Enhancing market transparency in green and transition finance: issues at stake and opportunities

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Taxonomies and their use

1. *Science-based taxonomies* are expected to play a main role to inform investors’ climate financial risk disclosure and risk assessment.

2. However, lack of policy coherence and credibility affects their relevance for sustainable finance:
   - Example: vote on EU Taxonomy of sustainable activities (July 2022) will crucially affect firms and investors’ disclosure but not the composition of the economy for achieving the low-carbon transition.

3. We still do not have a *Taxonomy of carbon stranded assets*:
   - Stranded assets not well defined yet: research and supervisory work focuses on fossil fuels reserves, production plants, specific sectors (e.g. NACE B).
   - This approach leads to underestimate the role of stranded assets in the economy and in investors’ portfolios (Monasterolo 2020).
Climate transition metrics, frameworks, and market products

- Often, high firms’ GHG emissions or ESG risk used a proxy and applied for disclosure regulation and greening monetary policies (see ECB’s climate tilting proposal to green corporate bonds asset purchase programs).

- But several limitations:
  - GHG emission data are not yet adequate to support portfolio rebalancing: scarce, inconsistent reporting, see scope 3 in Figure 1
  - Scope 1 and 2: most data are estimates by data provides (different models, Busch ea 2021)

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**Figure 1**: Selected companies in transport and electricity generation. Differences in reporting for scope 1+2+3 emission intensity against fundamentals (e.g. renewable capacity, fleet emissions) that should be related to those intensities. Source: Bressan et al. 2022

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Forward-looking dimension still missing

- Forward-looking dimension, when included, refers to firms’ NetZero ambitious plans.
  - Problem: will and could they be implemented in the future? (mora hazard)

- A science-based forward-looking assessment of transition risk would consist in mapping the variables of climate scenarios (e.g. NGFS) into classes of transition risk exposure:
  - CPRS-Granular allows us to assign a transition risk profile to IAM variables, and to map NACE 4-digit codes to relevant IAM variables and their trajectories across NGFS scenarios

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Source: Battiston et al. 2022
An enhanced measure of greenness

- We developed an **enhanced measure of greenness** to account for limitations of GHG emissions and ESG scores:
  - Climate Policy Relevant Sectors: energy technology profile disclosed by **CPRS-Granular**
  - **Renewable energy capacity** (utility, source: BNEF and proprietary database of company reported data)
  - **Green CAPEX** (utility, source: BNEF and Refinitiv)
- **Application to the ECB’s corp. bonds portfolio:** algorithm to perform the climate portfolio rebalancing **shifting weights** from bonds that are more exposed to transition risk to bonds less exposed to
- **Our greenness measure can reduce climate transition risk** in ECB’s portfolio (top figure) while limiting market impact (average close to zero, but can be larger for individual securities)

Figure 2: Changes in portfolio weights within fossil and transportation sectors as a consequence of the rebalance. Source: Bressan ea 2022.
References

