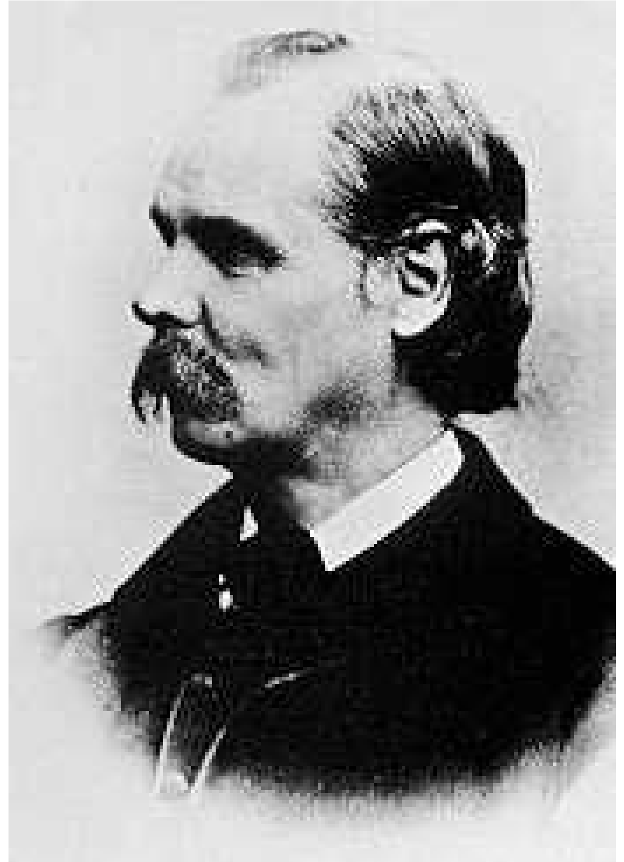
Alfred Marshall
1842-1924

- *Principles of Economics*, 1890



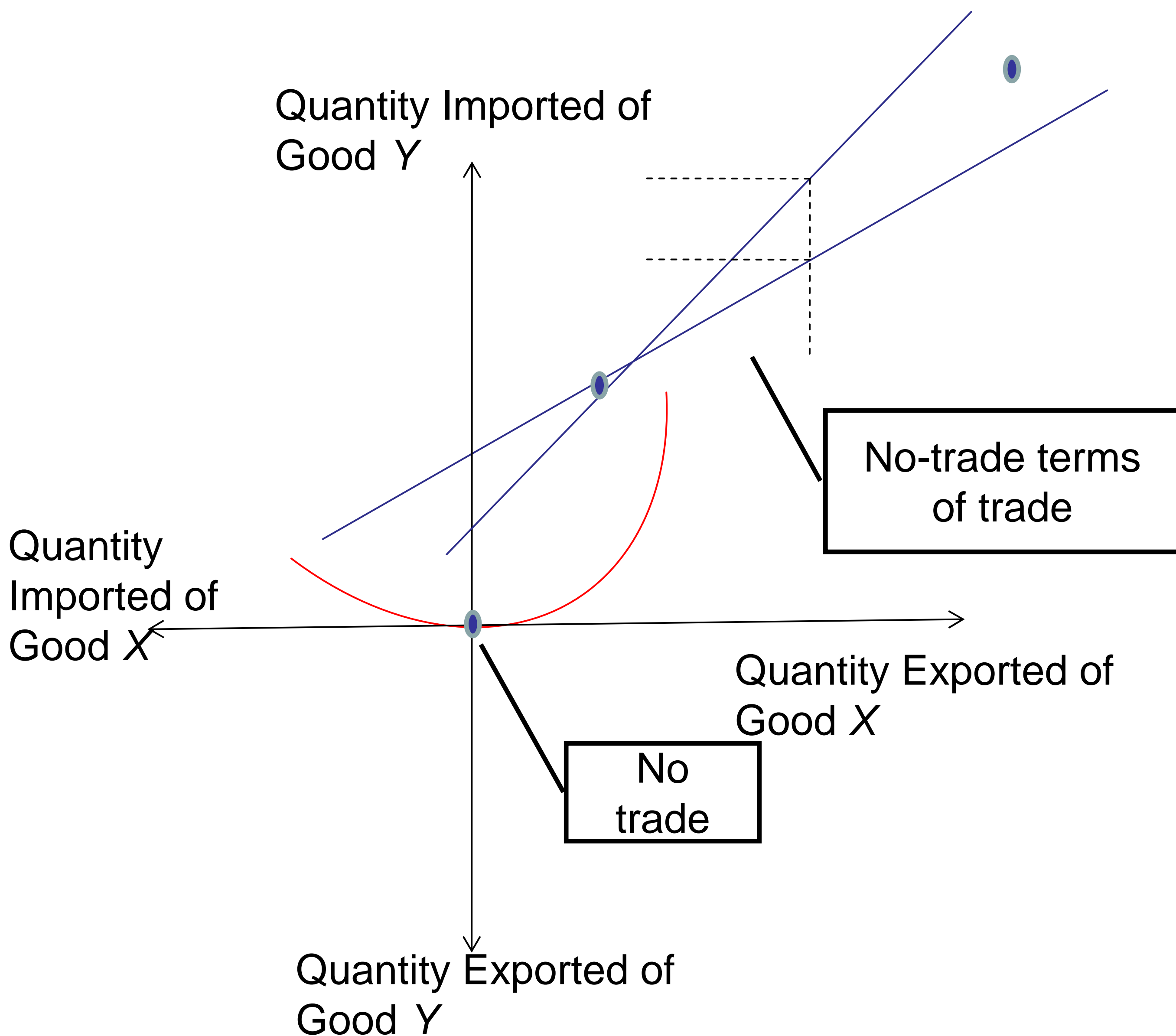
Popularization of Supply-Demand Analysis

