

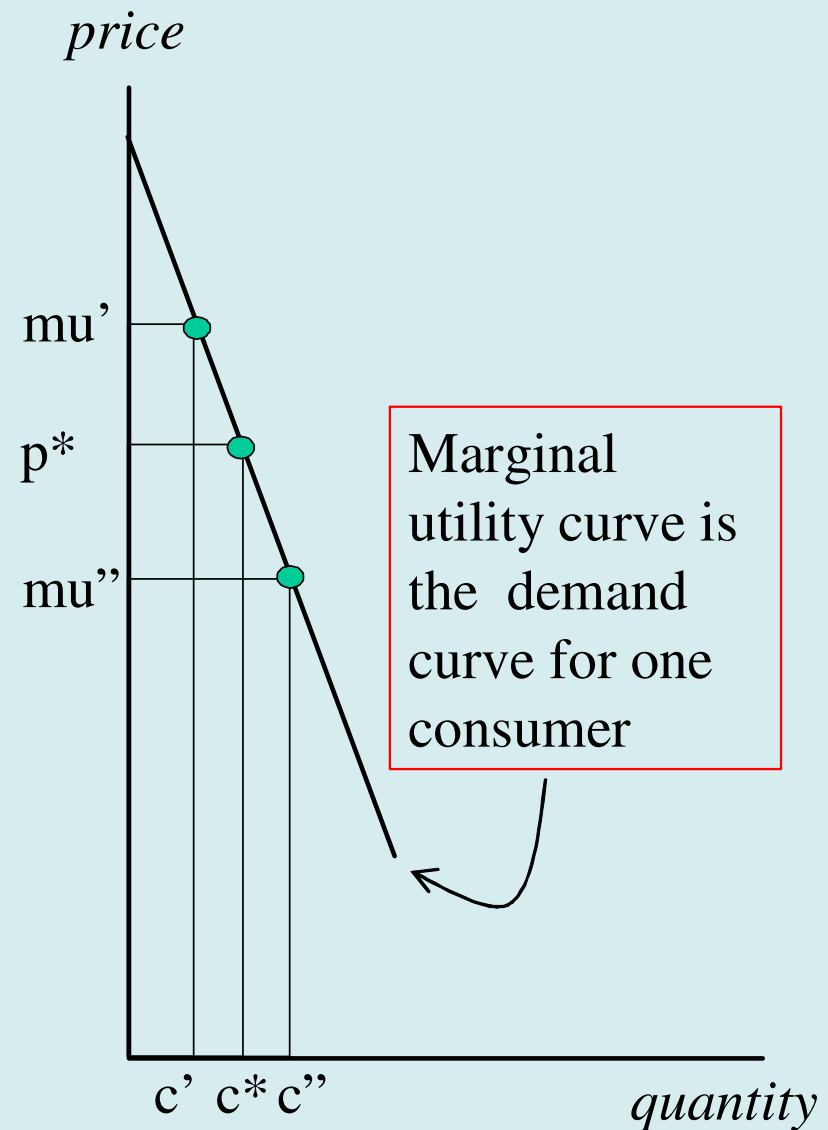
**Lecture # 4**  
**Economics of European Integration**

Spring Semester 2009

Gerald Willmann

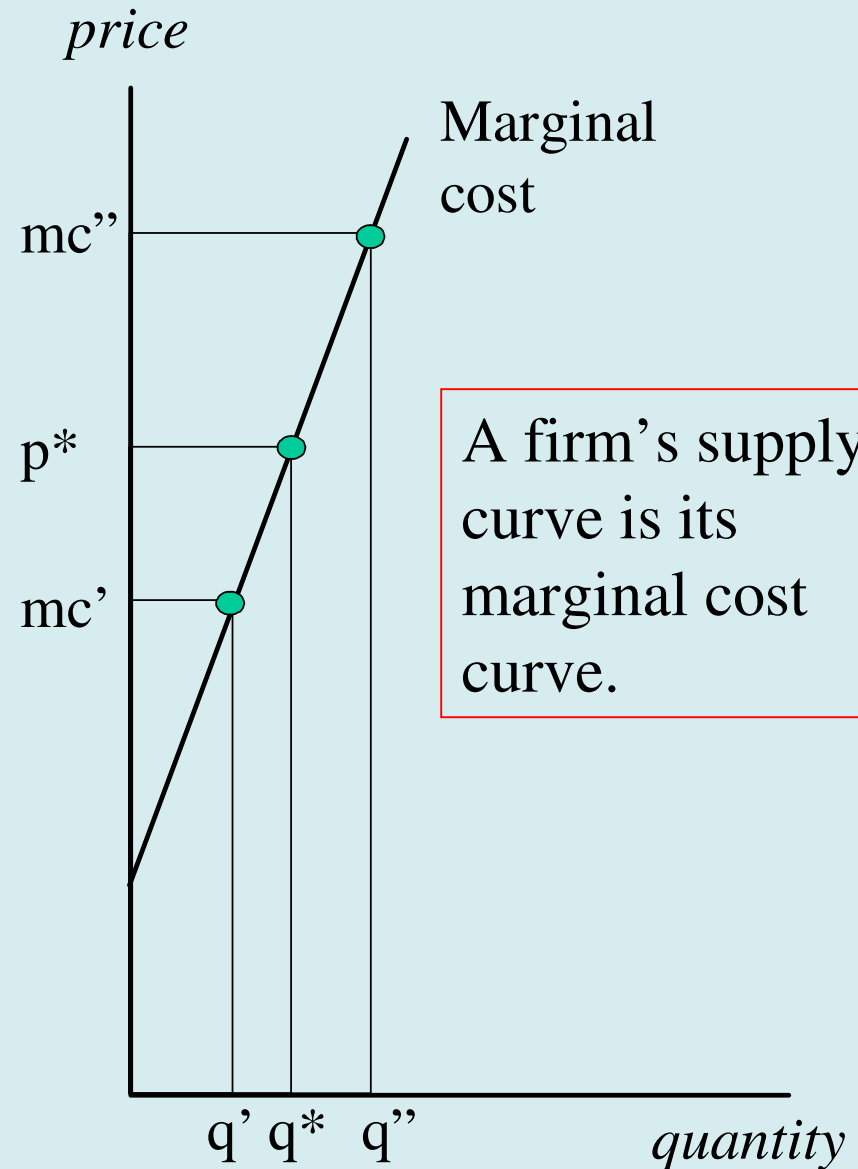
# Preliminaries I

- Demand curve shows how much consumers would buy of a particular good at any particular price.
- It is based on optimisation exercise:
  - Would one more be worth price?
- Market demand is aggregated over all consumers' demand curves.
  - Horizontal sum.



