

# Globalization

University of California San Diego (UCSD)

Econ 102

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# Introduction

- ▶ Outline of the Lecture
  - Instruments of trade policy
  - General and Partial Equilibrium of Trade Restrictions
  
- ▶ Instruments of trade policy
  - Tariffs and export subsidies: Price distortions
  - Quotas: Quantity restrictions
  - "Behind-the-border" restrictions: Quality, environmental and labor standards, procurement restrictions

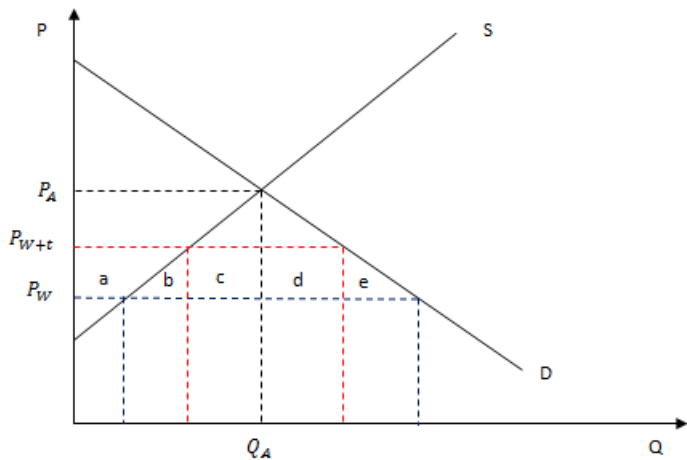
# Tariffs

- ▶ Tariffs can be ad-valorem, specific or compound
  - Ad-valorem tariff is expressed as a fixed percentage of the value of the traded commodity
  - Specific tariff is expressed as a fixed sum per physical unit of the traded commodity
  - The compound tariff is a combination of ad-valorem and specific tariffs
  
- ▶ Home surplus may or may not increase with tariffs.
  - If Home is a small country and world-market prices do not change with policy, Home suffers an unambiguous loss of surplus from a tariff
  - If Home is a large country and world-market prices do change with its policies, Home may realize gains of surplus

## Tariffs in a small country

- ▶ Let's assume a country that imports a good "Food"
- ▶ If the imported good is a perfect substitute for the good produced at home then  $P_{home} = P_{FT}$
- ▶ If the country taxes the import with a tariff, the domestic price becomes higher than the foreign price such as:  
$$P_{home} = (1 + \tau)P_{FT}$$
- ▶ What are the consequences for the quantity supplied, demanded and imported?
- ▶ How the surplus change in the home country?

## Tariffs in a small country



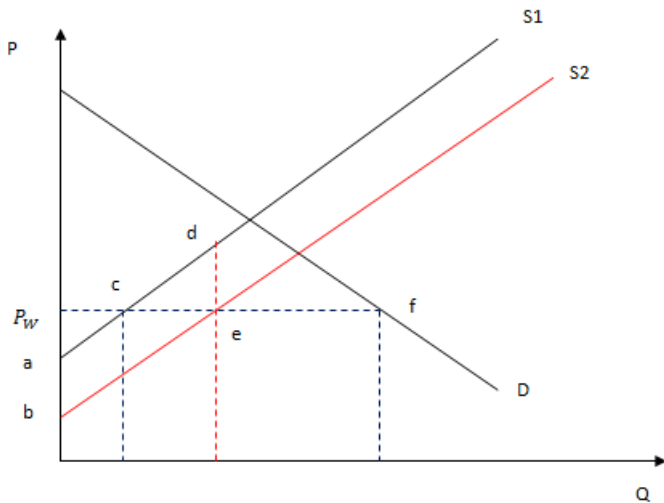
## Tariffs in a large country

- ▶ If the country has a strong market size power it can influence the world market price and change the export of the foreign country
- ▶ Let's start by deriving the foreign export supply curve and the home import demand curve
- ▶ What are the consequences for the quantity supplied, demanded and imported?
- ▶ How the surplus change in the home country?

