Development of analytical frameworks for global value chains: the role of input–output analyses

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The development of multi-country input–output tables (IOTs) in recent years has been primarily driven by the academic and policy decision-making interests in two key areas of global value chains (GVC) governance.

The first area is the link between the environment and the economy. There is a growing need to respond to the range of data demands for environmental analyses that cover policy, regulation, taxation, and, more generally, better understanding of the cross-border impacts of economic activity on the environment. The study of "carbon footprint" addresses questions such as whether to attribute the global warming to producers' responsibility or to consumers' responsibility. The multi-country IOTs with environmental extensions (for example, carbon intensities, etc.) provide a powerful analytical tool for tracking the footprint of production activities all over the world.

The second area of interest relates to the rapidly changing features of international trade and governance. The "trade in value-added" analysis attempts to trace international flows of value-added embodied in traded products across economic activities and countries. The traditional approaches in the study rely heavily on the information sourced from individual firms. The multi-country IOTs based analysis complements these traditional approaches, yet provides a wider perspective for analyzing the nexus of inter-industrial linkages at the global scale.

The purpose of the current paper is to trace the development of analytical frameworks for GVC studies, with a particular focus on the contribution of input–output analyses to the field. The paper summarizes the various preceding challenges for a quantitative description of GVCs. It also addresses some pressing issues to be considered for the future advancement of the empirical studies on GVCs.