Part II (Sessions 11 – 18)

International Trade and the Non-Market Perspective

- Why Trade is Good
- Common Misconceptions About Trade
- Real Reasons Trade might be Bad
- National Trade Strategies
- Introduction to Firm Strategy

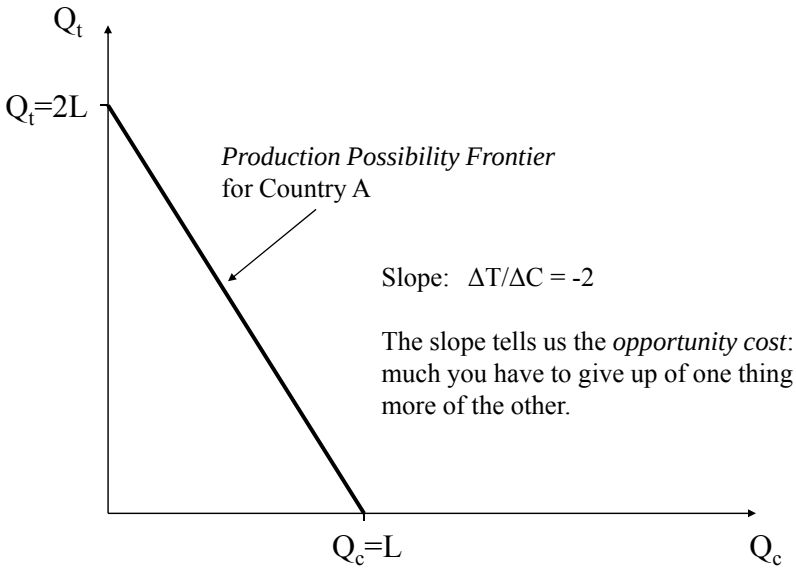
International Trade and the Non-Market Perspective

- Why Trade is Good
  - The Production Possibility Frontier
  - Prices and Wages
  - The Gains from Trade
  - Empirical Evidence

A Simple Production Model

- Imagine a world with two goods:
  - Textiles (T)
  - Computers (C)
- Labor is the only input in production
- Country A has a total labor supply of L and can produce textiles and/or computers with the following technologies:
  - $Q_t = 2L_t$
  - $Q_c = L_c$
- Moving one unit of labor from computers to textile production means 1 less computer and 2 more units of textiles

The Production Possibility Frontier



Prices and Wages

- Competitive firms earn zero profits
  - Computer firms:

$$\text{Profit}_c = P_c * Q_c - w * L_c = 0$$

revenue cost

  - Recall $Q_c = L_c$ in Country A

$$\Rightarrow \quad w = P_c$$

- The wage equals the price of computers in Country A

Prices and Wages

- Similarly for textile firms:

