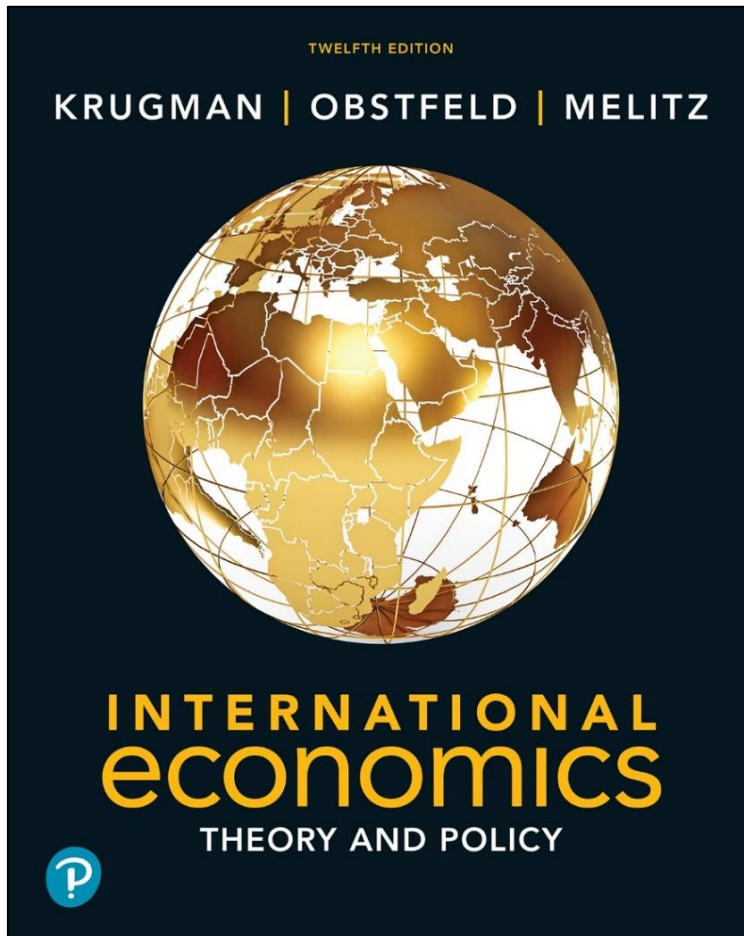


International Economics: Theory and Policy

Twelfth Edition



Chapter 9

The Instruments of Trade Policy

Preview

- Partial equilibrium analysis of tariffs in a single industry: supply, demand, and trade
- Costs and benefits of tariffs
- Export subsidies
- Import quotas
- Voluntary export restraints

Types of Tariffs

- A tariff is a tax levied when a good is imported.
- A **specific tariff** is levied as a fixed charge for each unit of imported goods.
 - For example, \$3 per barrel of oil.
- An **ad valorem tariff** is levied as a fraction of the value of imported goods.
 - For example, 25% tariff on the value of imported trucks.

Supply, Demand, and Trade in a Single Industry (1 of 4)

- Consider how a tariff affects a **single market**, say that of wheat.
- Suppose that in the absence of trade the **price** of wheat is higher in Home than it is in Foreign.
- With trade, wheat will be shipped from Foreign to Home until the price difference is eliminated.



Supply, Demand, and Trade in a Single Industry (2 of 4)

