

Trade for Growth (1)

Is trade good for growth?

- Globalization since late 20th century
→ Trade pessimism (Imperialism, Subordination theory) to Trade optimism (Neo-classical theory)
- Background for Pessimism: Problems for primary goods export (Production instability, Low elasticity for income), Terms of trade problems (Prebisch-Singer theorem)
- Background for Optimism: Comparative advantage based on production factor endowments, Specialization, Economic welfare (Merit in trade for consumers)
- Reality in Asia: Export-led industrialization

Comparative advantage in Ricard Model

- Comparative advantage: Trade by different goods(\neq Absolute advantage)
- Production *TECNOLOGY* (labor productivity) decides comparative advantage for trade
- Case: Only labor as the production factor, 2 country model
- Absolute advantage in Country A in wage
- Comparative advantage in Country A in agriculture and Country B in industrial good
- Trade does not occur based on absolute advantage

Comparative advantage in Ricard Model (2)

- Before trade (Self-sufficient economy):
Country A $200 \times 3\text{persons} + 200 \times 6$
persons=1800 persons
Country B $200 \times 14\text{persos} + 200 \times 7$
persons=4200 persons
- If Country A specialize into Agricultural good and B into Industrial good, Production increase into 600 in advantageous sector but become 0 in less advantageous sector
- However, A and B can consume more than before by trading

How trade works on welfare

	Agricultural goods	Industrial goods	Population		Agricultural goods	Industrial goods
Country A	3 persons / day	6 persons/ day	1800	Country A	$3/6=1/2$	$6/3=2$
Country B	14 persons/ day	7 persons/ day	4200	Country B	$14/7=2$	$7/14=1/2$

	Before trade		After trade			
	Production and Consumption		Production		Consumption	
	Agricultural goods	Industrial goods	Agricultural goods	Industrial goods	Agricultural goods	Industrial goods
Country A	200	200	600	0	300	300
Country B	200	200	0	600	300	300

Comparative advantage in Heckscher-Ohlin Model

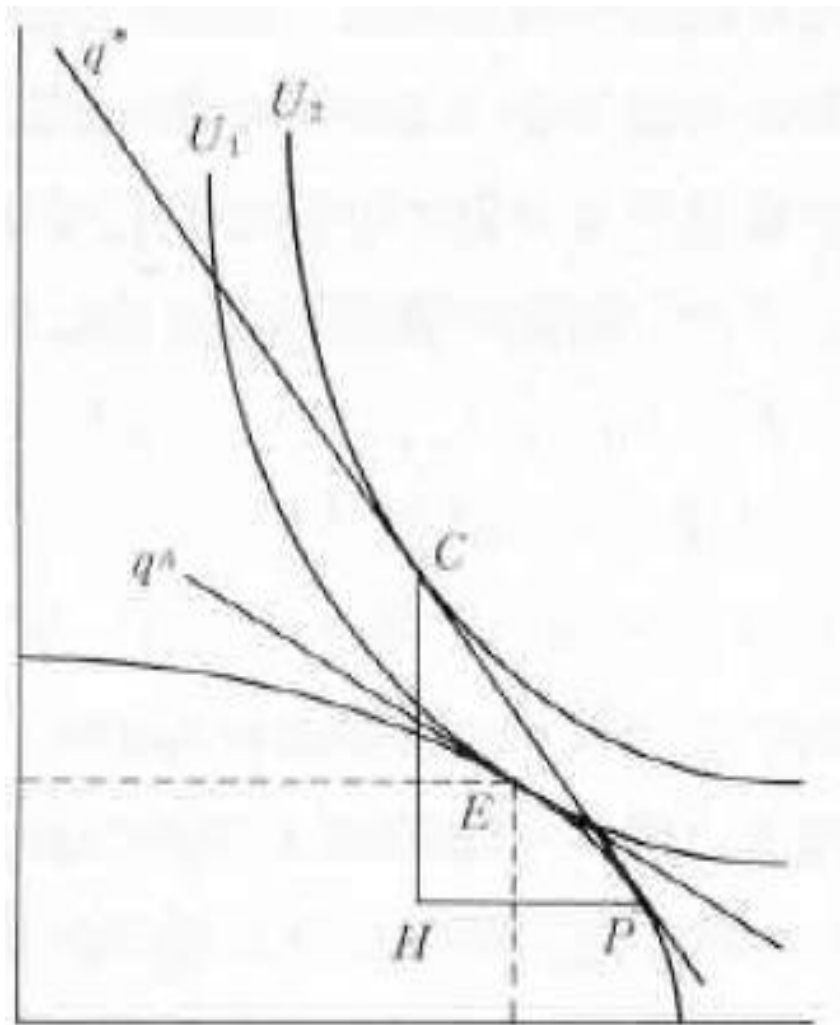
- Production factors varies (Capital, Land, Resource....) and Perfect specialization is unrealistic \Rightarrow Not production technology but *RELATIVE FACTOR ENDOWMENTS* decides comparative advantage (Specialization by goods with relatively abundant factors)
- 2country, 2 goods, 2 production factor (Capital and Labor) Model
- Production frontier (Maximum production combining two factors)
- Country A produces more agricultural goods, Country B produces more industrial goods

