# International Trade and Monetary Systems

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1. Discuss the role of institutions in a modern economy. Give two examples of institutions that have served to enable people to capture the gains from dealing with strangers.
2. Explain why economists usually draw indie erence curves convex to the origin.

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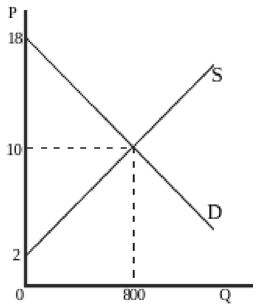
Suppose that, in addition to the manufacturing costs represented by the supply curve, there is also a transport cost of $4 per pair of shoes. Compared to the case of no transport costs, how does this ae ect the price of shoes in an importing country and the quantity traded? How does this ae ect the gains from trade?




...today's topic...

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Suppose two countries enjoy gains from trade with each other because they have die erent factor endowments (their PPFs are die erent). Then suppose that one economy's PPF shifts out because of economic growth. How are both economies ae ected by one country's growth? Is the non-growing country better oe because of the other economy's growth? Why or why not?

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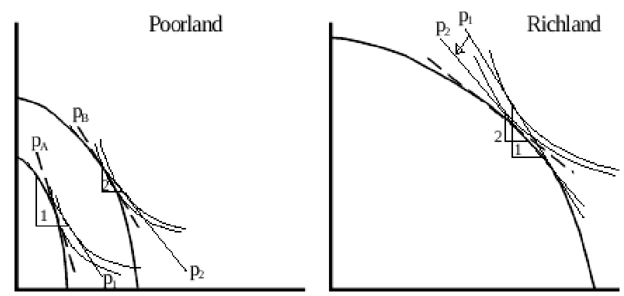


Figure 3
Economic Catch-Up and the Terms of Trade

It depends..

- If the PFFs become more similar, there will be less trade and the non-growing country will be worse oe .
- If the PFFs become even less similar, there will be more trade and the non-growing country will be better oe , too.

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## Analyzing the Emect of Transport Costs on International Trade

- Transport costs in ee ect drive a wedge in between the price received by an exporter and the price paid by a foreign importer.
- Transport costs increase the cost of products to the ! nal user, and it should not be surprising that they reduce both the volume of trade and the gains from trade.
- The analysis of transport costs uses the concepts of consumer and producer surplus.

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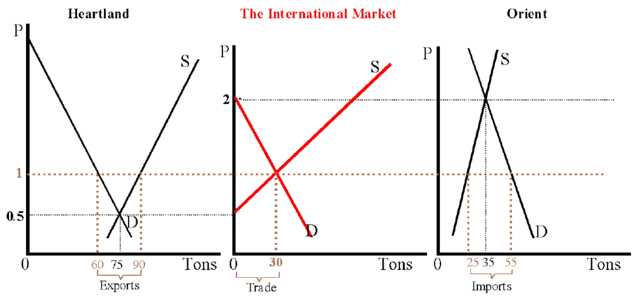
## Equilibrium in the International Market

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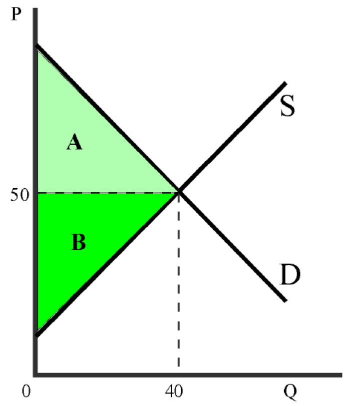
## International Market Equilibrium in the Absence of Transport Costs




- In this international market, the net gains to the importing country are equal to the area A.
- The exporting country enjoys net gains equal to the area B.
- The net gains to the world from trade in this product are equal to the areas A + B.

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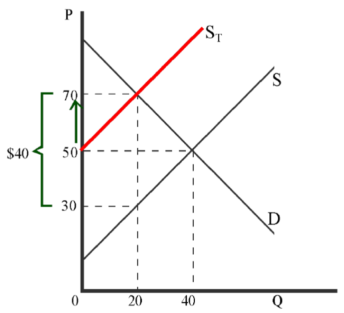
## Transport Costs Reduce Trade




- Transport costs of $40 raise the ee ective international supply curve from S to $S_T$.
- Transport costs drive a TwedgeV between what suppliers receive and consumers pay.
- The volume of trade falls from 40 to 20.

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## Transport Costs Reduce Trade

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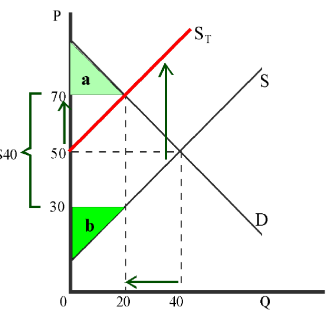


- The volume of trade falls from 40 to 20.
- Net gains from trade are reduced to the areas a + b.

