ESCP EUROPE

BUSINESS SCHOOL

Chapter 4: Trade Policy

International Economics

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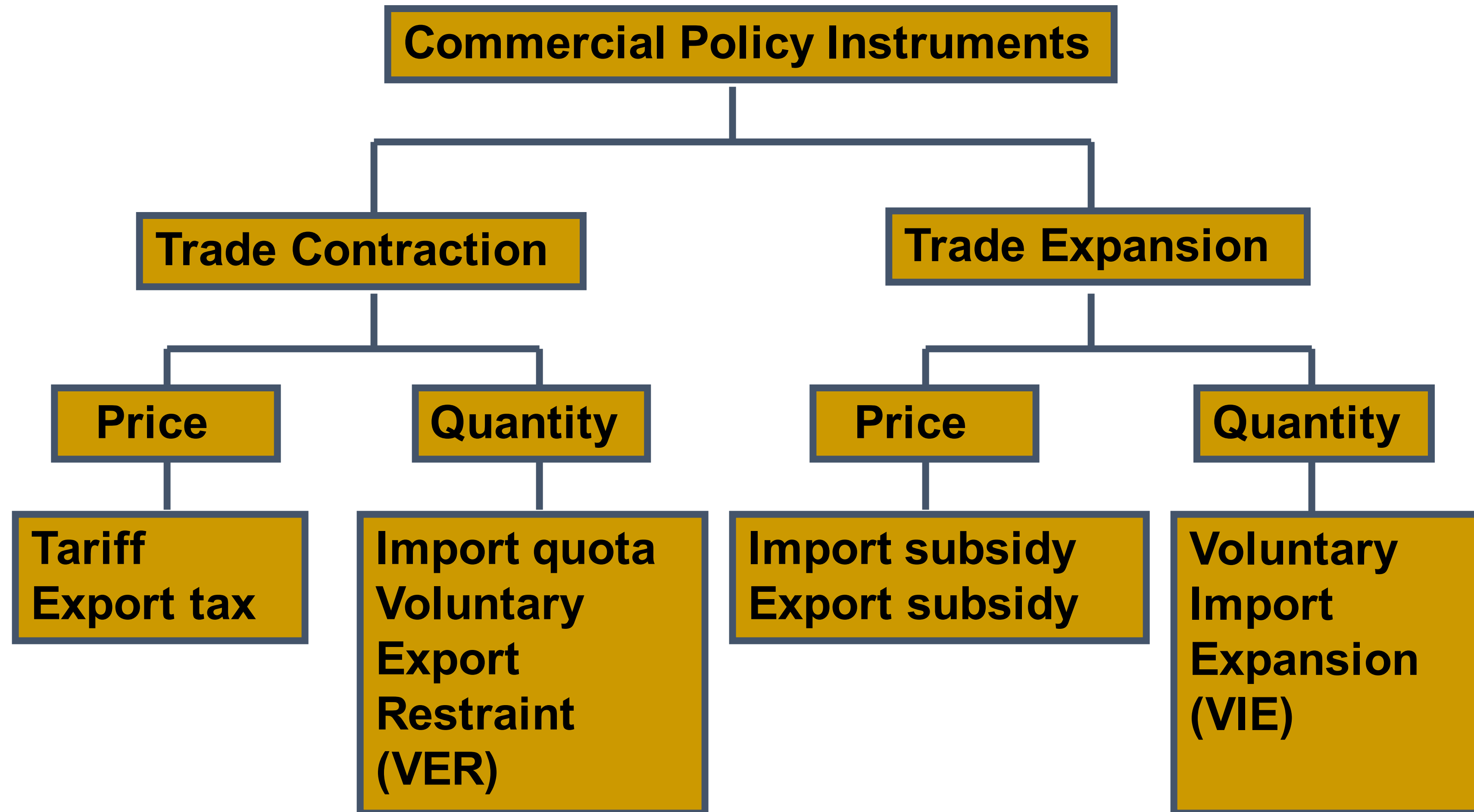
Outline

- Classification of trade policies
- Tariffs
- Other instruments of trade policy
  - Import quotas
  - Export subsidies
  - Voluntary export restraints
  - Local content requirement
  - …
- Why countries undertake trade policies?
- National welfare argument against free trade
  - Improving terms of trade
  - The domestic market failure
- The case of free trade
- Political economy of protectionism

