Uncovering Resource Losses and Gains in China's Foreign Trade

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ABSTRACT

Natural resource storages and flows play an important role in economic and social processes. In this paper we explore the trade of primary commodities between China and its main trade partners during the years 2000 and 2008. Emergy accounting is used to assess the environmental support associated with the resources exchanged. Mass, emergy and financial capital export-to-import ratios confirm that economy-level trade advantages should not just rely on capital flow. A holistic evaluation of the trade process, including resource environmental value should be performed to identify trade balance and stability. Results show that while China's imports monetary value is much larger than exports monetary value, China receives more emergy (environmental support) in trade than it gives; benefiting from the ability of primary resources to drive its economy. Developed economies, characterized by a low Emergy-to-Money-Ratio, gain more from trade of primary commodities with China. Developing and underdeveloped economies, with higher Emergy-to-Money-Ratio, lose in the environmental support balance to China, indicating the existence of a potentially unsustainable trade imbalance.

Citation
