

**Abstract: On Efficiency and Comparative Advantage in Trade Equilibria Under  
Scale Economies**

William J. Baumol and Ralph Gomory

This paper studies the efficiency properties of the many international trade equilibria that exist in a world of scale economies. We show that such equilibria can be efficient even if they violate comparative advantage. The paper derives sufficient conditions for efficiency and provides two new efficiency concepts that may be more illuminating than the classical measure in the scale economies case. One is a measure called local efficiency that applies to an equilibrium that is more efficient than any solution attainable by small changes in any of the variables. The other measure is a metric that quantifies the degree to which an equilibrium falls short of classic efficiency. The paper also shows how the efficient frontier can be constructed in the scale economies case and describes some of its properties.