$$\text{Profit}_t = P_t * Q_t - w * L_t = 0$$

- Recall $Q_t = 2L_t$ in Country A

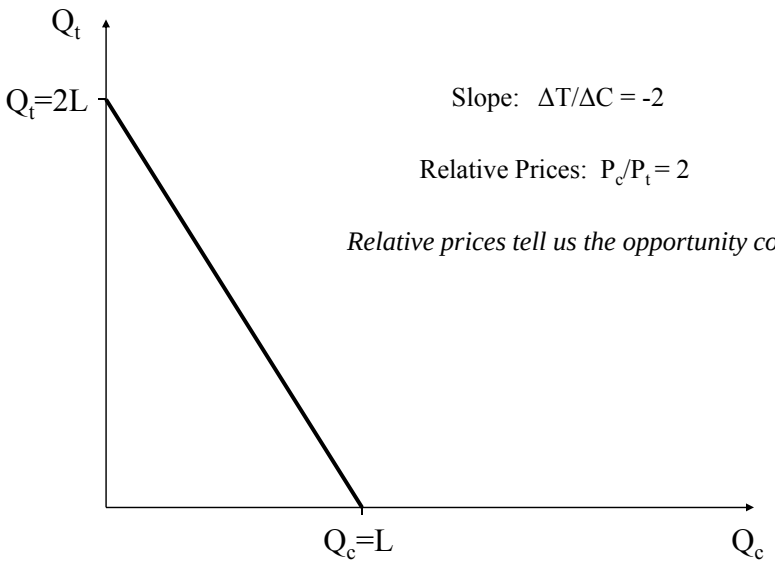
$$\Rightarrow \quad w = 2P_t$$

- The wage is twice the price of textiles in Country A

- If workers can move freely between textile and computer production, then wage in both sectors will be equal, so

$$w = 2P_t \quad \& \quad w = P_c \quad \Rightarrow \quad P_c/P_t = 2$$

The Production Possibility Frontier



Slope: $\Delta T/\Delta C = -2$

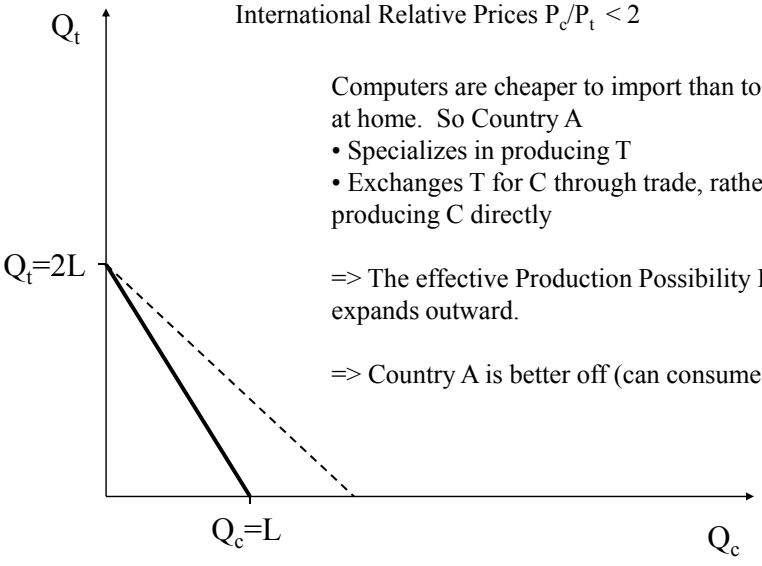
Relative Prices: $P_c/P_t = 2$

Relative prices tell us the opportunity cost

The Gains from Trade

- If Country A does *not* trade
  - Consumption is limited by domestic production
  - By reallocating its labor supply, it can produce more or less textiles (in exchange for computers) to find its most preferred mix
  - The cost of this reallocation (the opportunity cost) is simply the relative prices of production domestically
- But if Country A *does* trade….

Example #1: The Gains from Trade



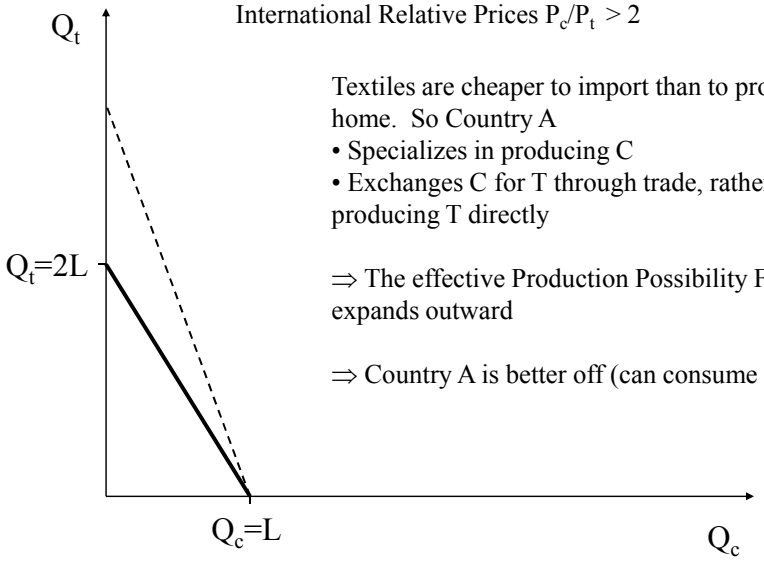
International Relative Prices $P_c/P_t < 2$

Computers are cheaper to import than to produce at home. So Country A
- Specializes in producing T
- Exchanges T for C through trade, rather than producing C directly

=> The effective Production Possibility Frontier expands outward.