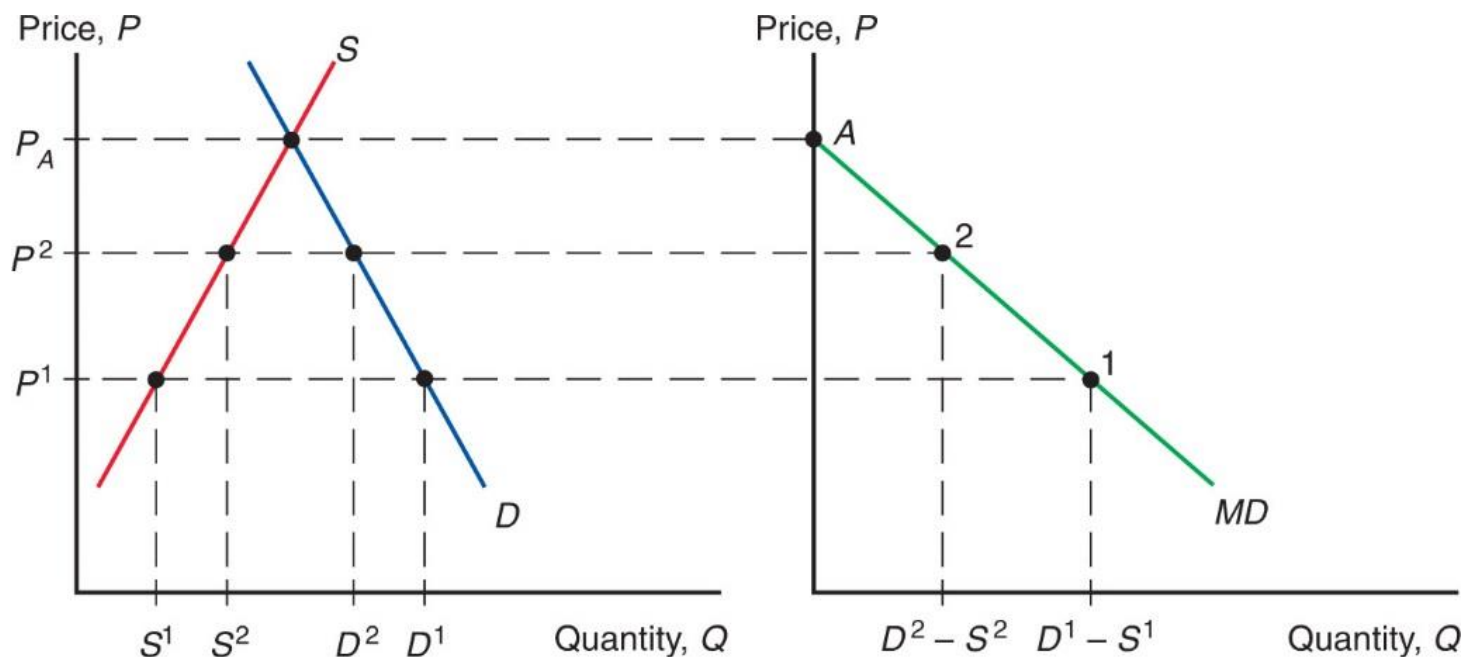
- An **import demand** curve is the difference between the quantity that Home consumers demand minus the quantity that Home producers supply, at each price.
- The Home import demand curve

$$MD = D - S$$

intercepts the price axis at P_A and is downward sloping:

- As price increases, the quantity of imports demanded declines.

Deriving Home's Import Demand Curve



Supply, Demand, and Trade in a Single Industry (3 of 4)

- An **export supply** curve is the difference between the quantity that Foreign producers supply minus the quantity that Foreign consumers demand, at each price.
- The Foreign export supply curve

$$XS^* = S^* - D^*$$

intersects the price axis at P_A^* and is upward sloping:

- As price increases, the quantity of exports supplied rises.

Deriving Foreign's Export Supply Curve



Supply, Demand, and Trade in a Single Industry (4 of 4)

