ECON 4311 – Economy of Latin America

Lecture 7B: Latin America Trade Policy (pt. 2)

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Outline

Before the Break

- Started our study of trade policy in Latin America.
- Introduced the concepts of:
  - **Absolute advantage**.

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  - **Terms of trade**.

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  - **Terms of trade**. The ratio between a country's export prices and itsimport prices, expressed in percentage.

Before the Break

- Tried to understand the forces behind comparative advantage.
  - Heckscher–Ohlin model. Comparative advantage comes from factor abundance and factor intensity.
- Also the general-equilibrium effects of trade policy.
  - Implications of Stolper–Samuelson theorem. Trade can affect the income distribution, increasing (decreasing) the returns of the factor of production that is more abundant (scarce).
- **After the Break**.
  - Economic effects of tariffs and quotas.
  - Latin American trade policy before, during, and after ISI.

Economic Effects of Tariffs and Quotas

- Said that free trade tends to maximize the welfare of society.
- Now, we'll make our arguments more formal.
- Put special attention on:
  - Free trade.
  - Tariffs.
  - Quotas.
- This analysis is helpful to assess the effects of long-lasting history of Latin America's barriers to trade in its own region.

Effects of Free Trade

- Think again of the example

Table: Production per worker/day

Region	Cars	Gold	Relative prices
Mexico	1	4	$1/4$ cars $=$ 1lb gold
US	5	2	$5/2$ cars $=$ 1lb gold

- Mexico is disadvantaged in cars; hence likely to import this product.
- In autarky, the price of cars in Mexico is P_d, quantity traded is Q_d.
- Let's look at welfare in the Mexican "cars" market.

Effects of Free Trade

What is *A*? What is *B*?

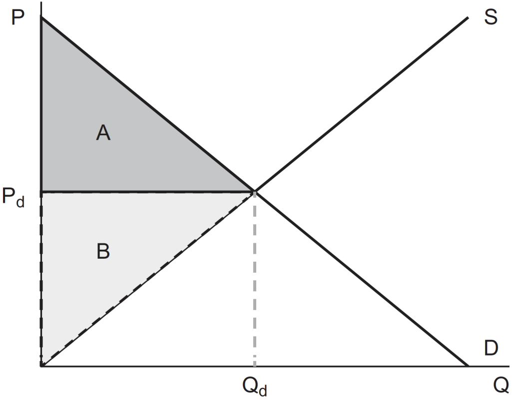


Figure: Equilibrium in the Mexican automotive industry when in autarky.

Effects of Free Trade

A: consumer surplus $\quad$ B : producer surplus

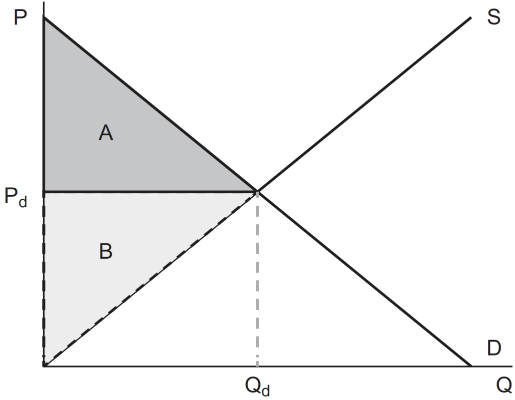
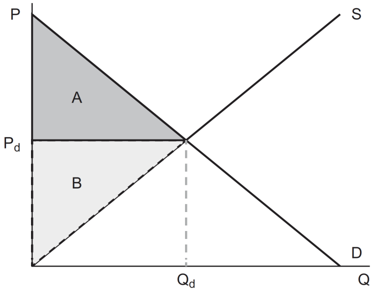


Figure: Equilibrium in the Mexican automotive industry when in autarky.

Effects of Free Trade

- **Consumer's surplus**. Monetary gain determined by the difference in prices between what consumers would have been willing to pay and what consumers actually pay (P_d).
- **Producer's surplus**. Monetary gain determined by the difference between market prices (P_d) and the lowest price producer would've been willing to sell for.



