

Econ 340

Lecture 6 Nontariff Barriers



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News: Sep 16-22

- Saudi Arabia imports oil to export it -- WSJ: [9/19](#) | [Canvas](#) | NYT: [9/19](#) | [Canvas](#)
 - An attack on Saudi Arabia's oil production and processing facilities knocked out more than half of its production, This would be expected to interfere with the exports it has promised its customers.
 - Rather than let that happen, Saudi Arabia is importing oil from other oil producers to supply its own needs, so that it can divert its own oil to its foreign customers. The result is that Saudi Arabia is both importing and exporting oil.
 - The Saudis have said that they will have production "fully restored" by the end of September, which would be remarkable if they can pull it off.
- Trump claims Japan-US trade deal -- NYT: [9/16](#) | [Canvas](#) | FT: [9/16](#) | [Canvas](#)
 - President Trump announced to Congress that his team had reached an "initial" trade deal with Japan. He provided no details.
 - Negotiations have been mostly focused on getting Japan to give greater access for US agriculture, such as beef and chicken, to the Japanese market. This access that would have been gotten under the Trans-Pacific Partnership that Trump pulled out of, but that now gives 10 other countries such access to Japan. In return, Trump would reduce some tariffs on Japan. Discussions also include an agreement on digital trade.
 - The hope is to have a more formal agreement ready for signing on the sidelines of the New York meeting of the UN General Assembly near the end of September. That would be unprecedented, however, as trade agreements usually takes many months or years to negotiated details.
- India-US trade talks -- WSJ: [9/20](#) | [Canvas](#) | NYT: [9/20](#) | [Canvas](#)
 - India's Prime Minister Modi will meet with President Trump, with hopes of reducing trade tensions between the two countries and agreeing to reduce barriers on certain trade between them.
 - Earlier this year, the US removed India from the list of countries to which it applies lower tariffs, under the Generalized System of Preferences. India responded by placing tariffs on multiple US exports.
 - The US wants India to open its markets in several ways, including removing price caps on medical equipment, reducing tariffs on many goods, and granting greater access to US agriculture. Such a limited agreement, covering only a portion of trade, would be contrary to World Trade Organization rules, but that is unlikely to concern Trump or Modi.

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Debris at Saudi Arabia's Khurais oil processing plant following drone attacks, pictured on September 20, 2019.

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President Trump and Prime Minister Shinzo Abe of Japan last month at the Group of 7 meeting in Biarritz, France, where Mr. Trump had said the United States and Japan were “very close” to a major trade deal. Erin Schaff/The New York Times

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Prime Minister Narendra Modi of India and President Trump | Screenshot of the Group of 7 summit in Biarritz, France. They are expected to meet again on Sunday in Houston. Erin Schaff/The New York Times

Leftovers from Lecture 4, Sep 18

The New Trade Theory

- 4. New rationales for using policy to restrict trade
 - But note Krugman's conclusion: These arguments are not likely to be usable:
 - Empirical difficulties: Hard to know where to intervene
 - Entry: Benefits will be dissipated by new firms
 - General equilibrium: Help in some sectors hurts others
 - Retaliation: Other countries may react
 - Political economy: Industries lobby for help

Clicker Question

Which of the following is not an assumption used in the New Trade Theory?

- ✓ a) Markets are perfectly competitive
- b) There are increasing returns to scale
- c) Products are differentiated

Clicker Question

Which of the following is an explanation of intra-industry trade?

- a) Products are homogeneous
- b) Countries lack comparative advantage
- c) Countries must export in order to pay for imports
- ✓ d) Competitors from different countries compete by selling into each other's market
- e) Smuggling

Clicker Question

In the Boeing-Airbus game that we looked at, how do we know that the EU (including Airbus) benefits from providing the subsidy?

- a) Because Boeing loses profit
- b) Because Airbus gains profit
- c) Because the US ceases to produce planes
- ✓ d) Because Airbus gains more profit than the EU government pays it

Outline

- Sources of Comparative Advantage
- The Heckscher-Ohlin Model
 - Main Idea
 - Intuition
 - Does the Theory Work?
- Effects of Trade
 - Changes in Production
 - Factor Price Equalization
- The New Trade Theory
 - Assumptions
 - Implications
- The New New Trade Theory

The New New Trade Theory

- Heterogeneous Firms
 - Due to Marc Melitz (UM Phd 2000)
 - Assumes that firms within an industry differ in productivity (+ other assumptions of New Trade Theory)

The New New Trade Theory

- Heterogeneous Firms (Melitz Model)
 - Implications:
 - More productive firms are larger & earn more profits
 - Opening to freer trade causes
 - Most productive firms to expand and export
 - Least productive firms to shut down
 - Thus average productivity rises
- Yet another new source of gain from trade!
- Also new losers: Those in least productive firms in all tradable industries (inc. exports)

Clicker Question

If a country's comparative advantage is based on a technology that other countries lack, why might it lose that comparative advantage over time?

- a) Technology transfer to other countries
- b) Multinational companies that use technology abroad
- c) Technical progress that makes earlier innovations obsolete
- ✓ d) All of the above

Clicker Question

If a country's comparative advantage is based on relative abundance of capital, why might it lose that comparative advantage over time?

- ✓ a) Other countries accumulate even more capital
- b) The Heckscher-Ohlin theory ceases to be valid beyond the short run
- c) The good that it exports becomes obsolete
- d) All of the above

Now, Lecture 4,
Sep 25

Outline: Nontariff Barriers

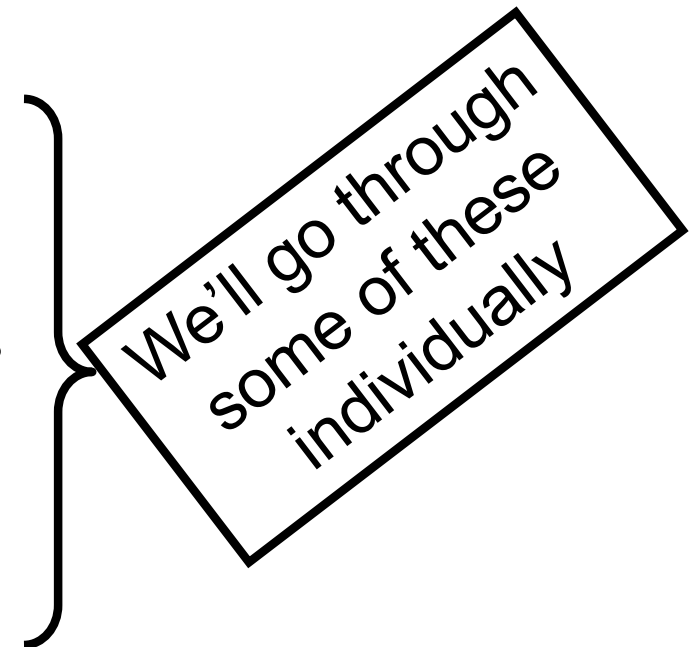
- What Are NTBs?
- Quotas
 - Effects Equivalent to Tariffs
 - Who Gets the Rents
- Other NTBs
 - Tariff-Rate Quotas
 - Voluntary Export Restraints (VERs)
 - Variable Levies
 - Government Procurement Regulations
 - Customs Procedures
 - Standards
 - Unfair Trade Laws
 - Export taxes
- Subsidies

What Are NTBs?

- What Are They?
 - Any institutional or policy arrangement that interferes with trade, other than tariffs
 - Term NTB is also used more broadly to include policies that artificially expand trade
 - e.g., Export subsidy
 - Sometimes called “Nontariff Measures” (NTMs)
- Main Types of NTB
 - See outline above

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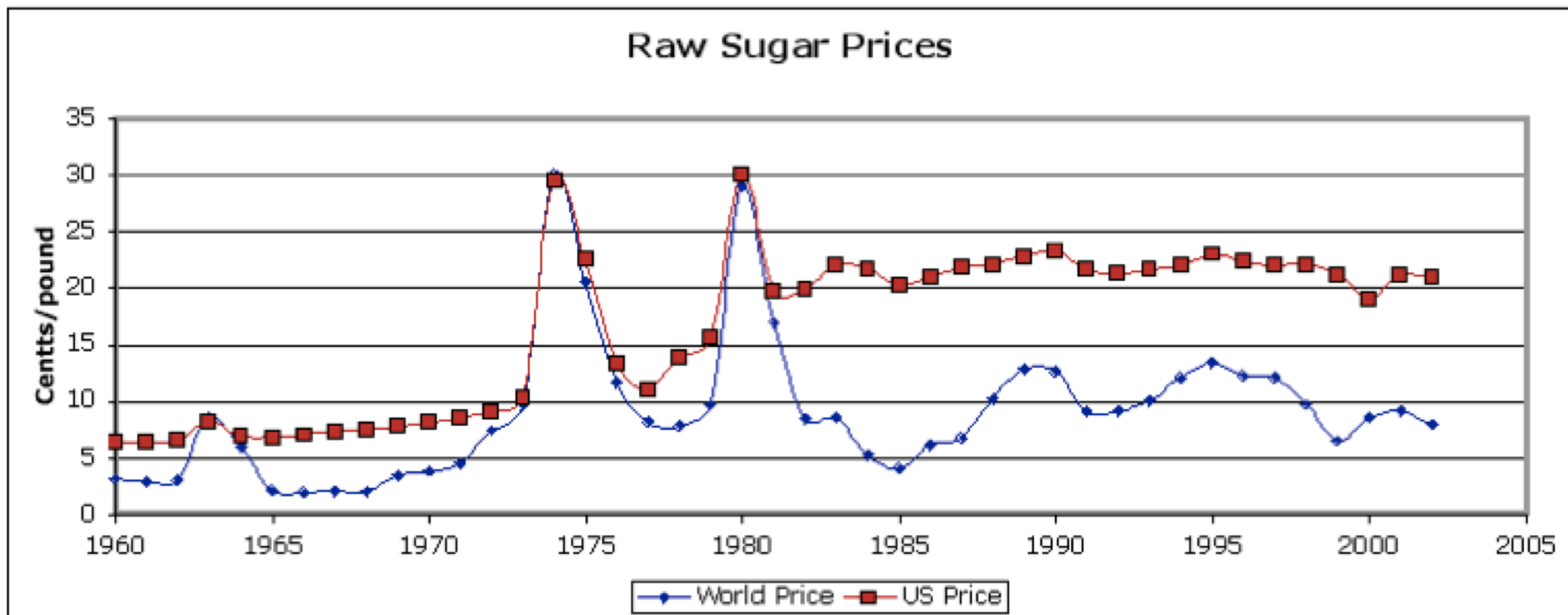
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Quotas