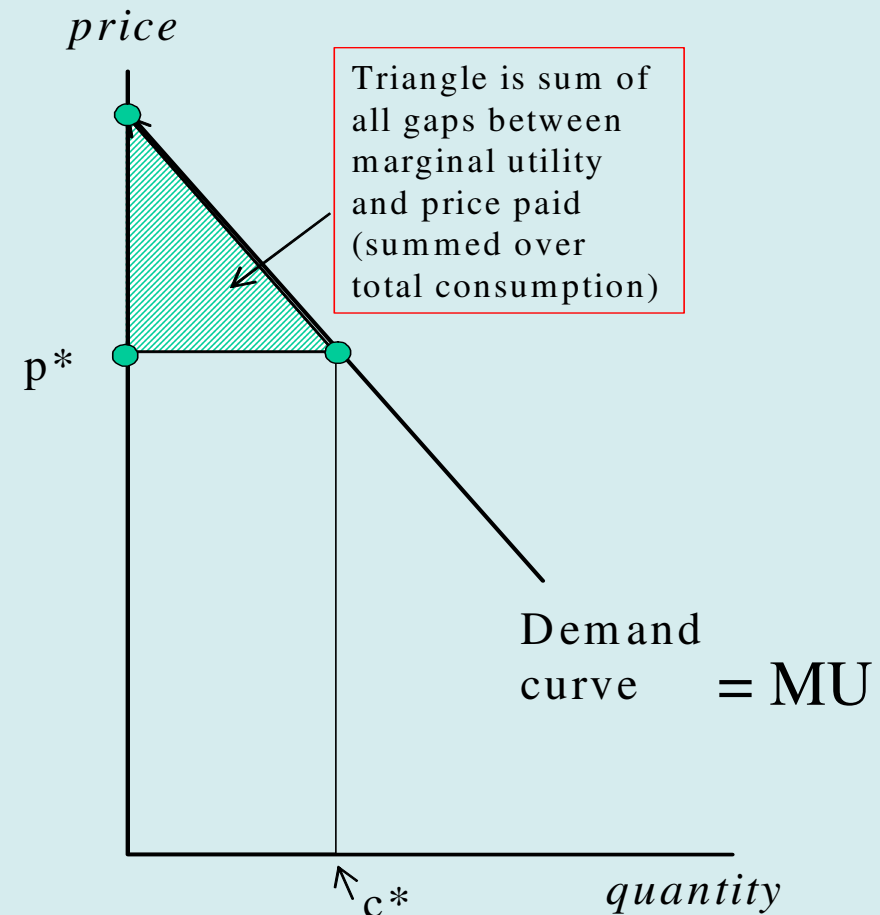
# Preliminaries I

- Supply curve shows how much firms would offer to the market at a given price.
- Based on optimisation:
  - Would selling one more unit at price increase profit?
- Market supply is aggregated over all firms.
  - Horizontal sum.



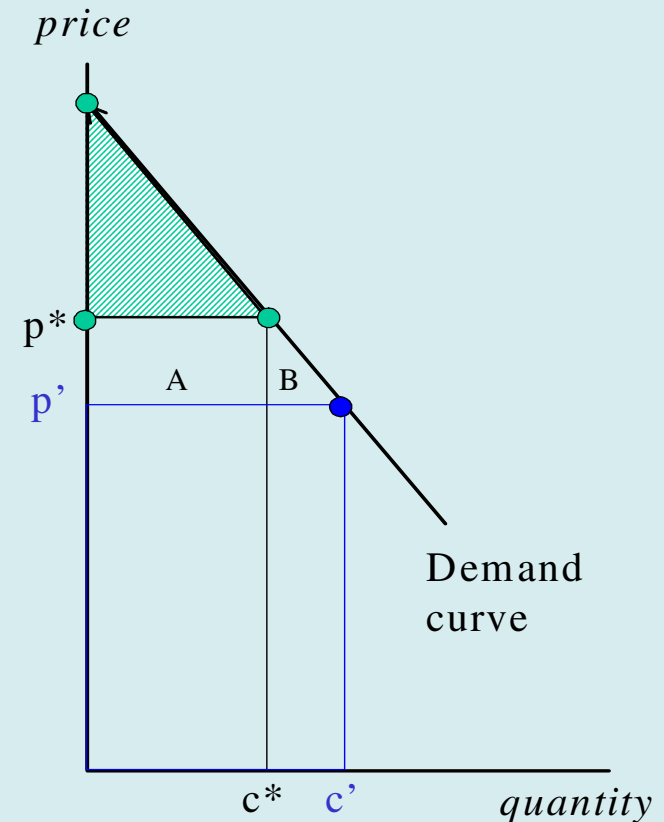
# Welfare analysis: consumer surplus

- Since demand curve based on marginal utility, it can be used to show how consumers' well-being (welfare) is affected by changes in the price.
- Gap between marginal utility of a unit and price paid shows 'surplus' from being able to buy  $c^*$  at  $p^*$ .



