Economic Globalization, Global energy issues and Climate Change
China in global perspective

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Abstract
This paper analyses the twofold sustainability challenge caused by oil depletion and climate change in the context of socio-economic globalization. Beyond the agreed role of green measures to foster competitiveness of the Chinese economy in the short-term, we analyse the long-term macroeconomic challenges posed to China by oil dependency and climate change under alternative visions of future globalization patterns.

We adopt the CGE model IMACLIM-R, which provides a multi-sectoral, dynamic modeling approach for thinking the link between growth, globalization and energy constraints given limited availability of fossil resources and carbon mitigation policies.

We find that fragmented capital markets prove beneficial for China since they release capitals for local investments, but they affect the pace and direction of technical change making the Chinese economy more hurt by the climate policy than in a continued globalized world. Conversely, China is less affected by a mitigation policy when good markets are regionalized. Even without climate policy, this assumption has a positive effect in the long-term since less intense international trade moderates the effects of oil constraints.

However, these effects remain small, which proves that acting on globalization processes is insufficient to avoid important socio-economic tensions due to the sustainability challenges. A sustainable energy future will thus require implementing measures able to (i) provide correct incentives for long-term investments by resorting to other signals than current market prices and (ii) incorporate sectoral measures that act complementarily. The challenge consists in articulating the objectives and the instruments to trigger the transition towards sustainable future.

References