Faculty Seminar, 3 June 2019

Andreas Moxnes, University of Oslo

The Origins of Firm Heterogeneity: A Production Network Approach

Abstract:

This paper explores firm size heterogeneity in an interconnected production network. Using all buyer-supplier relationships in Belgium, the paper shows that firms with more customers have higher sales but lower sales per customer and market shares among those customers. A variance decomposition of firm sales reveals that downstream factors, especially the number of customers, explain the vast majority of firm size heterogeneity. The facts motivate a model of heterogeneous firms and network formation where firms search for, and sell to, downstream buyers and buy inputs from upstream suppliers. Firms vary in their productivity and relationship capability. Higher productivity results in greater market shares among customers and more matches. Higher relationship capability generates more customers but leave customer market shares unchanged. Estimates of model parameters show that variation in relationship capability is large and that relationship capability and productivity are strongly negatively correlated. The results suggest that models with a single dimension of firm heterogeneity, i.e. quality or productivity, cannot match key features of the production network.