Effects of Free Trade

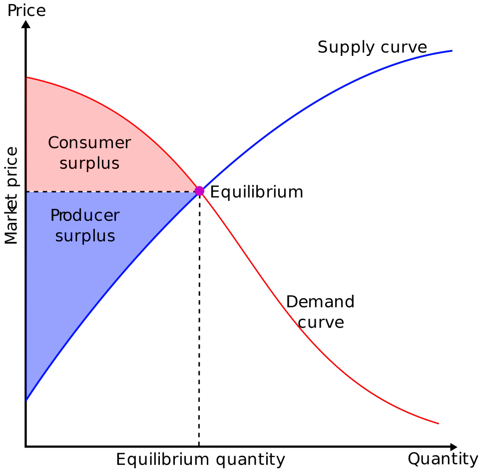


Figure: A more realistic (and cooler) figure.

Effects of Free Trade

- Recall that in autarky, equilibrium in Mexican car industry is (P_d, Q_d).
- Now suppose producers in the US can produce cars at lower prices than Mexican producers, and free trade is allowed.
- If trade is allowed, consumers in Latin America want to import cars.
  - Domestically, this manifests as an increase in the supply of cars.
- US producers keep shipping cars to Mexico for as long as the price of cars in Mexico is higher than elsewhere.
  - Equilibrium forces determine a new equilibrium (P_w, Q_2).

Effects of Free Trade

Cars have now lower prices ($P_w < P_d$)
Mexican consumers demand more (US) cars ($Q_2 > Q_d$)

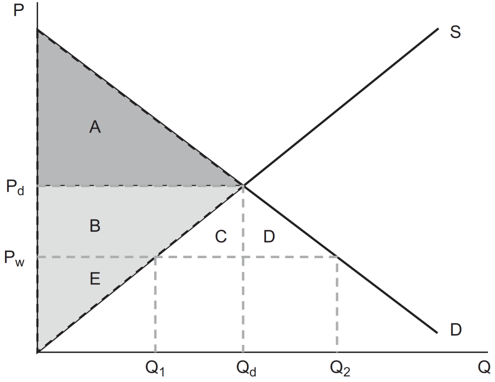
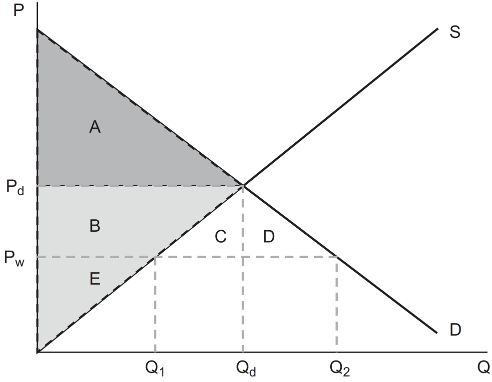


Figure: Equilibrium in the Mexican car industry under free trade.

Effects of Free Trade

Consumers are better off; surplus now $A + B + C + D$ (before, A)
Mexican producers are worse off; surplus now E (before, $E + B$)



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Effects of Free Trade

Gains to consumers $(B + C + D)$ far outweigh the losses of producers (B)

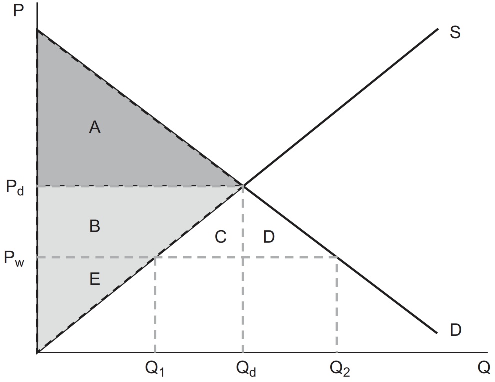


Figure: Equilibrium in the Mexican car industry under free trade.

Trade with Tariffs

- Suppose Mexico's car imports are small relative to the world.
  - Mexico is "price-taker": so small that cannot influence world prices.

P_d : autarky price P_w: free-trade price P_t: price with tariffs

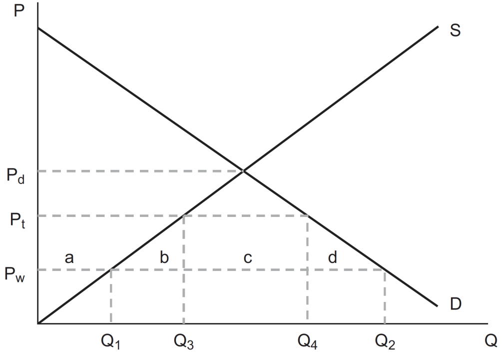


Figure: Equilibrium in the Mexican car industry with tariffs.

