

# **The Ricardian Model**

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## ABSTRACT

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This essay was written for the *Princeton Encyclopedia of the World Economy*. The Ricardian Model describes a world in which goods are competitively produced from a single factor of production, labor, using constant-returns-to-scale technologies that differ across countries and goods. With only two goods and two countries, the standard textbook model shows that countries will export the good in which they have comparative advantage. Equilibrium takes two forms, one with both countries completely specialized and gaining from trade, the other with one country producing both goods and neither gaining nor losing from trade. The model is easily extended to more than two goods or more than two countries, but not both. Important extensions have been provided by Dornbusch, Fischer, and Samuelson (1977) to a continuum of goods with two countries, and by Eaton and Kortum (2002) to a continuum of goods with many countries and random technologies.

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## **The Ricardian Model \***

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The Ricardian model is the simplest and most basic general equilibrium model of international trade that we have. It is usually featured in an early chapter of any textbook on international economics. Historically, it is the earliest model of trade to have appeared in the writings of classical economists, at least among models that are still considered useful today.

It is indeed still useful. In spite of being superseded over the years by models with much more complexity (more factors of production, increasing returns to scale, imperfect competition), the Ricardian model often provides the platform for the introduction of today's new ideas. Dornbusch, Fischer, and Samuelson (1977) examined a continuum of goods first in a Ricardian model. Eaton and Kortum (2002) incorporated an ingenious and elegant treatment of geography into a Ricardian model. Melitz (2003) started a small revolution in trade theory by modeling heterogeneous firms within what was essentially a Ricardian model.

The Ricardian model itself, as a new idea, came many years after Ricardo. David Ricardo, in 1816 according to Ruffin (2002), introduced only a portion of the model that now bears his name, focusing primarily on the amounts of labor used to produce traded goods and, from that, the concept of comparative advantage. The first appearance of the Ricardian model, according to Ruffin again, was in Mill (1844).