

Economics 404W

lecture 24

Professor Tybout
April 11, 2006

Announcements: No lecture on Thursday, April 13

Thursday 4-5 office hours moved to Friday 4-5

Extra hours scheduled Monday, 17th 4-5

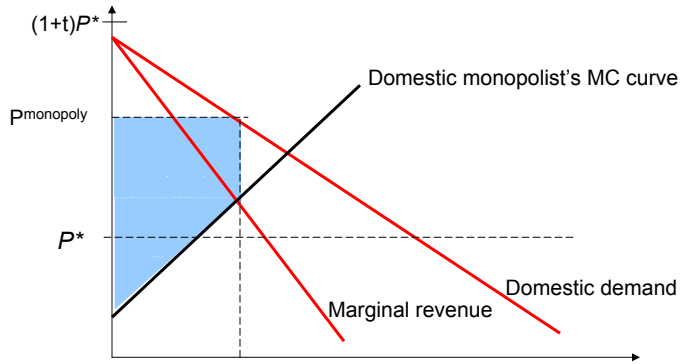
Practice problems to be posted tomorrow

Exam next Tuesday, April 18

Non-competitive markets

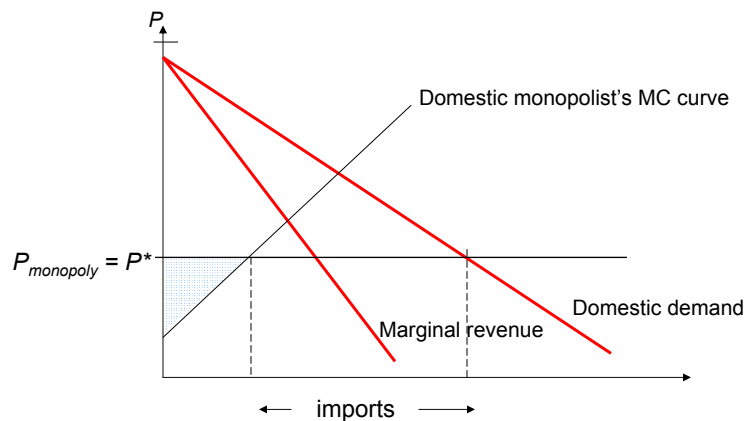
- Now let's abandon the assumption that markets are competitive, so that firms don't necessarily price at their marginal cost.
- To keep things simple, assume that the entire market for industrial goods is supplied by a single firm.
- The question, still, is how trade protection affects the economy.

Non-competitive markets



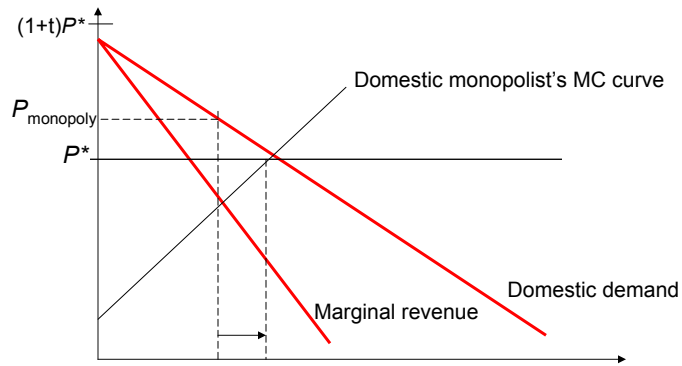
When tariffs are so high they prohibit imports, the domestic Monopolist simply sets marginal revenue = marginal cost and Earns profits represented by the blue area.

Non-competitive markets



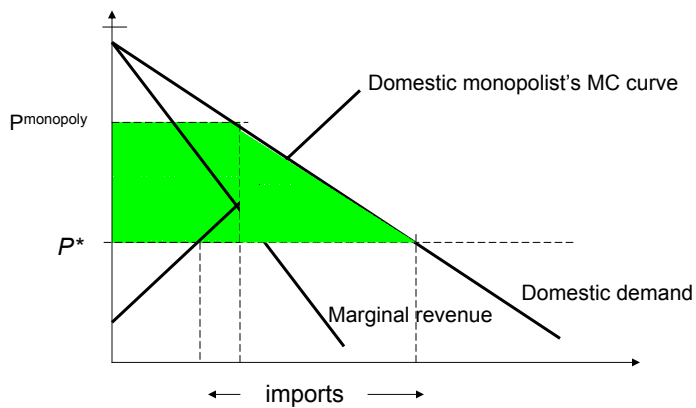
Removing the tariff essentially means that the monopolist must treat the the world price as the new marginal revenue curve (why?) Profits shrink, output may rise or fall. (Here output falls; when might it rise?)

