Trade, Investment, and Financial Aspects of Climate Change

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Background

- 2008: official statistics and climate conferences in Oslo and Seoul by UNSD
- 2009: a programme review on climate change and official statistics by the Australian Bureau of Statistics for the UN Statistical Commission
- 2011: UNECE Task Force on Climate Change-related Statistics
- 2014: Recommendations on Climate Change-related Statistics by UNECE
- 2021: latest set of 44 indicators covering climate change drivers, emissions, impacts, mitigation and adaptation by UNECE
- 2021: Global Set of climate 134 indicators and statistics
- 2021: IMF Climate Change Indicators Dashboard
The paper...

- Contributes to the efforts of the global statistical community to develop statistics to inform climate policies by
  - Highlighting the need to improve availability of debt statistics and proposing a conceptual framework with an emphasis on developing countries
  - Reviewing progress on climate and sustainability investment and potential indicators thereof
  - Digging deeper into one high-carbon sector – on plastics lifecycle trade, UNCTAD new Database on Trade in Plastics
  - Discussing the potential of a new UNCTAD Global Transport Costs Database for International Trade to estimate emissions from transport related to trade
Conceptual framework for climate-relevant debt indicators
Proposed climate-relevant debt indicators

Five debt indicators broken down by ownership and currency composition would reveal much about vulnerability and sustainability:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Available data/source</th>
<th>IPCC category</th>
<th>IMF category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of climate-related debt in external and foreign-currency denominated debt</td>
<td>Not available</td>
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<td>Share of climate-related debt in total debt</td>
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Opportunities

- Indications on the intensity of the global fight against climate change
- New insights on the sustainability debt of developing countries and to what extent climate change weighs on their public finances
- Official creditors who are interested in fostering climate adaptation and mitigation would be able to assess progress in this area better in light of vulnerabilities
- Better guidance for private creditors in making relevant investments and incentives to participate in debt restructuring programmes

Challenges

- Currently official debt statistics do not permit the computation of such indicators:
  - climate-related debt data is not reported
  - data assume a perfect concordance between ownership and currency composition of public debt
Proposed climate-related investment indicators

- The most popular investment areas to be considered: climate change mitigation, carbon-efficient assets, renewables, green real estate and infrastructure, and green, social or mixed-sustainability bonds.

- Adaptation measures including grants and other non-loan instruments need to be included.

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<td>The value of certified green lending and grants for climate action (by country/sector/issuer)</td>
<td>Not available</td>
<td>Mitigation/Adaptation</td>
<td>Financial</td>
</tr>
<tr>
<td>The value of certified climate-related investment (by type/country/sector/donor)</td>
<td>Not available</td>
<td>Mitigation/Adaptation</td>
<td>Cross-border</td>
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Opportunities

- UNCTAD estimates that in total, “sustainability-dedicated” investments amounted to US$3.2 trillion in 2020
- Rapid expansion of sustainable investment market
  - Potential to help fill gaps in financing for the 2030 Agenda?
- More data becomes available as these instruments become more popular

Challenges

- Information about different climate investment and financial instruments remains scattered and makes it difficult to see the big picture
- More transparency is needed to judge the true depth of “green” in these instruments
- Difficulty to separate climate-specific instruments from more generic environmental or SDG-targeted investment
- “Blue” climate and finance data still a relatively unexplored area
Example of a high-carbon, highly traded, useful but problematic product – plastic

The new database provides indicators to calculate plastics trade over the entire lifecycle, by function in the productive cycle; by countries’ role in global plastics trade; and by importance for national economies and development paths

Derived from the UN Comtrade and a selected list of plastics-related inputs and products, e.g., not only HS Chapter 39 ‘Plastics and articles thereof’ but beyond it

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<td>Trade in plastics by value/volume and product type</td>
<td>UNCTADstat</td>
<td>Drivers</td>
<td>Cross-border</td>
</tr>
<tr>
<td>Plastics trade lifecycle (primary, intermediate, final, waste)</td>
<td>UNCTADstat</td>
<td>Drivers</td>
<td>Cross-border</td>
</tr>
<tr>
<td>Trade in plastics by trading partner and product type and share of total exports/imports</td>
<td>UNCTADstat</td>
<td>Drivers</td>
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Opportunities

- These data were not available before. It is important to help countries meet low-carbon and pollution goals and respond to carbon-related trade regulations.
- UNCTAD will be publishing the database online as an open resource and welcome input on categorizations
- We now have a more robust framework for understanding plastic trade flows
- Possibility to calculate derived indicators, such as comparative advantage in plastics trade or dependence on it or produce country rankings

Challenges

- A great deal of trade in plastics remains ‘hidden’ and unidentifiable in the HS classification, like some highly traded products (packaging, cars, electronics).
- This hinders efforts to properly assess the carbon intensity of the sector; as well as country exposure to climate change regulations and costs
- The multi-faceted and complex nature of plastics trade indicate that countries will have differing challenges in the search for sustainable solutions
Limitations from a plastic pollution perspective

Shortcomings in existing HS classifications include:

- limited detail on the types of plastic polymers in products traded across the life cycle of plastics (e.g., primary plastics, empty plastic packaging, waste)
- not aligned with updated terminology in Basel Agreement plastic waste amendments
- limited detail on the feedstocks for different products (e.g., bio-based, recyclates or virgin fossil fuels)
- absence of information on environmentally problematic chemical components in plastics across the life cycle (e.g., in pellets, packaging and waste)
- gaps in the scope of products that are classified described or defined plastics
- varying detail on the share of plastics embedded in products
- missing information on flows in plastic packaging associated with products
UNCTADstat Global Transport Costs Dataset on International Trade and indicators

- Database developed by UNCTAD and the World Bank in collaboration with the International Maritime Organization
- Derived from the UN Comtrade with data on volume and value of bilateral goods trade, mode of transport and distance, detailed by 5000 commodity groups
- Emission factors to be collected from other sources (transport literature, registers, AIS, …)

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<td>CO₂ emissions from transport for international trade in goods</td>
<td>UNCTADstat</td>
<td>Emissions</td>
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</tr>
<tr>
<td>Carbon intensity of importation and exportation of goods</td>
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Opportunities

- Assess the contribution of transport related to international trade in goods to CO₂ emissions and global warming
- Identify the most and the least emission-intensive trade segments
- Simulate the effects of mitigation measures (e.g., carbon tax, CO₂ offsetting schemes), technical innovations and bio-fuels on the trade bill and on domestic prices
- Inform analysis of trade asymmetries with better data on transport costs by mode
- Analyse in detail the actual routes on which goods travel & costs and emissions related to different routes

Challenges

- UNCTAD is currently building time series to be released on UNCTADstat
- As source data coverage grows, the models used for data editing and filling of data gaps will be further enhanced
Conclusion

■ Better data on climate-related debt, financial flows and investment needed!
■ IMF’s ‘Climate Change Indicators Dashboard’ is a welcome initiative for better evidence covering financial and macroeconomic aspects of climate change
■ The UNECE and UNSD climate indicator sets could benefit from the IMF initiative and the outcomes of this Forum to identify new data and indicators
■ New databases in the UNCTADstat Data Center will enable the calculation of new climate change indicators from the cross-border perspective
  ■ UNCTADstat Trade in Plastics Database
  ■ UNCTADstat Global Transport Costs Dataset on International Trade
  ■ UNCTADstat BioTrade Database (upcoming)
  ■ UNCTADstat Oceans Economy Database (upcoming)
■ All of the above databases are based on official trade data reported by countries and maximize their analytical potential and value for policy