Deutsches Institut für Entwicklungspolitik

German Development Institute

GREEN GROWTH Knowledge Platform

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Call for Papers for the Conference

Green transformation and competitive advantage

Evidence from developing countries

18-19 June 2018, Bonn

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"Green transformation and competitive advantage: Evidence from developing countries"

German Development Institute - Deutsches Institut für Entwicklungspolitik (DIE), Bonn, Germany, 18-19 June 2018

Background

Developing country governments are increasingly committing to 'greening' their economies, most explicitly under the Paris Agreement, where nearly all governments agreed to establish national roadmaps for decarbonisation. Many developing country governments have furthermore enacted comprehensive national green growth strategies aimed at reducing their environmental footprints and turning this into new competitive advantage. Yet, in general, poorer countries' governments tend to be even more reluctant than those of rich countries to pursue ambitious green transformation pathways, arguing that

a. they do not have the financial and institutional means to internalize environmental costs and
b. their economies are mostly factor-driven, hence internalizing environmental costs may undermine their competitive advantages in international trade vis-à-vis innovation-driven economies that may reap the benefits of a technological paradigm change more easily.

For these reasons, many analysts and policymakers favour a 'grow first and clean up later' strategy. Our conference seeks to challenge this strategy through a better understanding of the economic co-benefits and costs of green transformations. Confirmed speakers include Edward Barbier (Colorado State University), Sam Fankhauser (Grantham Research Institute, LSE), Ann Harrison (The Wharton School), and Xue Lan (Tsinghua University).

Research gap

Given the scale of the required shift in technological pathways and related investments towards sustainability, the impacts on the economies of industrialised and developing countries alike can hardly be overstated (Altenburg et al., 2016; Fankhauser and Jotzo, 2018). In this process, the interrelations between green transformations and competitive advantages are complex and imply manifold synergies and trade-offs (Altenburg and Rodrik, 2017). For example, some green investments pay off quickly and thus enhance firm competitiveness, whereas others have longer amortization periods and may reduce competitiveness in the short or medium terms (Dechezleprêtre and Sato, 2017). Some green technologies may spur technological learning in developing countries and create opportunities for participation in global value chains , whereas others may not be suitable for local development and production (Brandi, 2017; World Bank, 2014). Similarly, green investments can have high upfront costs, but can increase environmental performance and efficiency in certain industries (Chan et al., 2018).

In sum, the impacts of the green transformation on innovation, on national or sector competiveness, and on trade performance are not yet fully understood. At the same time, they are highly relevant, given the fact that political buy-in for green transformation agendas essentially depends on stakeholders' expectations of economic co-benefits and costs (Schmitz et al., 2015). Moreover, most

studies on these interdependencies focus on OECD countries, whereas research on developing countries, where the drivers of competitive advantages are substantially different, is scarce (Lederer et al., 2018). Guidance for developing country governments on policy design to create synergies and manage trade-offs between the green transformation and competitiveness is, therefore, crucial (Altenburg and Rodrik, 2017; Harrison et al., 2015; Pegels, 2014).

This conference will thus focus on

- changes in developing countries' national or sectoral competitive (dis)advantages arising from the sustainability shift in global technological trajectories, and corresponding shifts in natural resource requirements (such as analysed by Barbier, 2016a; McGlade and Ekins, 2015);
- fostered or hindered by national policies and politics (such as analysed by Barbier, 2016b; McDowall et al., 2013; Noailly, 2012; Pegels et al., 2018), and
- reinforced or mitigated through international trade and increasingly globalised value chains (such as analysed by Berger et al., 2017; Brandi, 2017; Cosbey, 2017; Saikawa, 2013).

Contributions

The conference intends to bring together research on the link between green transformation and competitiveness in developing and emerging countries (understood as non-OECD countries, but including Chile and Mexico). It does so by bridging various disciplines and methodologies, including for example patent data analysis, qualitative case studies, econometric research, foresight studies, and integrated assessment modelling. It combines invited papers and papers selected via a call and review process.

We encourage papers from various academic disciplines and using a variety of data and methodologies, including conceptual papers, empirical cross-country studies as well as case studies on specific sectors, technologies and/or countries. Given the lack of empirical evidence from low-income countries, contributions dealing with this group of countries and which ideally address the employment and income distribution effects of green transformations are particularly welcome.

