Grounded by Gravity:
A Well-Behaved Trade Model with External Economies[*]

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Abstract

Economists have long been intrigued with the implications for trading economies of industry-level external economies of scale, also known as Marshallian externalities. This fundamental question has, however, received little attention in the recent trade literature because of the large number of equilibria that typically occur in trade models with Marshallian externalities. In this paper we build a version of such a model that yields a unique equilibrium and a standard gravity equation. The underlying structure of our model is isomorphic to that of the multi-industry monopolistic competition model, and so our uniqueness result extends to this setting as well. The welfare analysis reveals that if the conditions for uniqueness are satisfied then all countries gain from trade, even when the strength of scale economies varies across industries. Moreover, specialization in the presence of scale economies tends to lower the *gains from trade*, with the actual effect on gains depending on the degree and pattern of specialization (i.e., in industries with strong or weak scale economies). On the other hand, in a simple two-country case for which we can get analytical results, we show that the presence of scale economies increases the *gains from trade liberalization*.