Comparative advantage in Heckscher-Ohlin Model (2)

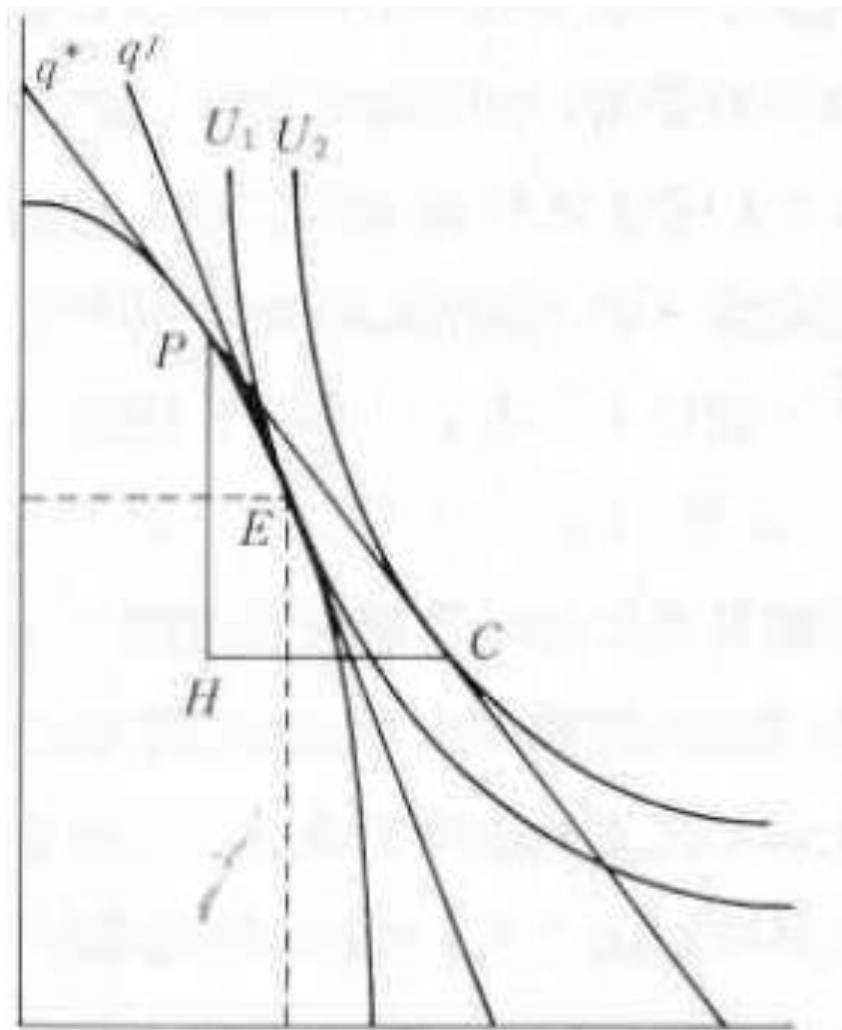
- If Indifference curves are identical, before trade, Self-sufficient economy exists at the contact point (E) between Production frontier and indifference curve)
- If trade starts Production and Consumption loses touch (\rightarrow Produces P and Consumes at C, then Country A exports HP and import HC)
- Comparative price of two goods exists in bilateral trade equilibrium: Term of trade (q^*) between q^A and q^J

