“A Tractable Approach to Pass-Through Patterns with Applications to International Trade”, with Glen Weyl

Abstract: For tractability, economists often use equilibrium models that can be solved in closed form. In practice this means imposing unintended substantive restrictions on incidence properties that are central to many policy questions. To overcome this limitation, we characterize a set of joint supply and demand systems yielding closed-form solutions broad enough to allow substantial flexibility and thus realism and nesting virtually all other tractable systems in the literature. We apply these more realistic structures to a range of international trade models typically solved in closed-form, thereby deriving several applied insights about, e.g., organization of supply chains (generalized Antràs-Chor model), labor market frictions (Stole-Zwiebel bargaining), or welfare implications of trade (generalized Melitz model). Beyond parametric examples, the Laplace Transform, a standard tool used in applied mathematics and physics in analogous settings, provides a general approach to characterizing and approximating incidence at any degree of desired tractability.