

Asymmetric wealth flow of international trade

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The wealth of a nation is changed by the international trade and internal economic growth. We consider the world trade and the gross domestic products from 1950 to 2000. We construct skeleton networks based on the trade balance, import and export between two countries. We observed that the wealth distributed asymmetrically. We measured the asymmetric distribution of the trade value by the disparity. We observed that the export and import followed different function dependence for the degree of the world trade web. Not only the total import/export but also individual country's import/export showed positive correlations with the country's wealth. The wealth flow showed the power law dependence for the gross domestic products. We suggested a simple agent-based model which shows the asymmetric wealth distribution.

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