

Business Economics

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The changing degree of economies interdependence

- Economies are more closely linked than ever before
- The world economy is unprecedentedly turbulent
- Domestic economic policies can hardly ignore the role of IE relations

GLOBALIZATION OF THE WORLD ECONOMY

Our aim: understand key new issues of the global economy stressing continuing usefulness of existing models and theories

Transactions in International Economy

- Methods and tools same as Micro and Macro - principles of behavior of economic subjects identical in national and int. transactions.
- Transactions occur between **sovereign nations** – factors of production less mobile + nations can put all sorts of **barriers between their residents and the outside world**
 - (2002) G.W.Bush – tariff on steal
 - D. Trump's campaign – 45% T on China IM – stealing US jobs?
- Transactions are influenced by **national currencies** rate. Economic policy tools in an open economy are never available at national level.
 - (2002) – The Euro

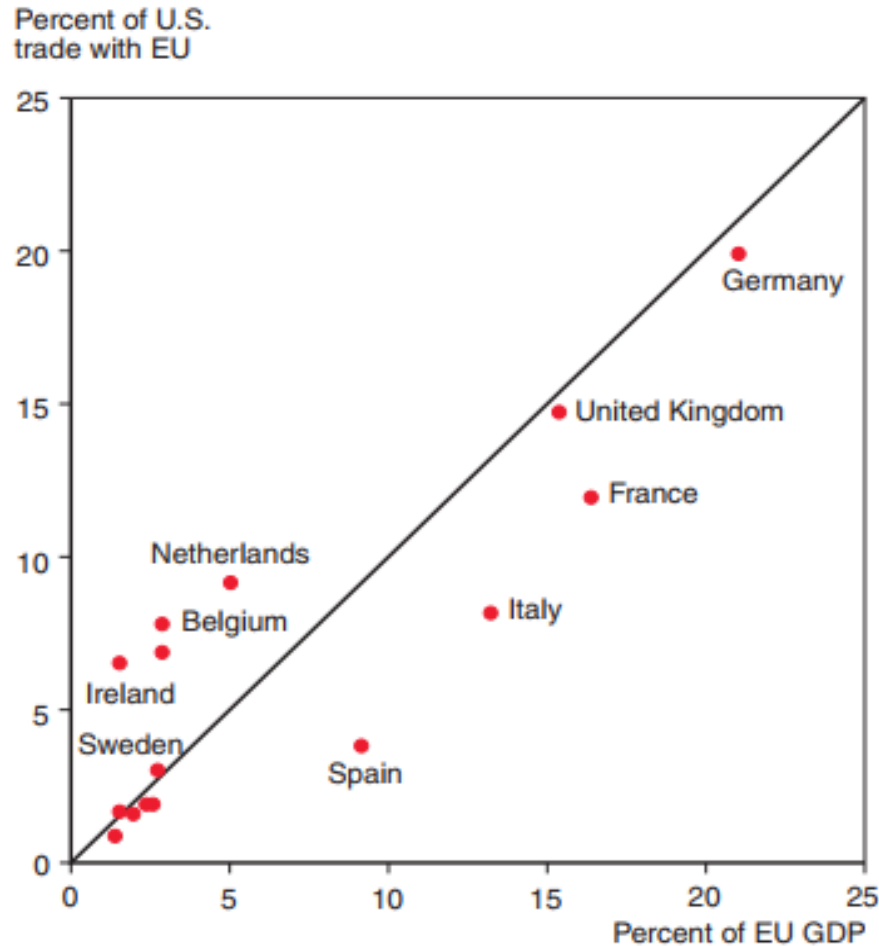
Case study

- 1. Unemployment and Import penetration**
- 2. Steel**
- 3. Euro**
- 4. Changing Pattern of World Trade**

World trade – an overview of facts

- More than 30% of production is sold across borders
- openness = NX_i / GDP_i or $X_i + M_i / GDP_i$
- Exports have shifted from agriculture to manufactures and services
- Information technologies allowed booming of *offshoring/outsourcing* (call centers in Bangalore, India) bringing new competition to labour market