=> Country A is better off (can consume more)

Example #2: The Gains from Trade



International Relative Prices $P_c/P_t > 2$

Textiles are cheaper to import than to produce at home. So Country A
- Specializes in producing C
- Exchanges C for T through trade, rather than producing T directly

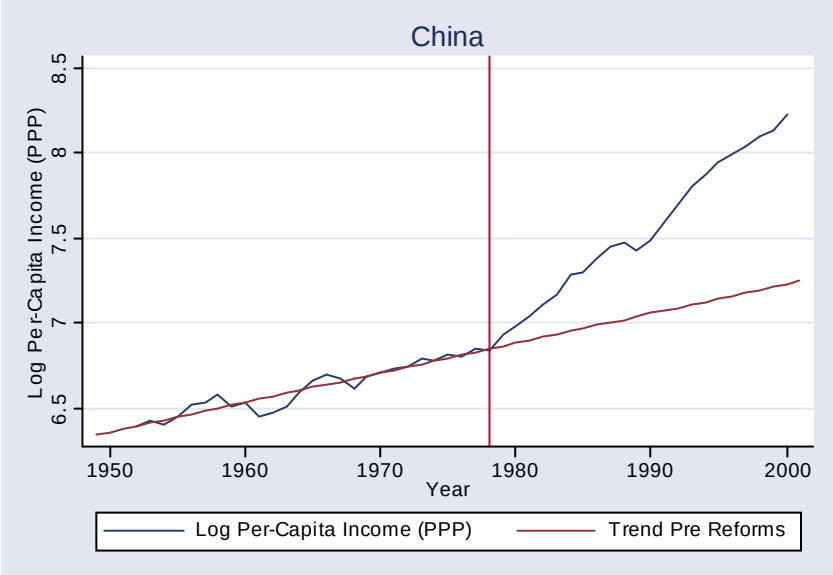
⇒ The effective Production Possibility Frontier expands outward

⇒ Country A is better off (can consume more)

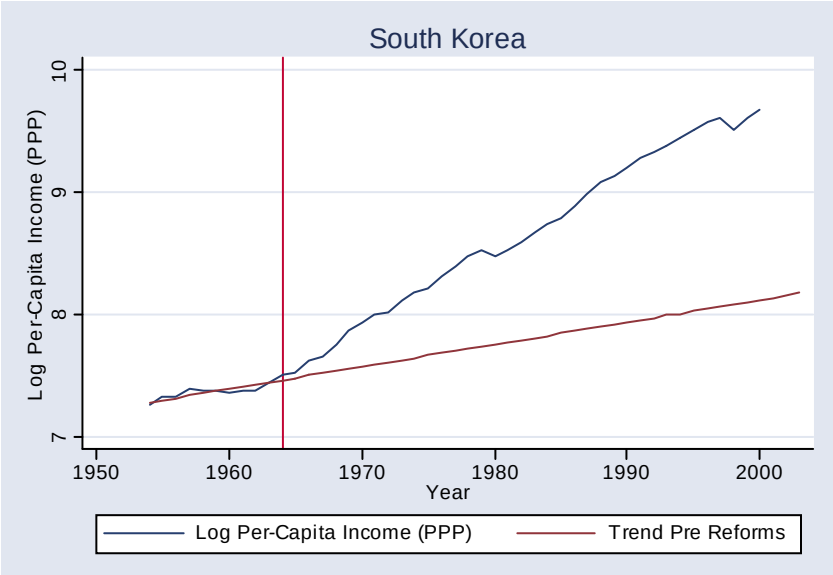
The Gains from Trade

- Whatever the prices on the world market, a country's consumption possibilities expand through trade
- Think of trade as a *substitute for having to produce it yourself*
  - By trading for some goods, you allow yourself to specialize in the things you are relatively good at producing
- That's all there is to it!
- What is the evidence?