Trade with different factor endowments

Country A



Country J



Static change in trade

- Free trade may be better but not so in reality
- Case of import tariffs or export subsidies
- In free trade:
International price of Agricultural good q_1^* and Industrial good q_2^* , and Country A's domestic price q_1, q_2 , Then,
Terms of trade: $q^* = q_1^*/q_2^*$, and $q = q_1/q_2$,
In trade equilibrium q^* and q^{**} , q and q' are paralleled :
Identical in terms of trade and domestic terms of trade (relative price)

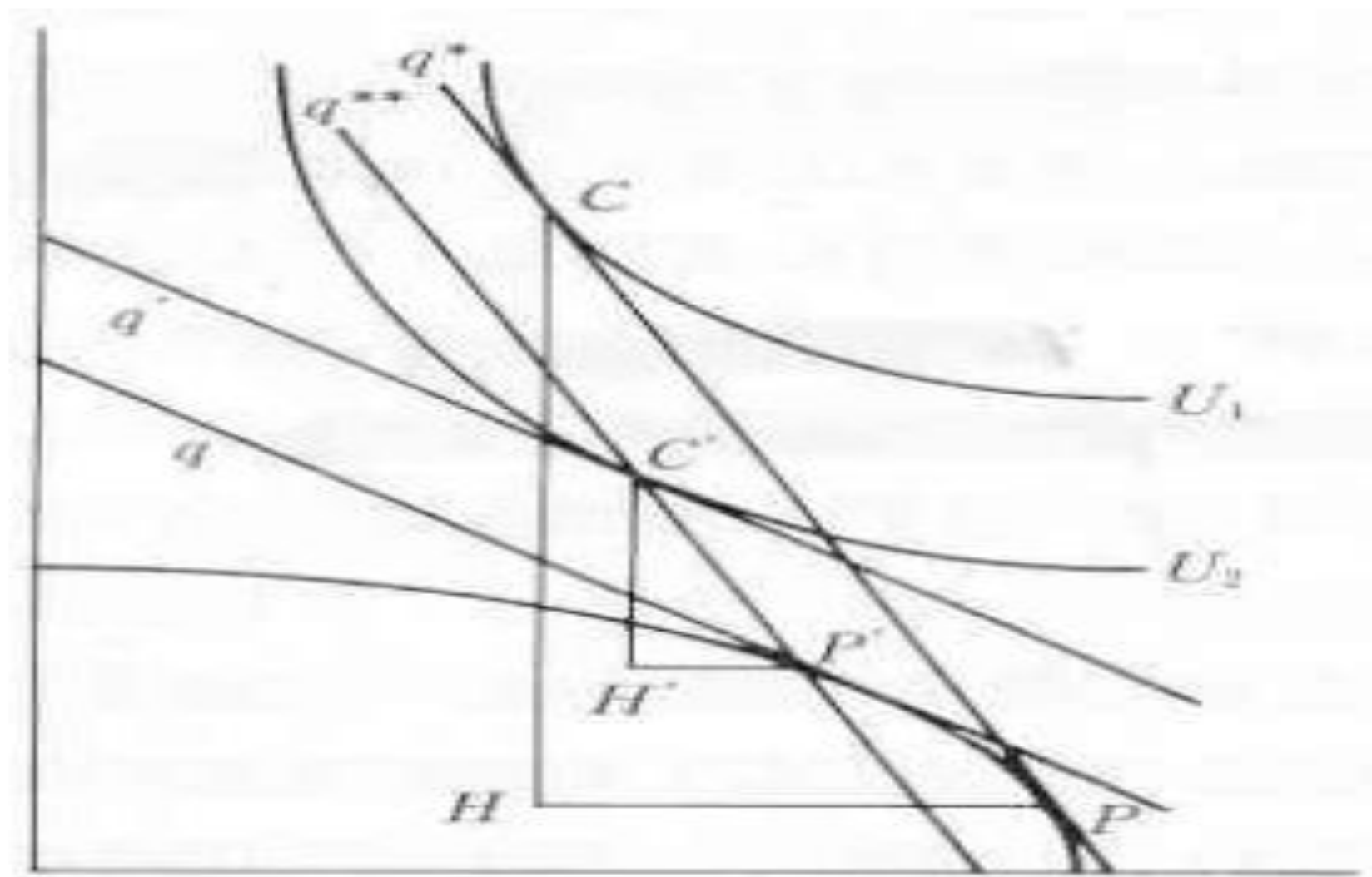
Static change by imposing import tariff

- Impose tariffs on imported good (Industrial good) : Import price goes up (q_2) and domestic price changes, $q < q^*$ (q is lowered than q^*)
(If $t\%$ of tariff on industrial good, $q_1 = q_1^*$ and $q = (1+t)q_2^*$
if domestic terms of trade $q_1/q_2 = q$, international terms of trade $q_1^*/q_2^* = q^*$, then $q = q^*/(1+t)$, then $q < q^*$)
- After tariff, country A's production goes to P' having contact with q

Static change by imposing import tariff

- Since Country A is a small, open economy without influence on international price, trade will be continued at q^* , and the Consumption will be moving to somewhere paralleled q^* , that is on q^{**} having contact with P' . Plus, since C' should be on the contact with new indifference curve U_2 and on the q' which is also paralleled with q for domestic price.
- New trade triangle $C'H'P' < CHP$, smaller export and smaller import
- Export production (agriculture) declines, but imported good production (industrial good) increase
- However, the utility declines from U_1 to U_2 .