Contributions should directly or indirectly be relevant to policy formulation and implementation and reflect upon political-economy aspects that may facilitate or hamper implementation. They should address one of the following three work streams:

1. **Greening technological trajectories and new competitive advantages.** As environmental constraints change the demand for technologies and resources, competitive opportunities for countries change. Similarly, some types of assets may be stranded (e.g. fossil fuels), while others (e.g. biomaterials, lithium) may see increasing demand, thus re-defining the meaning of "resource-rich" countries. What will be the main technologies to be developed and deployed along green transformation pathways, and which countries are most likely to take advantage of them? Will countries shift towards circular economy principles, and how will this affect their competitiveness? How will devaluation of 'brown' assets and new demand for 'green' assets affect competitiveness and socio-economic power positions? How can developing countries build the required capacities to benefit from the shifts? This work stream will bring together Integrated Assessment Models, technology foresight studies, 'competitive advantage forecasting' (using e.g. economic complexity analysis) and empirical case studies of changing competitive advantages and ensuing shifts in political economy dynamics.
2. **National green policies and early mover advantages.** Environmental policies can add to the costs of doing business, but they can also trigger innovation that may more than fully offset the costs of complying with them. Countries may reap early mover advantages in green technologies, capturing shares in not yet fully developed product or service markets. Is there such evidence - if not in terms of cutting edge innovations, then at least relative to other developing countries? Is there evidence of green technology patenting in

developing countries that hint to increasing competitiveness? At the same time, as technological capacity is built, there may be economic benefits to entering a market at later stages. What does evidence tell us about the right time to enter? Which policies have been successful in creating early mover or early follower advantages? How can political coalitions for the implementation of such green policies be organized? This work stream will include firm-level or country level case studies as well as cross-country empirical analyses, exploring correlations and causalities between national policies and competitiveness outcomes, such as increased patenting.

3. **Greening trade and global value chains and their competitiveness implications.** International trade and trade-related measures, such as environmental clauses in trade agreements, reinforced by consumer preferences for environmentally friendly products in lead markets, have the potential to radically change global value chains. To what extent do factor cost advantages (natural endowments, labour cost) benefit producers in developing countries and how does environmental regulation affect competitiveness? In which areas can developing country firms gain advantages from green labelling? Will environmental footprinting become a determinant of future competitive advantage, and how can developing countries benefit? Which environmental product standards show a tendency to ratchet upwards and how can developing countries benefit from "trading up"? To what extent are multinational corporations already incorporating environmental criteria in their procurement policies and how does this affect entry barriers for suppliers, rent distribution and the suppliers' environmental performance? Do firms in global value chains adopt green innovations faster than others and, if so, to what extent do their practices spill over to other firms? Is there evidence of carbon-offsetting resulting in competitive (dis)advantages? What are the implications of environmental clauses in trade and investment agreements and how do they affect the competitiveness of firms or sectors in developing countries? How can developing countries avoid turning into pollution havens – and how relevant is this phenomenon in the first place? This work stream combines trade analysis and global value chain studies including quantitative (based on Trade in Value Added data) as well as qualitative studies of emerging new competitive advantages in green tradables.

We expect accepted presenters to submit a zero draft of their paper by 04 June 2018, and to participate in the conference. Zero drafts should have a minimum length of 4000 words and outline the theoretical background, methods, and main findings of the paper. Travel and accommodation expenses of all accepted presenters will be covered in accordance with *Bundesreisekostengesetz* (German Federal Travel Expenses Act).

Outcome

The conference will facilitate exchange among scholars, policy makers and practitioners. Its results will be used to prepare a Special Issue on green transformation and its competitiveness effects in developing countries. We are currently negotiating with various editors of highly ranked journals.

Important dates

09 April 2018	Extended outline submission (1200-2000 words)
23 April 2018	Decision notification: Conference acceptance
04 June 2018	Zero draft submission (min. 4000 words)
18/19 June 2018	Conference presentation
02 July 2018	Notification of invitation to contribute to Special Issue

Contact

In case of content related questions, please contact Anna Pegels (anna.pegels@die-gdi.de) or Tilman Altenburg (tilman.altenburg@die-gdi.de). For logistical information, please contact Ina Klemke ina.klemke@die-gdi.de).

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Tilman Altenburg, German Development Institute / Deutsches Institut für Entwicklungspolitik
Anna Pegels, German Development Institute / Deutsches Institut für Entwicklungspolitik
John Maughan, Green Growth Knowledge Platform (GGKP)
Alexandra Oppermann, Gesellschaft für Internationale Zusammenarbeit (GIZ)

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