Title: Global Supply Chains in the Pandemic

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3. Abstract: We study the role of global supply chains in the impact of the Covid-19 pandemic on GDP growth for 64 countries. We discipline the labor supply shock across sectors and countries using the fraction of work in the sector that can be done from home, interacted with the stringency with which countries imposed lockdown measures. Using the quantitative framework and methods developed in Huo, Levchenko, and Pandalai-Nayar (2020), we show that the average real GDP downturn due to the Covid-19 shock is expected to be -24%, of which -3:2% (or 0.13 of the total) was due to transmission through global supply chains. However, “renationalization” of global supply chains would not necessarily make countries more resilient to pandemic-induced contractions in labor supply. The average GDP drop would have been -26% in a world without trade in inputs and final goods. In additional counterfactuals, we study the role of increased demand for health services when sectoral labor supply is restricted. Finally, we simulate the “opening up” of economies in isolation, and show the GDP impacts are heterogeneous and depend on the countries’ sectoral composition and role in the supply chain.

4. Data description: OECD ICIO Tables, KLEMS

5. JEL codes for the project: F41, F44

6. Keywords: Production Networks, International Transmission, Covid-19, Supply Chains