Classification of Commercial Policy Instruments



Basic Tariff Analysis

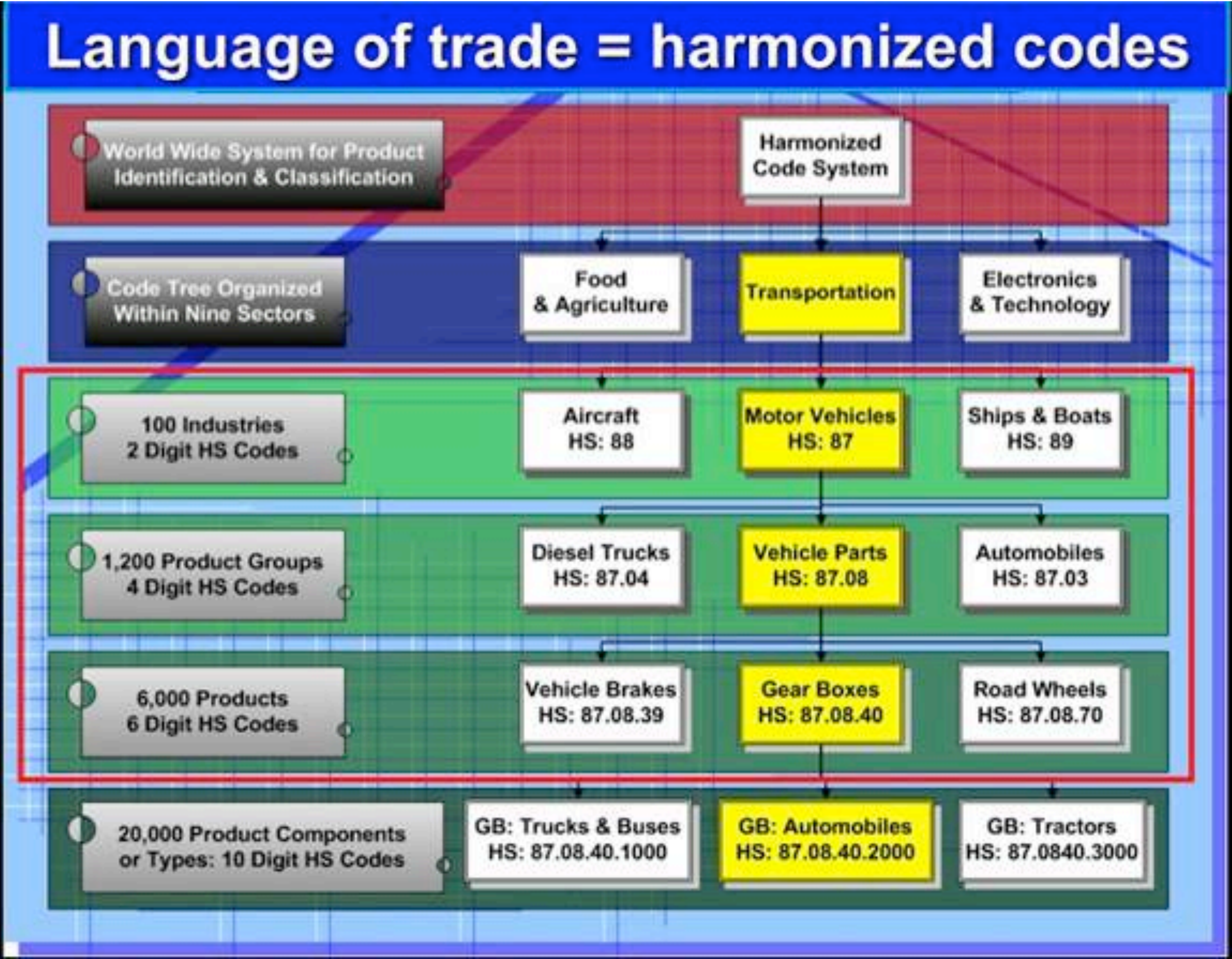
- Tariffs can be classified as:
  - **Specific tariffs**
    - Taxes that are levied as a fixed charge for each unit of goods imported
      - Ex: A specific tariff of $10 on each imported bicycle with an international price of $100 means that customs officials collect the fixed sum of $10.
      - Ex: 0.05 cent per kg of imported corn in the US

- **Ad valorem tariffs**
  - Taxes that are levied as a fraction of the value of the imported goods
    - Ex: A 20% ad valorem tariff on bicycles generates a $20 payment on each $100 imported bicycle
    - Ex: 35% on automobile imports in Brazil

- **A compound duty (tariff)**
  - is a combination of an ad valorem and a specific tariff.

