US-EU Trade Linkages: the Role of Global Value Chains and Intra-Firm Trade

CSILLA LAKATOS*[1] AND TANI FUKUI†[2]

[1] *European Commission, DG Trade, Brussels, Belgium*
[2] *US International Trade Commission, Washington DC, USA*

April 2013

Abstract

As the participation of multinational firms in global value chains gains importance, intra-firm trade receives an increasing attention from both researchers and policy makers. Empirical evidence suggests that related-party trade has been growing significantly over the years and for instance accounted for 48% of total US imports and 29% of US exports in 2011 (US Census Bureau). From a policy point of view, the implications of the recent growth of intra-firm trade are wide-ranging. On the one hand, the expansion of multinational companies and implicitly that of intra-firm trade changes the motivation of policy makers to liberalize trade while at the same time reinforces the benefits of the reduction of barriers to trade. On the other hand, evidence suggests

*Corresponding author. Csilla Lakatos (csilla.lakatos@ec.europa.eu) is an economist at the European Commission, DG Trade.

†Tani Fukui is an economist at the U.S. International Trade Commission from the Office of Economics. The views expressed in this paper are strictly those of the authors and do not represent the opinions of the U.S. International Trade Commission or of any of its Commissioners.

that the presence of global value chains and vertically integrated production networks made the global economy more resilient in the face of negative macroeconomic shocks (Lanz and Miroudot, 2011).

The goal of this paper is to highlight the role of global value chains and intra-firm trade in the context of trade liberalization between the US and EU in a computable general equilibrium setting. We propose an innovative quantitative framework that combines newly available data sources and further improves existing modeling tools. We build on the modeling framework developed by Lakatos and Fukui (2012) - an extended GTAP model that explicitly accounts for both FDI and multinational companies differentiated by the region of ownership. First, we modify this model to account for global value chains based on data from WIOD (World Input Output Database). This data allows us to follow the fragmentation of the supply chain by introducing international trade in intermediates. As a next step, we combine this data with that on the activities of foreign affiliates (Fukui and Lakatos, 2012) and data on related party trade (US Census and OECD Statistics on Measuring Globalization) to develop a disaggregated GTAP database. The final modeling framework is the first one in the CGE literature to account for global value chains and intra-firm trade. We develop diverse scenarios that allow us to consider the potential impact of recent incentives to liberalize trade between the US and EU highlighting the importance of multinational firms and global value chains.