- Definition: An import quota is a direct restriction on the quantity of an import
 - E.g., US might limit the imports of steel to some number of tons per year
 - Until Jan 1, 2005, US and EU had elaborate import quotas on many textile and apparel products from developing countries
 - We still have quotas on many agricultural products, e.g., sugar, cheddar cheese, dried milk, etc

Quotas

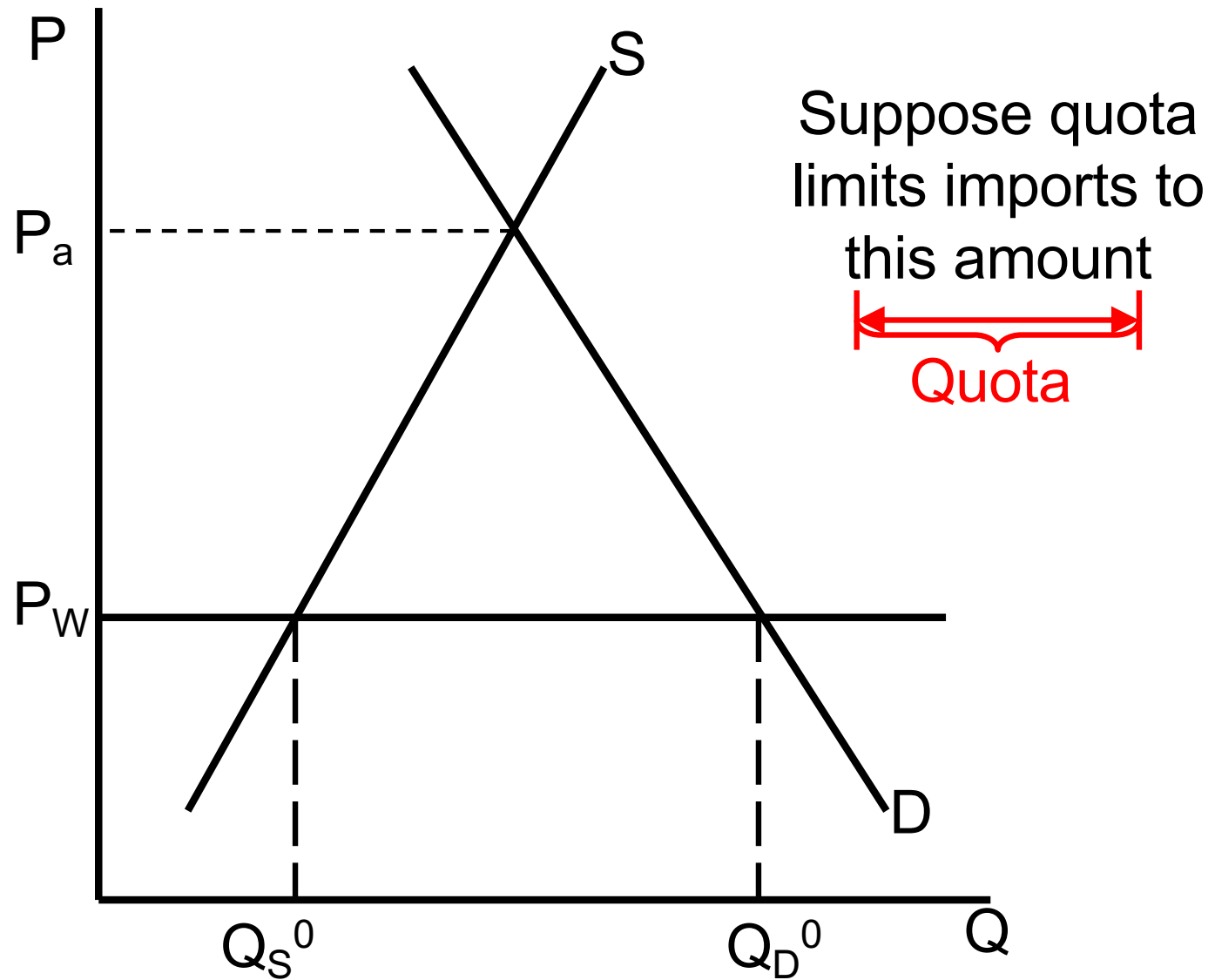
- Effects of a quota
 - If permitted quantity is above what would be imported anyway, then no effect at all. (True only with perfect competition)
 - Otherwise, quota creates scarcity and raises price
 - Quota raises domestic price above world price
 - For market to clear, domestic price must rise to the point that desired imports equal the quota
 - See this with supply and demand
 - But first note example of US quota on sugar..



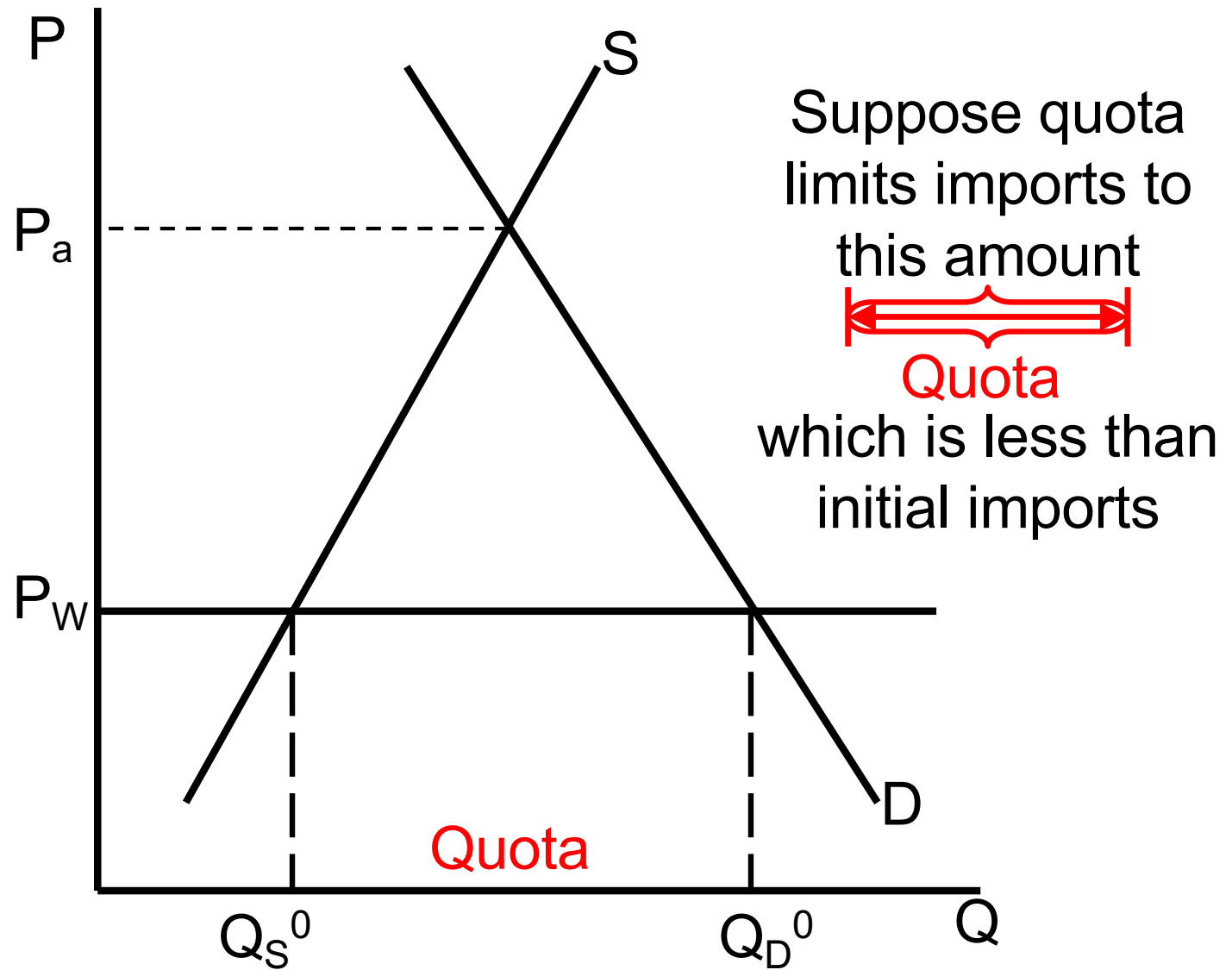
- Note that US price stayed mostly above the world price, and was more stable
- But when world price spiked, then US price was
 - just equal to the world price,
 - not above as it would have been with a tariff