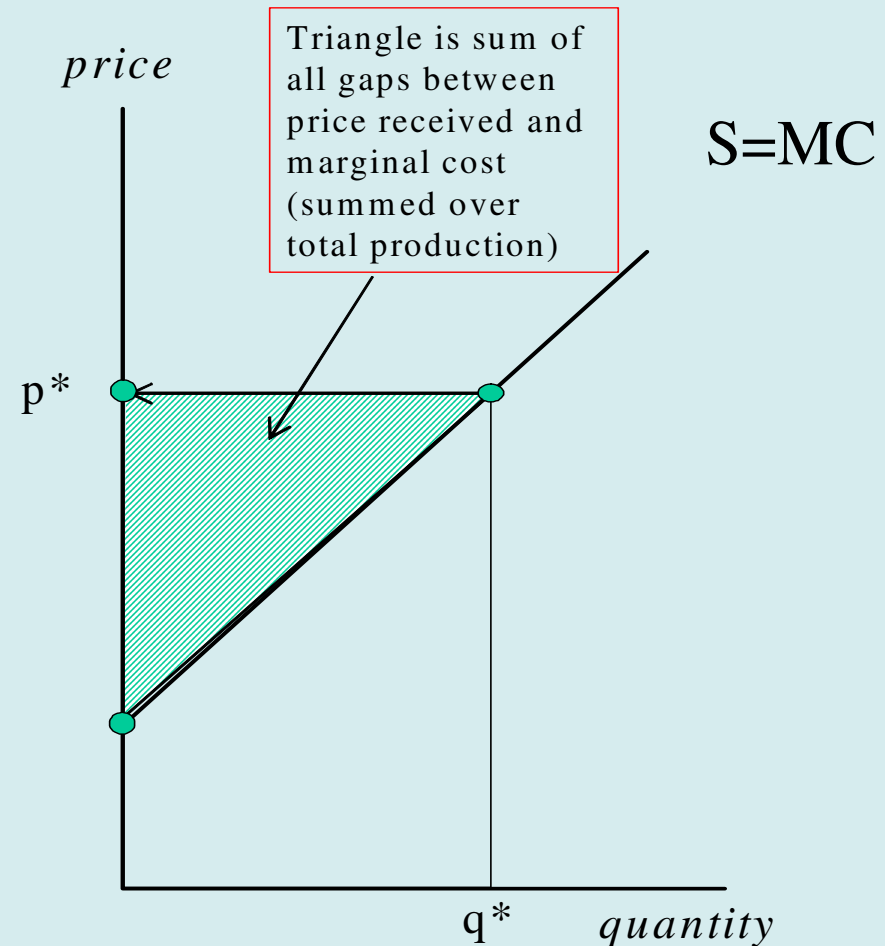
# Welfare analysis: consumer surplus

- If the price falls:
  - Consumers obviously better off.
  - Consumer surplus change quantifies this intuition.
- Consumer surplus rise, 2 parts:
  - Pay less for units consumed at old price; measure of this = area A.
    - $A = \text{Price drop times old consumption.}$
  - Gain surplus on the new units consumed (those from  $c^*$  to  $c'$ ); measure of this = area B.
    - $B = \text{sum of all new gaps between marginal utility and price}$



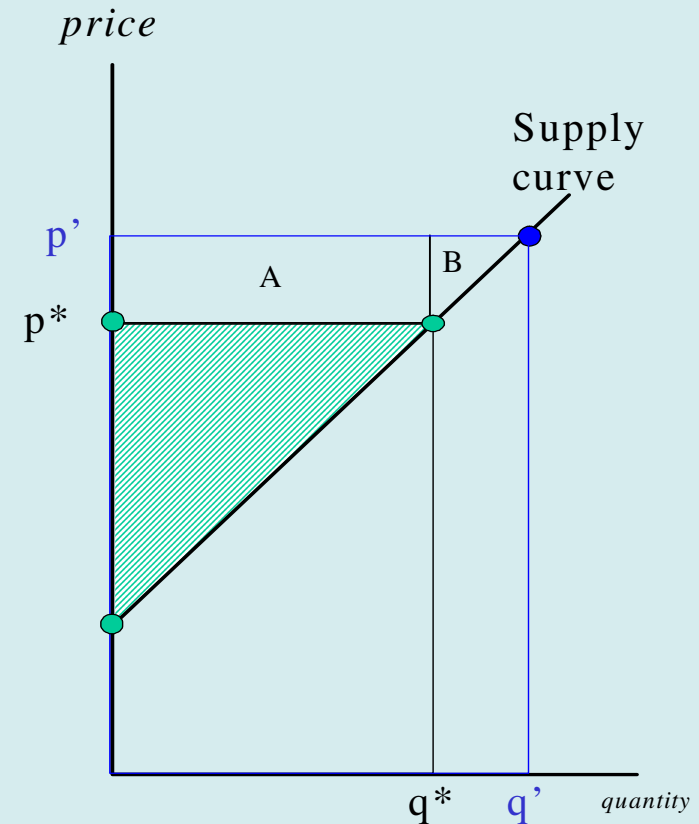
# Welfare analysis: producer surplus

- Since supply curve based on marginal cost, it can be used to show how producers' well-being (welfare) is affected by changes in the price.
- Gap between marginal cost of a unit and price received shows 'surplus' from being able to sell  $q^*$  at  $p^*$ .

