
International Studies & AAE 374
Growth and Development of Nations

Lecture 3
10 September 2009

Announcements:

Problem Set 1 on web: Due 24 September
Sections this week will be vital for the PS.

Outline for today:

1. Rosenberg Discussion
2. Current Trade Picture
3. Introduce Ricardian (Labor based) Trade model

1. “Free Trade Fix”

A. In what ways has globalization hurt the poor in developing countries?

1. Slower growth in ‘south’?
2. Inequality (no clear relationship revealed between globalization and inequality outcomes. Any ideas why?)
3. Poverty (same story but depends on growth and equity.)
4. Expanding or contracting choice? Chicken cutter versus corn farmers—do we worry about latter? Is choice the right metric?
5. Specific case of Latin America – too much mkt, too little state?
6. Does this add up to a world that will derail globalization?

B. In what ways have global politics hurt the poor?

1. IP and drugs
2. Ag subsidies
3. ‘Fin Market interests’ IMF and the masters of the universe

C. Can national and international policies help to make globalization work for the poor?

1. Technology vs. assembly
2. Why did/does Asia grow—state vs. market
3. Western experience – what mix of state and market, domestic and international?
4. Making globalization livable (Chile)
5. Avoid one-size fits all policies for development – look at contrasts in developed and fast-growing developing countries. Fastest growing countries right now (India and China have had lots of state involvement).

I. Introduction to Trade Theory, Trade Policy and Growth

A. Globalization & Growth of Trade

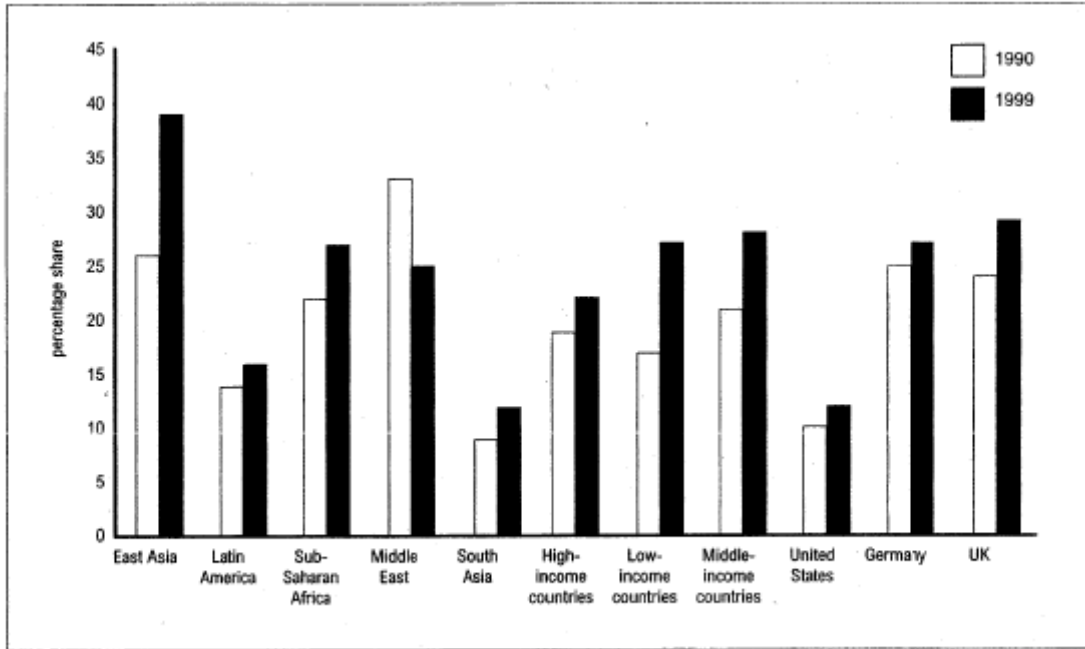
1. Growth of trade globally (todaro 12.1 → ~7% annual growth of trade)

TABLE 12.1 Trends in World Exports, 1970–1997

	1970	1980	1983	1990	1996	1997
World exports						
Nominal value (billions of dollars)	312	2,002	1,814	3,401	5,231	5,394
Real value (billions of 1980 dollars)	590	2,002	1,620	2,076	2,987	2,909
Share of world exports (%)						
Developed countries	71.9	66.3	64.1	74.6	78.5	76.5
Developing countries	17.6	27.9	24.9	17.8	17.3	18.9
Centrally planned economies and their successors	10.5	8.8	11.0	7.5	4.2	4.6

Sources: John Sewell et al., *Growth, Exports, and Jobs in a Changing World Economy: Agenda 1988* (New Brunswick, N.J.: Transaction Books, 1988), tab. A. 1; World Bank, *World Development Report, 1992: Development and the Environment* (New York: Oxford University Press, 1992), tab. 14; International Monetary Fund, *World Economic Outlook, May 1998* (Washington, D.C.: International Monetary Fund, 1998), tabs. A22, A23, A29, and A31.