<http://public.wsu.edu/~hallagan/EconS327/weeks/week5/Sugar/Sugarquota301.html>

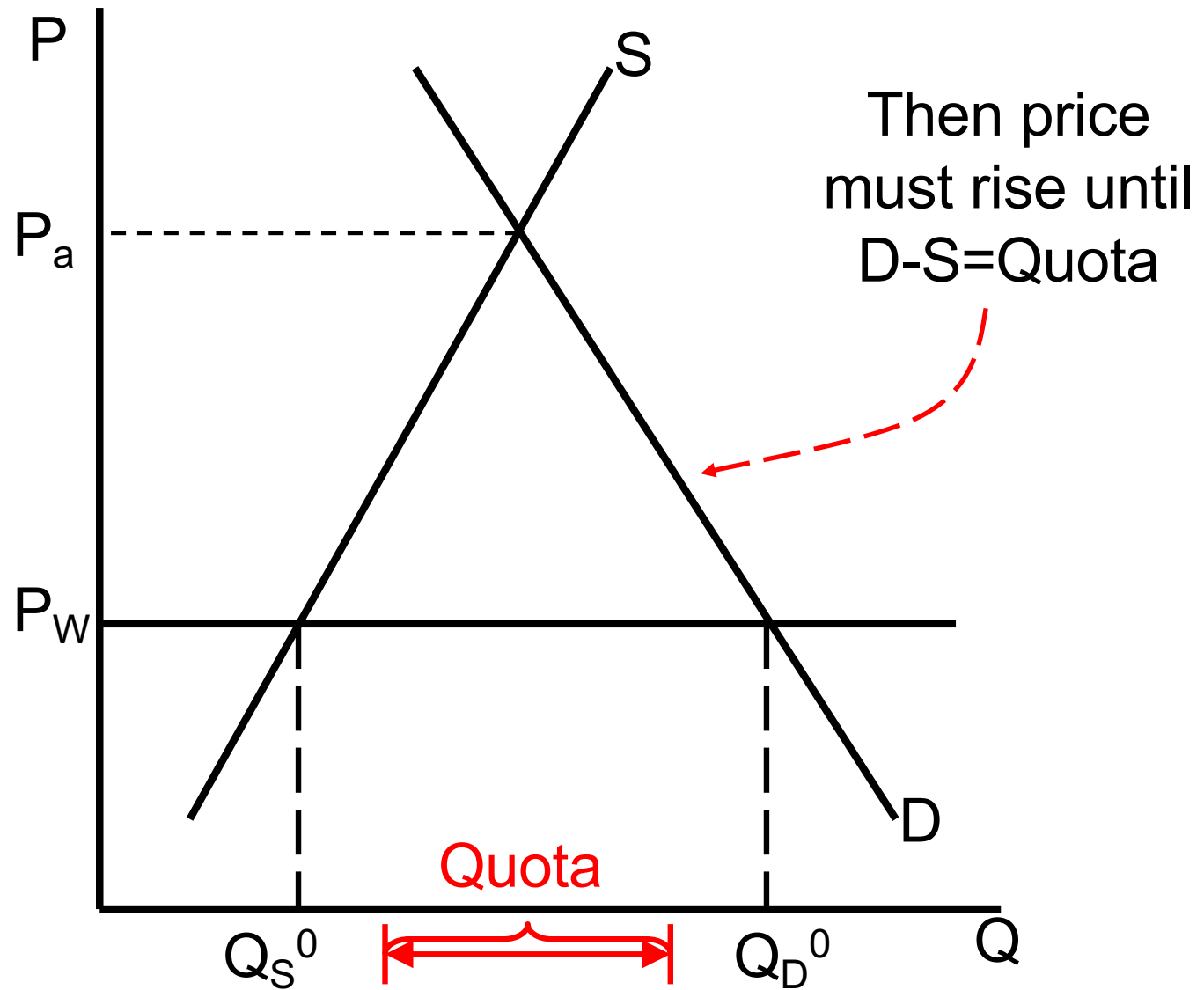
Effects of a Quota: Small Country



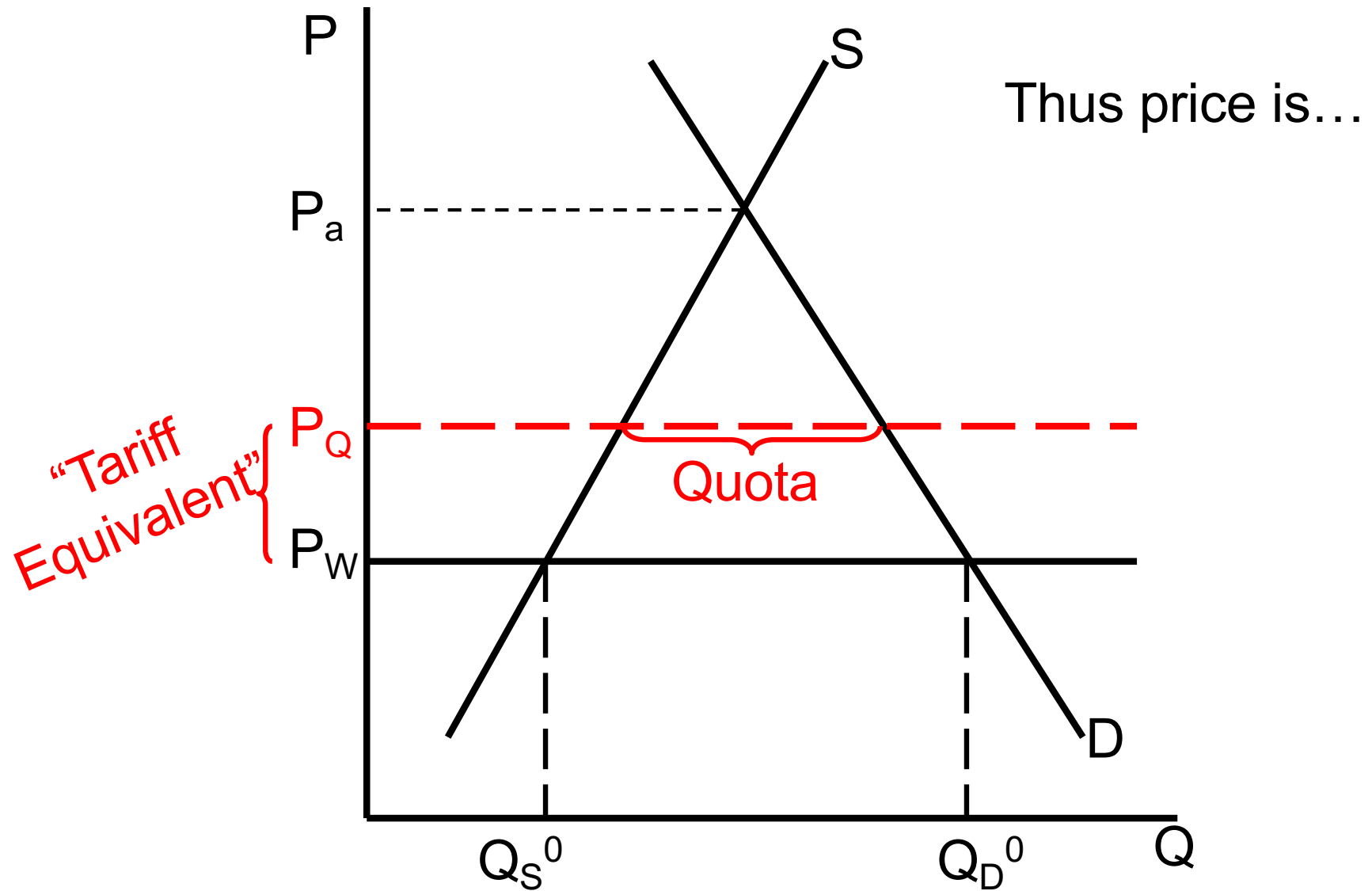
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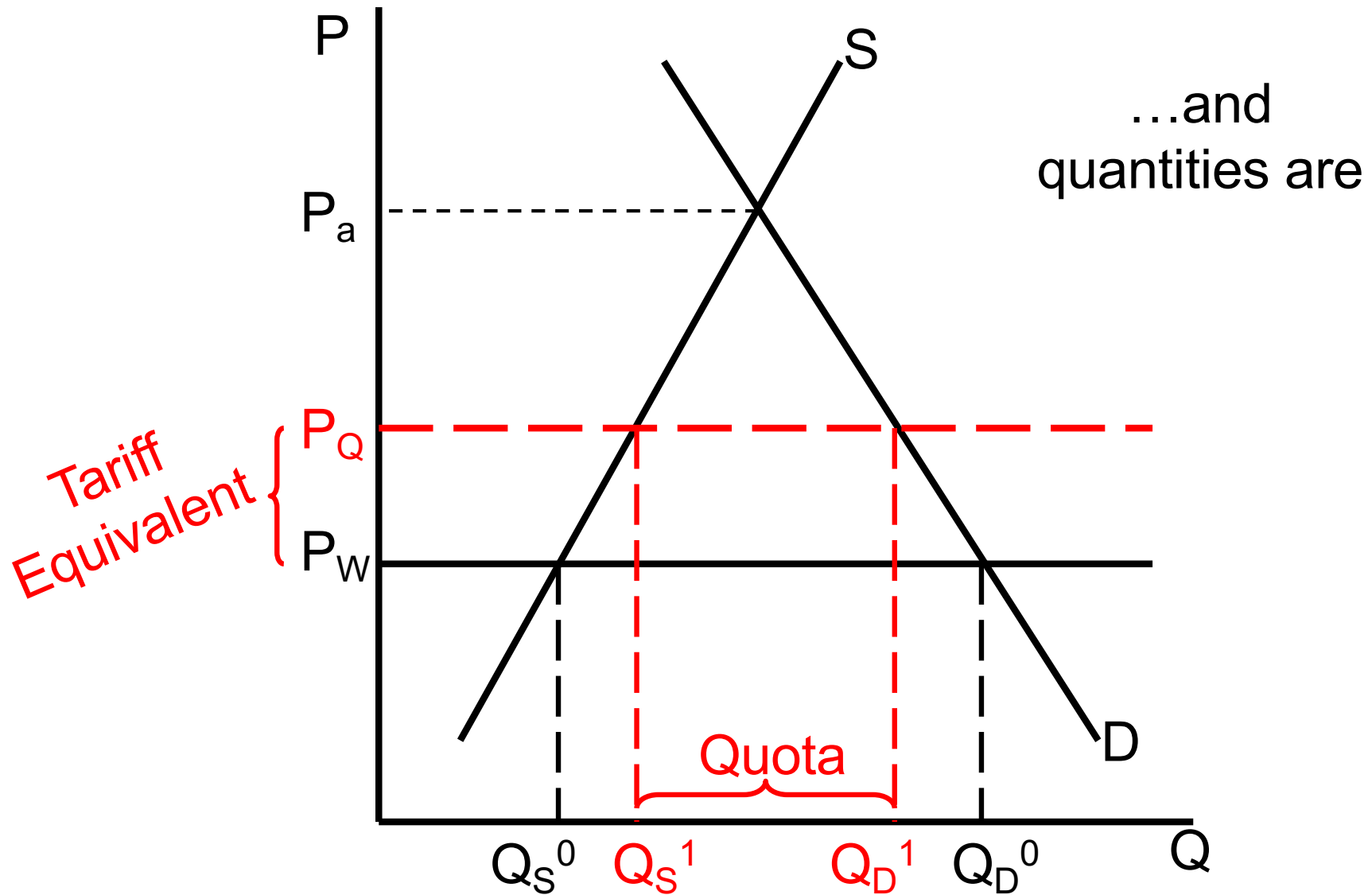
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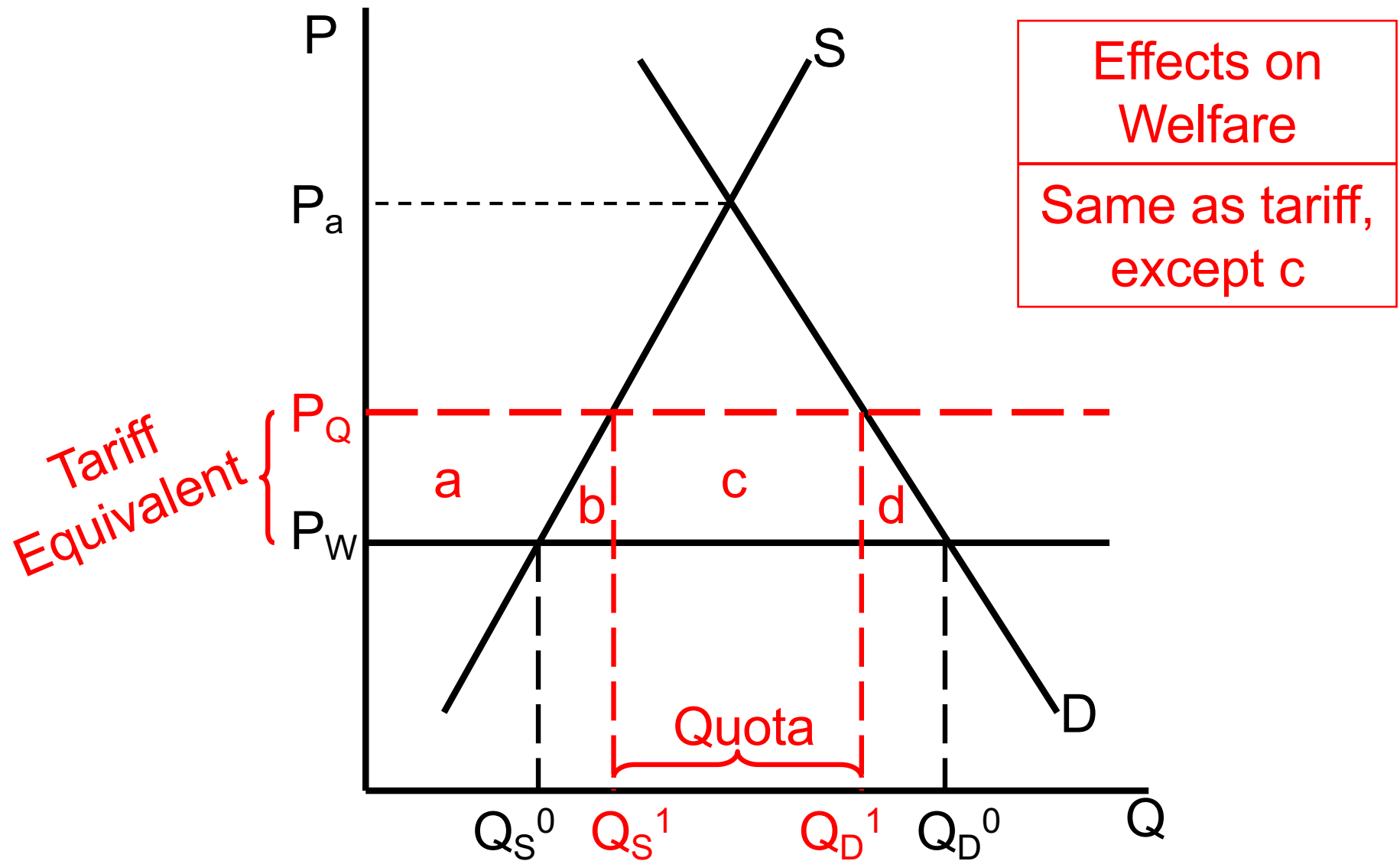
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Effects of a Quota: Small Country



