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How the Reduction of Regulatory Barriers to Trade in Services may affect the Architecture of Global Value Chains: The Case of TISA

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Significant reductions in tariff and non-tariff barriers as well as advances in information technology over the last decades have allowed countries to expand their production process beyond national borders, reflecting the increasing relevance of trade in intermediates. This research investigates how the reduction in regulatory barriers for trade in services may change the architecture of global/regional value chains through its indirect effect on the exports of industrial goods. In terms of value-added, services exports currently represent more than 50% of global exports. Therefore, a more dynamic and competitive service sector is considered a key factor for international competitiveness, as more and more services go embedded in country's exports. As a case study, the authors choose TISA (Trade in Services Agreement), a Plurilateral agreement on trade in services currently under negotiation by 50 economies (including EU-28, USA and Japan) and comprising over 70% of global trade in services.

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## **Estimating the Ad Valorem Equivalents of Regulatory Barriers**

First, the authors estimate the country-specific regulatory barriers for trade in services for a sample comprising all TISA members and the BRICS economies. A relatively new trend in the empirical literature of Regional Trade Agreements (RTAs) is to estimate the general equilibrium effects of preferential trade and regulatory agreements using the pre-estimated ad valorem equivalents of regulatory barriers as inputs into computable general equilibrium models. The resulting estimations correspond to ad-valorem equivalents obtained from importer's fixed-effects and converted using the structural definition of trade costs. They provide detailed information for each sector and highlight that the highest non-tariff barriers are by far found for the sector of gas distribution, with a value of 75%, followed by electricity and insurance, with 46% and 44% respectively.

## Measuring the General Equilibrium Impact of Regulatory Measures

Then, they provide an estimation of the general equilibrium effects of TISA over trade in value added. Interregional CGE models - such as GTAP - are generally based on sufficiently detailed global input-output databases, where trade in value added as well as trade in intermediates can be traced out through the use of appropriate input-output techniques. In the current paper, the authors explore an innovative approach to evaluate the economic impacts of TISA in an increasingly interconnected global economy through the marriage between CGE and Input-output models.

## Estimating the general equilibrium effects of TISA over trade in value added

Using the GTAP model with a long run closure, they show that trade liberalization in services is likely to stimulate investment, GDP, exports and imports for TISA members, with less pronounced (or even negative) effects for non-TISA countries. The impacts of TISA over regional bilateral trade flows suggest that intrablock trade tend to gain prominence over extra-block trade as a consequence of the agreement. For instance, they indicated that intra-TISA exports tend to increase by 0.85%, whereas TISA exports to Asia are likely to drop by -0.7% (-1.15% for Latin-America). When it comes to the likely impacts of TISA over regional supply chain integration, it is therefore very likely that TISA members will become relatively less integrated in supply-chain trade in comparison to non-TISA regions, as the former become more specialized in direct services exports and imports.

Their empirical evidences show also that given that TISA members are likely to increase intra-block trade in services as a consequence of the agreement, supply chain indicators are expected to decrease. Their results suggest that while a typical country in TISA becomes relatively less integrated in both forward and backward linkages, non-TISA members (where trade in services loses ground) tend to become relatively more integrated.

## Conclusion: Towards an evaluation of trade liberalization in services at the sectorial level

This paper has taken a preliminary step in order to evaluate the likely implications of trade in services liberalization among TISA countries, with a special focus on its likely impacts on the current architecture of global/regional value chains. They found evidence that TISA can lead to higher supply chain integration among its members while they tend to become more specialized in direct services exports.

Others regions in the world – such as commodity exporters like Latin America and Africa – tend to weaken their connection into supply chain trade with the more developed economies belonging to TISA, as they also tend to do more trade with non-TISA regions. In general, trade liberalization in services has consequences for relative prices of tradable goods and, therefore, for interregional supply chain trade.