The Gravity model



-empirical relationship between the value of trade and size of an economy

-Volume of trade between two countries can be predicted by equation:

$$T_{ij} = A * Y_i * Y_j / D_{ij}$$

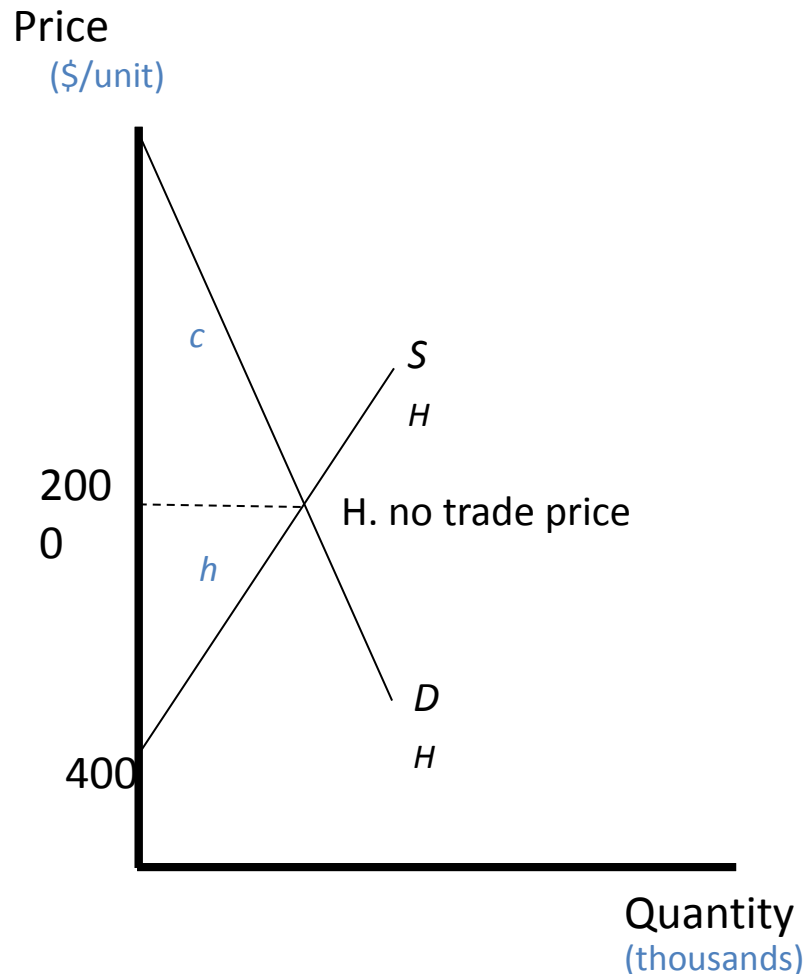
-the value of trade is proportional to GDP and diminishes with the distance

The Size of European Economies,
and the Value of Their Trade with
the United States

Patterns of trade – basic model of S and D

- Dispute of protectionists and liberal economists – Should government allow trade?
- Efficiency of free trade can be easily proved, but there will always be people who gain and those who lose from trade.
- We will apply tools of D and S to seek answers to four key questions:
 - What determines which products a country exports and imports?
 - How does trade affect production and consumption in each country?
 - How does trade affect well being of each country?
 - How does trade affect distribution of well being or income among various groups within a country?

