Interregional feedbacks revisited from a global value chain perspective

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Almost fifty years ago, Ronald Miller (1966, 1969) introduced the interregional feedback effects. They are calculated as the difference between the output (change) in a region for a given final demand (change) using a full interregional input-output model and using a single-region model. Interregional feedbacks reflect that stimulating the final demand in region A requires inputs from region B which, in their turn, require inputs from—and thus indirectly stimulate—region A again (perhaps via other regions). Feedbacks have been used to examine the importance of using a full interregional model rather than a single-region model. The results showed that interregional feedbacks are in general relatively small. In this paper, we revisit the feedbacks from a global value chain perspective and compare the results obtained from a world input-output model with those from a single country model. We argue that the feedbacks reflect a country's participation in the global value chain. If country A strongly depends on inputs from other countries and, vice versa, if other countries strongly depend on inputs from A, the participation of country A in the global value chain is considerable and it will show relatively large feedbacks. Although the size of the feedbacks is still small, it is the comparison over time and across countries that matters. We also calculate the so-called least upper bounds which indicate the potential for a country's participation in the global value chain.