Trade with Tariffs

Equilibrium with autarky (P_d, Q_d), free trade (P_w, Q_2), tariffs (P_t, Q_4)
With free trade, domestic production contracts from Q_d to Q_1
With a tariff T, domestic production contracts from Q_d to Q_3

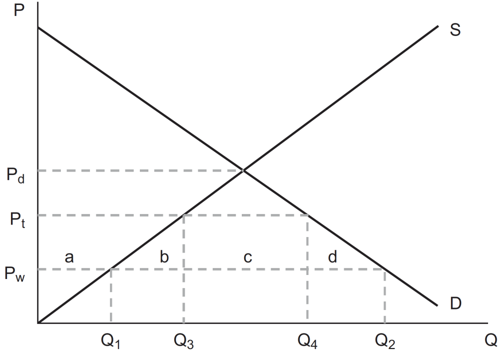


Figure: Equilibrium in the Mexican car industry with tariffs.

Trade with Tariffs

With a tariff T, price increases by T with respect to free-trade price ($P_t = P_w + T$); Price decreases by $P_d - P_t$ with respect to autarky

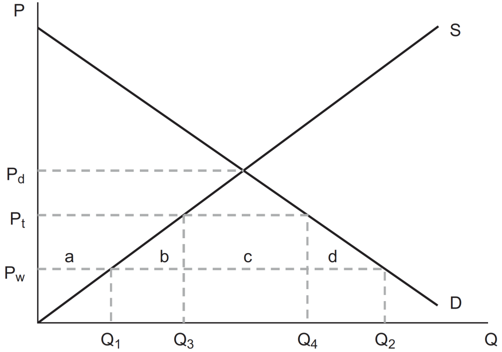


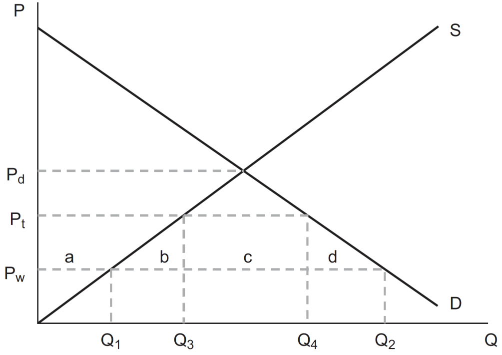
Figure: Equilibrium in the Mexican car industry with tariffs.

Trade with Tariffs

Two effects of tariff (wrt free-trade world).

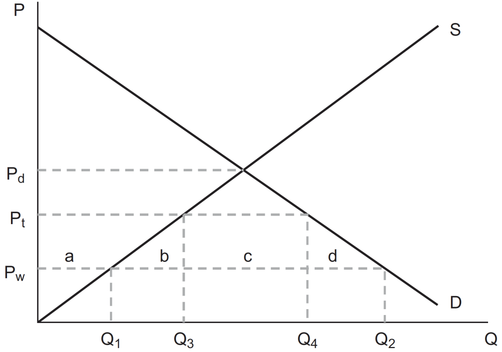
1. Quantity imported falls from $Q_2 - Q_1$ to $Q_4 - Q_3$.
   (domestic production increases by $Q_3 - Q_1$; imports decrease by $Q_2 - Q_4$)

2. Consumers pay higher prices ($P_t > P_w$) and consume less ($Q_4 < Q_2$).



Trade with Tariffs: Winners and Losers

- Consumers lose $a + b + c + d$.
- Domestic producers gain a. (redistributed from consumers)
- Government "gains" c (controversial; G as valuable as C?).
- Mexico suffers net losses $b + d$ (misallocation + lower consumption)



Trade, Tariffs and Transportation Costs

- The analysis we used to think of the effect of tariffs on a domestic economy also useful to think about the effect of transportation costs.

- Transportation costs acts *as if* they were a tariff.
  - Reduce amount of trade, increase costs of imports and exports.

- Transportation costs affected the economic development of LatAm, especially early on.
  - Trade was mostly confined to very valuable goods.
  - Global boom in primary commodities occurred after 1850, with the advent of metal ships, steam power, refrigeration, ...
  - Improvements in infrastructure (roads, railroads, ports, airports) fundamentally change international trade patterns.
    - From luxury to normal goods.