Evidence: Do Open Countries Grow Faster?



Evidence: Do Open Countries Grow Faster?



Evidence: Do Open Countries Grow Faster?

- Frankel & Romer (1999) "Does Trade Cause Growth?"
  - Increased openness to trade associated with higher income

  Define X = share of GDP that is traded

  Define Y = per-capita income

  1% ↑ in X associated with 1-2% ↑ in Y

- Jones and Olken (2008) "The Anatomy of Start-Stop Growth"
  - Examine largest growth accelerations since WWII
  - Find that trade shares ↑ by 25% on average
  - This is huge (e.g. US trade share is currently 30%)

- But establishing causation convincingly is hard…

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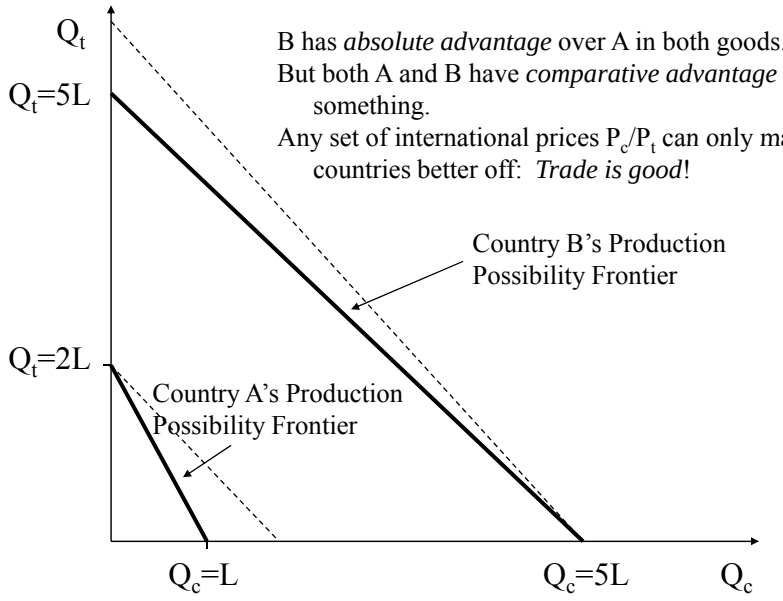
International Trade and the Non-Market Perspective

- Common Misconceptions About Trade
  - Comparative advantage vs. Absolute advantage
  - Three fallacies

Comparative Advantage vs. Absolute Advantage

- You specialize in what you are relatively good at producing. What does it mean to be relatively good at something?
  - *Absolute advantage*: you are better at producing X than someone else is at producing X
  - *Comparative advantage*: your opportunity cost of producing X (rather than Y) is lower than others' opportunity cost of producing X (rather than Y)
- The pattern of trade is driven by *comparative advantage*

Comparative Advantage vs. Absolute Advantage



B has *absolute advantage* over A in both goods.
But both A and B have *comparative advantage* at something.
Any set of international prices P_c/P_t can only make both countries better off: *Trade is good*!

Country B's Production Possibility Frontier

Country A's Production Possibility Frontier

Absolute Advantage: Common Fallacies

- "Trade is bad for poor countries, because firms in poor countries can't successfully compete with firms in rich countries."

- "Trade is bad for rich countries, because workers in rich countries can't possibly compete with low-wage workers in poor countries."

- "Trade is bad for poor countries because it exploits the workforce, paying lower wages than are paid in rich countries."