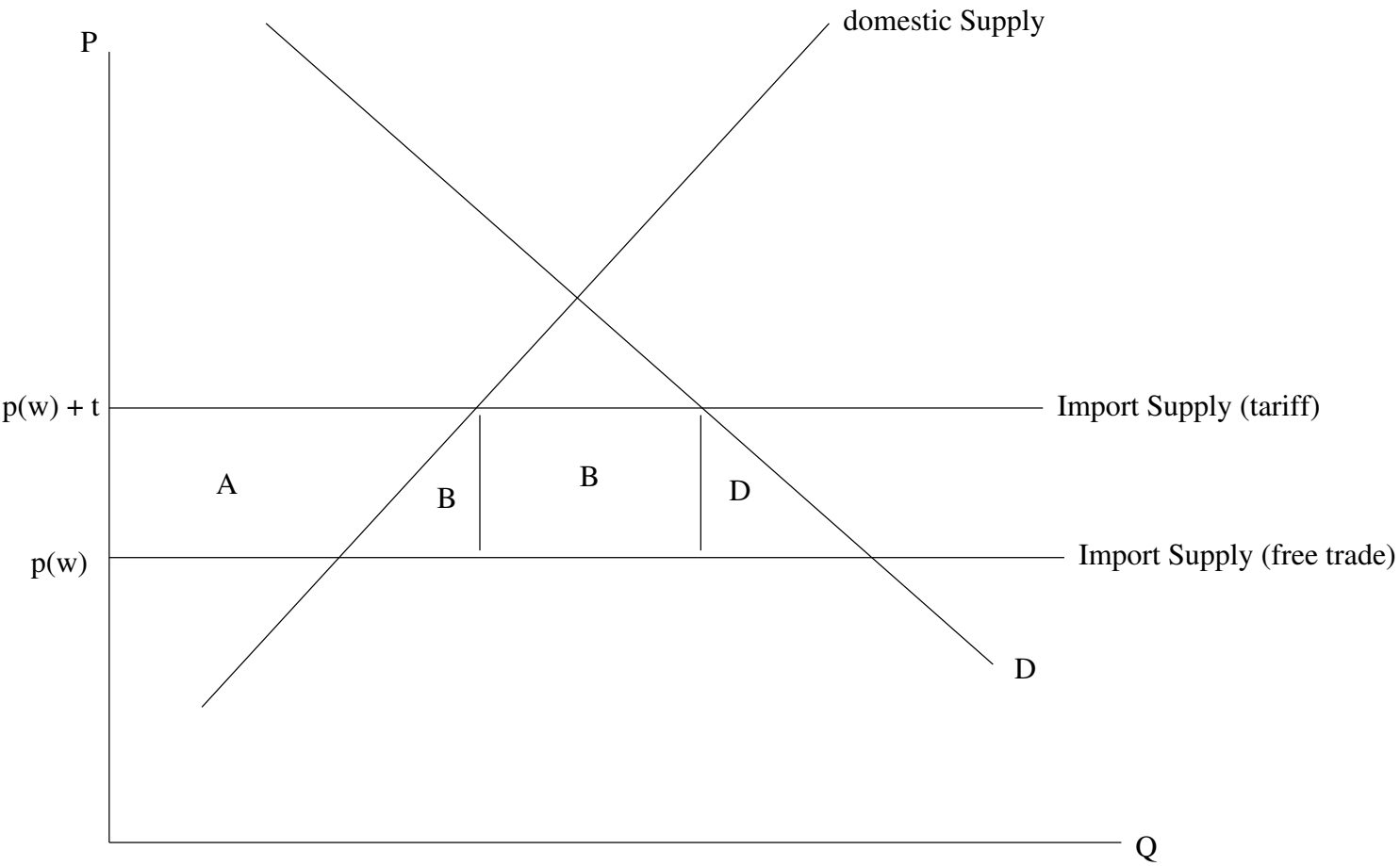


# Welfare analysis: producer surplus

- If the price rises:
  - producers obviously better off.
  - Producer surplus change quantifies this intuition.
- producer surplus rise, 2 parts:
  - Get more for units sold at old price; measure of this = area A.
    - $A = \text{Price rise} \times \text{old production}$ .
  - Gain surplus on the new units sold (those from  $q^*$  to  $q'$ ).
  - measure of this = area B.
    - $B = \text{sum of all new gaps between marginal cost and price}$ .



# Small Country



cons:  $-A-B-C-D$

prod:  $+A$

gov't:  $+C$

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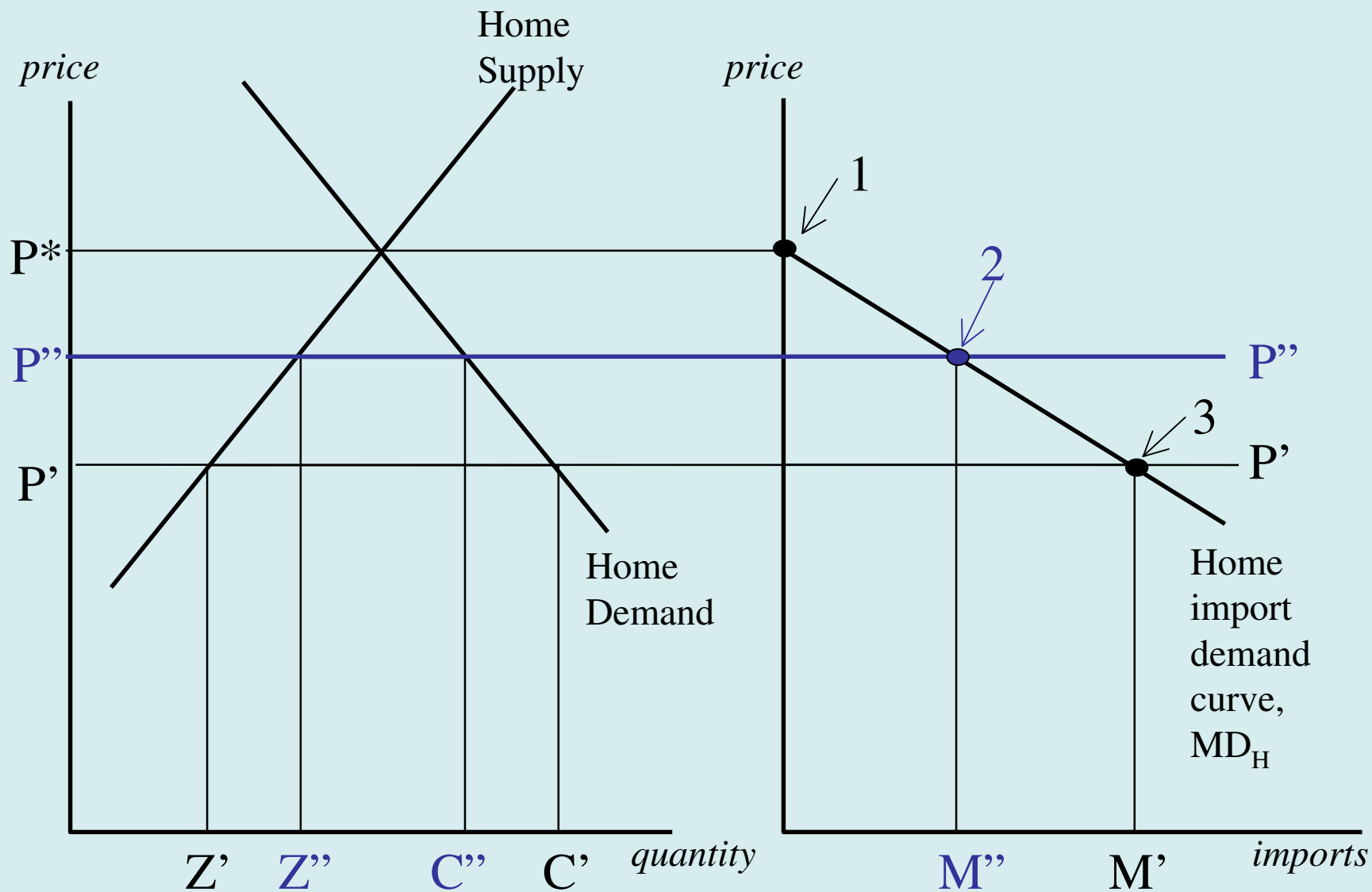
net:  $-B -D$