## Production subsidy in a small country

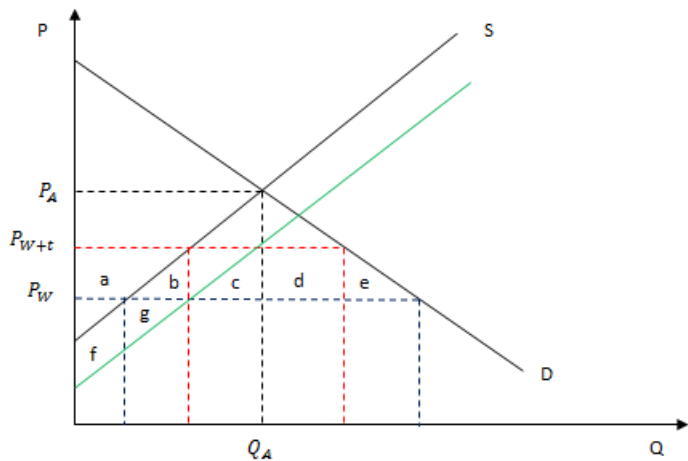
- ▶ Assume a country that imports wheat
- ▶ The world price is lower than the autarkic price so the country imports wheat
- ▶ Let's assume that the country wants to protect the wheat sector by providing a subsidy
  - A production subsidy is a payment to a firm or individual that imports a good from abroad.
  - A subsidy can be either specific (a fixed sum per unit) or ad valorem (a proportion of the value exported).
  - Let's assume that the country provides a specific subsidy for each amount of wheat produced
- ▶ The effects of a subsidy is very different than the effects of a tariff

# Production Subsidy





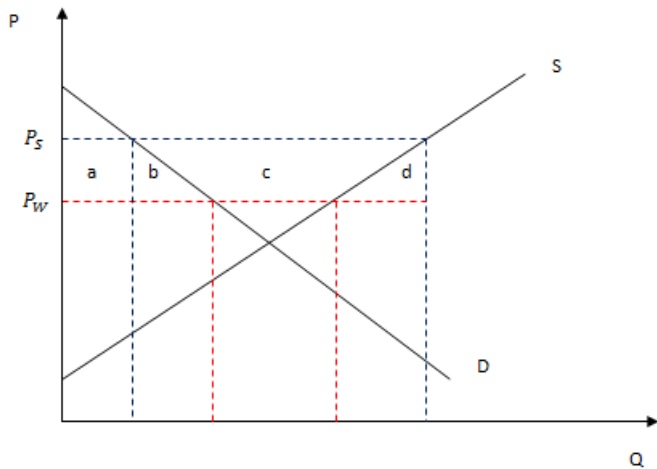
## Comparing the effect of tariff and production subsidy



# Exports Subsidy

- ▶ An export subsidy is a payment to a firm or individual that ships a good abroad.
- ▶ When the government offers an export subsidy, shippers will export the good up to the point where the domestic price exceeds the foreign price by the amount of the subsidy.
- ▶ The effects of an export subsidy on prices are exactly the reverse of those of a tariff

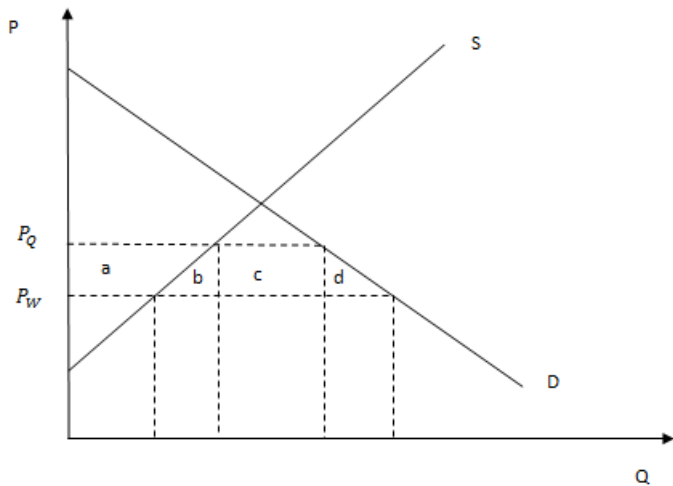
# Export Subsidy



# Impact of a quota

- ▶ An import quota is a direct restriction on the quantity of some goods that may be imported
- ▶ Example: US has a quota on imports of Foreign cheese.
  - The only firms allowed to import cheese are certain trading companies
  - Each of which is allocated the right to import a maximum amount of cheese
- ▶ When imports are limited the demand for the good exceeds domestic supply.
  - This causes price to be bid up until the market clears
- ▶ The difference between a quota and a tariff is that with a quota the government receives no revenue
  - The sum of revenue is collected by whomever receives the import licences