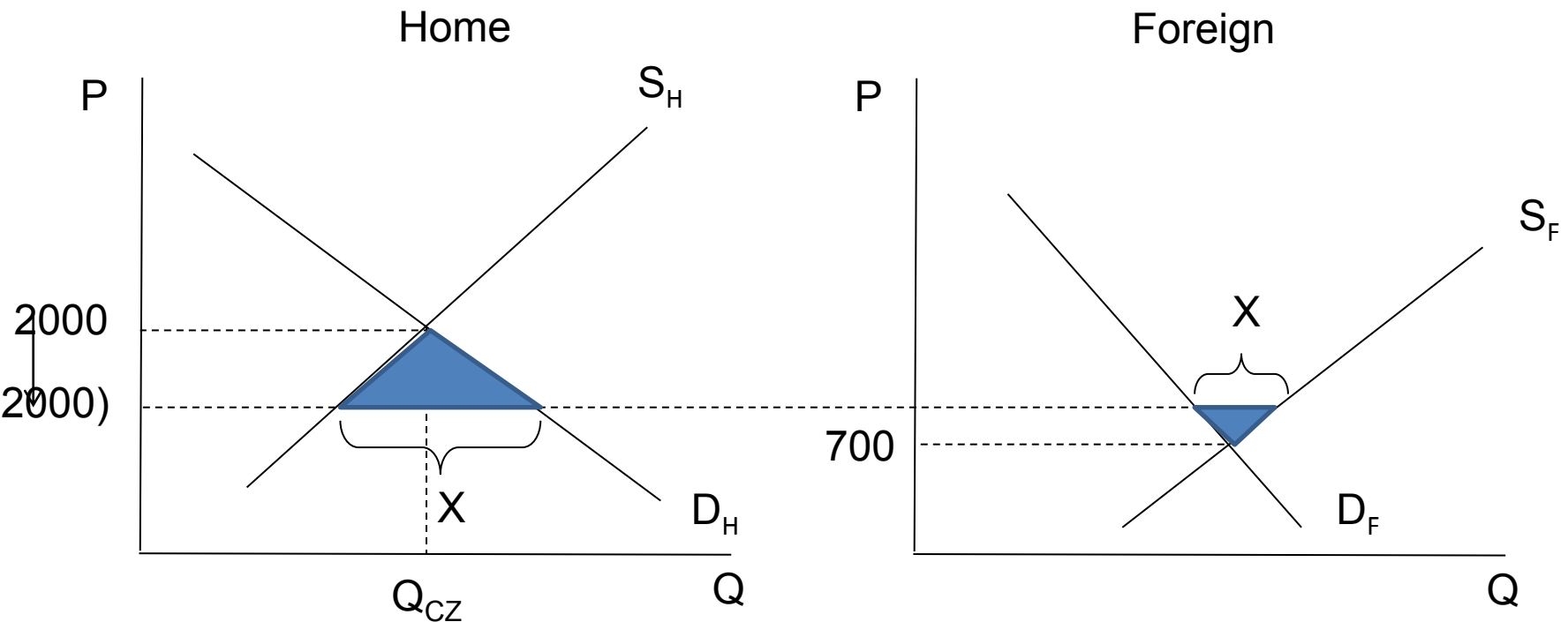
National Home market with no trade



- If there is no trade, then equilibrium occurs at P where the market clears domestically ($S_H = D_H$)
- Both C and P benefit from having this market – gain surplus (depending on relative elasticity)