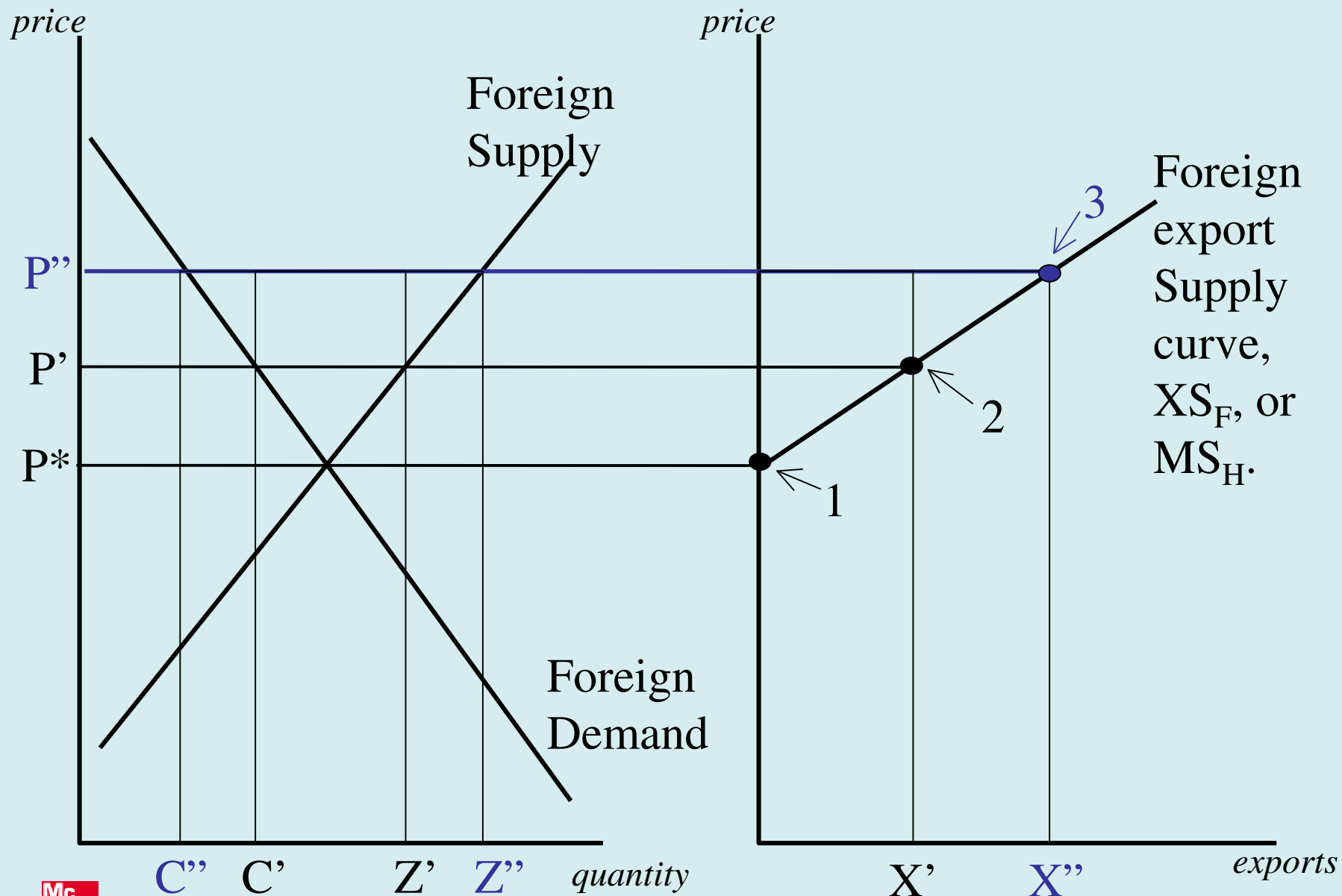
# Preliminaries II

- Introduction to Open Economy Supply & Demand Analysis.
- Start with Import Demand Curve.
  - This tells us how much a nation would import for any given domestic price.
  - Presumes imports and domestic production are perfect substitutes.
  - Imports equal gap between domestic consumption and domestic production.