2. Growing % of GDP that is traded (Oxfam figure 1.2)
 - a. Can we explain the exception here?
 - b. Why is the US % so low? (Huge domestic market)



3. Evolving composition of trade (Oxfam 1.3 on product group trade growth)

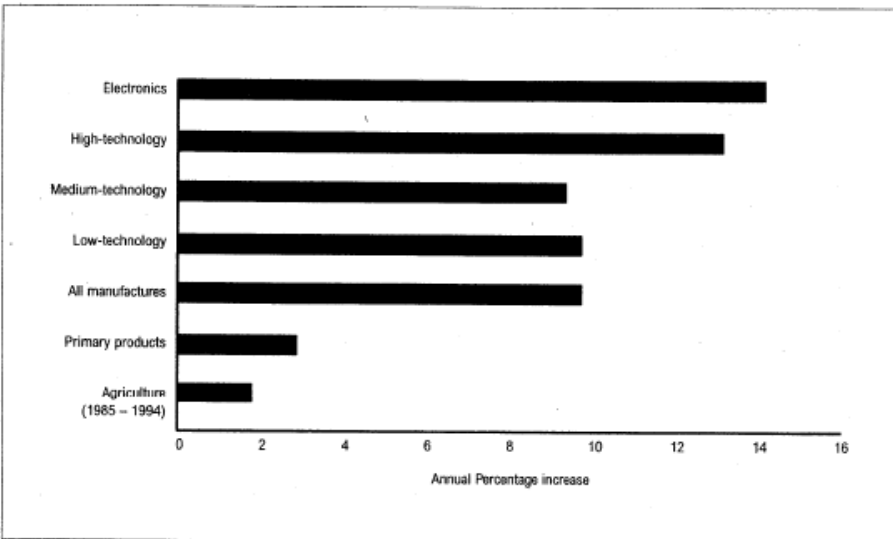


Figure 1.3
Average annual export growth rates
by selected product groups:
1985-98

Sources: UNCTAD 1999 and OECD 2001a

B. Trade Patterns (back to Todaro table)

1. North-north (within this intra-industry)

2. North-south

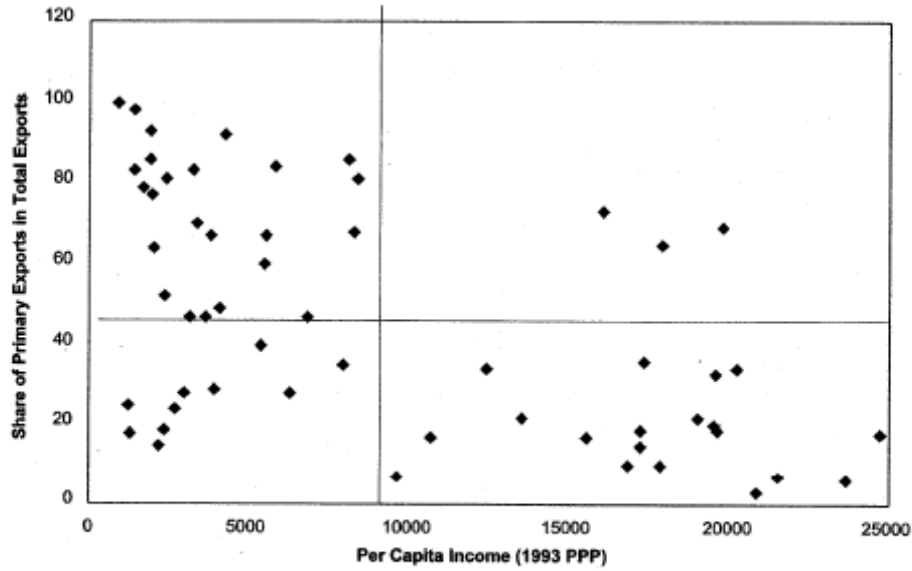


Figure 16.1. Share of primary exports in total exports. Source: World Development Report (World Bank [1995]).