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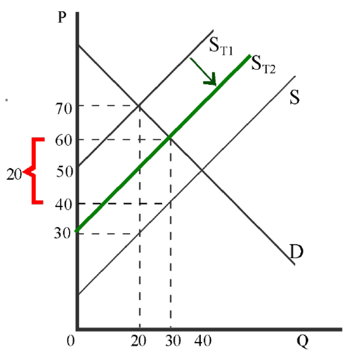
## A Decline in Transport Costs Expands International Trade




- Suppose transport costs fall from $40 to $20.
- The International supply curve shifts down by $20.
- The wedge between the export price and the importers cost is now $20.

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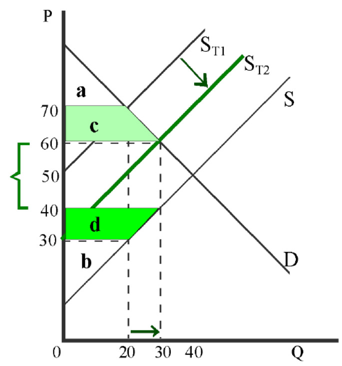
## A Decline in Transport Costs Expands International Trade




- The wedge between the export price and import cost is now $20.
- The volume of trade rises to 30.
- Net gains from trade in this market rise by c + d.

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## Trade and Transport Costs

- An increase in transport costs reduces the gains from trade for both the importing and exporting countries.
- A decline in transport costs increases the gains from trade.
- Most of the expansion of trade during the past two centuries has been attributed to improvements in the eff ciency of transportation.
  - Canals
  - Railroads
  - Steamships
  - Refrigeration
  - Trucks
  - Paved highways
  - Aircraft
  - Containerization
  - Communications

Modern container facilities, such as this one in Tacoma, Washington, have greatly reduced handling costs and shrinkage losses.

Similarly, bulk goods handling at ports has improved from the days when individual bags were carried on board ships on the backs of workers.

## Many Costly Barriers to Trade Remain

- Shrinkage
- Time
- Weather
- Financing
- Information
- Documentation
- Disasters

## Explicit Trade Policies to Restrict Trade

- Taries
- Import quotas
- Trade sanctions
- Boycotts
- Antidumping duties
- Countervailing duties
- Buy domestic regulations

## Trade and Transport

The internet can move data, take orders, process payments, provide information, and handle other marketing activities, but the goods still have to be physically delivered.

Many people equate international trade with either the loss or gain in the number of jobs in their economy.

How does the HO model address the Tjobs issue?V

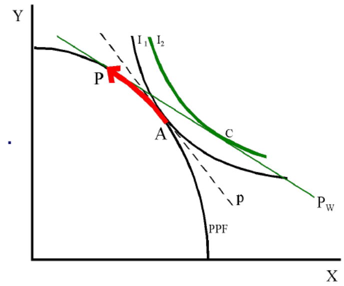
Does trade create or destroy jobs?

In the real world, economies adjust only gradually to trade because it takes time to shift resources from one industry to another, to close down plants and open new ones, and to shift labor from one area to another.



## Adjusting to Free Trade

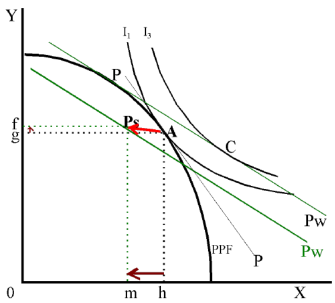
According to the HO model, a shift to free trade means the economy specializes in Y, and production shifts from A to P.




- The movement of factors from one industry to another implies moving expenses and other costly adjustments.
- Even if factors move quickly and with few costs, their prices will change, thereby changing the incomes of their owners.



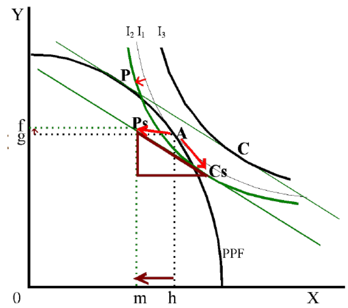
## Adjusting to Free Trade




- A change in relative prices from P to Pw may, in the short run, reduce production of X but not increase output of Y much.
- Production thus moves to Ps, below the PPF.
- Output of X falls from h to m, and output of Y rises only slightly from g to f.



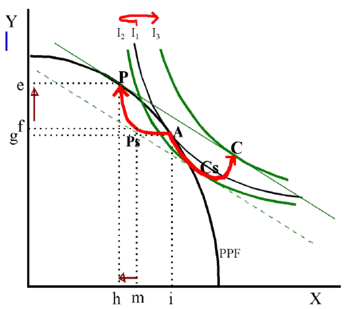
## Adjusting to Free Trade




- When production moves to Ps, below the PPF, the best consumers can do is to consume at Cs.
- With production at Ps, the economy does not even reach the no-trade indie erence curve.
- Thus, in the short run a shift to free trade may reduce welfare!