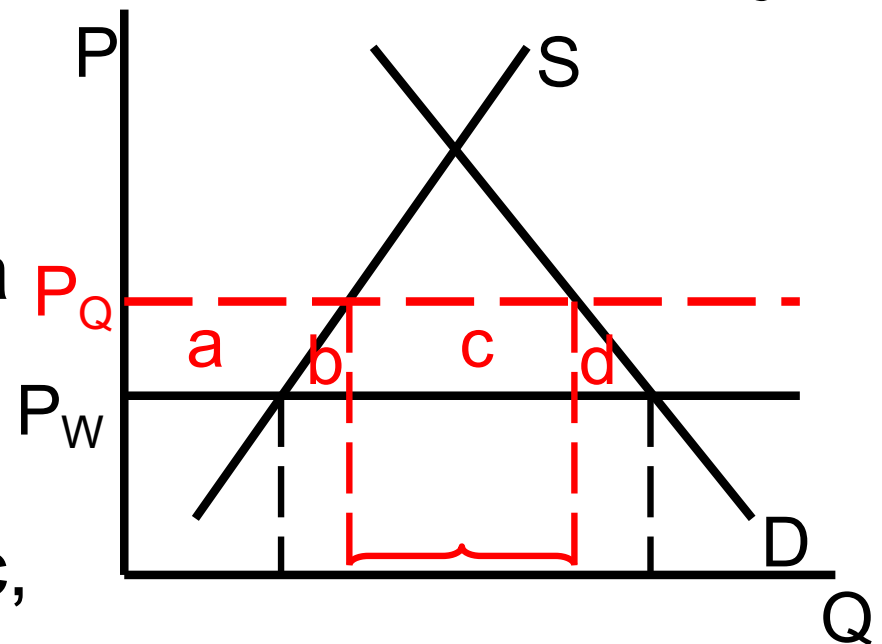
Effects of a Quota: Small Country



Effects of a Quota: Small Country

- Results

- Suppliers gain area +a
- Demanders lose area $-(a+b+c+d)$
- Somebody gets area c, but who?



- Area c is called “quota rents”

- It is the profit from buying at world price, P_W , and selling at higher domestic price, P_Q

Effects of a Quota: Small Country

- Who gets quota rents?
- Depends on how quota is administered:
 - First-come, first-served: Rents go to whoever gets there before quota is exhausted
 - Sell (or “auction”) import licenses: Rents go to government as revenue from sale of licenses
 - Give away import licenses to domestic people or firms: those people or firms then get the rents
 - Give away licenses to foreign firms or governments: foreigners get the rents
- Most common is the last: Give away to foreigners in proportion to their historical exports

Effects of a Quota: Rent Seeking

- “Rent Seeking”
 - Defined as the use of resources in effort to get rents
 - Examples
 - Faster (thus more costly) transport to win race to border for 1st-come-1st-served quota
 - Lobbying legislators to get quota allocations
 - Inefficient production intended to get quota allocations based on market shares

Effects of a Quota

- Effects of quota compared to tariff
 - Effects on price and quantity at a given time are the same
 - Hence “tariff equivalent”
 - Effect on welfare is different if quota rents are lost to rent seeking and/or accrue to foreigners:
 - In that case, importing country loses more from quota than from equivalent tariff
- What if country is large?
 - Picture is also same as for tariff
 - But if quota rent is lost or goes to foreigners, importing country cannot gain

Effects of Quota: Large Country (if Rent given to foreigners)

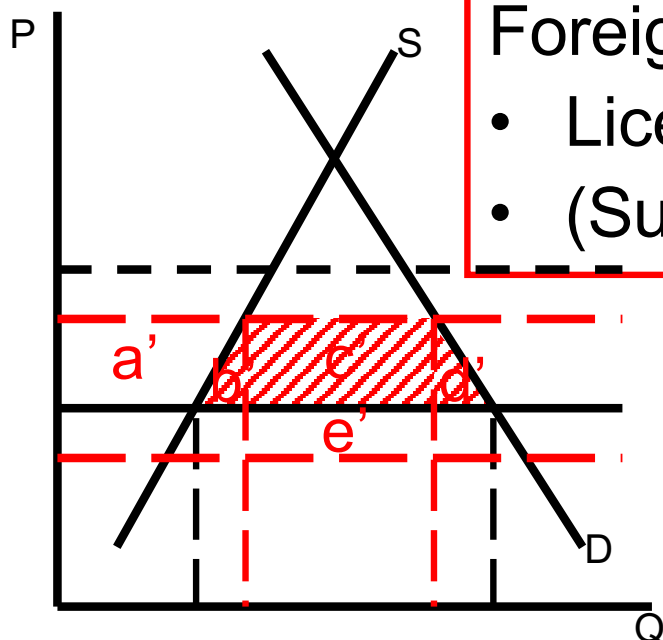
Summary:

Domestic Country:

- Suppliers gain $+a'$
- Demanders lose $-(a' + b' + c' + d')$
- Net effect on country = $-(b' + c' + d')$

Foreign Country:

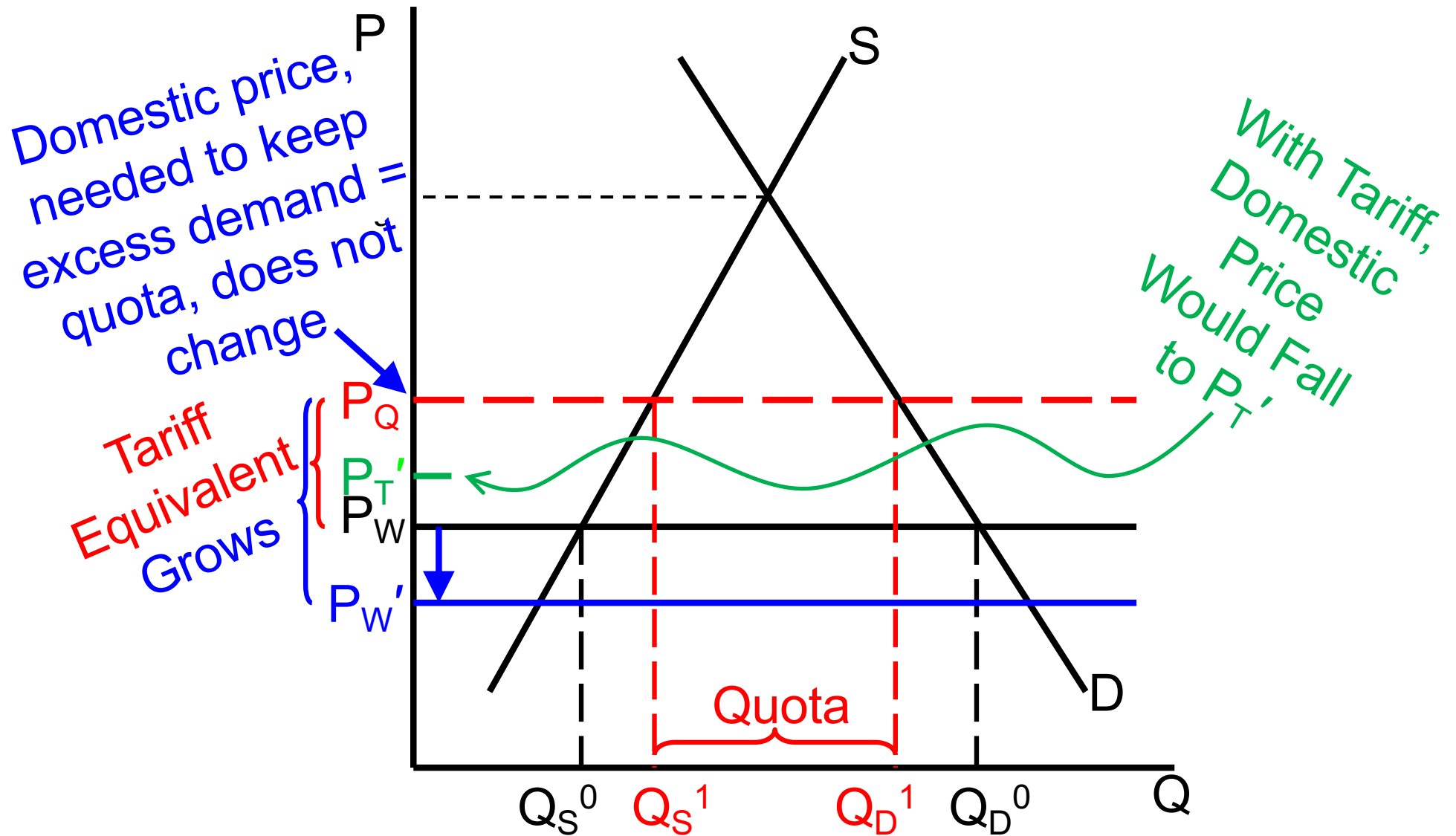
- License holders gain $+(c' + e')$
- (Suppliers/Demanders also lose)