Non-competitive markets



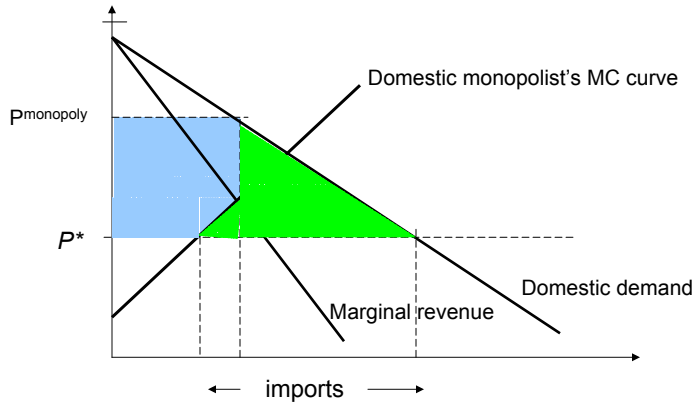
A case where output rises with heightened foreign competition:
If exposing a monopolist to world prices increases its marginal revenue at the initial output level, the monopolist will want to expand production.

Non-competitive markets



When price falls, consumers gain the shaded surplus area.

Non-competitive markets



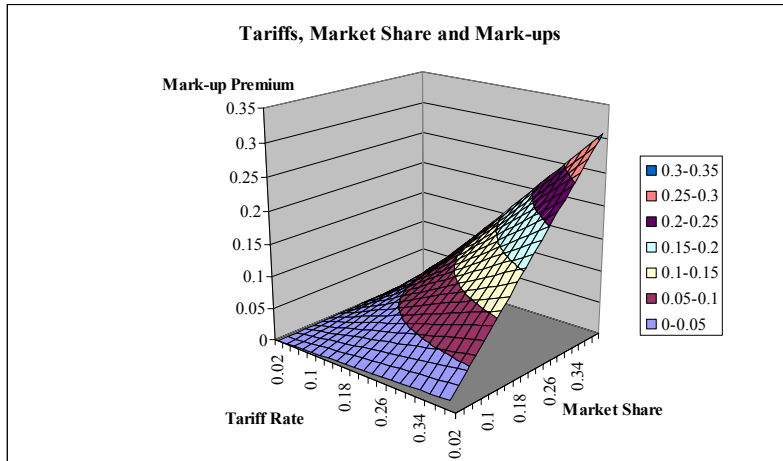
Netting out the loss of surplus to producers, the welfare gain from the removal of protection is the remaining green area.

Does trade policy really affect pricing?

Case study: Mexican Trade Liberalization

- In the 1980s, Mexico underwent a dramatic trade liberalization.
 - Between 1985 and 1990, effective protection rates went from weighted average of 31% to 9% for manufactured goods;
 - license coverage ratios went from 92% to 11%.
- Producers with large market shares, who had enjoyed a relatively large amount of monopoly power, exhibited the largest reductions in prices.
- Regression analysis of firms' mark-ups reveals the following pattern

Does trade policy really affect pricing?

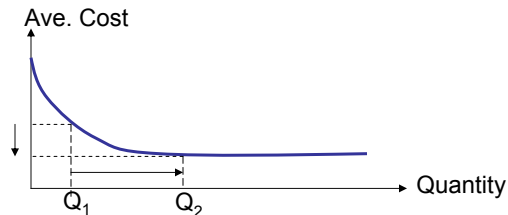


Source: Grether (1996) "Mexico, 1985-90: Trade Liberalization, Market Structure, and Manufacturing Performance," in M. Roberts and J. Tybout, eds., *Industrial Evolution in Developing Countries: Micro Patterns of Turnover, Productivity and Market Structure*. 1996. Oxford: Oxford University Press