- In **equilibrium**,

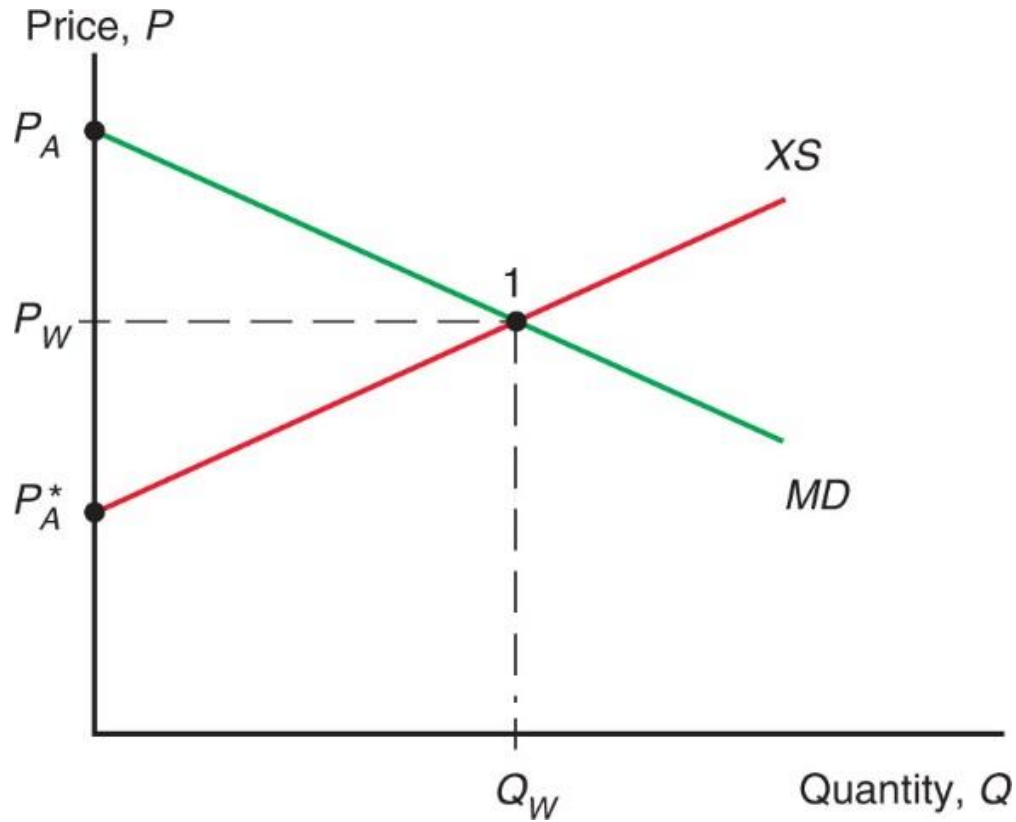
import demand = export supply,

home demand – home supply = foreign supply – foreign demand,

home demand + foreign demand = home supply + foreign supply,

world demand = world supply.

World Equilibrium



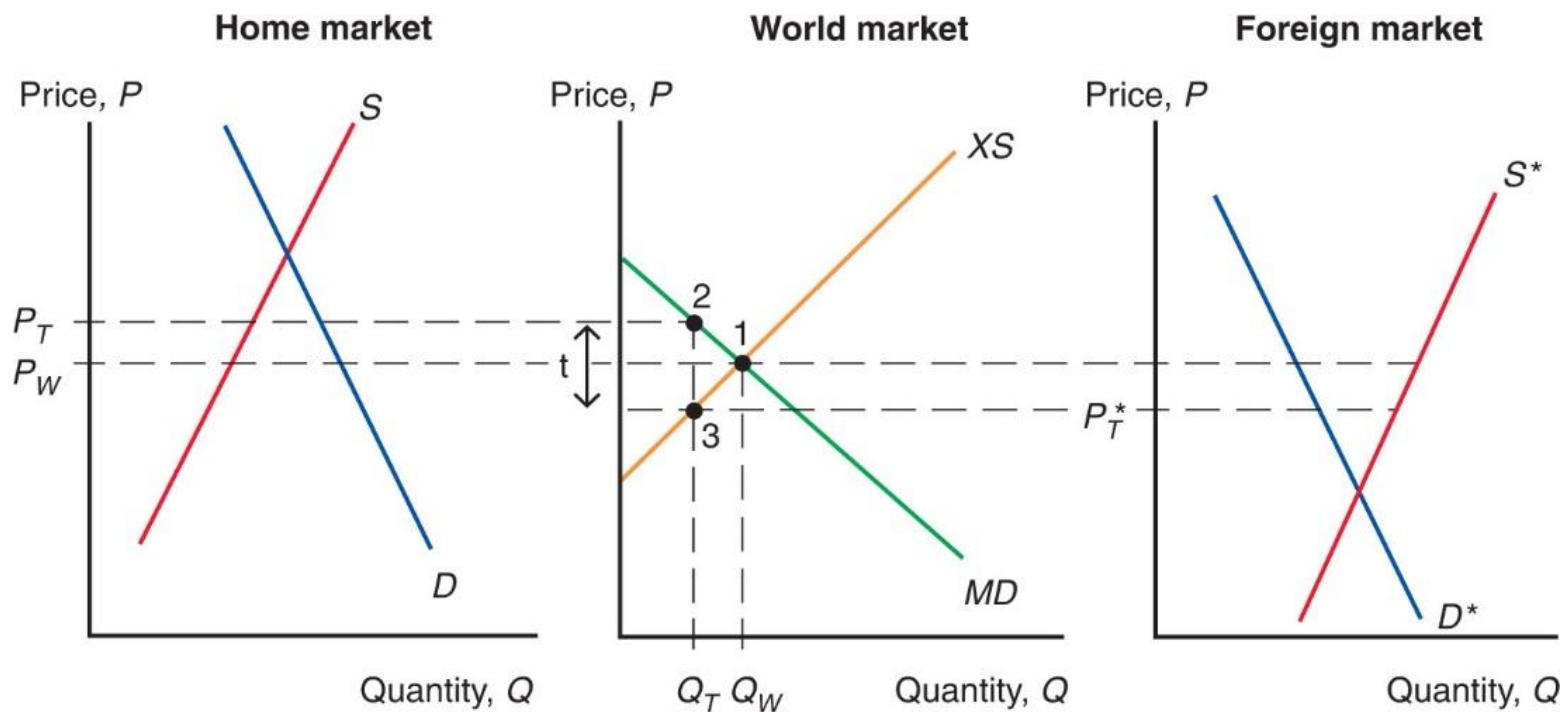
Effects of a Tariff (1 of 4)

