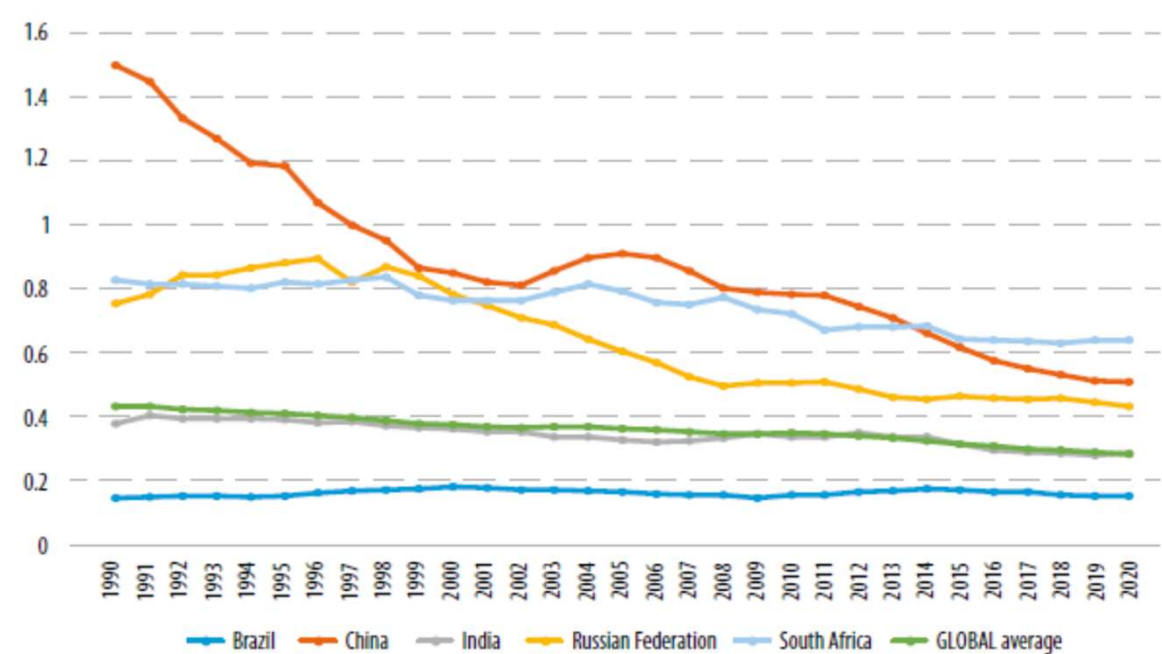
Source: Ember calculations (see Methodology)

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Figure 3.3: Change of Emissions Intensity of BRICS



Data source: EDGAR.

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## What we need to do

We need to think about energy transition less in terms of carbon mitigation and more in terms of overcoming hurdles to economic transformation.

**Need (broader) policy solutions.** Greening our economies it's not simply about carbon taxes or mkt incentives, the real issue is economic development...jobs and food matter...to achieve transformation process must be 'socially desirable'.

A **Green Industrial Policy** incorporates “any government measure aimed to accelerate the structural transformation towards a low-carbon, resource-efficient economy in ways that also enable productivity enhancements”.



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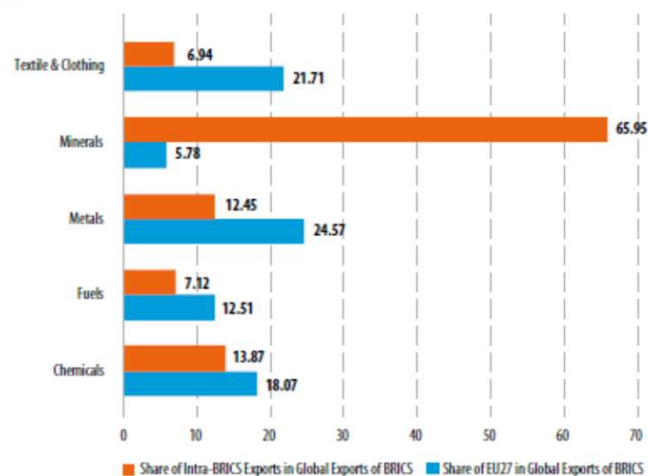
## What we need to do: 3 dimensions

- **National:** Strategic approach with targeted measures beyond market-based approach to internalize externalities (e.g., FITs and TGCs)
- **Global:** reform trade system (ToT, subsidies, unilateralism, e) and financial resources to compensate the population for the lost opportunities and finance the cost of energy transformation (e.g., Yasuni-ITT initiative)
- **Regional:** More integration to **reduce risk** related with critical minerals volatility (LR, SR), **diversify** the energy matrix (renewables) and increasing **bargaining power** (OPEC)



# CBAM and the BRICS

Figure 3.4: Share of EU and Intra-BRICS in Global Exports of BRICS in CBAM-Impacted Products



Source: World Integrated Solutions (WITS), COMTRADE.

Table 3.1: Changes in exports of energy intensive products, percent

	CBAM \$ 44	CBAM \$88
Brazil	-1.49	-2.78
China	-1.98	-3.52
India	-2.91	-4.72
Russian Federation	-4.27	-7.69
South Africa	-4.51	-7.59
BRICS	-15.16	-26.3

Source: UNCTAD, 2021.

