

The oil-slick trade: An analysis on embodied crude oil in China's trade and consumption during 1995-2011

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China has become the world's second largest crude oil importer and consumer. Meanwhile, China has also become the world workshop and the world's largest exporter of commodities. Many studies have discussed the direct trade flows of crude oil in China and paid special attentions to the increasing crude oil imports of China. However, the globalization of production and consumption has important impact on China's oil consumption, which can't be adequately assessed only through checking China's direct imports and exports of crude oil. Based on a global multi-regional input-output model and the World Input-Output Database (WIOD), this article examining both China's direct trade of crude oil and embodied crude oil in China's exports and imports of goods and services during 1995-2011. The results showed that about one fifth to one third of imported oil is used to producing exports in China. Therefore, China is playing the role as a transit hub of crude oil from extraction places to global final consumers, particularly those in advanced countries. Foreign consumers actually benefit from China's global hunt for natural resources, a fact usually overlooked by critics of China's oil thirst. China was net exporter of embodied oil. Net exports of embodied oil increased after China's entry into the World Trade Organization in 2001, but decreased quickly after the financial crisis starting in 2008 due to weak foreign demand and aggressive economic stimulus in China. In addition, China's oil demand from production was greater than that from consumption, whereas the gap has shrunk quickly in recent years. We also found that China's oil import dependence assessed from consumption end was higher than import dependence assessed from production end, a traditional indicator often discussed in the context of energy security. We discussed various policy implications of these results in context of China's recent reforms in economic and environmental governance.