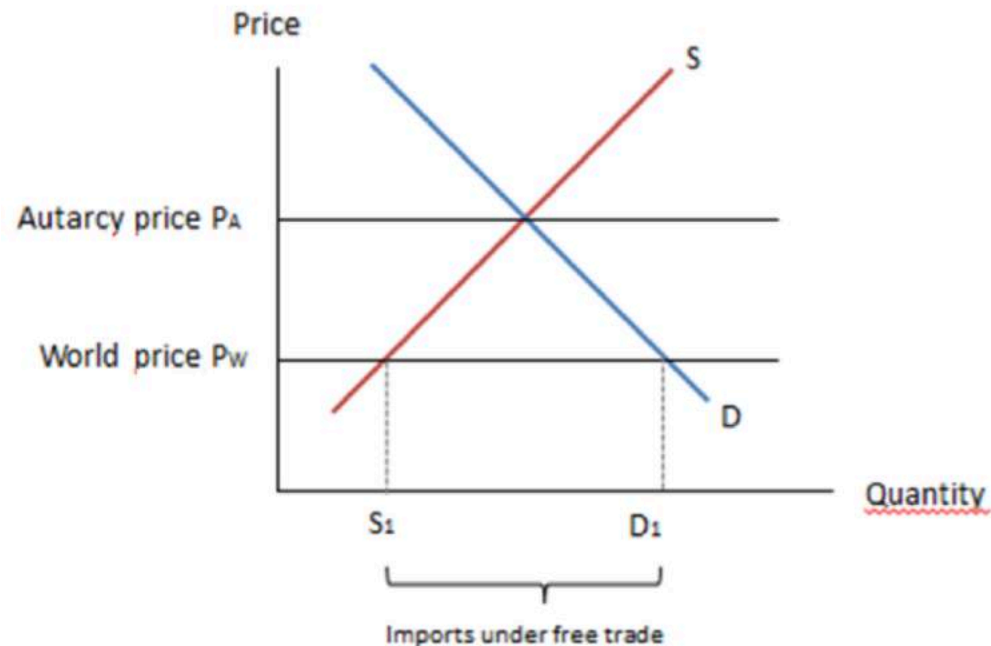
Average tariffs are low but there are tariff « peaks » on some goods, especially agricultural and food products

Harmonized tariff classification (Harmonized System)