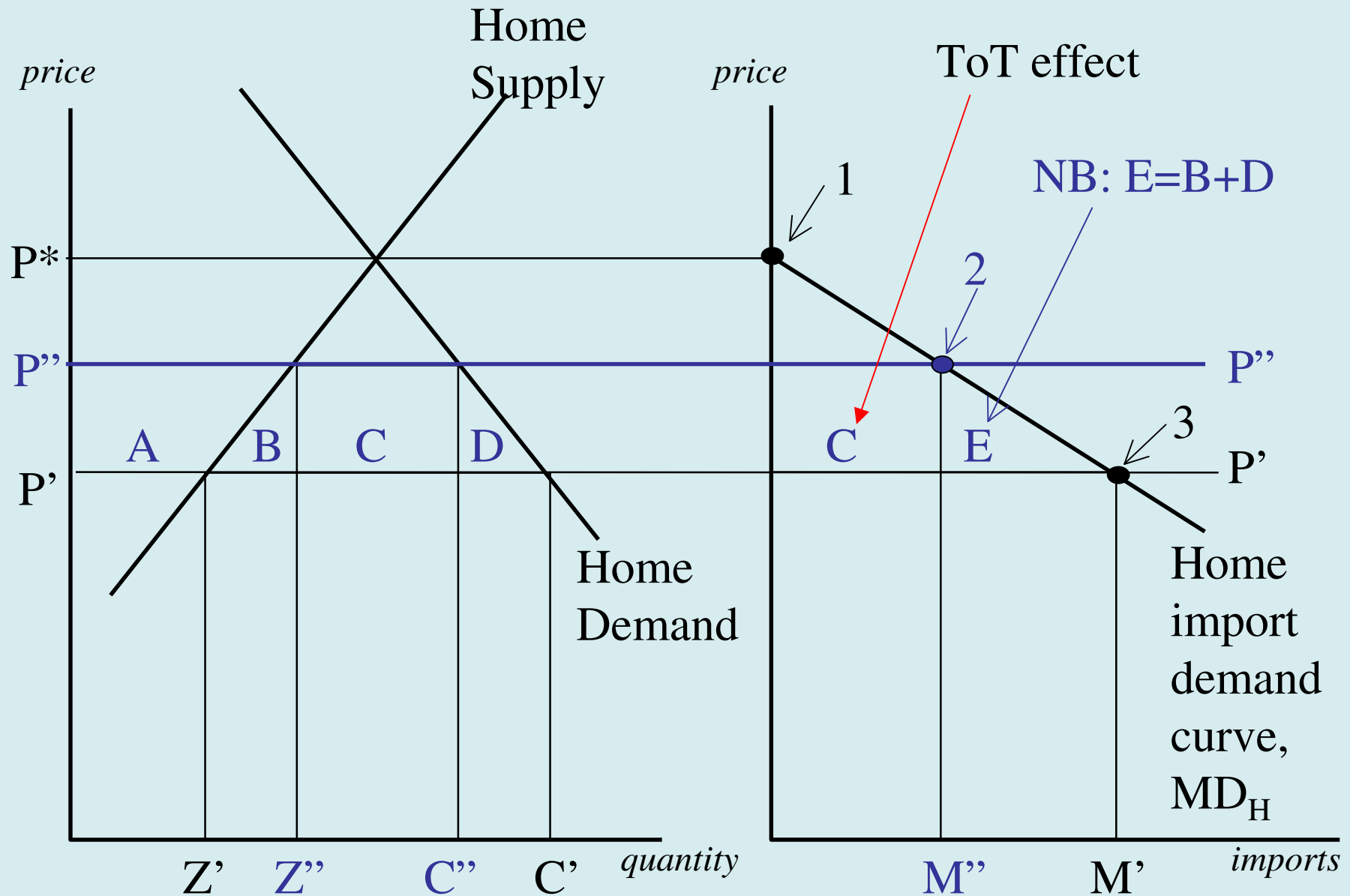
# Import demand curve (MD)



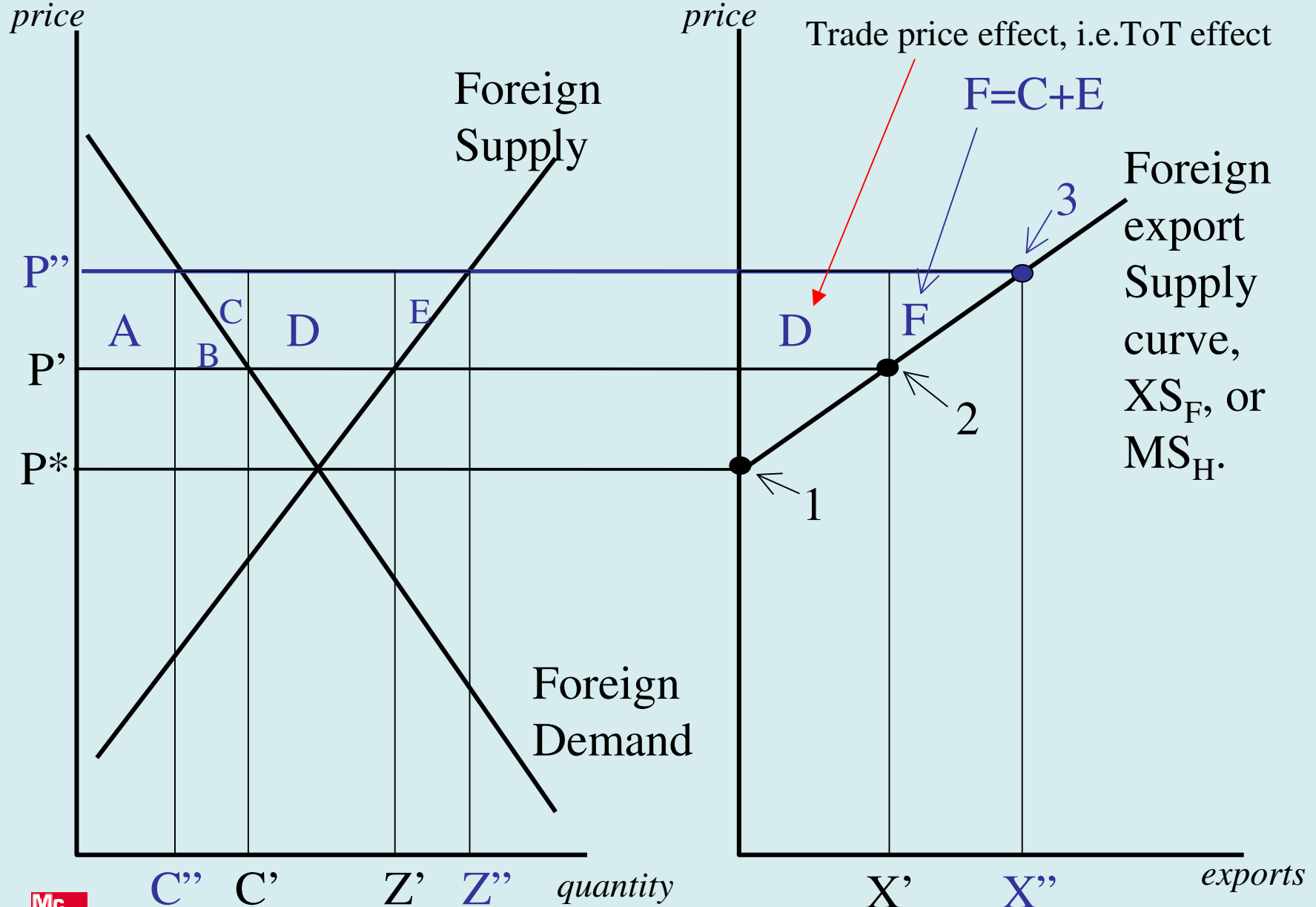
# Import supply curve (MS)