Effects of a Quota

- Other effects of a quota, not in model
 - Quality upgrading
 - Limited to a fixed quantity, foreign exporters seek higher value by improving quality and charging higher price
 - Like a tariff, quota may induce foreign firms to produce here
 - Unlike a tariff, the quota becomes more restrictive if foreign supply increases or world price drops

Effects of a Fall in World Price

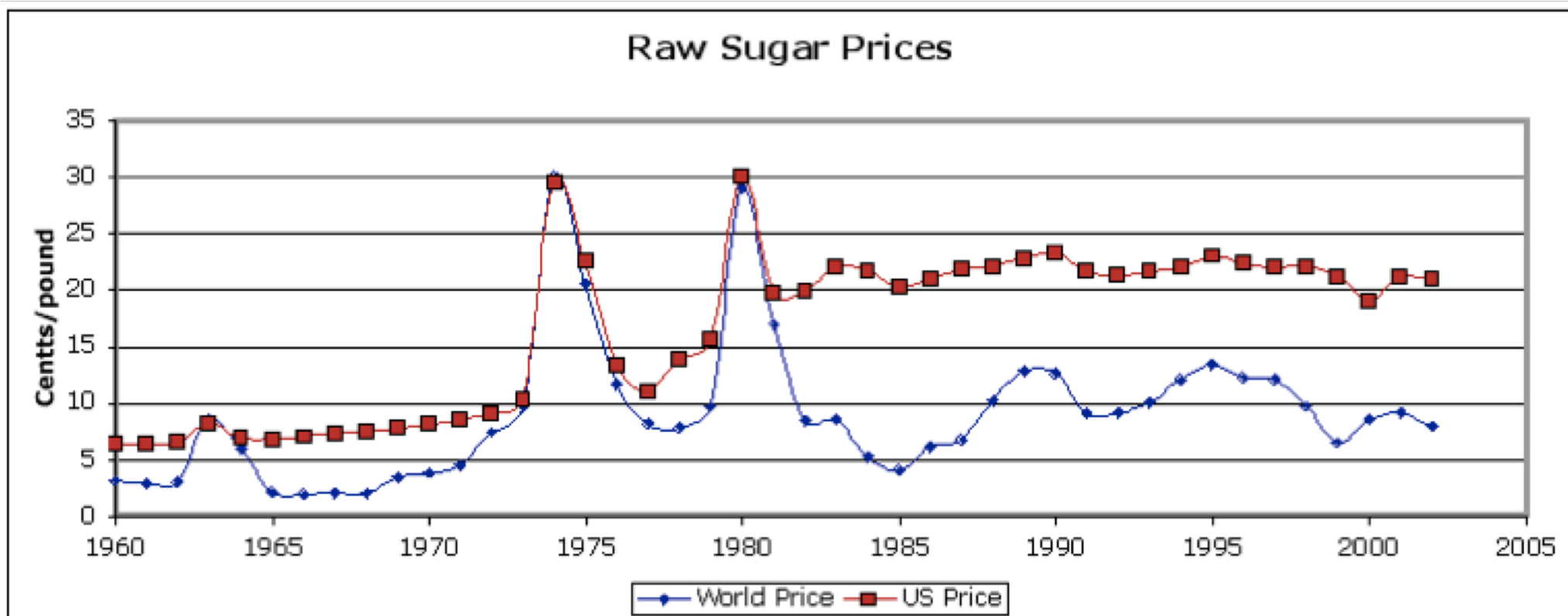


Effects of a Fall in World Price

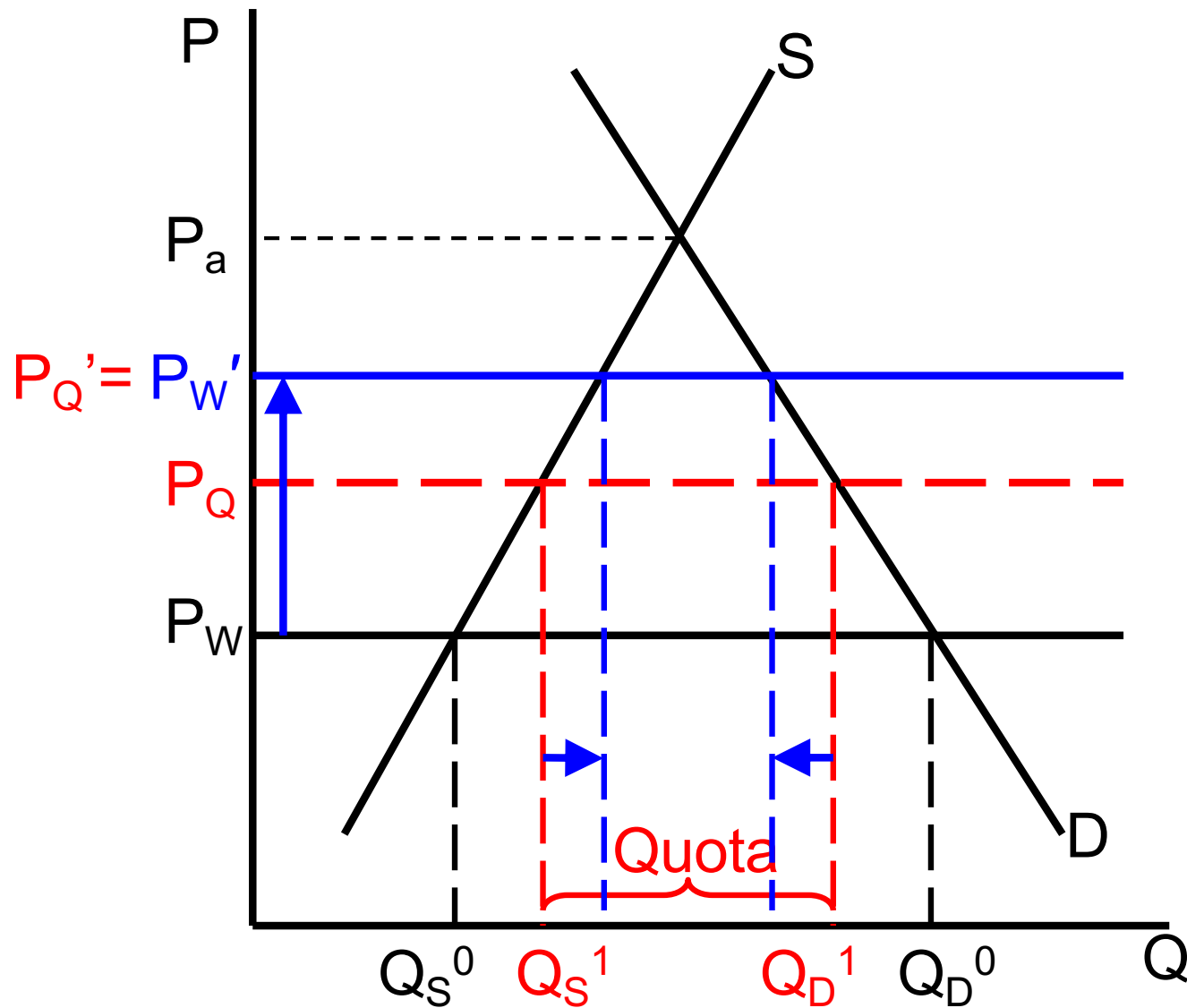
- Many things do not change:
 - Domestic price
 - Domestic quantity supplied
 - Domestic quantity demanded
 - Quantity of imports (fixed by quota)
- What does change?
 - Tariff equivalent increases
 - Rents from quota increase

Effects of a Rise in World Price

- If the rise is small, this is just the reverse of what happened with a fall in world price
- But if the rise in world price is large enough, then
 - The quota ceases to be binding
 - Tariff equivalent of quota becomes, and stays, zero
 - Domestic price becomes
 - Equal to world price, and
 - Rises with it
- This last is what we saw in the graph of the price of sugar



Effects of a Rise in World Price



Clicker Question

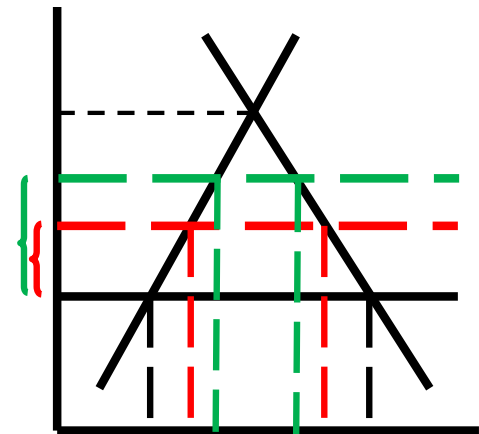
Which of the following methods of allocating rights to import under a quota causes the smallest gain (or greatest loss) for the country implementing the quota?

