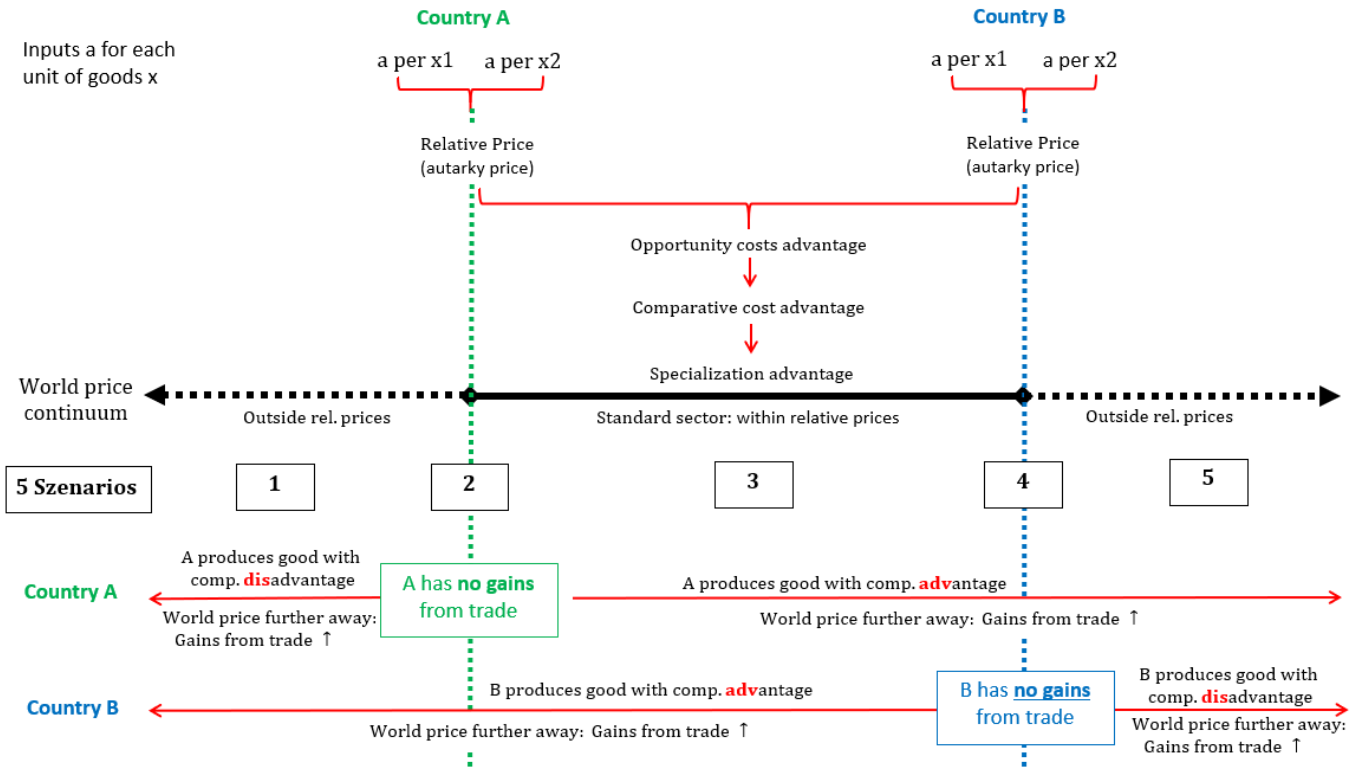
Ricardo Model

Operating Mode



Core Functions

Relative price = Price in autarky = Slope of transformation curve = Opportunity costs

$$x1 = \frac{a_{x1}}{a_{x2}}\, x2$$

Gains from trade factor (GTF; Ratio import quantity to hypothetical quantity of own production, each normalized to 1a.
Here: x1: export goods; x2: import goods)

$$GTF = \frac{\frac{1\ x1}{a_{x1}} \times z\ \frac{x2}{x1}}{\frac{1\ x2}{a_{x2}}}$$

Variables and Symbols

x1	Good 1, e.g. cheese	a_{x1}	Labour input coefficient for 1 output quantity of good x1
x2	Good 2, e.g. wine	a_{x2}	Labour input coefficient for 1 output quantity of good x2
L	Total labour quantity	z	World price: 1 x1 = z x2
CPC	Consumption possibility curve	PPC (TFC)	Production possibility curve (transformation curve)

Relevance

The # 1 golden oldie of international economics. Concept of comparative cost advantages is worth its worth in gold. Often abbreviated to "everyone wins through trade". But: The model clearly shows why there are trade conflicts: The gains from trade are strongly dependent on the world market price, are heading in opposite directions (2-4) and can be very unevenly distributed. For this purpose, a “gains from trade factor” is presented here and calculated in the online program. Furthermore, there are anomalies in the 5 possible scenarios: A country might have no gains at all (2 and 4). A country produces and exports goods in which it has a bilateral comparative cost disadvantage (1 and 5).

Limitations

Manageable. Standard restrictions regarding the assumptions, such as no transaction costs, only 1 input factor, etc.