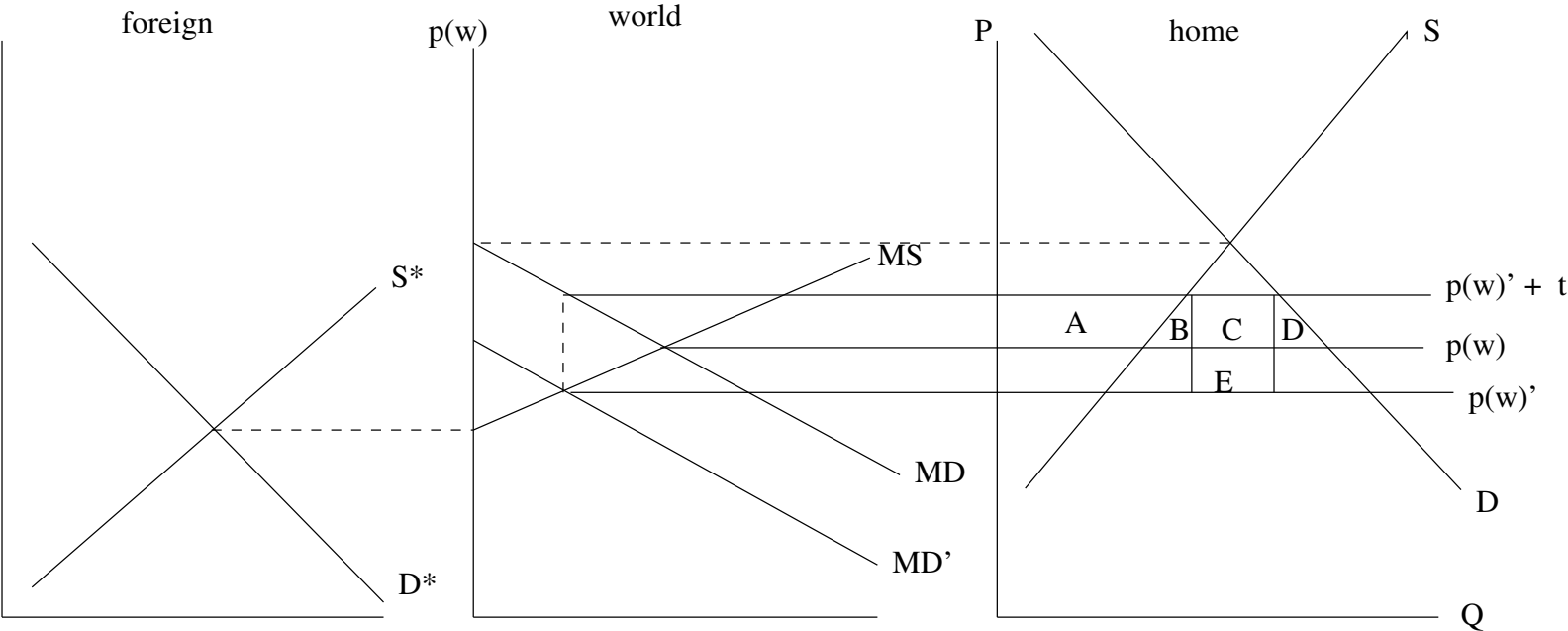


# Welfare & Import demand curve



# Welfare & Import supply curve





cons:  $-A - B - C - D$

prod:  $+A$

gov't:  $+C +E$

=====

net:  $-B -D +E$

# WTO Rules

- A basic principle of the WTO/GATT is non-discrimination in application of tariffs.
- FTAs and CUs violate this principle.
- Article 24 permits FTAs and CUs subject to conditions:
  - Substantially all trade must be covered
    - Cannot pick and choose products.
  - Intra-bloc tariffs must go to zero within reasonable period.
  - If CU, the CET must not on average be higher than the external tariffs of the CU members were before.
    - In EEC's CU this meant France and Italy lowered their tariffs, Benelux nations raised theirs (German tariffs were about at the average anyway).

# Customs Union vs FTA

- FTA like CU but no Common External Tariff.
  - Opens door to ‘tariff cheats’,
    - goods from RoW destined for Home market enter via Partner if Partner has lower external tariff, called ‘trade deflection’.
  - Solution is ‘rules of origin’ meant to establish where a good was made.
    - Problems: Difficult and expensive to administer, especially as world get more integrated.
    - Rules often become vehicle for disguised protection.
- Despite the origin-problem in FTAs, almost all preferential trade arrangements in world are FTAs.
  - CU’s require some political integration.
    - Must agree on CET and how to change it, including anti-dumping duties, etc.