- a) Government sells the quota rights to the highest domestic bidder
- b) Government sells the quota rights to the highest foreign bidder
- c) Government gives the quota rights domestic firms
- ✓ d) Government gives the quota rights to foreign firms

Clicker Question

Suppose that imports of a good are limited by a binding quota. If the quota is now decreased in size, which of the following will fall?

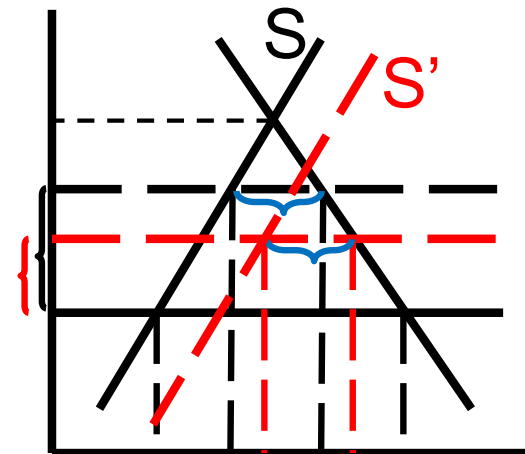
- a) Domestic price
- b) Quantity supplied domestically
- ✓ c) Quantity demanded domestically
- d) Producer surplus
- e) The tariff equivalent of the quota



Clicker Question

In the presence of a binding quota, which of the following will cause the tariff equivalent of the quota to fall?

- a) A fall in the world price
- b) A decrease in the size of the quota
- c) A rightward shift of the domestic demand curve
- ✓ d) A rightward shift of the domestic supply curve



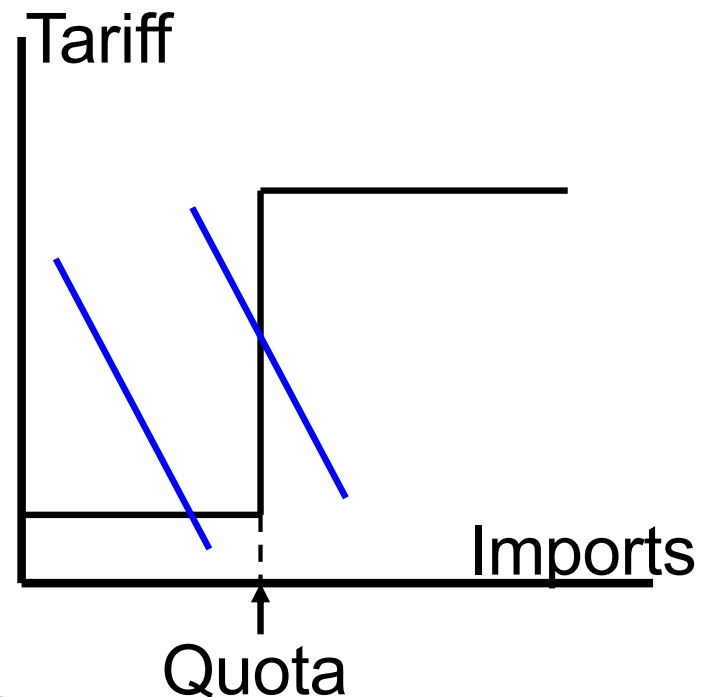
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Other NTBs:

Tariff-Rate Quota (TRQ)

- This is two tariffs, separated by a quota
 - Low (or zero) tariff applies to imports below the quota
 - High tariff applies to imports above the quota
- Used by US on many agricultural products
- Effect is like
 - a low tariff,
 - a quota,
 - or a high tariff,depending on levels of supply and demand



Other NTBs:

Tariff-Rate Quota (TRQ)

- This is what Trump used against imports of solar panels and washing machines

Other NTBs:

Voluntary Export Restraint (VER)

- Restriction of exports
 - At request of importing country
 - Usually specified as maximum quantity
- This was the major form of protection for the US auto industry in the 1980s: US persuaded Japan to limit exports of cars to US
- Illegal since 1995 under WTO rules
 - But how to enforce
 - There were examples in 2012 that looked like VERs
 - Now the US has gotten S. Korea to limit its exports of steel
 - It look like VERs are back, but may not be called that
- Effect is exactly like a quota allocated to foreigners

Other NTBs: Variable Levies

- A tariff that is changed as necessary to keep domestic price at a specified level
- These are used extensively by the European Union as part of its Common Agricultural Policy (CAP)
- Effects are same as a tariff, except for behavior over time

Other NTBs: Government Procurement Regulations

- Government favors domestic suppliers in buying goods and services
 - Buys only from domestic firms,or
 - Buys from domestic firms unless imports are, say, 10% cheaper
- US used to have a “Buy American” law
 - Some say we need it again, but would violate WTO
- Effect is like a tariff, except that loss to demander is now loss to government and thus taxpayer

Other NTBs: Government Procurement Regulations

- “Buy American” was part of the Stimulus Package of the US in 2009
 - Congress would have imposed broad restrictions
 - Obama got them to restrict only when not contrary to US commitments under trade agreements
 - Even so, result was broadly restrictive, because purchasers were not sure of rules, so avoided imports
 - Result was also that other countries included similar provisions in their stimulus packages
 - See reading by Hufbauer and Schott.
- “Buy American” was said by President Trump in his Inauguration Speech, Jan 20, 2017

Other NTBs: Government Procurement Regulations

- Not just in US. There is an increasing use of “Buy Local” requirements by US and other governments
 - See *Economist*, “Buying local is more expensive than it looks”
 - The share of imports covered by buy-local requirements has increased five-fold since 2009
 - But... they increase costs, just like tariffs, without any tariff revenue

Other NTBs:

Customs Procedures

- All countries have customs procedures for maintaining border security and collecting tariffs
- They become NTBs when
 - Excessive difficulty, or red tape, limits imports
 - Rules impose artificially high valuation for *ad valorem* tariffs

Other NTBs: Standards

- All countries also have standards, for
 - Health and safety (e.g., no lead paint)
 - Compatibility (e.g., 110 volt appliances)
- They become NTBs when biased against imports in
 - Substance of the requirement
 - Procedures for certifying compliance

Other NTBs: Unfair Trade Laws

- The (legal) threat and use of
 - Anti-Dumping Duties
 - Countervailing Duties
- We'll say more about this later, in lecture about U.S. Trade Policies
- These are NTBs if
 - “Unfair trade” is actually normal trade (it usually is)
 - The threat of action discourages trade, even when duties are not levied (the “chilling effect”)

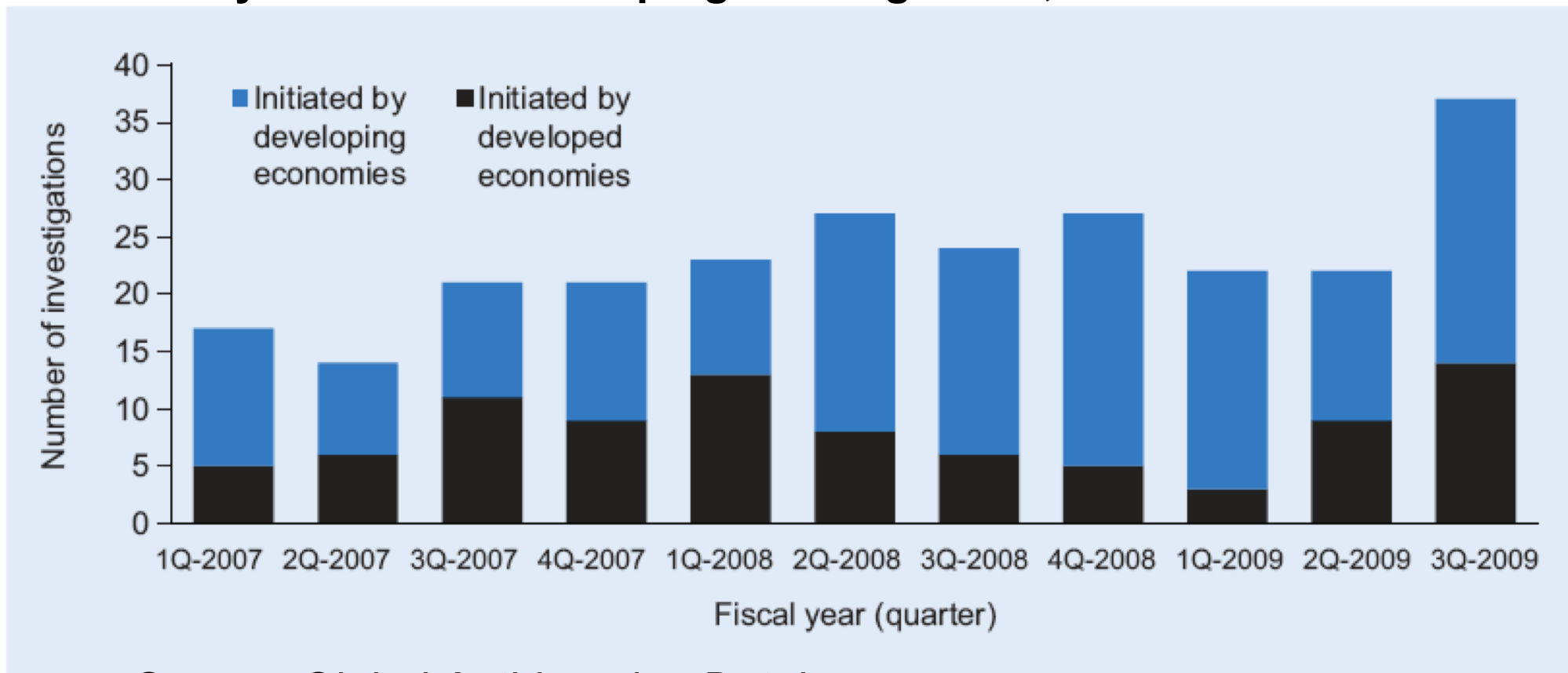
Other NTBs:

Unfair Trade Laws

- Use of these laws is increasing rapidly by other countries. See Lindsey and Ikenson
 - In 1990s, antidumping use increased 50% over the '80s.
 - Developing country AD cases:
 - 7 in 1980-87
 - Over 700 in 1995-2000
 - Leading users of AD (1995-2000)
 - US (323), EU (143) (out of 976 total)
 - Targets of AD cases (1995-2000, per year):
 - Leading: China (179), Japan (78), US (65)
 - Developed countries 355; Developing countries 656