# Quotas



## Dumping (1/2)

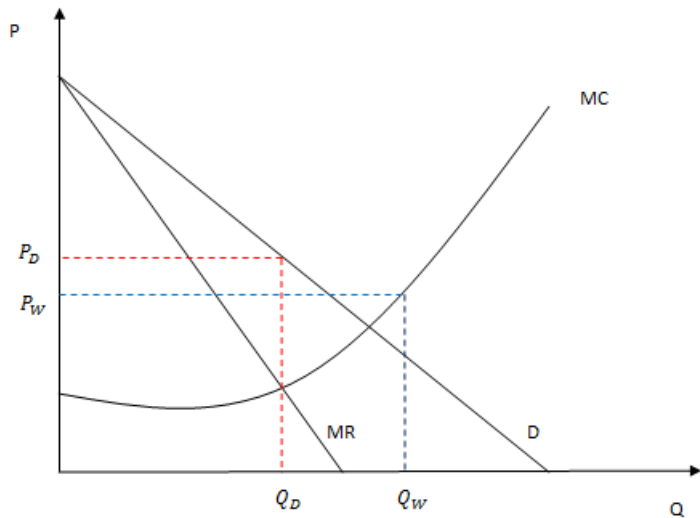
- ▶ Dumping is when a country exports or sells products in a foreign country for less than either:
  - the price in the domestic country
  - the price in a third country
  - the cost of making the product
  
- ▶ Firms can complain to the WTO but there are rules about the complaint:
  - Firms must represent 25% of the production in that industry
  - The complaint must be done by at least half of the firms considered themselves as damaged
  - Firms must demonstrate that there is material injury
    - ▶ Growth of imports
    - ▶ Reduction of profit/employment/investment

## Dumping (2/2)

- ▶ Once the anti-dumping measures start there are several steps:
  - Establishment of temporary tariffs
  - Foreign firm can agree to bid up its price
  
- ▶ There are three situations of dumping
  - Predator dumping: Firms sell products at a low enough price that domestic firms cannot survive
  - Rational dumping: Firms that want to maximize their profits may practice two different prices
  - Involuntary dumping: It refers to a situation in which the domestic company is price taker and can be forced to sell at a price below its cost

## Example of rational dumping

- ▶ Assume a country that is a monopoly at home but a price taker on the export market

