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Gains from Trade with Heterogeneous Households

Trade costs have fallen significantly recently, but this will not affect households uniformly. I address how trade costs affect the welfare of poor versus rich households within a country and how welfare gains/losses of agents with different wealth levels depend on their education. My key contribution is to consider the effect of households' intertemporal consumption-savings decisions on their gains from trade. I also take into account transition dynamics. Hence, I can measure gains depending on wealth and income instead of calculating average gains by comparing steady states and analyze the long-run welfare effects of trade costs.

To provide motivating evidence, I use the Bureau of Labor Statistics Consumer Expenditure Surveys and document the variation between consumption bundles of households with different levels of wealth and income. The data reveal that the shares of manufacturing goods and services are increasing in income and wealth, whereas the share of agricultural goods is decreasing.

Therefore, I develop a two-country, multi-sector dynamic model of trade with households heterogeneous in their earning abilities, wealth and education (skill) levels. It features non-homothetic preferences, idiosyncratic income shocks, endogenous consumption-saving decisions and capital-skill complementarity. The first channel explaining the unequal distribution of gains is the effect of a change in trade costs on the relative prices of goods and services. Second, lower trade costs reduce the relative price of investment in capital, which positively affects households willing to save. Third, trade costs affect factor prices. Trade-induced change in the relative prices is one mechanism explaining the effect of trade costs on wages and skill premium (the Stolper-Samuelson effect). Additionally, households' savings decisions affect skill premium via capital-skill complementarity. Trade-induced change in the interest rate impacts household welfare depending on their capital holdings. I calibrate the model to the United States and quantify the effect of reduced trade costs. The consumption of each household at the steady states and over the transition determine their gains from lower costs.

The results suggest that an unanticipated, permanent reduction relatively favors the poor. In addition, college graduates gain more from lower costs. I show that there is significant heterogeneity in welfare impact depending on wealth and income within skill groups.

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