- A tariff acts like a transportation cost, making sellers unwilling to ship goods unless the Home price exceeds the Foreign price by the amount of the tariff:

$$P_T - t = P_T^*$$

- A tariff makes the price rise in the Home market and fall in the Foreign market.

Effects of a Tariff



Effects of a Tariff (2 of 4)

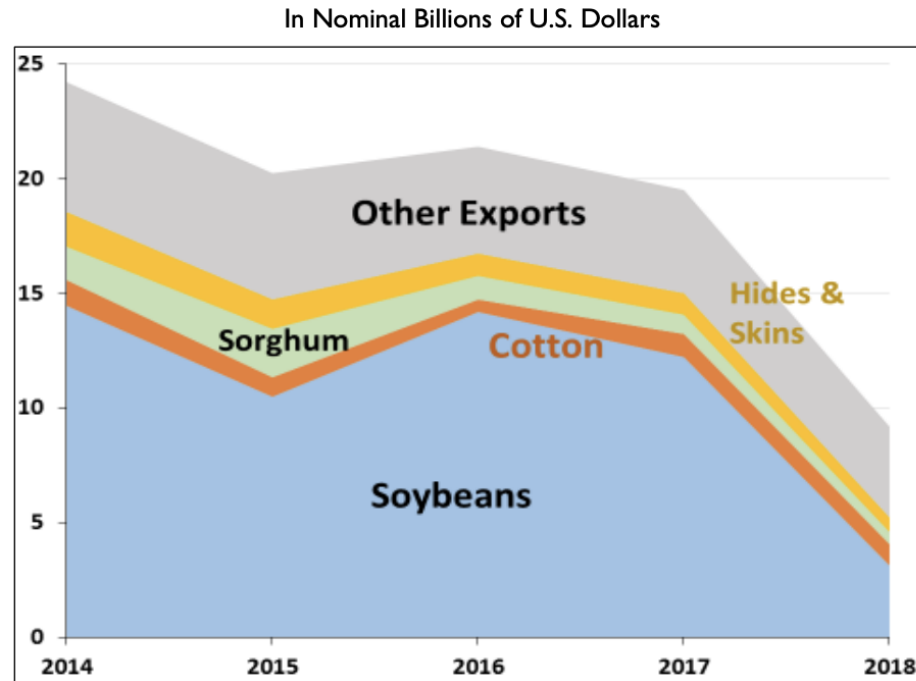
- Because the price in the **Home market** rises from P_W under free trade to P_T with the tariff,
 - Home producers supply more and Home consumers demand less, so
 - the quantity of imports falls from Q_W under free trade to Q_T with the tariff.

Effects of a Tariff (3 of 4)

- Because the price in the **Foreign market** falls from P_W under free trade to P_T^* with the tariff,
 - Foreign producers supply less, and Foreign consumers demand more, so
 - the quantity of exports falls from Q_W to Q_T .

The U.S. Agricultural Exports to China, 2014 to 2018

After the imposition of tariffs on U.S. imports, U.S. agricultural exports to China experienced a 53% decline from \$19.5 billion in 2017 to \$9.2 billion in 2018.



Source: U.S. Census Bureau trade data, accessed June 17, 2019.

Effects of a Tariff (4 of 4)

- The quantity of **Home imports demanded** equals the quantity of **Foreign exports supplied** when

$$P_T - P_T^* = t$$

- The increase in the price in Home can be less than the amount of the tariff.
 - Part of the effect of the tariff causes the Foreign export price to decline.
 - But this effect is sometimes very small.

Effects of a Tariff in a Small Country

- When a country is “**small**,” it has no effect on the foreign (world) price because its demand is an insignificant part of world demand for the good.
 - The foreign price does not fall, but remains at P_w .
 - The price in the home market rises by the full amount of the tariff, to $P_T = P_w + t$.

A Tariff in a Small Country