Other NTBs: Unfair Trade Laws

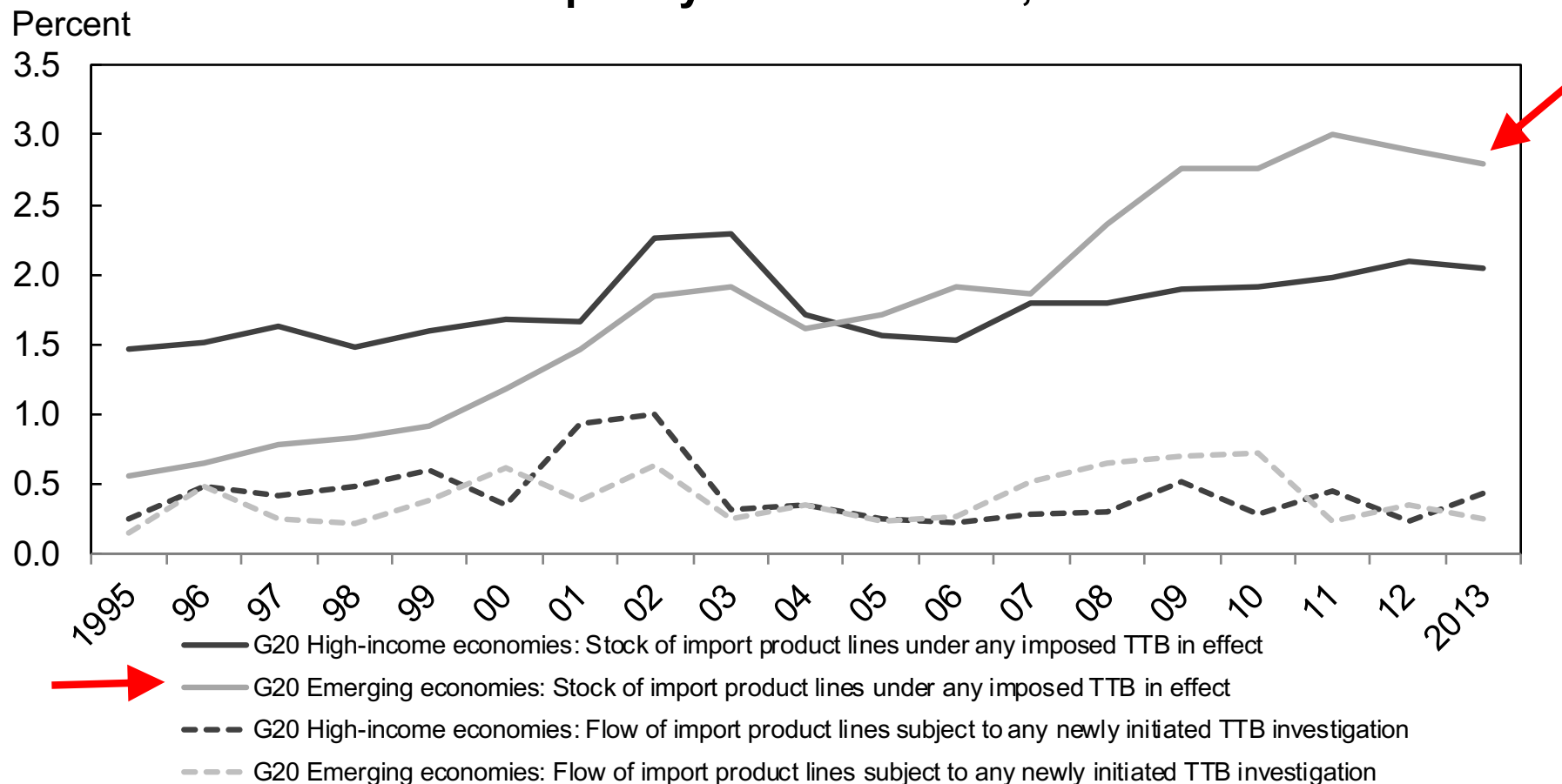
- Somewhat more recently:
- **Newly Initiated Antidumping Investigations, 1Q 2007–3Q 2009**



- *Source: Global Antidumping Database.*

Other NTBs: Temporary Trade Barriers (AD, CVD, etc.)

Use of Temporary Trade Barriers, 1997-2013

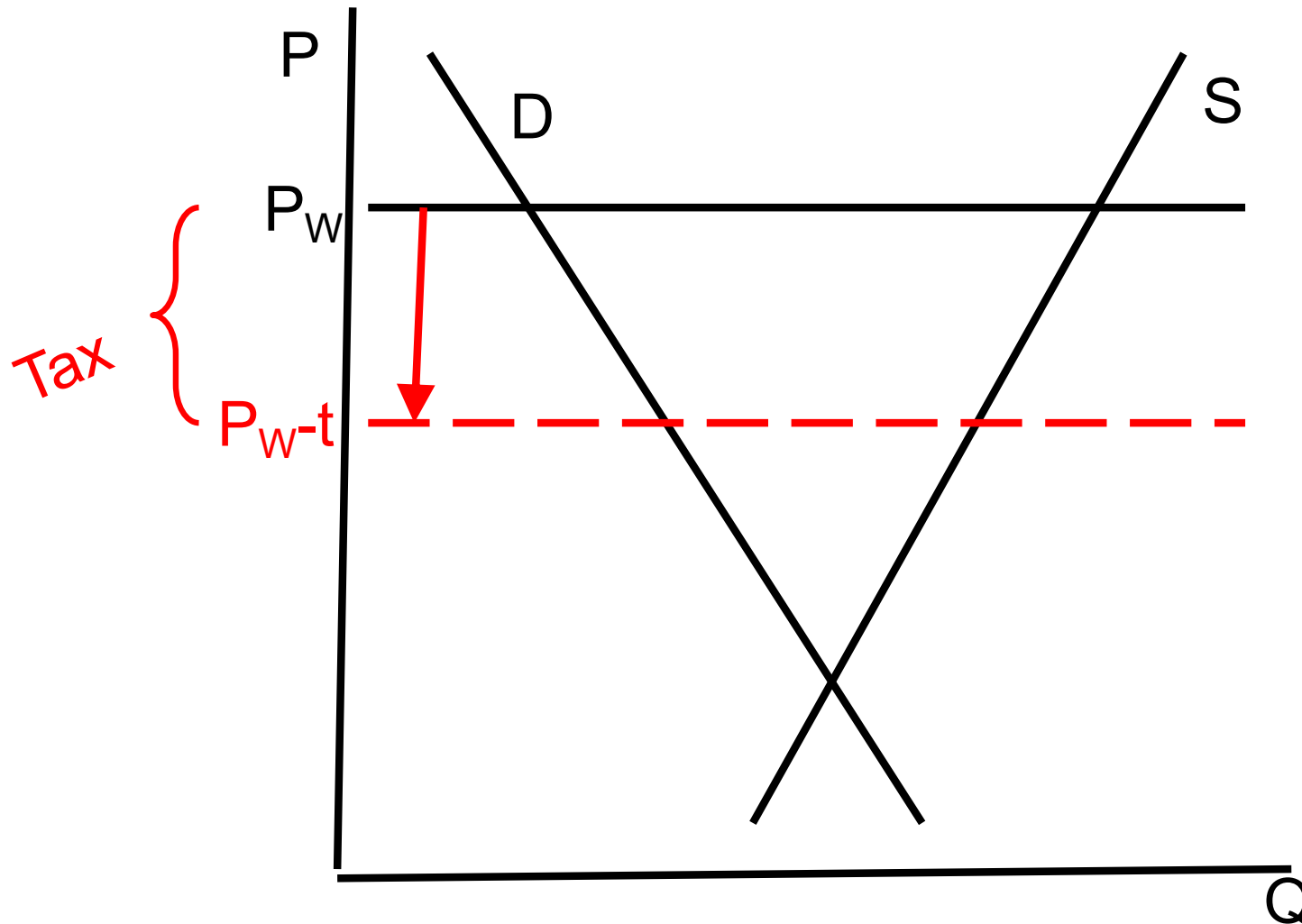


Other NTBs: Export Taxes

- Simply a tax on exports, analogous to tariff on imports
 - Effects are similar
 - Not common, until recently, because countries think exports are good
 - Became common in mid-2008, as high world prices for agriculture led food exporters to protect their own consumers
 - Also used recently by China on certain minerals used in high-tech devices

Other NTBs:

Effects of Export Tax – Small Country



Clicker Question

Which of the following is not a nontariff barrier?

- a) A product standard that is biased against imports
- ✓ b) A tax levied on imported cars but not on domestically produced cars That's a tariff
- c) A requirement that government purchasers give preference to domestic suppliers
- d) A tariff-rate quota
- e) A voluntary export restraint

Clicker Question

Why is an anti-dumping law a nontariff barrier even when it has not been used?

- a) Anti-dumping laws are illegal under the WTO
- b) Anti-dumping laws are financed by taxes on imports
- c) Anti-dumping laws require the use of quotas to restrain dumped imports
- ✓ d) The presence of an anti-dumping law discourages trade out of fear that the law will be used
- e) The US constitution prohibits the use of anti-dumping duties as a restraint of trade

Outline: Nontariff Barriers

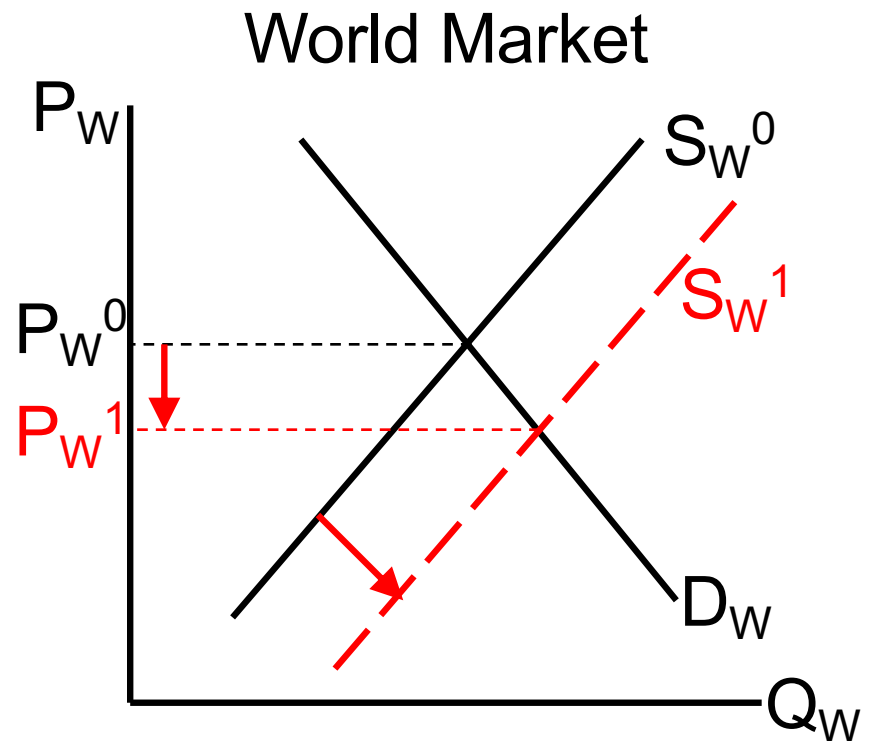
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Subsidies