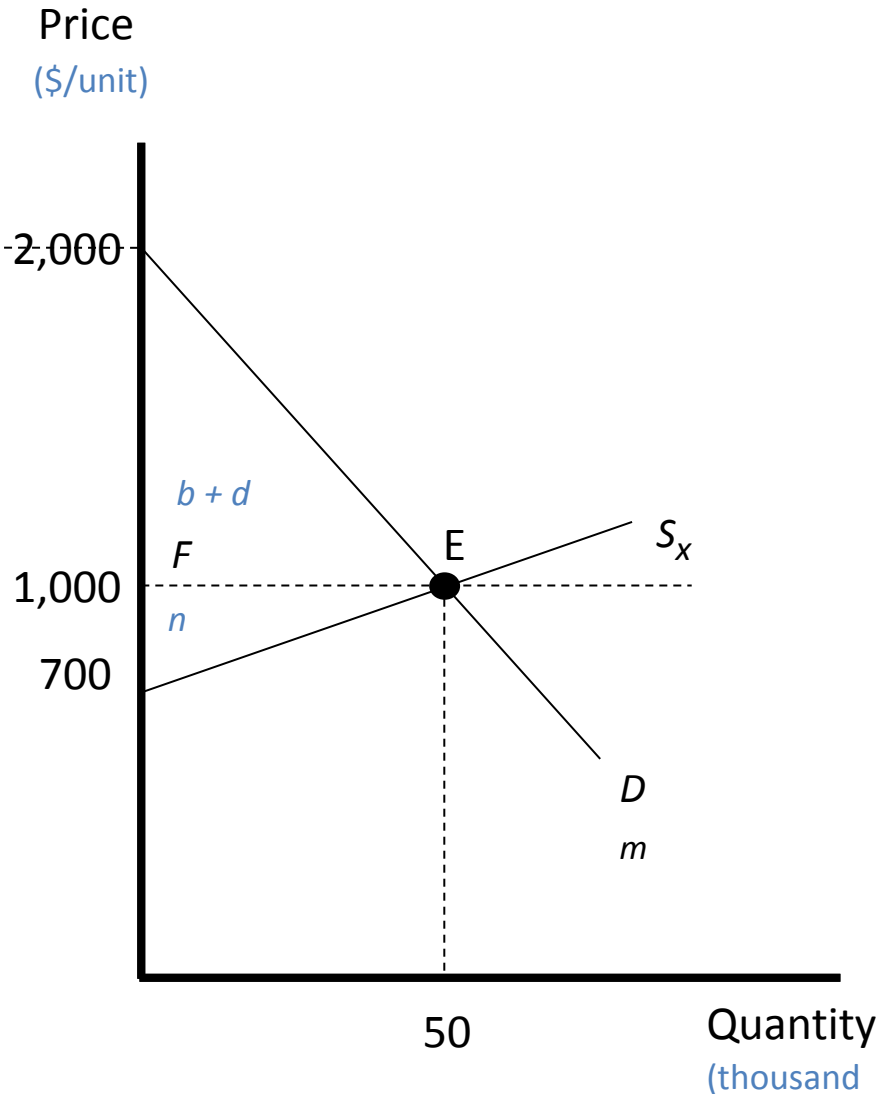
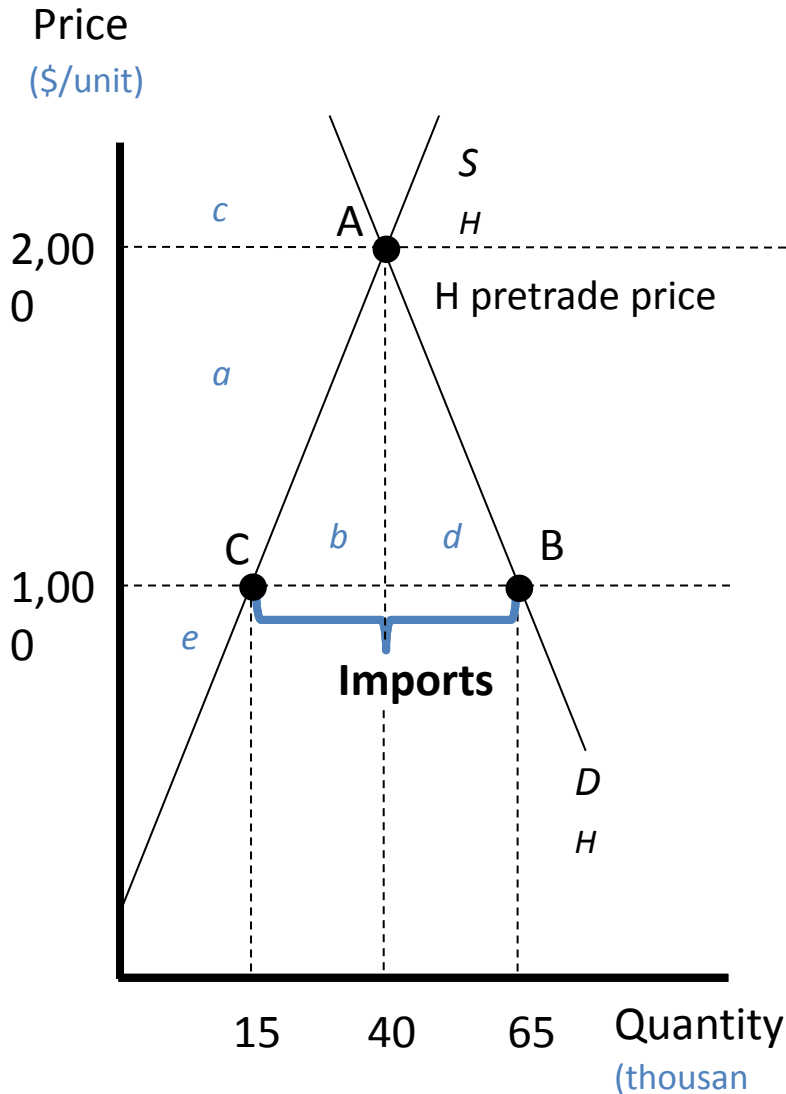
If IT is allowed, **arbitrage** will occur