3. Evolving pattern of N-S trade away from primary commodities (Oxfam table 1.5)

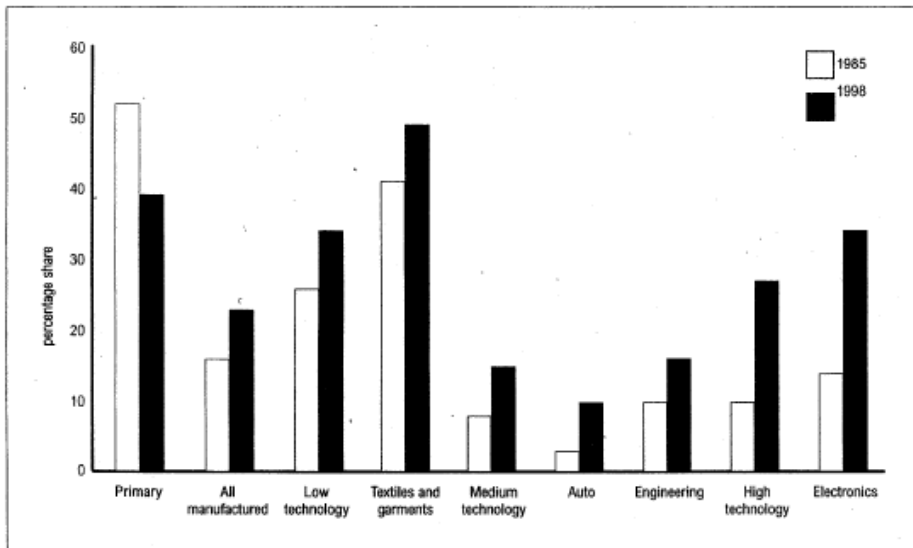


Figure 1.5
Share of developing countries in world exports: selected product groups (1985 and 1998)
Source: Lall 2001a

4. Understanding these distinctive types of trade

- a. *Endowment-based (making sense of N-S: primary /light mfgs)*
- b. *N-N trade (huge)—exemplified by intra-industry flows, but also by sheer magnitude (and where money is!). At least 25% of total world trade is intra-industry*

C. Moving Forward from Here

1. *First focus on classic N-S trade idea of comparative advantage & trade as improved technology*
 - a. Ricardian (2 countries, 2 goods, 1 factor of production, labor) 2x2x1
 - b. Heckscher-Ohlin (2 countries, 2 goods, 2 factors: labor and capital) 2x2x2

II. **2x2x1 Trade Model**

A. Appleyard pgs 27-38

B. Modeling trade with 2 countries, 2 goods, 1 factor

1. Countries: North and South

2. Goods (and technologies)

(1) Automobiles

(a) In North takes 10 units of labor to make 1 auto

(b) In South, takes 40 units of labor

(2) Cotton

(a) In North, takes 15 units of labor

(b) In South, takes 20 units

(3) Can make a table to represent this

Labor Costs	<i>North</i>	<i>South</i>
<i>Autos</i>	10 labor units	40 labor units
<i>Cotton</i>	15 labor units	20 labor units

(4) What are ‘absolute advantages’ in production?

3. Factor Endowments

(1) North has 600 units of labor $\rightarrow 10a + 15c = 600$

(2) South has 600 units of labor $\rightarrow 40a + 20c = 600$

(3) Getting the relationships from the *production side*:

Labor Costs	<i>North</i>	<i>South</i>
<i>Autos</i>	10 labor units	40 labor units
<i>Cotton</i>	15 labor units	20 labor units

(4) Feasible combinations for North given tech and 600 laborers

Autos	60	30	15	0
Gigasacks of Cotton	0	20	30	40

(5) Feasible combinations for South given tech and 600 laborers

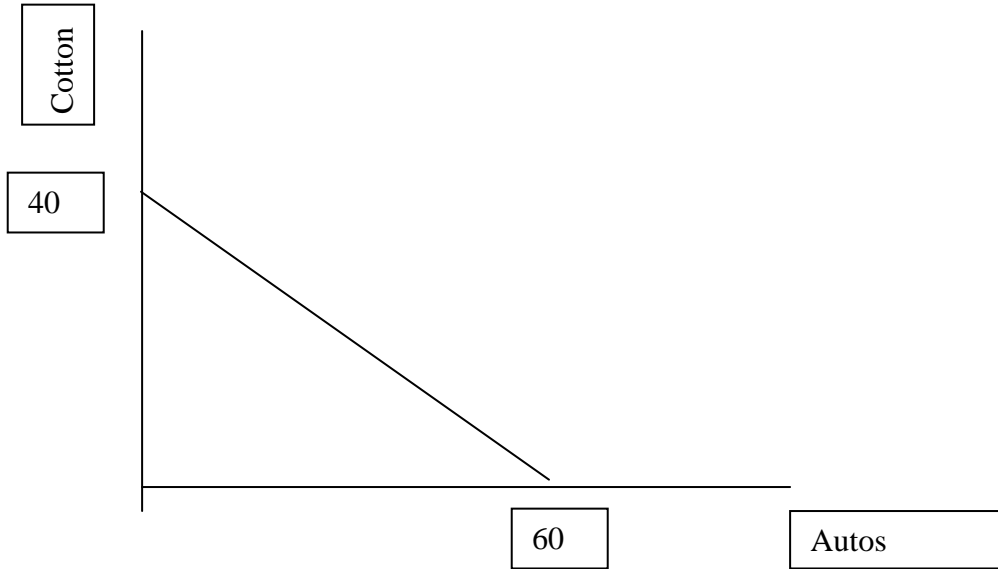
Autos	15	10	5	0
Gigasacks of Cotton	0	10	20	30