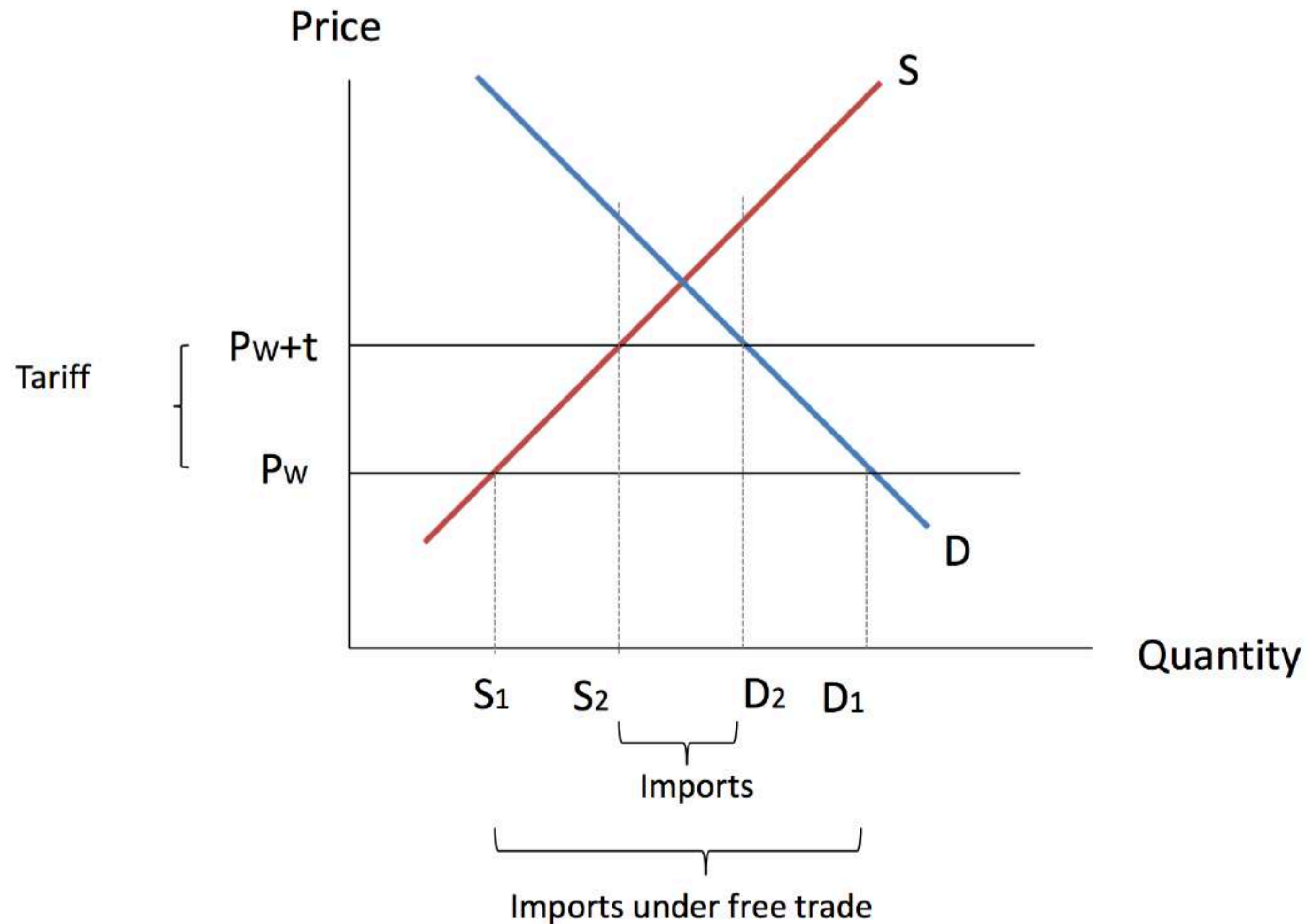


A simplified model

- 1 good seen from the perspective of the importing country
- World prices are given by global demand and global supply
- Local supply and local demand determine the volume of imports or exports

