How Do GVCs Affect Shock Transmission across Borders?

Topic: 516W  Special session: Global Production Networks: Theory and Empirics (2)
Author: Rudolfs BEMS

This paper examines the role of GVCs in cross-border shock transmission. We start by extending a conventional IRBC model to allow for intermediate inputs and parameterize the model to replicate allocations of a global input-output table. We then compare model responses to a set of shocks in the conventional IRBC and our extended models. The focus is on global and regional spillovers from shocks in key economies, such as the USA and China. We quantify differences in spillovers between the two models − conventional and extended IRBC -- in terms of both response magnitudes for key variables (e.g., GDP, labor input and wages) as well as welfare implications. To keep the results tractable, shocks are initially modeled as changes in wedges (e.g., labor wedge), as defined in the business cycle accounting literature. Subsequently, our findings are extended to a richer model setting with monetary policy shocks, i.e., the conventional NOEM model. Preliminary results suggest that explicit modeling of intermediate inputs can significantly alter shock transmission across borders. We find, for example, that the beggar-thy-neighbor logic of currency wars need not hold when countries are integrated in production chains.