(6) Tables are kind of clunky but we can represent the idea using the production possibilities frontier (PPF)

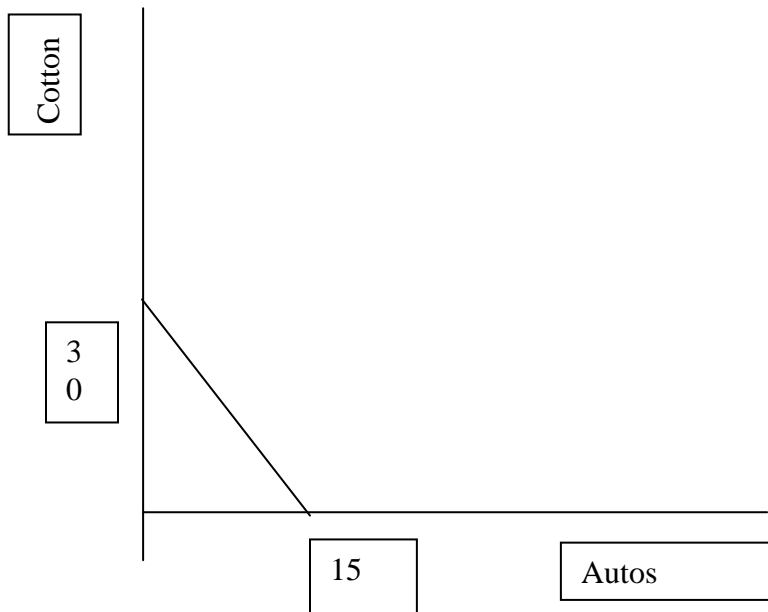
Production Possibilities

(7) North: $10a + 15c = 600$ South: $40a + 20c = 600$

(a) In north: $c = 40 - (2/3)a$, where c is the cotton that can be produced when a autos are produced.



(b) In south, $c = 30 - 2a$



4. Real economic or Scarcity Prices

- (1) How much cotton does one auto cost in North (i.e., how much cotton must they give up to get one more auto)? $\frac{2}{3}$ gigasack of cotton / auto**
- (2) How much cotton does one auto cost in South (i.e., how much cotton must they give up to get one more auto)? 2 gigasacks / auto**
- (3) Note that these costs are simply given by slope of production possibilities curve—steeper slope, more cotton given up to get another auto—i.e., more expensive autos are in real terms.**
- (4) So where are autos most expensive? (Think opportunity cost).**

B. Autarchy and Prices

1. CLAIM: Under autarchy in north, the price of autos relative to the price of a gigasack of cotton has to be in ratio $10:15=2/3$, for example \$1000 for an auto and \$1500 for a gigasack of cotton. (the important thing is that relative price be $2/3$).

So why must the relative price be $2/3$ in autarchy in north??