- Marshallian Cross; the familiar supply-demand diagram
- Popularization of consumer surplus and producer surplus

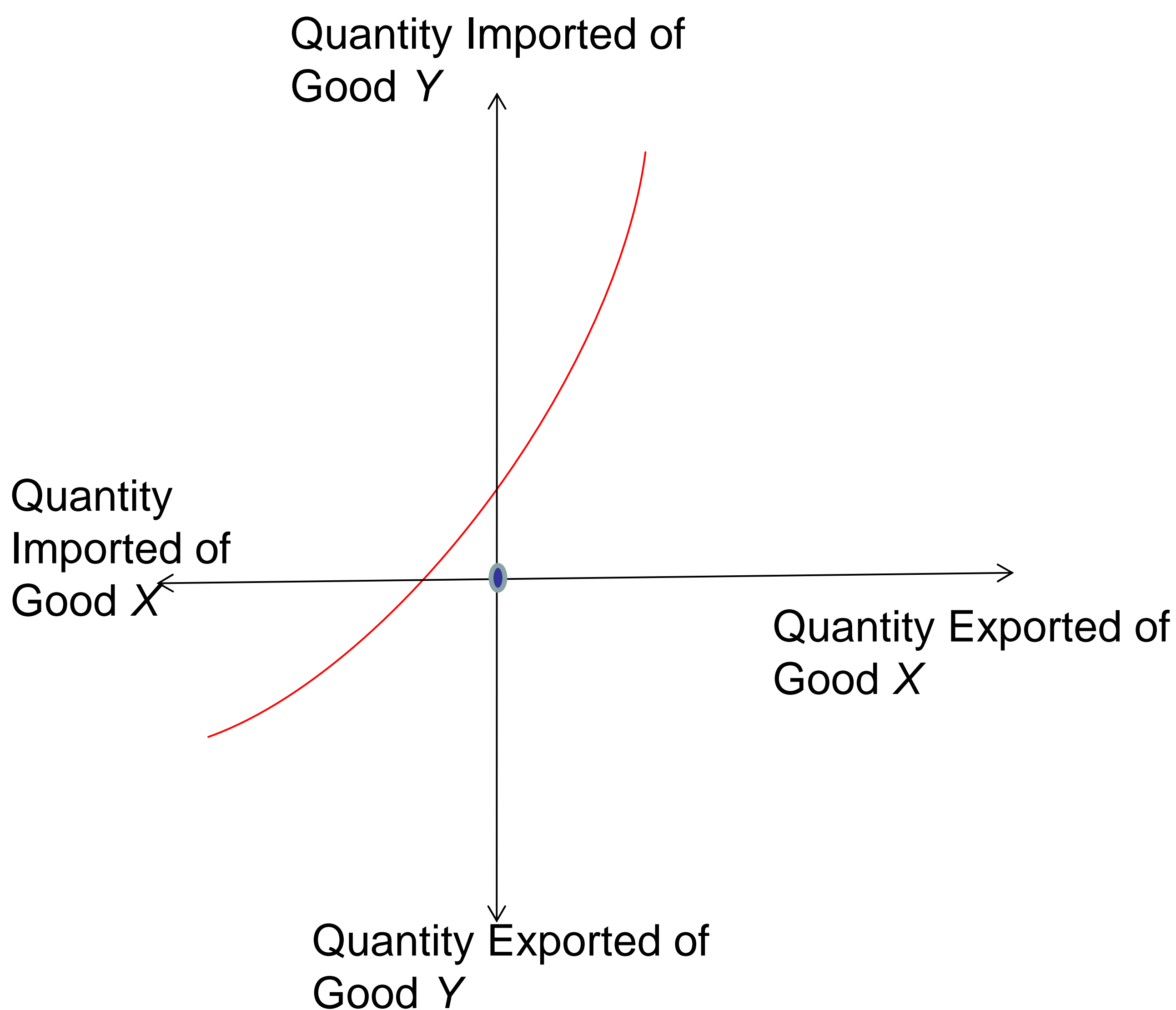
Reciprocal Demand

- Graphical analysis of two-country trade

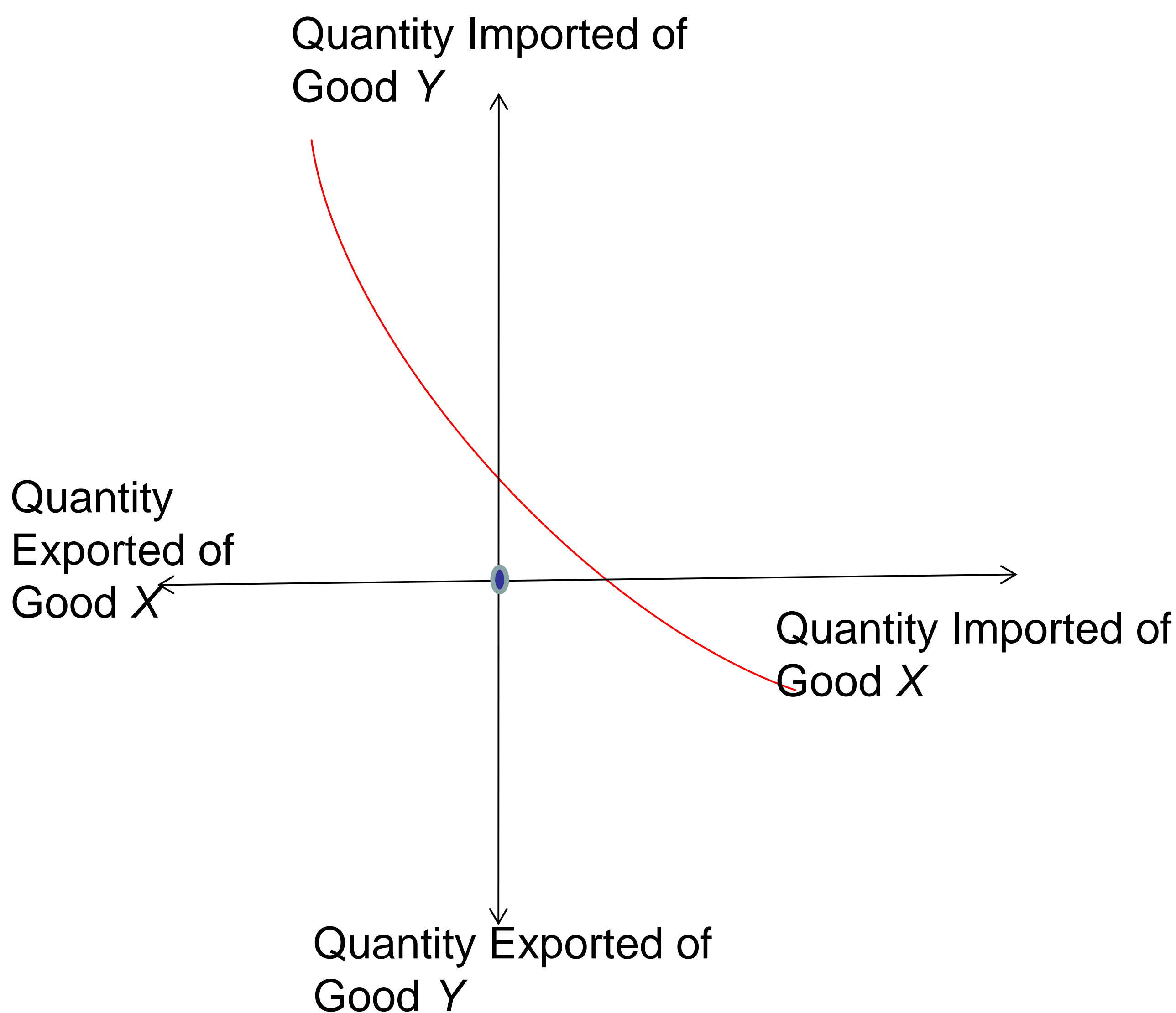
Offer Curve: Country *A*



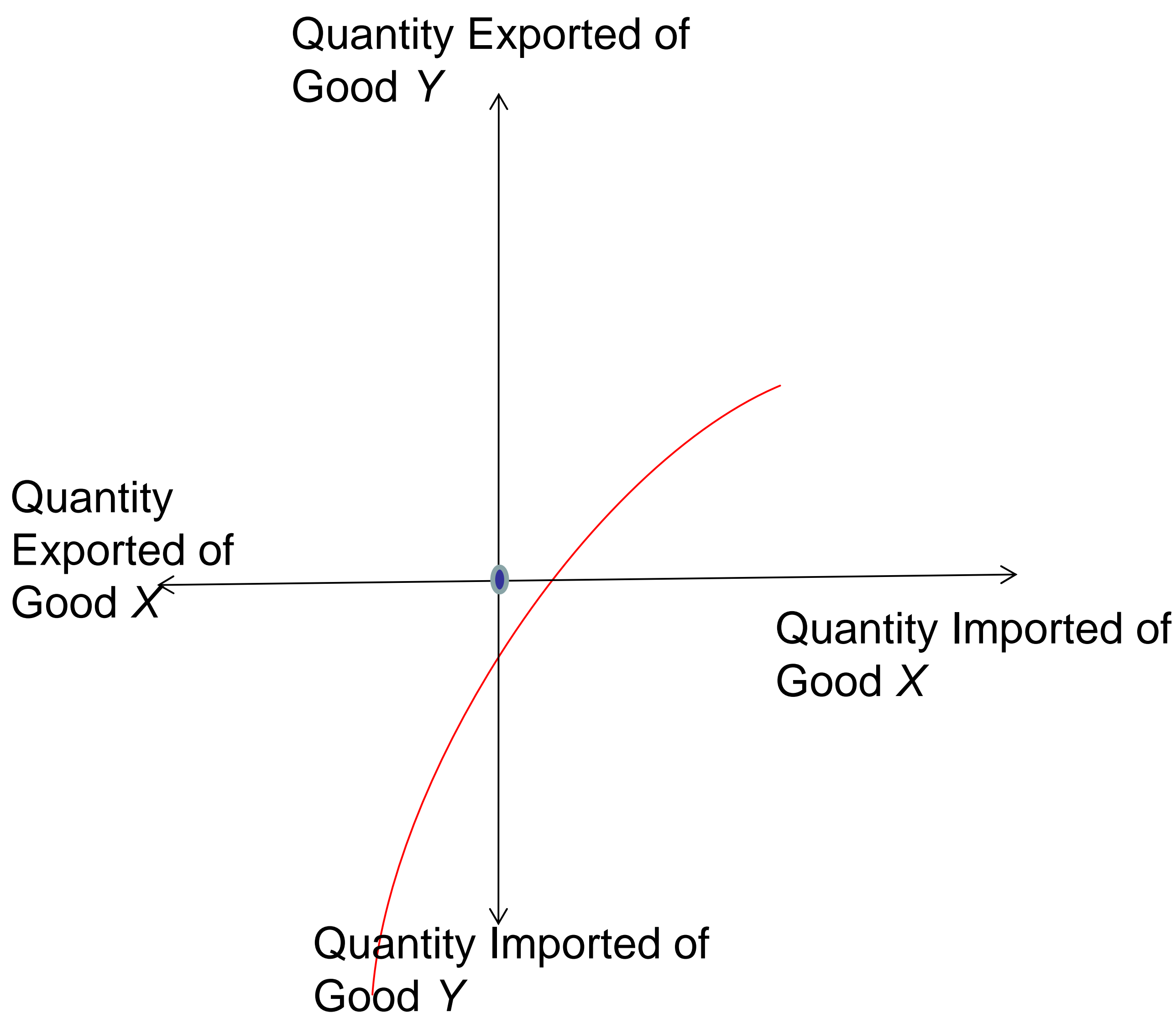
Offer Curve: Country *B*



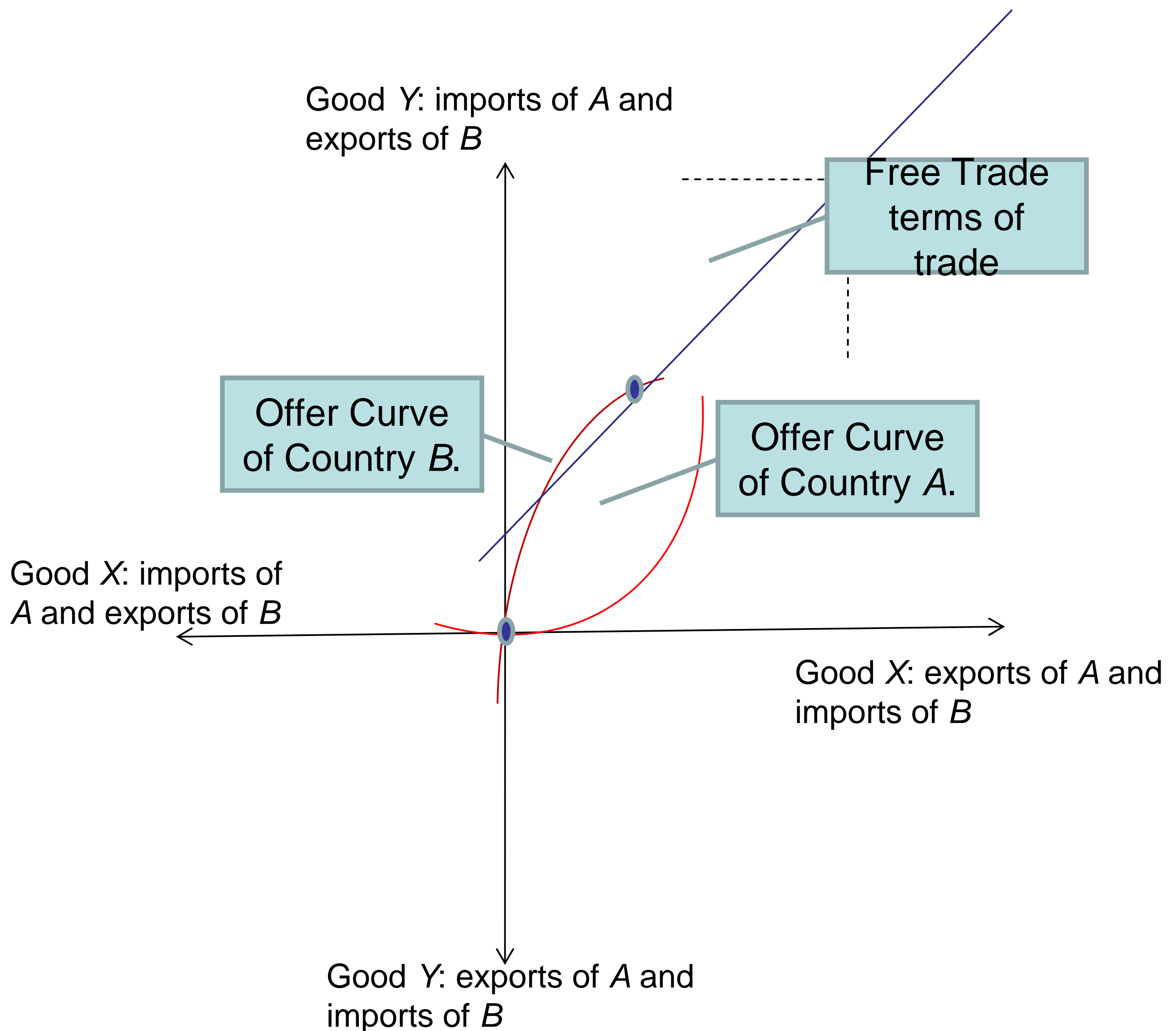
Offer Curve: Country *B*



Offer Curve: Country *B*



Free Trade: two-country outcome



Elasticity of Demand

- Elasticity of Demand formula, 1882

Elasticity of Supply

- Supply elasticity depends on time available to producers to respond to a price change
  - Market period: perfectly inelastic supply, price is determined entirely by demand in the case of perishable goods and by expected future prices in the case of durable goods.
  - Short run: rising supply curve, price is determined by both supply and demand, usage levels of some resources are fixed
  - Long run: usage levels of all resources are variable, supply could be a falling curve
  - Very long period: changes in knowledge, population and capital cause long run prices to change gradually

Economies of Scale

- Internal and external economies of scale
  - Internal economies: as a firm expands production, its per-unit costs decline
  - External economies: as an industry expands production, the per-unit costs of production decline for every firm
- Possibility of a falling supply curve for the industry
  - As an industry expands, per-unit costs may fall as a result of external economies. Therefore, prices may fall.

Assessment

- Neo-classical synthesis.
- The Adam Smith of his age.