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International Trade and the Non-Market Perspective

- Real Reasons Trade might be Bad
  - Winners and losers *within* a country
  - Good and bad industries for growth

Domestic Winners and Losers

Domestic Winners and Losers

- Basic model assumed labor moves freely between sectors
  - Reality: Short-term dislocations
  - Change in trading patterns => Some people lose jobs

- General issue: *Specific Factors*
  Some inputs to production can't be easily reassigned
  - e.g. 60-year-old steel workers
  - e.g. a textile factory
  - e.g. farmland

- Bottom Line:
  - Net gain to society
  - But costly to some

Good and Bad Industries for Growth

Good and Bad Industries for Growth

- Learning-by-Doing
  - Some industries may provide better growth opportunities
  - Countries which specialize in "simple" industries, may never be able to improve their productivity much

- Examples
  - Farming vs. Computer manufacturing
  - Mining vs. Pharmaceuticals

- Countries that start out with a comparative advantage in farming, mining, etc, may be trapped in these industries forever

- Evidence?

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International Trade and the Non-Market Perspective

- National Trade Strategies
  - Protectionism I: Limit Pain in Transition
  - Protectionism II: Encourage Good Industries for Growth

Protectionism I: Limit Pain for Those Who Lose

- Usual protectionist responses
  - Tariffs, quotas, subsidies
  - Subtler forms (e.g. product regulation, rules of origin)

- Alternative response #1: Compensation
  - Free trade leads to a net gain for a country as a whole
  - Should be able to *compensate vested interests* and still have everyone be better off
  - But redistribution tricky in practice

- Alternative response #2: Deeper institutional change
  - *Reduce influence of local vested interests* over trade policy
  - Within US: Fast Track Authority
  - Worldwide: World Trade Organization (WTO)

Protectionism II: Encourage Good Industries for Growth

Hold Foreign Firms Out

"Import Substitution Industrialization" (ISI)
- Idea: Potential comparative advantage in an industry, but difficult for "infant industry" to compete internationally
- Policy: Protect infant industries until they "grow up"

Invite Foreign Firms In

Technology policy and FDI
- Idea: High-tech investment from abroad may create local spillovers for domestic workers and firms
- Policy: (1) Subsidize multinational entry (e.g. tax breaks); (2) Forced JVs

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International Trade and the Non-Market Perspective

- Introduction to Firm Strategy
  - Tariff Jumping
  - Politics “Jumping”
  - Changing the Rules

Tariff Jumping

- Purpose: Avoid paying high tariffs today

- Strategy #1: Location of production
  - Want to sell your product in local market
  - If tariff on finished goods, import parts and assemble locally
  - Tradeoff: lower tariffs vs. natural comparative advantage
  - e.g. Hewlett-Packard in India

- Strategy #2: Transshipment
  - Tariffs in Country B target goods from Country A
  - Bring goods from Country A (production) to Country B (market) through Country C
  - Tradeoff: possibly lower tariffs vs. increased transportation costs and/or increased production/repackaging costs

Political Strategy: "Politics Jumping"

- Purpose: Avoid paying high tariffs in the future (i.e. prevent having tariffs imposed)

- Will country begin to perceive certain imports as a threat?

- Strategy: Relocate production to local economy
  - Employ local workers
  - Produce income for local government
  - Tradeoff: lower tariff risk vs. natural comparative advantage
  - e.g. Toyota in U.S.

- Strategic principle: Realign incentives of politicians

Political Strategy: Changing the Rules

- Trade restrictions are "rule of the game"
  - Much strategy is optimization, given rules that exist
  - Other strategy is about changing the rules themselves

- Firms, often in coalitions, have much influence over how governments negotiate trade policies

- Examples
  - Local: Protections for domestic companies
    - e.g. "Anti-dumping" rules (next week)
  - Foreign: Opening foreign markets for investment
    - e.g. Conditionality of WTO membership (next week)
  - World: Changing IP law globally
    - e.g. Cipla case (next week)

END