Trade, Tariffs and Transportation Costs

- **Transportation costs still a big impediment to the economic development of many countries in Latin America.**
  - Much higher than for the US (almost $\times 2$)

Country	*Tariff equivalent transportation costs*	*Tariff*	*Total*
Argentina	5.1	12.1	17.2
Brazil	5.5	10.0	15.5
Chile	7.5	6.0	13.5
Colombia	6.7	9.2	15.9
Peru	8.5	1.5	10.0
Paraguay	15.0	6.2	21.2
Uruguay	5.7	8.3	14.0
Average	7.2	7.6	14.8
US	3.7	2.1	5.8

Sources: Mesquita Moreira et al. (2008) and WTO (2014).

Trade, Tariffs and Transportation Costs

- Intra-Latin America transportation costs in Latin America as high as transportation costs with the rest of the world.
- What could explain this?

Trade, Tariffs and Transportation Costs

- Intra-Latin America transportation costs in Latin America as high as transportation costs with the rest of the world.
- What could explain this?
  - Types of goods being transported (cars vs. avocados)
  - Terrible infrastructure within countries.
  - Corruption.
  - Criminality.
- Either way, Latin America could progress much if it were to reduce transportation costs (which impose tariff-like losses on the region).
- Mesquita Moreira et al. (2008): inefficient infrastructure is part of the reason why transportation costs are higher than what they could be.

Trade with Quotas

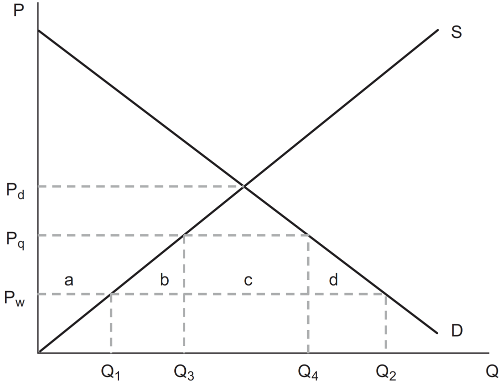
- We saw how tariffs can reduce societal welfare.
- Question. Do you think quotas are a better or worse than tariffs?

Trade with Quotas

- We saw how tariffs can reduce societal welfare.
- Question. Do you think quotas are a better or worse than tariffs?
  - Generally worse!
  - More distorting (i.e., much more welfare intruding).
  - No government revenue (unless accompanied with tariff).
- Well, quotas were extensively used as a trade-policy tool in LatAm.
- Graphically, the effects of quotas and tariffs may seem identical, but they are not!

Trade with Quotas

Equilibrium in autarky (P_d, Q_d), free-trade (P_w, Q_2), quotas (P_q, Q_4)
With free trade, desired demand is Q_2;
Introuce quota: maximum amount that can be imported is $Q_4 - Q_3$

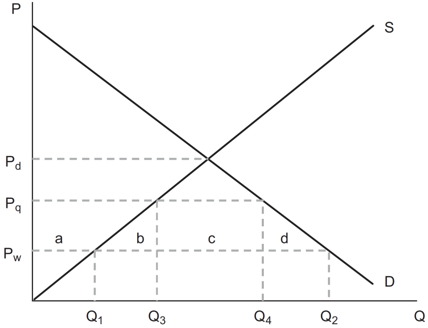


Trade with Quotas: Winners and Losers

- Consumers lose $a + b + c + d$. (same as with tariffs)
- Domestic producers gain a. (same as with tariffs)
- Deadweight loss $b + d$. (same; misallocation + lower consumption).
- What happens with c?

Trade with Quotas: Winners and Losers

- Consumers lose $a + b + c + d$. (same as with tariffs)
- Domestic producers gain a. (same as with tariffs)
- Deadweight loss $b + d$. (same; misallocation + lower consumption).
- What happens with c? Gain to foreign exporters ($P_q > P_w$; no tariff).



Trade with Quotas: Winners and Losers

- Quotas don't only make economy A lose resources against economy B (government vs. foreign producers revenue)
- They also impede individuals to consume goods they may be willing to purchase (even at prohibitive prices).
  - Most economists think quotas are a terrible idea!
  - Clearly reduce welfare, can give rise to black markets, ...
- **Other fundamental problems with quotas.**
  - If goods are "normal", the demand for these goods increases as income increases (e.g., electronics).
  - If income rises but quotas do not, increases in demand are to the benefit of domestic producers and against consumers and government.