Openness and productivity

Openness can affect productive efficiency through several channels:

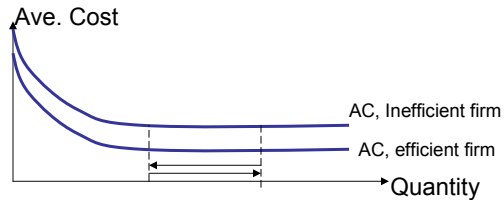
1. Scale effects: changes in firms' sizes in the presence of scale economies
 - Market size effects (exportables versus importables)
 - Market power effects



Openness and productivity

2. Market share effects Changes in market shares of firms with different levels of efficiency.

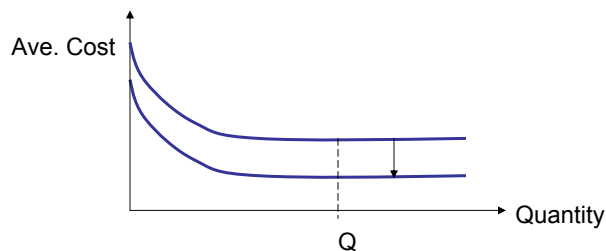
Example:



If openness causes relatively inefficient firms to shrink or exit and relatively efficient firms to expand or enter, this will generate efficiency gains (refer to shaded area).

Openness and productivity

3. technical efficiency effects changes in productive efficiency at a given scale.
- Openness may induce firms to eliminate waste (or not)
 - Openness may induce firms to innovate (or not)
 - Openness may give firms access to better technologies
 - Openness may affect the amount of learning by doing that occurs



Openness and productivity

1. Openness and changes in firms' sizes: the evidence

- Foreign competition tends to contract import-competing firms, particularly in industries where entry/exit barriers are substantial.
- Export-oriented firms, though less common in LDCs, are likely to do the opposite.

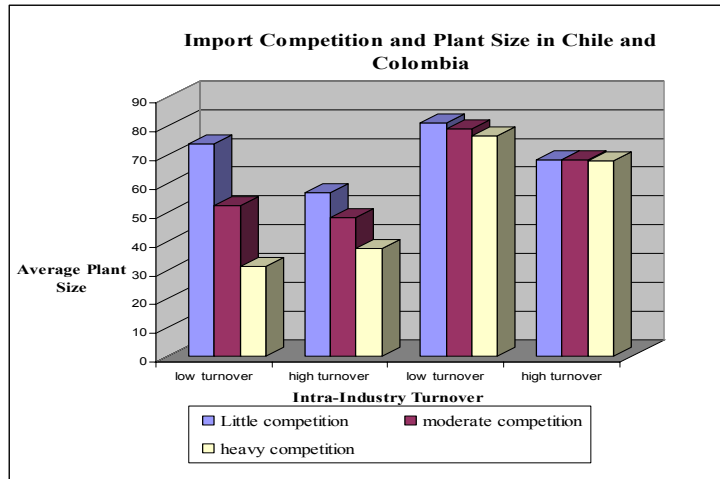
Openness and productivity

Example: For Colombia and Chile, fit a regression that predicts plant size in different industries as a function of:

- total market size,
- degree of import competition (proxied by import shares or effective protection rates)
- and amount of industry turnover

Openness and productivity

Example, continued



source: Roberts, Mark and James Tybout. "Size Rationalization and Trade Exposure in Developing Countries," in R. Baldwin, ed., *Empirical Studies of Commercial Policy*, Chicago: U. Chicago Press for the NBER, 1991.

Openness and productivity

2. Openness and scale efficiency: the evidence

- Although firm sizes generally adjust some when countries open (especially in the short run), the effects on scale efficiency are minor
- The reason is that big firms account for most output, and they are operating in the flat range of their AC curves.

3. Openness and technical efficiency: the evidence

- Most studies find that technical efficiency improves, or at least gets no worse, when developing countries become more open to trade.