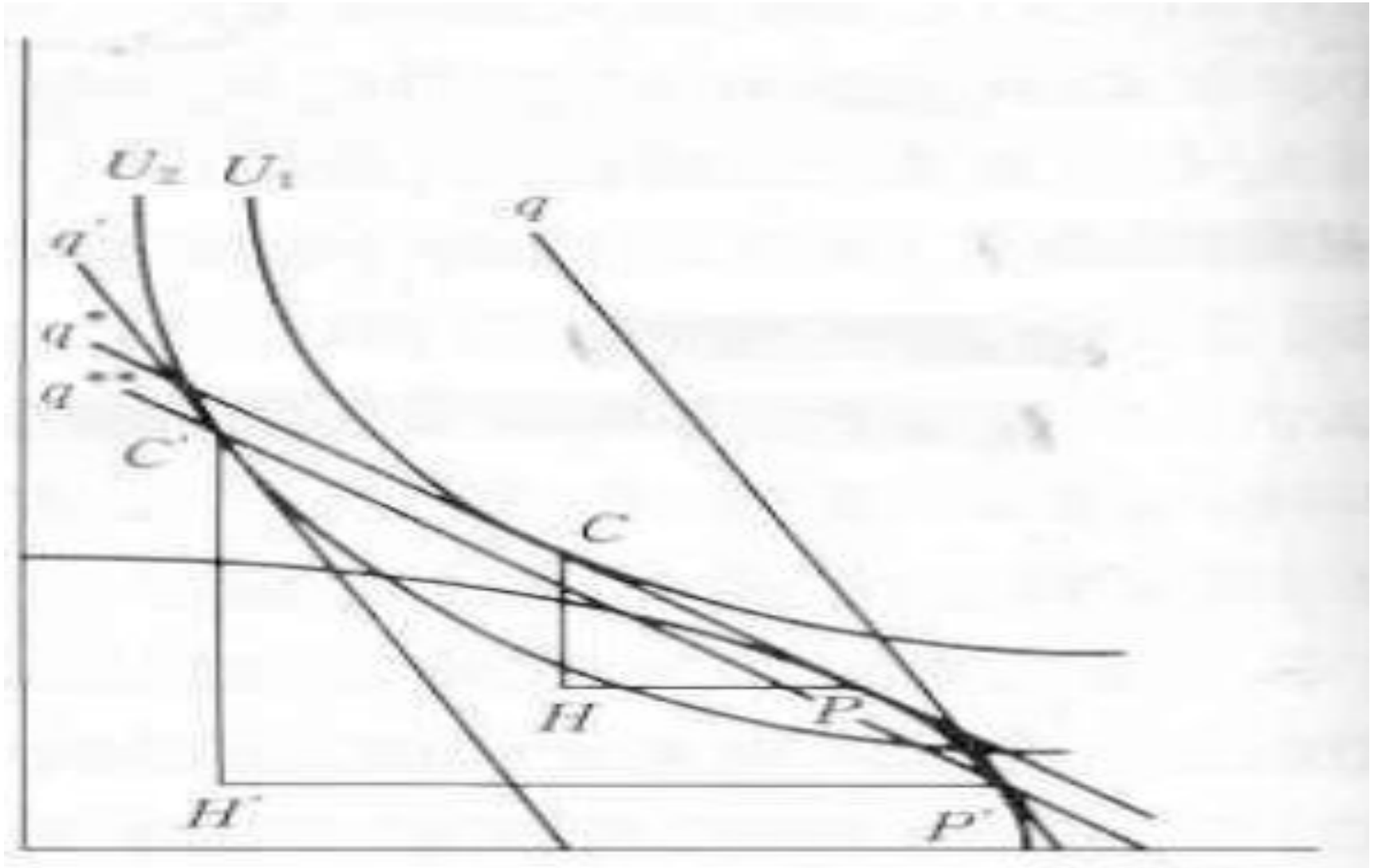
Trade policy case of import tariff



Trade policy in export subsidy

- Government subsidizes agricultural goods for export
- Domestic relative price $q > q^*$ (International terms of trade)
 - \Rightarrow Production $P \rightarrow P'$ (Contact point with Production frontier and q)
 - \Rightarrow Consumption $C \rightarrow C'$ (Contact point with Production frontier and q')
- Since trade should go balanced, P' and C' should be each on lines paralleled with q^* ($=q^{**}$).
- Now Trade triangle of $C'H'P' > CHP$, so trade will grow
- However, while export good (agriculture) production grows, but Industrial good production declines
- Since $U_2 < U_1$, Utility also goes down

Trade Policy case of export subsidy



Dynamic impact of Trade

- Competition: Trade enhances competition both in domestic and international markets, Market exit by less competitive firms, Resource redistribution among sectors/industries, Productivity gains \Rightarrow Better efficiency by trade
- Gains from import: Capital goods import enhances productivity gains, Production cost reduction, and Price competitiveness \Rightarrow Technologies embodied in capital goods

Dynamic impact of Trade (2)

- Gains from export: Foreign reserves, Participating Global Value Chains, Value-added ladder for competitiveness
- Gains from international market: Production gains, Economy of scale, Productivity
- Gains from domestic market: Consumer welfare, Better resource distribution
- How to link and maximize the synergy effects?: Asia's experience

Suggested Textbooks, Readings

- Paul Krugman, Maurice Obstfeld, Marc Melitz (2014) *International Economics: Theory and Policy*, Global Edition, Pearson Education Limited
- Jessie Poon, David L. Rigby (2017) *International Trade: The Basics*, Routledge
- Dani Rodrik (2017) *Straight Talk on Trade: Ideas for a Sane World Economy*, Princeton University Press.
- Joseph E. Stiglitz, Andrew Charlton (2005) *Fair Trade for All: How Trade Can Promote Development*, Oxford University Press.