

**The snowball effect of trade liberalization in global value chains:
From upstream tariff removals to downstream productivity gains**

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The paper provides new evidence on the effects of trade liberalization on the productivity and competitiveness of downstream sectors. The costs of protectionism are amplified in global value chains where, as countries specialize in stages of fragmented production processes, exporters rely on access to imported intermediate inputs. Conversely, the removal of tariffs and non-tariff measures is likely not only to render the affected sectors more competitive, but also to generate productivity spillovers to the rest of the economy through input-output linkages. The paper provides a first attempt to quantify these productivity gains from trade liberalization in input-producing sectors. Using input-output analysis and panel regression techniques, it compares the impact on previously protected industries and on downstream industries.

The analysis relies on three main data sources. Information on domestic and international intermediate input linkages is drawn from the OECD Inter-Country Input-Output model, which traces international transactions between 57 countries and 36 industries. The extent of protection comes from a newly-developed bilateral tariff database by industry, differentiating between tariffs on intermediate and final goods for each sector and partner country. Finally, the outcome variables are primarily industry-level productivity indicators (labor and total factor productivity), but can also include indicators of upgrading such as capital intensity, R&D intensity and IT intensity. The study covers OECD countries and emerging economies over the period 1995-2009.

The first estimates quantify the potential productivity gains from “going the last mile” in tariff elimination in sectors providing intermediate inputs. Additional counterfactual scenario analyses can simulate the impact of eliminating the remaining tariffs in regional trade agreements such as the TTP and TTIP.