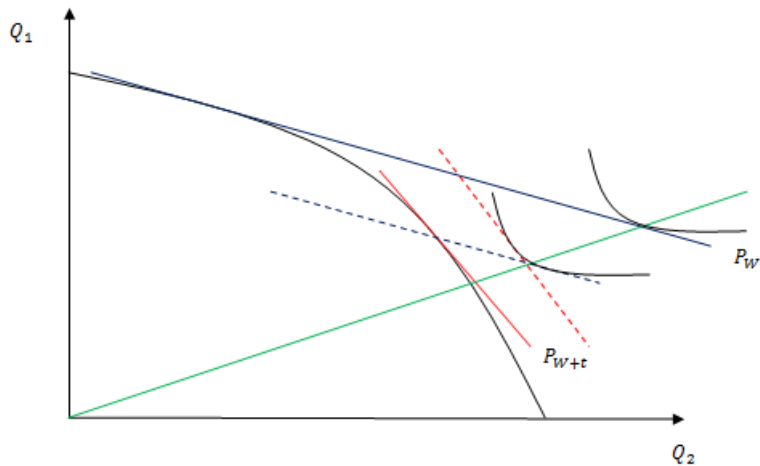




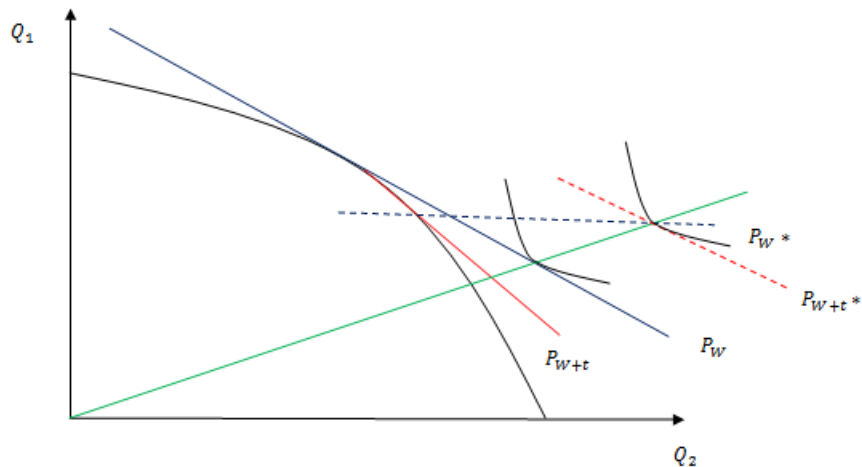
# General Equilibrium Analysis

- ▶ Until now, we have analyzed the impact of trade protection in a unique sector (partial equilibrium)
- ▶ What is the impact of trade protection in a general equilibrium setting?
- ▶ Let's go back to the general equilibrium framework of HOS:
  - When there is no trade protection, the price paid by consumers and the price received by producers is the same
  - What happens when the price paid by consumers and the price received by producers changes?
- ▶ We do not analyze changes in surplus anymore but we rather analyze changes in welfare
  - Measured with the position of the indifference curves

## Impact of tariff in a general equilibrium framework: the small country case



# Impact of tariff in a general equilibrium framework: the large country case



# Global Welfare

- ▶ There are some situations where protectionism is better for the home country

		Country B	
		Free trade	Protection
Country A	Free trade	(10,10)	(3,12)
	Protection	(12,3)	(5,5)

- ▶ Each country prefer to maximize national welfare rather than international welfare
- ▶ The only way to ensure high global welfare is to develop a mandatory system as with the GATT

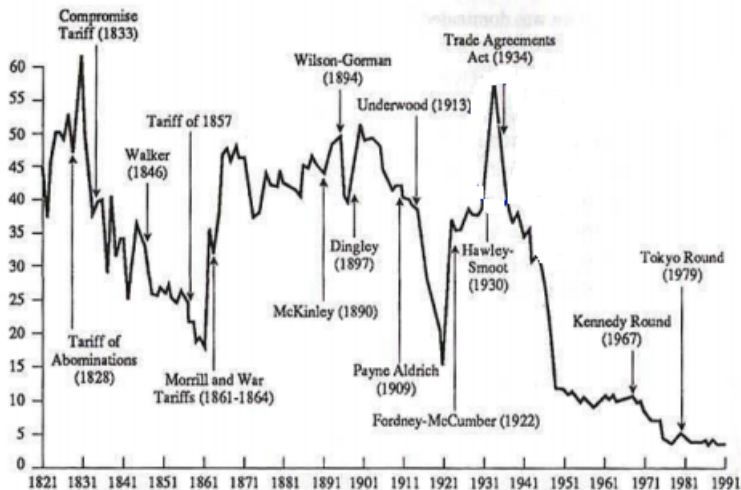
# History of US policy

- ▶ The General Agreement on tariffs and trade (GATT) was an international agreement created in 1947
- ▶ It rests on 4 main principles
  - Non discrimination principle: extend to all trade partners any reciprocal tariff reduction
  - Elimination of non-tariff trade barriers such as quotas, except for agricultural products and for nations in balance of payments difficulties
  - Consultation among nations in solving trade disputes within GATT framework
  - Each member has to declare the maximum tariff applied on each product and engage itself not to overcome this value

# History of negotiations

- ▶ By 1993: 123 nations were signatories of the GATT, which covers 90% of world trade
  
- ▶ Large negotiations on trade protection:
  - The Kennedy Round: agreed for reduction in tariff
  - The Uruguay Round: reduction in tariff/ anti-dumping/ subsidies/intellectual property
  - Doha Round: Establishment of labor and environmental standards to avoid social dumping.

## Average import tariff in the US 1820-1990



Source: P. Kenen, The International Economy

# Arguments in favor of Free-Trade

- ▶ The real importance of protectionism depends on the effective rate of protection that depends on value added.
  - If the production of one goods require a lot of intermediate input  
→ producers are concerned about protection put on intermediate inputs.
- ▶ Economists measure the effective rate of protection

$$e = \frac{v' - v}{v}$$

- ▶  $v$ = value added with tariff →  $v = P_j(1 + t_j) - \alpha_i P_i(1 + t_i)$
- ▶  $v'$ = value added without tariff →  $v' = P_j - \alpha_i P_i$ 
  - $i$ = intermediate good &  $j$ = final good
  - $\alpha_i$ = share of intermediate inputs

$$e = \frac{P_j t_j - \alpha_i P_i t_i}{P_j - \alpha_i P_i}$$



# Conclusion

- ▶ Previous chapters have answered the question "why do nations trade"?
- ▶ This chapter is interested in the impact of policies that governments adopt towards international trade.
- ▶ We have analyzed the impact of several trade protections
  - In the case of a small and large country → a country that can or cannot influence the world price
  - In partial and general equilibrium