- Arbitrage increases efficiency (sacrificed MU \times acquired MU / net effect = difference between producer and consumer surplus)
- Additional S in H created by Im, reduces the P_H
- Additional D met by exports increases the market price in F
- If there are no transport costs or other frictions, free trade results in the two countries having the same P – **free trade equilibrium**



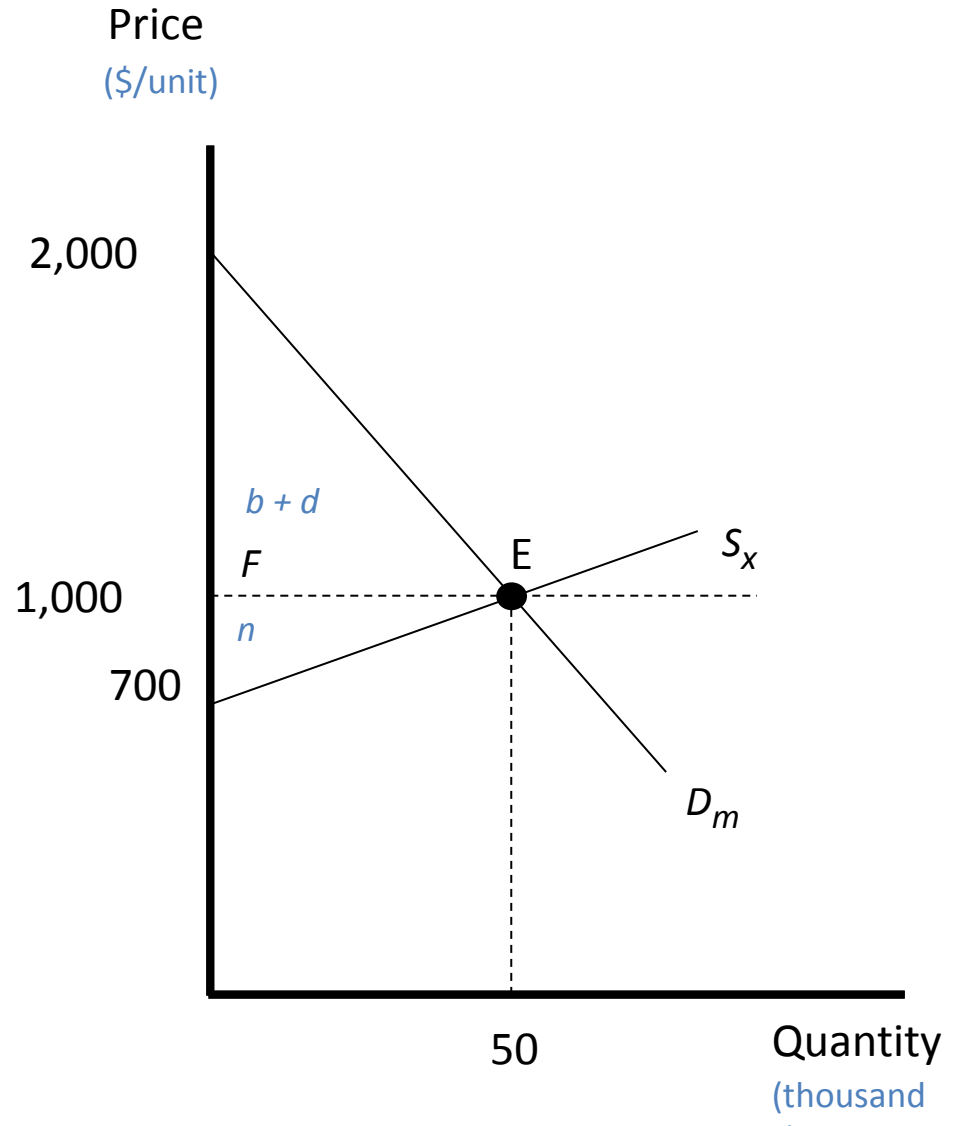
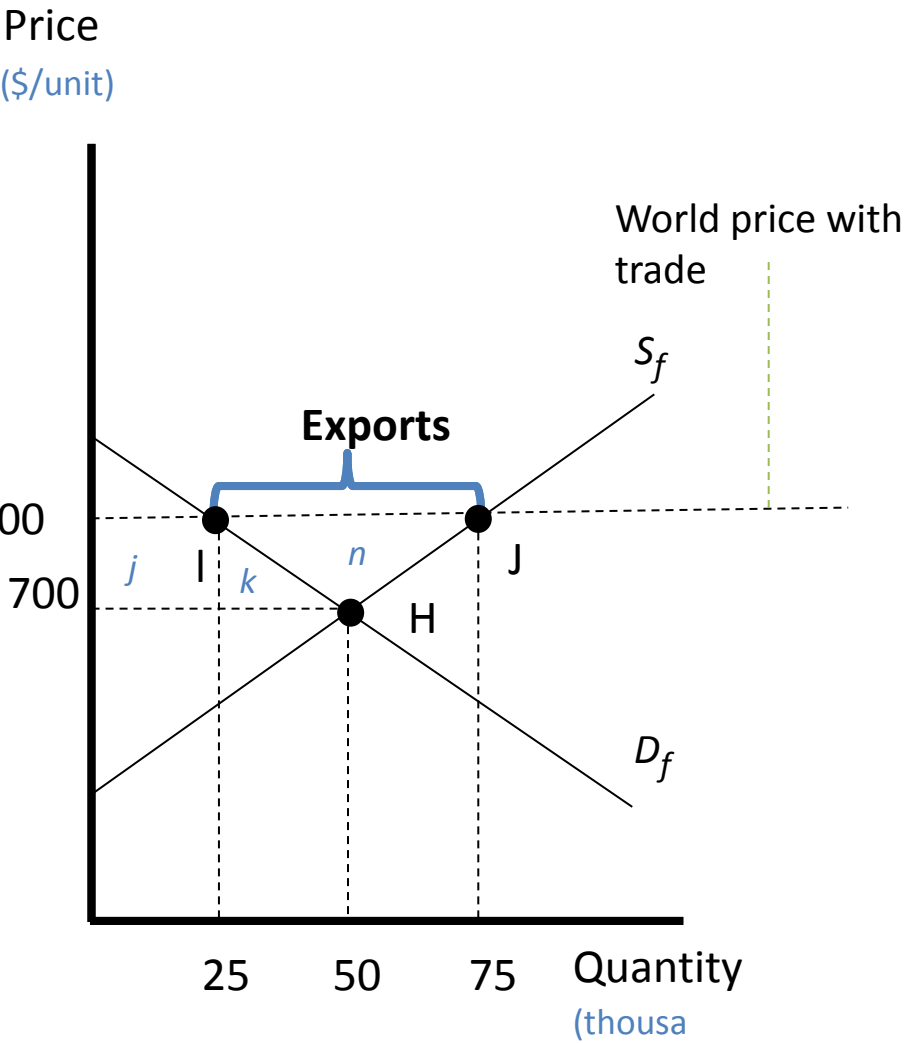
Home national market vs. International market

