

Trade Costs, Global Value Chains and Economic Development

Topic:

Author: Yuan Zi

I develop a model with sequential production stages and international trade frictions that permits an analysis of how a decrease in trade costs shapes the interdependence between countries, with special focus on the joining and industrialization pattern of developing countries into the global value chains. The model yields sharp predictions of the industrialization pattern of developing South in a two-country (North-South) setting: as trade costs in intermediates fall, the model predicts that the industrialization process of the South consists of two episodes. The first episode is associated with specialization of North in high-end intermediates and an expansion of modern industry in the South. Labor in the South moves from the traditional to the modern sector à la Lewis (1954). During this period, South operates increasingly in complicated stages and wage inequality between North and South expands. The second episode starts from the modern sector in the South absorbing all of the country's labor force. In this period, a decrease in trade costs is associated with the South moving up the value chain and North hollowing out its industry base; real wage increases for both countries, and wage inequality goes down. When moved to a multi-country setting, I am able to prove the general specialization pattern across nations and the joining conditions for countries outside of the global value-chain networks. In addition, I provide two thought-experiments characterizing the sequential development of South countries: one with learning-by-doing and one without. I show that in both cases, factory-economies are regionally clustered, while the supply-chain network exhibits either sequential or hub-and-spoke structure. In these two cases, the interdependence of countries is very different. Furthermore, the model can be easily extended to more complex settings to answer several policy questions and for empirical analysis using input-output tables.