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Application: International Trade

PRINCIPLES OF
MICROECONOMICS
FOURTH CANADIAN EDITION

N. GREGORY MANKIW
RONALD D. KNEEBONE
KENNETH J. MCKENZIE
NICHOLAS ROWE

PowerPoint® Slides
by Ron Cronovich
Canadian adaptation by Marc Prud'Homme

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In this chapter, look for the answers to these questions:

- What determines how much of a good a country will import or export?
- Who benefits from trade? Who does trade harm? Do the gains outweigh the losses?
- If policymakers restrict imports, who benefits? Who is harmed? Do the gains of the policy outweigh the losses?
- What are some common arguments for restricting trade? Do they have merit?

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Introduction

- Recall from Chapter 3:
A country has a **comparative advantage** in a good if it produces the good at lower opportunity cost than other countries.
Countries can gain from trade if each exports the goods in which it has a comparative advantage.
- Now we apply the tools of welfare economics to see where these gains come from and who gets them.

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The World Price and Comparative Advantage

- P_W = the **world price** of a good, the price that prevails in world markets
- P_D = domestic price without trade
- If $P_D < P_W$,
 - country has comparative advantage in the good
 - under free trade, country exports the good
- If $P_D > P_W$,
 - country does not have comparative advantage
 - under free trade, country imports the good

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The Small Economy Assumption

- A small economy is a **price taker** in world markets: Its actions have no effect on P_W .
- Not always true – especially for the U.S. – but simplifies the analysis without changing its lessons.
- When a small economy engages in free trade, P_W is the only relevant price:
 - No seller would accept less than P_W , because she could sell the good for P_W in world markets.
 - No buyer would pay more than P_W , because he could buy the good for P_W in world markets.

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A Country That Exports Soybeans

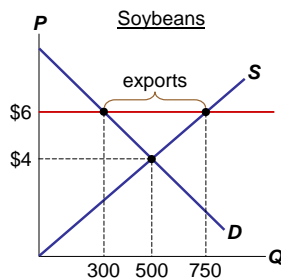
Without trade,

$P_D = \$4$
 $Q = 500$

$P_W = \$6$

Under free trade,

- domestic consumers demand 300
- domestic producers supply 750
- exports = 450



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A Country That Exports Soybeans

Without trade,

$$CS = A + B$$

$$PS = C$$

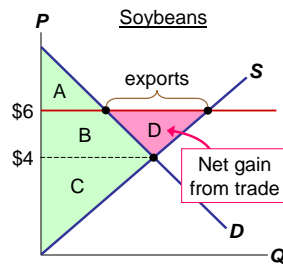
$$\text{Total surplus} = A + B + C$$

With trade,

$$CS = A$$

$$PS = B + C + D$$

$$\text{Total surplus} = A + B + C + D$$



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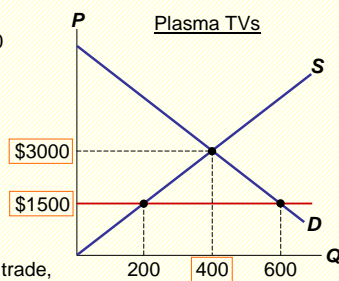
ACTIVE LEARNING 1: Analysis of trade

Without trade,
 $P_D = \$3000$, $Q = 400$

In world markets,
 $P_W = \$1500$

Under free trade,
how many TVs
will the country
import or export?

Identify CS, PS, and
total surplus without trade,
and with trade.

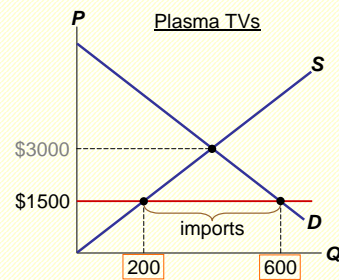


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ACTIVE LEARNING 1: Answers

Under free trade,

- domestic consumers demand 600
- domestic producers supply 200
- imports = 400

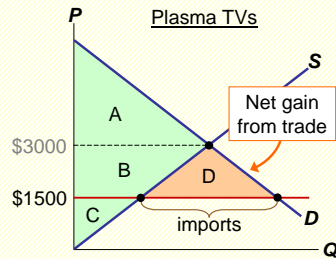


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ACTIVE LEARNING 1: Answers

Without trade,
 $CS = A$
 $PS = B + C$
 Total surplus
 $= A + B + C$

With trade,
 $CS = A + B + D$
 $PS = C$
 Total surplus
 $= A + B + C + D$



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Summary: The Welfare Effects of Trade

	$P_D < P_W$	$P_D > P_W$
direction of trade	exports	imports
consumer surplus	falls	rises
producer surplus	rises	falls
total surplus	rises	rises

*Whether a good is imported or exported,
 trade creates winners and losers.
 But the gains exceed the losses.*

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Other Benefits of International Trade

- Consumers enjoy increased variety of goods.
- Producers sell to a larger market and may achieve lower costs through economies of scale.
- Competition from abroad may reduce market power of some firms, which would increase total welfare.
- Trade enhances the flow of ideas, facilitates the spread of technology around the world.

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Then Why All the Opposition to Trade?

- Recall one of the Ten Principles:
Trade can make everyone better off.
- The winners from trade could compensate the losers and still be better off.
- Yet, such compensation rarely occurs.
- The losses are often highly concentrated among a small group of people, who feel them acutely.
The gains are often spread thinly over many people, who may not see how trade benefits them.
- Hence, the losers have more incentive to organize and lobby for restrictions on trade.