Latin American Trade Policy Before ISI

- **Colonial period**.
  - Mercantilism.
  - Trade very restricted with most parts of the world; some trade within the region (with *de facto* customs).
- **Following Independence Wars**.
  - Higher openness to trade (with some world regions).
  - Trade policy seen as a good tool for raising revenue (necessary for national defense, among other things).
  - From tariffs to quotas.

Latin American Trade Policy During ISI

- Tariffs slowly climbed during the 1950s and 1960s.
- Tariffs peaked during the 1970s.
- Most countries in the world learned a lesson from the trade war of the 1930s and started liberalizing their economies, Latin America did not.
- Much of the region avoided participation in institutions attempting trade liberalization (World Bank, IMF, ITO–GATT–WTO).
- **Reasons for protectionism**.
  - Old: tradition of high levels of tariffs/quotas.
  - New: structuralism.

Latin American Trade Policy During ISI: GATT

- **General Agreement on Tariffs and Trade (1947).**

- Contracting parties agreed to two basic principles:
  - Prohibition of quotas.
  - Most-favored-nation (MFN) status for tariffs.
    - Principle of non-discrimination: lowest tariff for a product charged to any party must apply to all contracting parties.

Country	*Date*
Argentina	1967
Bolivia	1990
Brazil	1948
Chile	1949
Colombia	1981
Costa Rica	1990
Ecuador	1996
El Salvador	1991
Guatemala	1991
Honduras	1994
Mexico	1986
Nicaragua	1950
Panama	1997
Paraguay	1994
Peru	1951
Uruguay	1953
Venezuela	1990
Latin America	1978
Portugal	1962
Spain	1963
Canada	1948
US	1948

Trade Agreements

- **Multilateral trade negotiations (MTNs).**
  - Mechanism for liberalization.
  - Minimal initial participation of Latin American countries.
    - Even countries that joined early were never really serious participants.
    - It was not until the 1980s that Latin America became active in MTNs.
  - **Reasons**.
    - Structuralism.
    - No initial coverage of agricultural products.
  - **Consequences**.
    - Development of disadvantaged industries.
    - Too much lost consumer welfare and government revenue.

Trade Agreements

- **Free-trade areas (FTAs)**.
  - Agreement between countries to eliminate tariffs on "substantially all" trade within a "reasonable period of time".
    - Substantially all: virtually all trade in non-agricultural products.
    - Reasonable period of time: 15 years.
  - Different from pure free-trade: few members have a preferential trade agreement.
    - Each country maintains an independent trade policy and separate tariff rates with the rest of the world.
  - **Examples**. European Union (EU).
    - World's largest "single" market area.
    - Free trade among its members was one of the EU's founding principles, and it is committed to opening up world trade as well.
    - It spurred a burst of interest in regional trade agreements (RTAs).

Trade Agreements

- **Regional Trade Agreements (RTAs)**.
  - Allowed countries to obtain some of the gains from trade while still protecting industries from competition outside the region.
    - Latin American Free Trade Agreement (LAFTA) in 1960.
      (1960: Argentina, Brazil, Chile, Mexico, Paraguay, Peru, and Uruguay.)
      (Today: Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Panama, Paraguay, Peru, Uruguay, and Venezuela.)
    - Central American Common Market (CACM) in 1960.
      (Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua)
    - The Andean Pact (CAN) in 1969 (Bolivia, Colombia, Ecuador, Peru).
    - MERCOSUR in 1991 (Argentina, Brasil, Paraguay, Uruguay).

      ⋮

Taking Stock

- **We have learnt**:
  - Many concepts: absolute vs. comparative advantage, terms of trade, tariffs, quotas, consumer and producer surplus, MTNs, FTAs, RTAs, ...
  - How things work: absolute and comparative advantage, tariffs and quotas and its effects on society as a whole and its different members.
  - Insights from basic economic theory: Smith, Ricardo, Heckscher–Ohlin, Stolper–Samuelson.
  - About important factors that reduce the region's gains from trade: transportation costs and infrastructure.
  - How trade policy was conducted in the region, before and during ISI.
  - Different types of trade agreements and particular examples of them (e.g., MERCOSUR, LAFTA, EU, GATT).

Thank You!