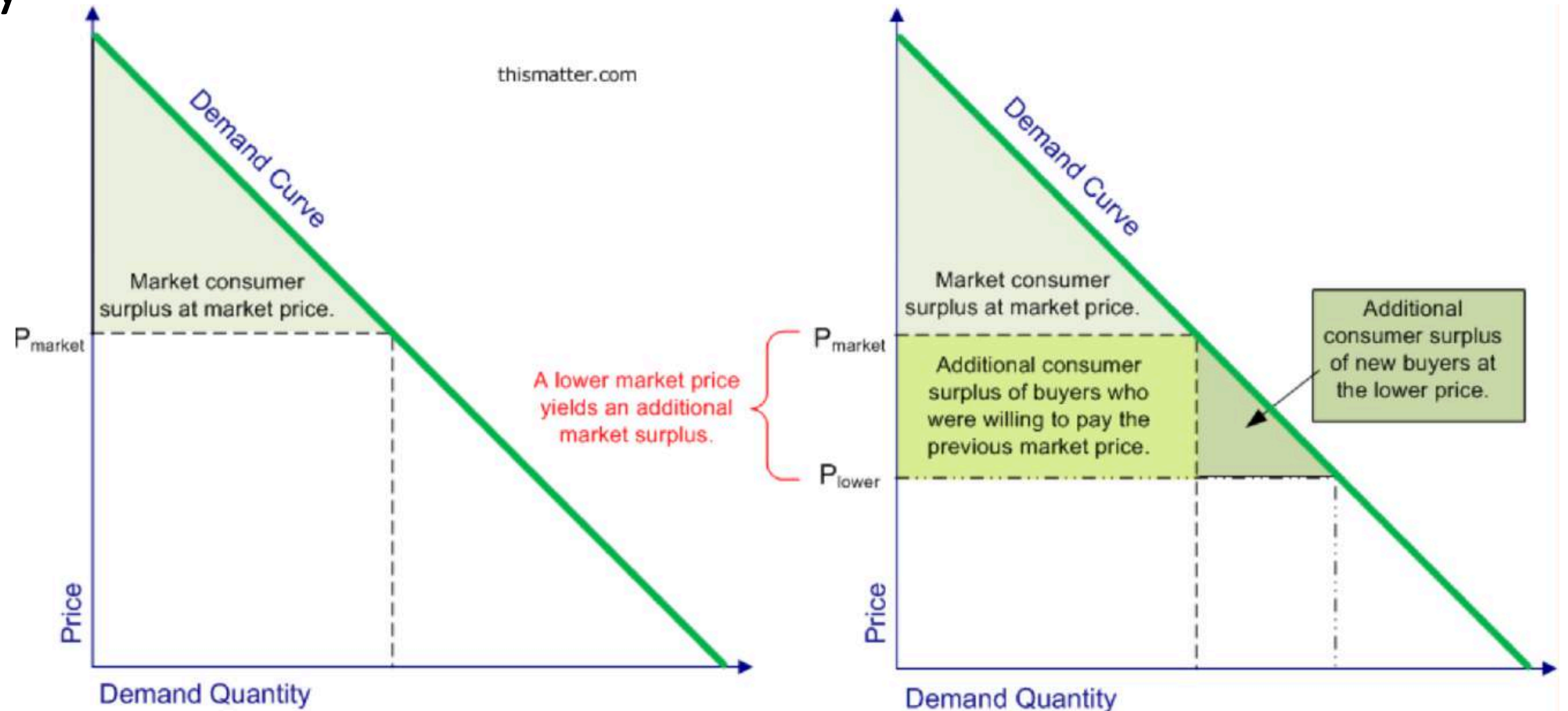


Impact of a tariff in a small country



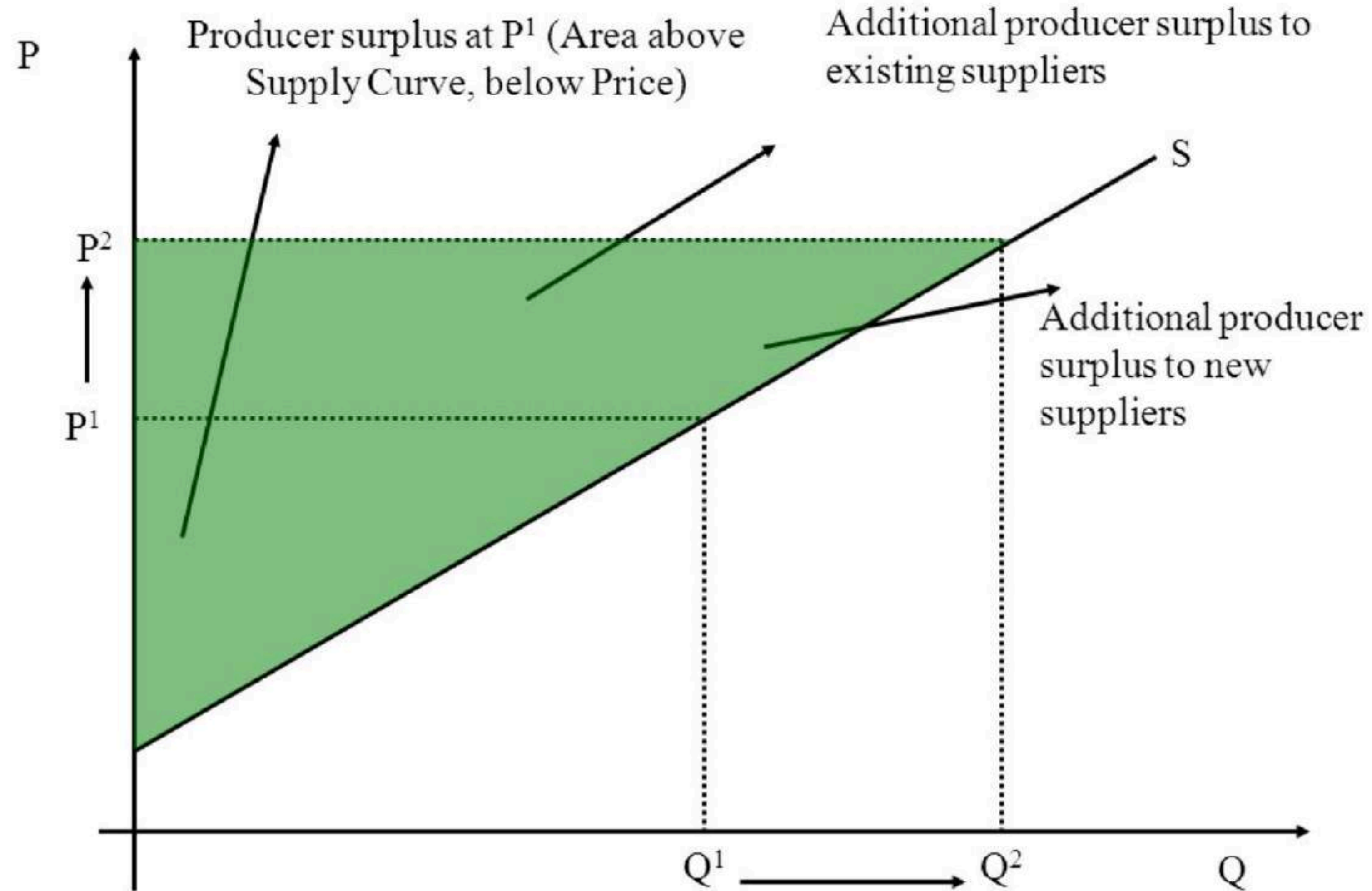
Consumer surplus

- Consumer surplus is the gain from the difference between the price effectively paid and the highest price the consumer would have been willing to pay