Intl. market **-demand for imports** ($D_m = D_H - S_H$) can be determined for each P at which H might import. In the international market, the desire to trade is (B-C) at P_w . Analogically **supply of exports** ($S_x = S_F - D_F$) determined by the difference of F supply and demand at each P where F might export (if $P_F > 700$).



Foreign national market vs. International market

Free trade equilibrium occurs where $D_m = S_x$.



Welfare aggregate effects of free trade

by „one-dollar, one vote“ metrics

- H: $\downarrow P \uparrow Q$ consumed and $\downarrow Q$ produced, $\uparrow CS$ ($+a+b+d$), $\downarrow PS$ ($-a$)
 - Net trade effect (**$b+d$**)
- F: $\uparrow P \downarrow Q$ consumed and $\uparrow Q$ produced, $\downarrow CS$ ($-j-k$), $\uparrow PS$ ($j+k+n$)
 - Net gain (**$+n$**)
- The country that experiences the larger price change has a larger value of of the net gains from trade. It is the country with less elastic (steeper) trade curve (S_x or D_M).

Early answers to our four questions

What determines which products a country exports /imports?

- D and S conditions differ between countries, price differences motivate arbitrage.

How does trade affect production and consumption in each country?

- Trade adjusts P_H and P_F to P_W . Price changes result in change in Q produced and demanded.

How does trade affect well being of each country?

- Each country's net national gains from trade are proportional to the change in its P that occurs in the shift from no trade to trade.

How does trade affect distribution of well being or income among various groups within a country?

- Gainers are the consumers of imported products and producers of exported products.

Problem 1

The equation for the D and S curve for writing paper in Belgium is

$$Q_D = 350 - P/2$$

$$Q_S = -200 + 5P$$

- a) What are the equilibrium price and quantity for Belgium if there is no IT?
- b) What are the equilibrium quantities for Belgium if the nation can trade freely with the rest of the world at a price of 120? How much paper will be produced by domestic producers at this price and how much will be traded?
- c) What is the effect of the shift from no trade to free trade on CS and on PS? What is the net national gain from trade in Belgium?

Problem 2

Country A imports apricots for \$ 10 per unit. Demand and supply in the domestic economy are given by the equations: $Q = 400 - 10P$ and $Q = -50 + 5P$.

- a) Find the domestic equilibrium price in case of NO trade and draw graph. Calculate CS and PS
- b) In case of free trade, what will be the demand for imports of country A? How much will domestic producers produce? How will PS and CS change?
- c) Should the import be limited to 50 units, how would the domestic price change? Show also in the graph.

Problem 3

Imagine that the following functions determine the grain market in country A:

$Q_D = 100 - P$ and $Q_S = 40 + 2P$. Corresponding functions in country B are the following:

$Q^*_D = 80 - 20P$ and $Q^*_S = 40 + 20P$

- a) Which country will be exporting grain? Formulate the export supply and import demand equations and draw in graph.
- b) Calculate national equilibrium prices in NO trade situation.
- c) If free trade is allowed and there are zero transaction costs, what will be the equilibrium price on international market? How many units of grain will be traded?
- d) Discuss changes in graph if the exporting country (A or B) is very small and produces a very small share of world production.