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Tariff: An Example of a Trade Restriction

- Tariff:** a tax on imports
- Example: Cotton shirts
 $P_W = \$20$
Tariff: $T = \$10/\text{shirt}$
Consumers must pay \$30 for an imported shirt.
So, domestic producers can charge \$30 per shirt.
- In general, the price facing domestic buyers & sellers equals $(P_W + T)$.

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Analysis of a Tariff on Cotton Shirts

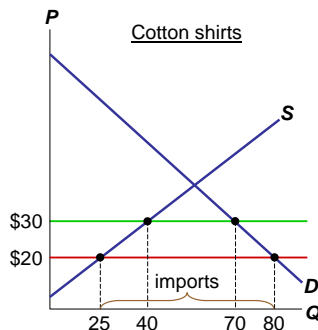
$P_W = \$20$

free trade:

buyers demand 80
sellers supply 25
imports = 55

$T = \$10/\text{shirt}$

price rises to \$30
buyers demand 70
sellers supply 40
imports = 30



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Analysis of a Tariff on Cotton Shirts

free trade

$$CS = A + B + C + D + E + F$$

$$PS = G$$

$$\text{Total surplus} = A + B + C + D + E + F + G$$

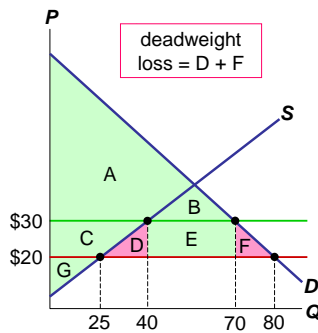
tariff

$$CS = A + B$$

$$PS = C + G$$

$$\text{Revenue} = E$$

$$\text{Total surplus} = A + B + C + E + G$$



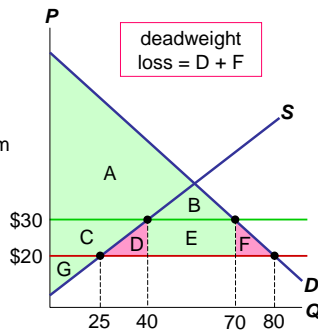
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Analysis of a Tariff on Cotton Shirts

D = deadweight loss from the overproduction of shirts

F = deadweight loss from the underconsumption of shirts



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Import Quotas: Another Way to Restrict Trade

- An **import quota** is a quantitative limit on imports of a good.
- Mostly, has the same effects as a tariff:
 - raise the domestic price of the good
 - reduce the quantity of imports
 - reduces buyers' welfare
 - increases sellers' welfare
 - cause a deadweight losses
- A tariff creates revenue for the govt. A quota creates profits the holder of the import license who sells the good at domestic price which is higher than the world price.
- Or, the govt could charge a fee for the import license. In this case, the import quota works exactly like a tariff.

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Arguments for Restricting Trade

1. The jobs argument

Trade destroys jobs in the industries that compete against imports.

Economists' response:

Total unemployment does not rise as imports rise, because job losses from imports are offset by job gains in export industries.

Even if *all* goods could be produced more cheaply abroad, the country need only have a *comparative* advantage to have a viable export industry and to gain from trade.

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Arguments for Restricting Trade

2. The national security argument

An industry vital to national security should be protected from foreign competition, to prevent dependence on imports that could be disrupted during wartime.

Economists' response:

Fine, as long as we base policy on true security needs. But producers may exaggerate their own importance to national security to obtain protection from foreign competition.

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Arguments for Restricting Trade

3. The infant-industry argument

A new industry argues for temporary protection until it is mature and can compete with foreign firms.

Economists' response:

Difficult for gov't to determine which industries will eventually be able to compete, and whether benefits of establishing these industries exceed cost to consumers of restricting imports.

Besides, if a firm will be profitable in the long run, it should be willing to incur temporary losses.

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Arguments for Restricting Trade

4. The unfair-competition argument

Producers argue their competitors in another country have an unfair advantage, e.g. due to gov't subsidies.

Economists' response:

Great! Then we can import extra-cheap products subsidized by the other country's taxpayers. The gains to our consumers will exceed the losses to our producers.

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Arguments for Restricting Trade

5. The protection-as-bargaining-chip argument

Example: In the mid- to late 90s, Canada threatened to limit the import of certain Australian products (e.g. fruits, wine, lamb, and beef) in retaliation of Australia's prohibition of imports of fresh salmon from Canada.

Economists' response:

Suppose Australia refuses. Then Canada must choose between two bad options:

- A) Restrict imports from Australia, which reduces welfare in Canada.
- B) Don't restrict imports, lose face and suffer a loss of credibility.

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Trade Agreements

- A country can liberalize trade with
 - unilateral reductions in trade restrictions
 - multilateral agreements with other nations
- Examples of trade agreements:
 - North American Free Trade Agreement (NAFTA), 1993
 - General Agreement on Tariffs and Trade (GATT), ongoing
- World Trade Organization (WTO) est. 1995, enforces trade agreements, resolves disputes

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CHAPTER SUMMARY

- A country will export a good if the world price of the good is higher than the domestic price without trade. Trade raises producer surplus, reduces consumer surplus, and raises total surplus.
- A country will import a good if the world price is lower than the domestic price without trade. Trade lowers producer surplus, but raises consumer and total surplus.
- A tariff benefits producers and generates revenue for the gov't, but the losses to consumers exceed these gains.

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CHAPTER SUMMARY

- Common arguments for restricting trade include: protecting jobs, defending national security, helping infant industries, preventing unfair competition, and responding to foreign trade restrictions.
- Some of these arguments have merit in some cases, but economists believe free trade is usually the better policy.

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End: Chapter 9

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