Trade Theory with Global Production Networks

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Abstract

We characterize comparative statics for open production network economies in general equilibrium. We generalize growth-accounting to environments with international trade, input-output networks, and arbitrary distortions. We characterize how income responds to trade shocks up to a second-order approximation, and show that our result generalizes Arkolakis et al. (2012) to environments with nonlinear input-output networks. We show how aggregate trade elasticities can be constructed from microeconomic estimates. Finally, we also show that the costs of tariffs (but not iceberg costs) can be calculated by an appropriate summing up of deadweight loss triangles, and provide non-parametric formulae for these losses in terms of sufficient statistics. We apply our results to find that the reallocation of resources has been a drag on the incomes of industrialized countries, the presence of intermediate inputs doubles the costs of Brexit (and changes the sign on its distributional consequences), and network spill-overs mean that the main beneficiary of Trump tariffs on China may be Mexico.

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References

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