Openness and productivity

- Example: Mexico, again

Average Cost Growth in Manufacturing, 1984-1990 (Percentages)			
Scale Effect	Share Effect	Technical Efficiency Effect	Total Growth
-0.79	-0.98	-5.07	-6.84

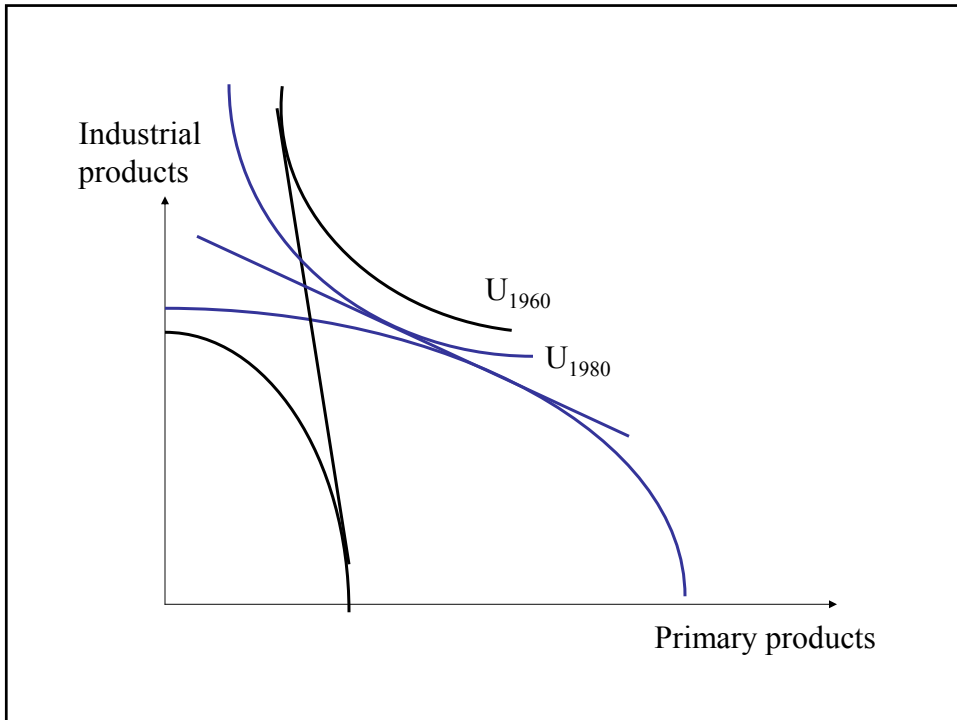
Source: Tybout, James and M. Daniel Westbrook. "Trade Liberalization and Dimensions of Efficiency Change in Mexican Manufacturing Industries," *Journal of International Economics*, August 1995, 39(1/2), pp. 53-78.

Openness and Terms of Trade

Immiserizing growth

Popular claim: A country may be better off not trading if it is likely to suffer a large deterioration in the terms of trade

Terms of trade: The price of a country's exports relative to the price of its imports.



Openness and Terms of Trade

Why expect declining terms of trade?

- With much of the developing world dumping primary products on world markets, there would be downward pressure on the relative price of these goods.
- Demand for primary products is income inelastic. It is also price inelastic, so dropping the price of primary products doesn't generate much extra demand, and output expansion leads to rapid decline in price.
- There is resistance to southern penetration of northern markets; anti-dumping laws, multi-fiber agreements, etc., keeping demand low and inelastic.

Openness and Terms of Trade

- Prebisch and Singer: Between 1875 and WWI, the terms of trade for developing countries had fallen 30 percent.

$$\left(\frac{P_M^{1920}}{P_M^{1875}} \right) \bigg/ \left(\frac{P_X^{1920}}{P_X^{1875}} \right)$$

Price of primary products imported by Britain, including freight costs (numerator) relative to the price of manufactured products exported by Britain, exclusive of freight costs.

Openness and Terms of Trade

There was a significant drop in shipping costs over this period due to:

- Suez canal
- Panama canal
- Steamboats
- Refrigeration

Openness and Terms of Trade

- More recent studies find no trend.
- If there *were* a deterioration in the relative price of primary products, what would the best policy be?
 - There are still gains from trade
 - If private sector isn't aware of trends, publicize them.
- What have developing countries actually done?
 - First, protected and pursued inward-oriented strategies
 - 80s through mid-90s, tried to open northern markets
 - Tried to organize cartels and/or exploit monopoly power
 - Most recently, reverted toward more inward-oriented strategies