- Government assistance to producers
 - Export subsidy: paid only for exports
 - Domestic subsidy: paid for all production (but still increases exports or reduces imports)
- Effect on the subsidizing country
 - In competitive industries, country loses
 - Subsidies usually are intended to benefit producers, not country
 - In non-competitive industries, result may be different (recall Boeing-Airbus example)

Effects of a Subsidy on Foreign Countries

- Effect, if subsidizing country is large, is to reduce the world price of the exported good
- Subsidy expands supply in subsidizing country (which is part of S_W^0)

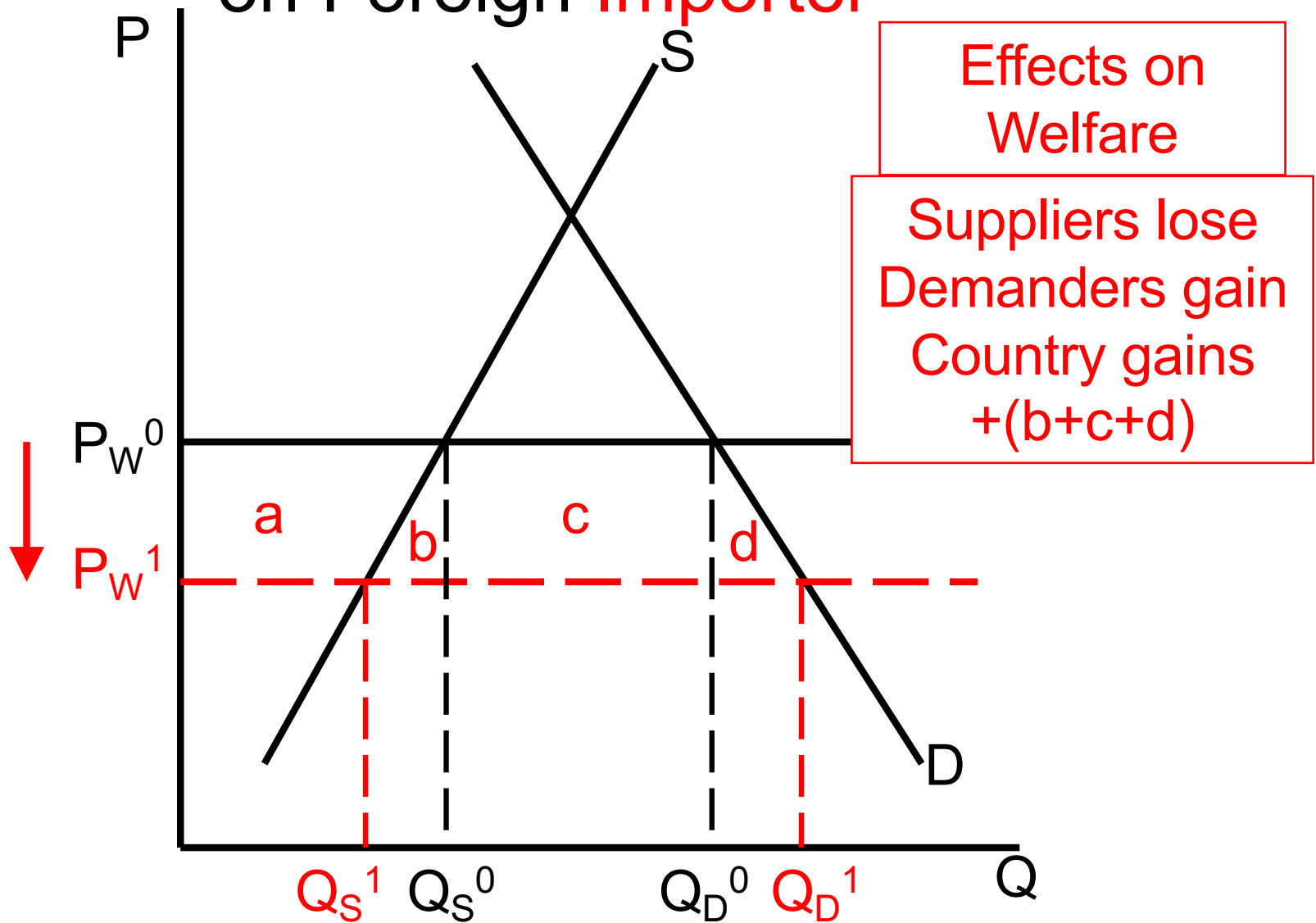


Effects of a Subsidy on Foreign Countries

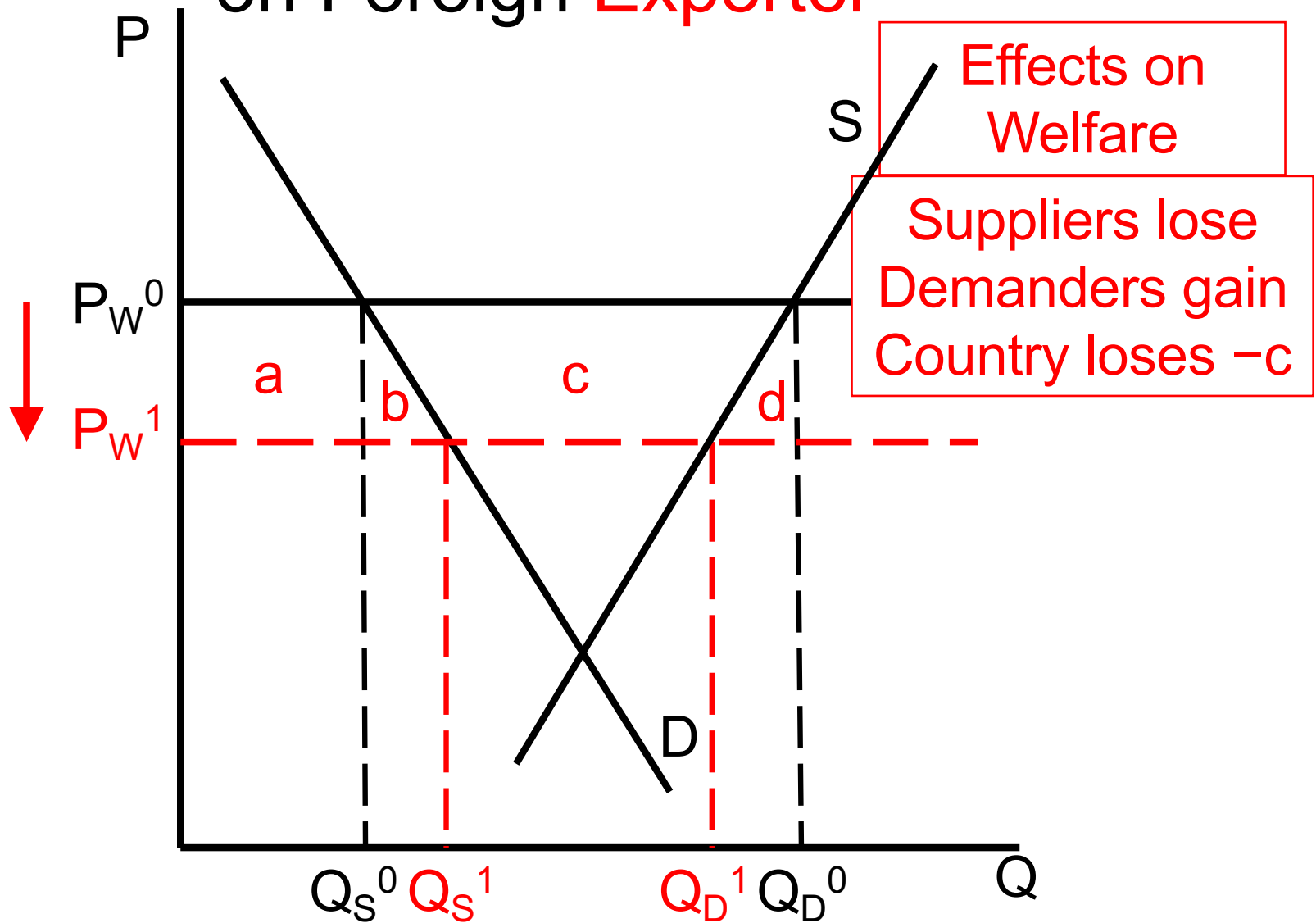
- Effects on other countries depend direction of their trade:
 - If they import the good, they gain
 - If they export the good, they lose

See this in the following figures...

Effects of Export Subsidy: on Foreign **Importer**



Effects of Export Subsidy: on Foreign Exporter



Effects of a Subsidy on Foreign Countries

- In both cases
 - Foreign suppliers lose
 - Foreign demanders gain
 - Net effect on countries depends on
 - Whether they are net importers or exporters
 - Thus whether price change is improvement or worsening of their terms of trade
- Optimal policy response for foreign countries
 - Importers: Write “thank-you note” (Krugman)
 - Exporters: Not much they can do

Subsidies: Are They Used?

- YES!!
- US, EU, Japan all have large subsidies on many agricultural products
- These reduce world prices and hurt producers of these products in developing countries
- Examples of US subsidies and whom they hurt:
 - Corn: Mexico
 - Sugar: Caribbean countries
 - Cotton: Certain African countries

Clicker Question

Who within a net-importing country loses from a foreign subsidy?

- a) Nobody; that's why Krugman says to write a thank-you note
- b) Domestic demanders
- ✓ c) Domestic suppliers
- d) The domestic government

Next Time

- Reasons for Protection

If tariffs are such a bad idea, why are they used?