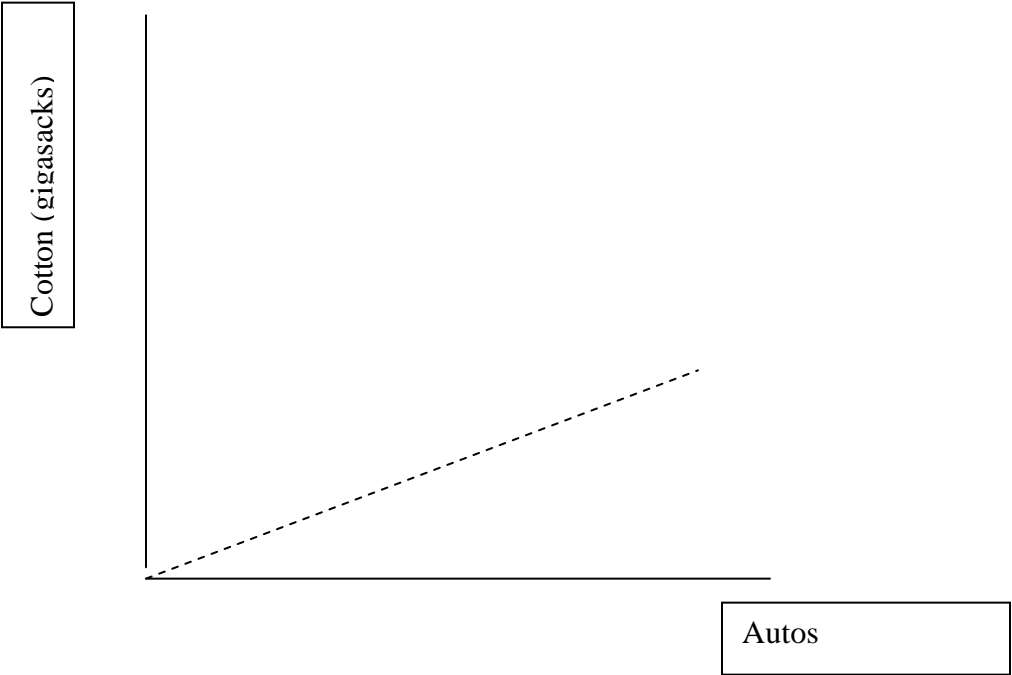
- (1) Note that if autos sell at a relative price $> 2/3$ (say \$5000 per auto and \$1000 per cotton, a relative price of 5) then all northern firms will want to make autos and big profits. Every 15 units of labor employed will yield them revenues of \$7500 ($=1.5$ autos * \$5000), while same 15 units of labor allocated to cotton will yield them only \$1000 (1 gigasack * \$1000).

Alternatively express this as rate of return on investment in the project. (say that labor is \$200/unit \rightarrow costs of $200*15=\$3000 \rightarrow$ 'profits' of -2000 for cotton and 4500 for cars).

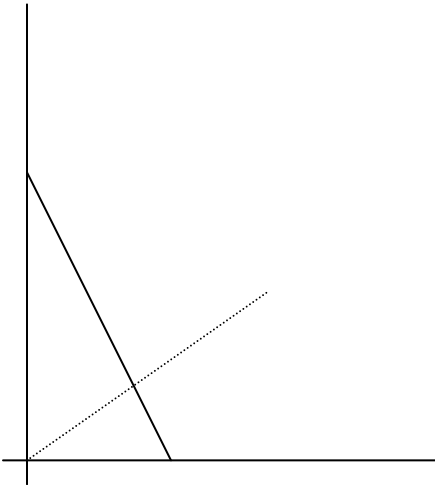
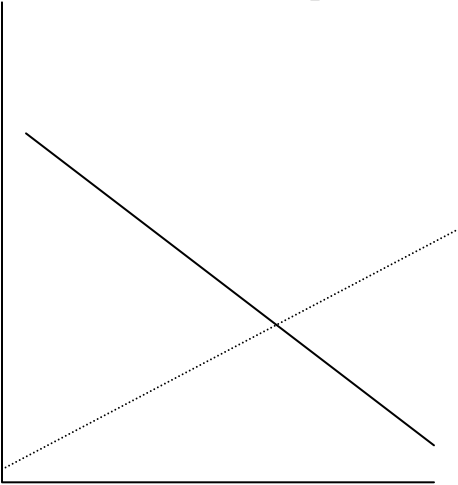
In this case, no cotton will get produced and consumers demanding cotton will drive the price of cotton up until we get back to the $2/3$ relative price ratio.

- (2) Similarly, if autos sell for a relative price $< 2/3$ (say \$500 for an auto and \$1000 for cotton), only cotton will get produced as profit making producers rush to make profits producing cotton (or avoid big losses making autos).
2. By a similar logic, in south, prices have to be in a relative price ratio of 40:20 or 2. (Why?)
3. Notice we have only talked about the production side and prices. No prediction as yet about what each country will produce. How to get such a prediction?

C. 'Rigid Preferences' in 1:2 ratio (cotton:autos)



1. Preferences are not enough to make a prediction without production either
2. Note that in autarchy the north will produce AND consume 34 autos and 17 cotton; the south will produce AND consume 12 autos and 6 cotton.



3. Tabular presentation

	North	South
Autarchy		
Relative Price (autos/cotton)	$2/3$	2
Consumption Ratio (autos/cotton)	$1/2$	$1/2$
Auto Prod'n	34	12
Auto Cons	34	12
Net Exports	0	0
Cotton Prod'n	17	6
Cotton Consumption	17	6
Relative Wage or living standard (north to south)	~3:1	