Sparse Production Networks

**Author:**Andrew B. Bernard, Yuan Zi

Firm-to-firm connections in domestic and international production networks play a fundamental role in economic outcomes. Firm heterogeneity and the sparse nature of firm-to-firm connections implicitly discipline network structure. We find that a large group of well-established statistical relationships are not useful in improving our understanding of production networks. We propose an ``elementary" model for production networks based on random matching and firm heterogeneity and characterize the families of statistics and data generating processes that may raise underidentification concerns in more complex models. The elementary model is a useful benchmark in developing ``instructive" statistics and informing model construction and selection.

**Url:**<https://www.nber.org/papers/w30496>