

# Topics in production networks

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## Outline and reading list, CES lectures (May 2025)

### May 13: The aggregate implications of production networks

Detailed data on domestic production networks have become increasingly available in recent years. This lecture covers when one should care about this detailed information. We start with the benchmark of Hulten (1978) that establishes conditions under which detailed network information is irrelevant, and then go over recent papers that go beyond this irrelevance result.

- Hulten, Charles R. "Growth accounting with intermediate inputs." *The Review of Economic Studies* 45, no. 3 (1978): 511-518.
- Baqaee, David Rezza, and Emmanuel Farhi. "The macroeconomic impact of microeconomic shocks: Beyond Hulten's theorem." *Econometrica* 87, no. 4 (2019): 1155-1203.
- Tintelnot, Felix, Ayumu Ken Kikkawa, Magne Mogstad, and Emmanuel Dhyne. *Trade and Domestic Production Networks*. No. w25120. National Bureau of Economic Research, 2018.

### May 14: Endogenous formation of production networks

Firm-to-firm linkages exhibit significant churn over time, suggesting the need to theoretically capture firms' decisions with whom to trade with. We cover some recent papers that attempt to model firms' optimal sourcing decisions and supplying decisions at the extensive margin.

- Lim, Kevin. "Endogenous production networks and the business cycle." *Work. Pap* (2018).
- Arkolakis, Costas, Federico Huneus, and Yuhei Miyauchi. *Spatial production networks*. No. w30954. National Bureau of Economic Research, 2023.
- Dhyne, Emmanuel, Ayumu Ken Kikkawa, Xianglong Kong, Magne Mogstad, and Felix Tintelnot. "Endogenous production networks with fixed costs." *Journal of International Economics* 145 (2023): 103841.

### May 20: Surplus splitting in firm-to-firm relationships

Many models that involve firm-networks have rigid surplus splitting rules between the supplier and the buyer, such as suppliers engaging in monopolistic competition. In the data, however, firms have very few numbers of suppliers and buyers---suggesting the need of more flexible surplus splitting frameworks. We cover recent papers that attempt to model them in a tractable manner.

- Acemoglu, Daron, and Alireza Tahbaz-Salehi. "The macroeconomics of supply chain disruptions." *Review of Economic Studies* (2024): rdae038.
- Alvarez, Vanessa L., Michele Fioretti, Ken Kikkawa, and Monica Morlacco. *Two-sided market power in firm-to-firm trade*. No. w31253. National Bureau of Economic Research, 2023.