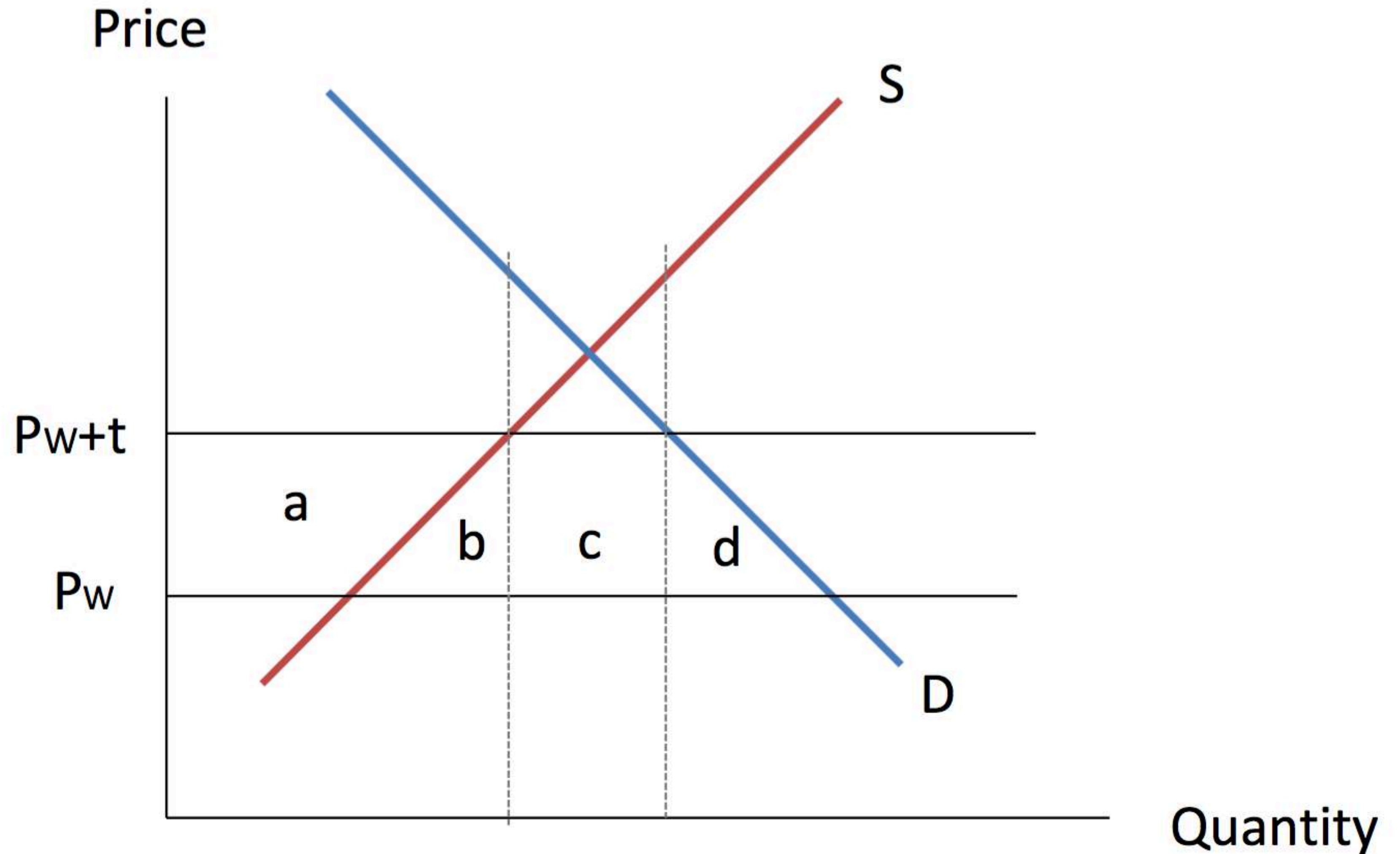


Producer surplus

- Producer surplus is the gain from the difference between the price received and the and the lowest price at which the firm would have been willing to sell

