

Trade: Comparative and absolute advantage

Absolute advantage

Production possibilities	Cars	Wheat
USA	100	200
China	40	160

Comparing each country for each product, from the same input of resources the USA can produce a greater output, so the USA has an absolute advantage in the production of both cars and wheat.

Trade implies specialisation as countries are not self sufficient. Adam Smith argued that the by the theory of absolute advantage economies should specialise in producing those products in which they hold the absolute advantage. The theory fails to account for specialisation and trade in a world where a few countries hold absolute advantage across the greater range of products.

Comparative advantage

Production possibilities	Cars	Wheat
USA	1 car costs 2 wheat	1 wheat costs half a car
China	1 car costs 4 wheat	1 wheat costs a quarter of a car

David Ricardo suggested looking at domestic opportunity costs of production. Comparative advantage in a product exists when the opportunity cost of its production is lowest. So the USA holds the comparative advantage in car production and china the comparative advantage in wheat production.

So by comparative advantage specialisation should be on the basis of comparative advantage, and specialisation necessitates trade.

Consumption permitted by specialisation and trade

Assumptions of trade.

1. The USA exports 20 cars to China.
2. Terms of trade (bartering) are 1 car to 3 wheat.

Consumption with trade

Production possibilities	Cars	Wheat
USA	80	60
China	20	100

By the theory of comparative advantages, the USA produces 100 cars and trades 20 of them, and gains 60 wheat.

Consumption without trade, under autarky

Production possibilities	Cars	Wheat
USA	70	60
China	20	80

Assuming that the USA must produce 60 wheat and China must produce 20 cars, the above figures are generated. As the economies cannot fully specialise the reallocation of resources involves a domestic opportunity cost. Using full resources under trade therefore gains 10 cars for the USA and 20 wheat for China. These gains from trade are the reasons why economies trade.

Under autarky the USA consumes 10 less cars and China 20 less wheat. The gains from trade and specialisation refer to the 10 cars and 20 wheat.

Dependence on the terms of trade

Suppose the terms of trade were changed to 1 car for 2 wheat (from 1 car for 3 wheat), and that need 40 wheat and China 20 cars.

Consumption with new terms of trade

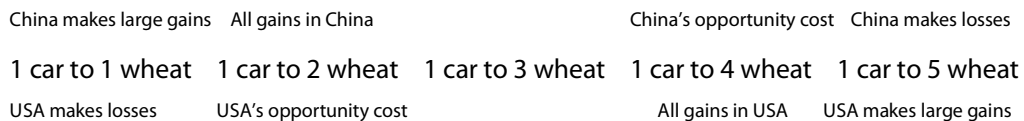
Production possibilities	Cars	Wheat
USA	80	40
China	20	120

Consumption under autarky

Production possibilities	Cars	Wheat
USA	80	40
China	20	80

So here, by changing the terms of trade China gain 40 wheat and the USA gain nothing from trade. All the gains of trade are in the Chinese economy. This is because 1 car to 2 wheat is the USA's opportunity cost of production so sacrificing its own production or imports are equivalent to it.

The distribution of the gains of trade therefore depends on the terms of trade in relation to opportunity costs of the two economies.



The terms of trade will determine the distribution of the gains from trade. A country will gain if it imports at a lower cost than its own opportunity cost of production or exports for more than its domestic costs of production.

These notes are from a lesson on 26/11/2004.