# Kemp Wan Theorem

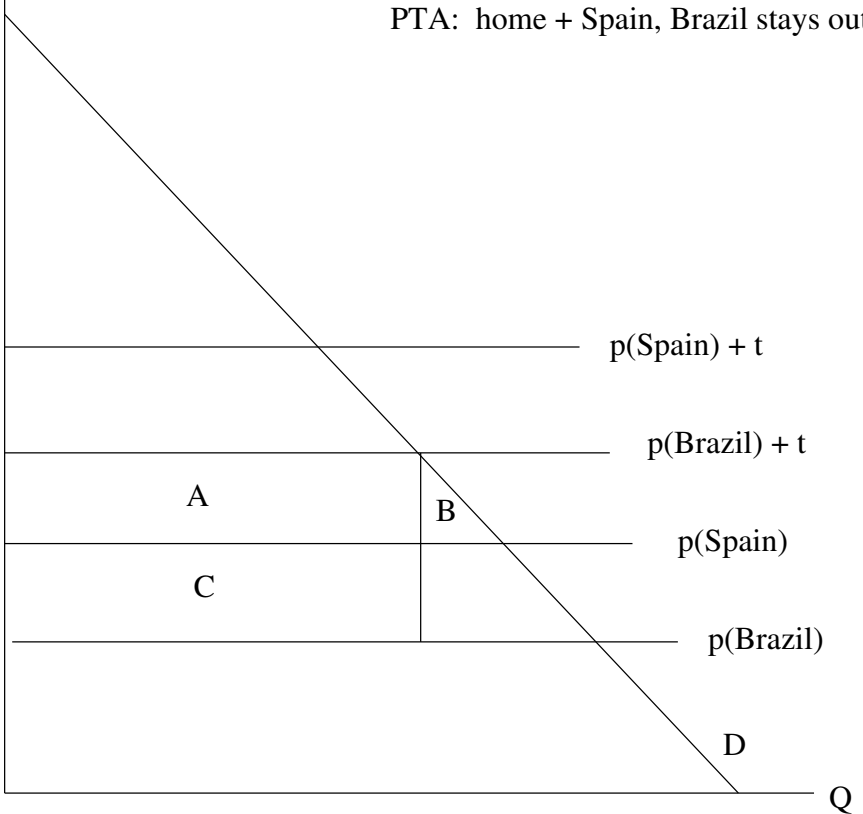
- Possible to alter CET to get Pareto improvement.
- Form CU and adjust CET to ensure zero external trade effect (thus welfare impact on RoW is zero).
- Treat external trade vector as part of endowment vector & First Welfare Theorem tells us FT between partners achieves FB and so is better than distorted equilibrium.
- Not practical, but an intellectual landmark (FTAs need not be bad).

# Trade creation & diversion

- Trade creation & diversion is jargon that is often used.
  - It is imprecise, but widely used.
  - Intuition for why it is so popular, despite its shortcomings.
    - It captures ambiguity of welfare gains in two words.
- “Discriminatory liberalisation”.
  - Liberalisation
    - = tends to improve welfare ~ trade creation
  - Discrimination
    - -= tends to diminish welfare ~ trade diversion

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PTA: home + Spain, Brazil stays out

cons:  $+A+B$ 

prod: n/a

gov't:  $-A-C$ 

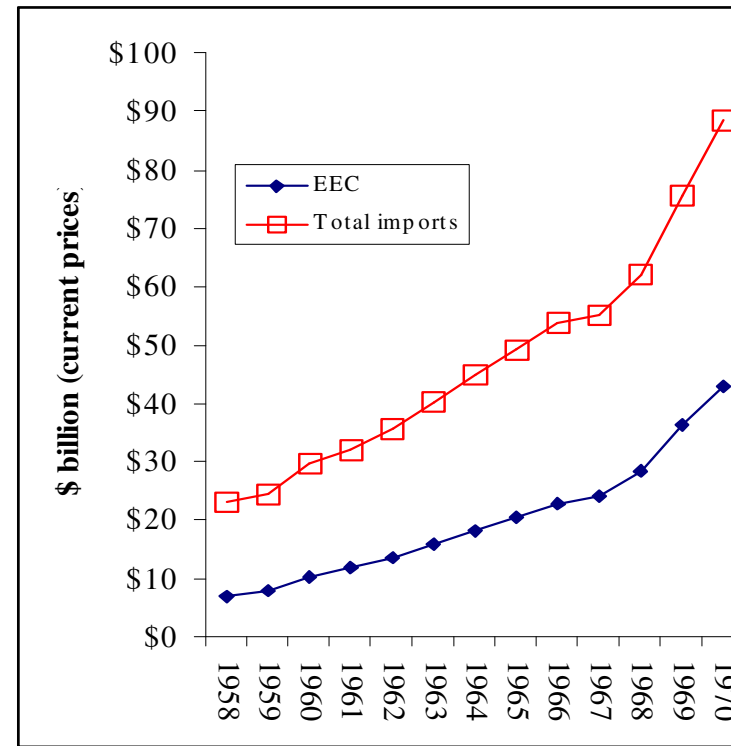
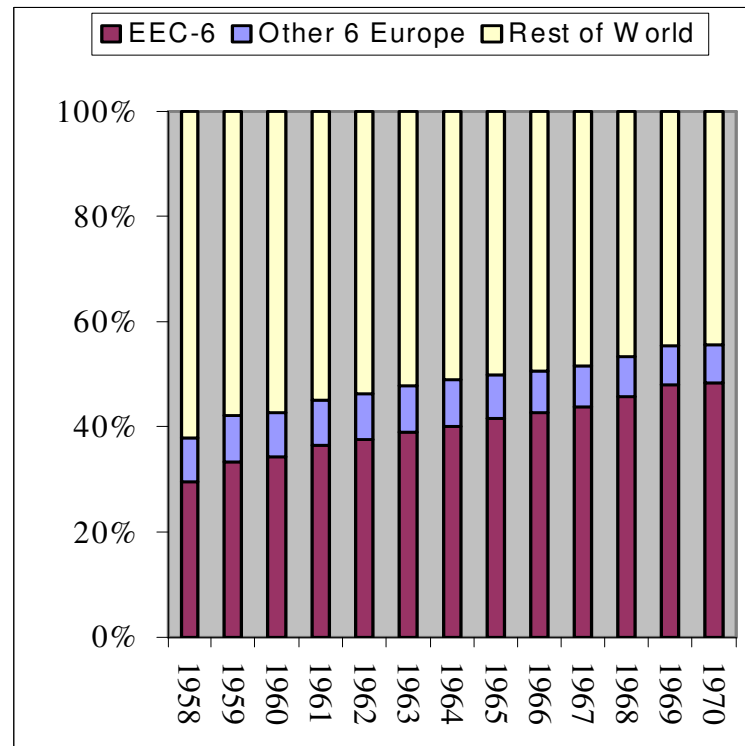
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net:  $+B-C$ 

B: positive "trade creation"

C: negative "trade diversion"

# Impact of customs union formation



Note: Left panel shows share of EEC6's import from the three regions. Other Euro-6 are the 6 countries that joined the EU by the mid 1980s, UK, Ireland, Denmark, Spain, Portugal and Greece.

Source: Table 5, External Trade and Balance of Payments, Statistical Yearbook, Recapitulation, 1958-1991,