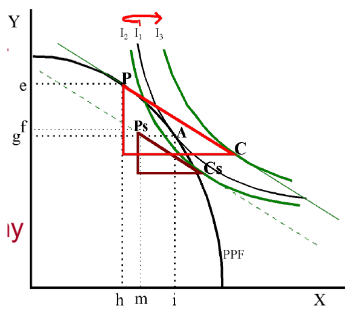
## Adjusting to Free Trade




- Only in the long run does the economy reach the standard free trade points P and C.
- The orange arrows trade dynamic paths from A to P and from A to C.
- In the short run, welfare declines, in the long run it rises.



## Adjusting to Free Trade




- The dynamic path of trade and specialization implies a gradually changing trade pattern.
- In the short run, the brown trade triangle results.
- In the long run, under the assumptions of the HO model, the economy trades according to the larger orange trade triangle.

## Adjusting to Free Trade

- The adjustment costs are not equally distributed.
- Some industries expand while others contract, which means only some workers, owners, and regions incur adjustment costs.
- Other workers, owners, and regions of the country enjoy the economic expansion.
- Recall, Even in the long run and under the assumptions of the HO model, there are permanent distributional ee ects of switching from restricted to free trade.
- And, once the assumptions of the HO model are altered, many other distributional ee ects of expanding international trade can be identi! ed.



## The Stolper-Samuelson Theorem

- Recall the Stolper-Samuelson theorem from last week, which is derived from the HO model.
- This theorem states that when an economy shifts from self-suff ciency to free trade, the real income accruing to the factor used relatively intensively in the growing export industry rises and the real income to the factor used relatively more intensively in the shrinking import-competing industry falls.
- Not only does the price of abundant factor rise with free trade, but the real value of the income earned by the abundant factor rises.



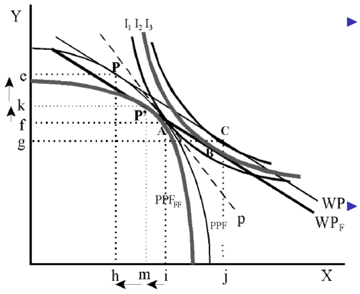
## Fixed Factors Model

- An economy that suddenly faces a new set of relative prices after opening its borders to international trade may not be able to shift resources at all. For example, machines and factories for making clothing are not at all useful for growing and harvesting corn.
- Human capital, which are the skills and knowledge that people accumulate from learning and experience, is often specialized and appropriate only for certain jobs.
- If agriculture is the declining industry, farm equipment and a vast knowledge about working the land cannot be employed in producing clothing.
- International trade, therefore, results in the abandonment of productive factors.
- This motivated the ! xed factors model.



## Fixed Factors Model

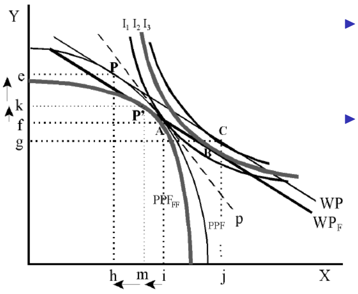
The ! gure shows an alternative PPF for the case in which only some factors can be shifted because some factors are Tindustry-speci! c.V




- In this case, the rate at which one product can be transformed into another is reduced, and the opportunity costs of increasing the output of a product rise.
- This results in the more sharply curved production-possibilities frontier labeled $PPF_{FF}$.



- With some factors ! xed in each industry, the Y industry grows from f to k, which is less than from f to e in the case of full factor mobility.
- Industry X contracts less, from i to m rather than to h.




- Output does not rise as much, the gain from trade and specialization is lower.
- Free trade only takes the economy with industry-speci! c factors to the indiеerence curve $I_2$ at point B, not $I_3$ under the assumption that all factors are mobile across industries.



## Estimating the Distributional Emects of Trade

- Many studies have estimated the ee ects of international trade on income distribution, and many studies suggest international trade has only a modest ee ect on income distribution.
- But, the ! xed factors model suggests the distributional ee ects may be larger than the HO model predicts.
- And, from a long-run perspective, short-run changes in prices and employment cause behavioral changes that amplify some of the short run income ee ects.
- Speci! cally, in the labor market, the growth of trade has strengthened the power of employers and weakened the power of labor, driving a persistent decline in wages.
- Also, in the long run, technological progress and factor accumulation have substantial ee ects on factor returns.

- Illustration of exchange between four people.
- Psychological research and happiness studies that shows why income distribution matters.
- Externalities associated with trade.