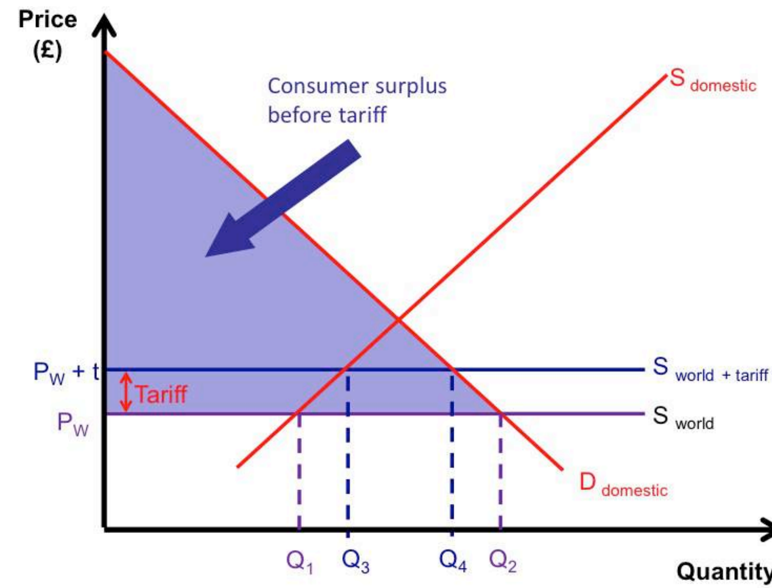


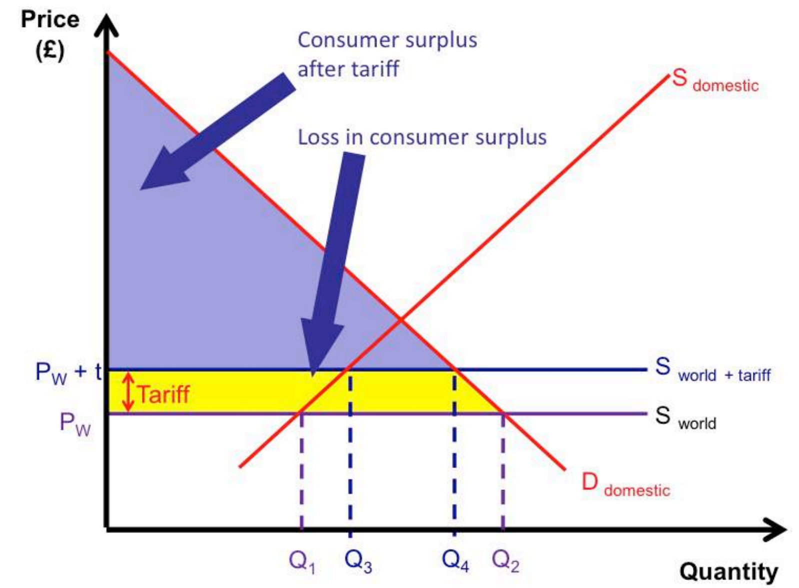
Costs and benefits of a tariff (for a small country)

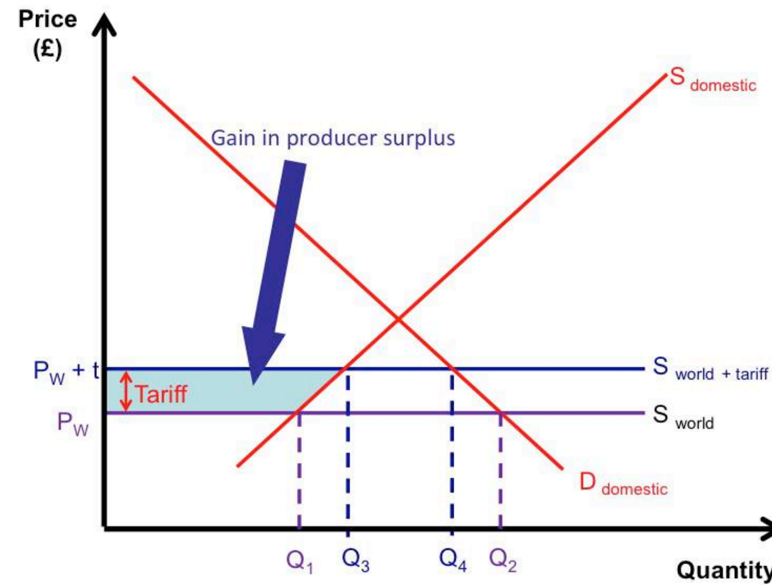


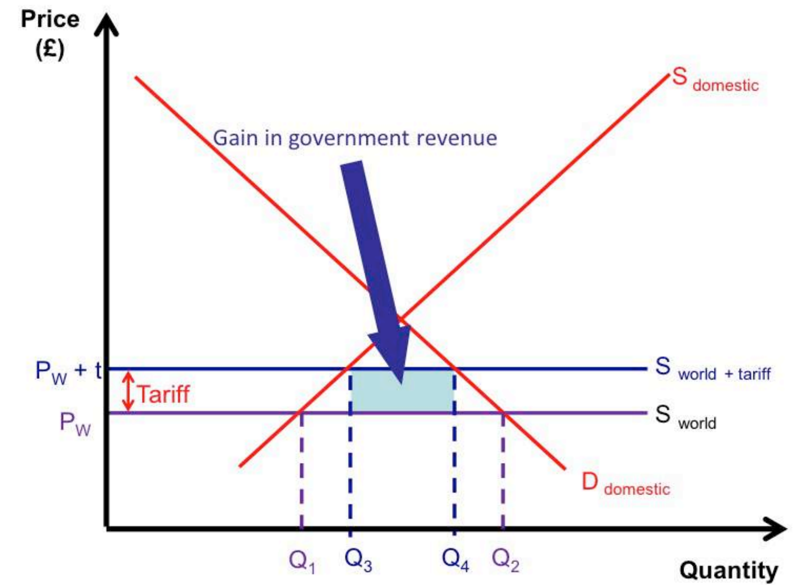
Gain for producer: a
Loss for consumer: a+b+c+d
Fiscal revenue: c

In short:







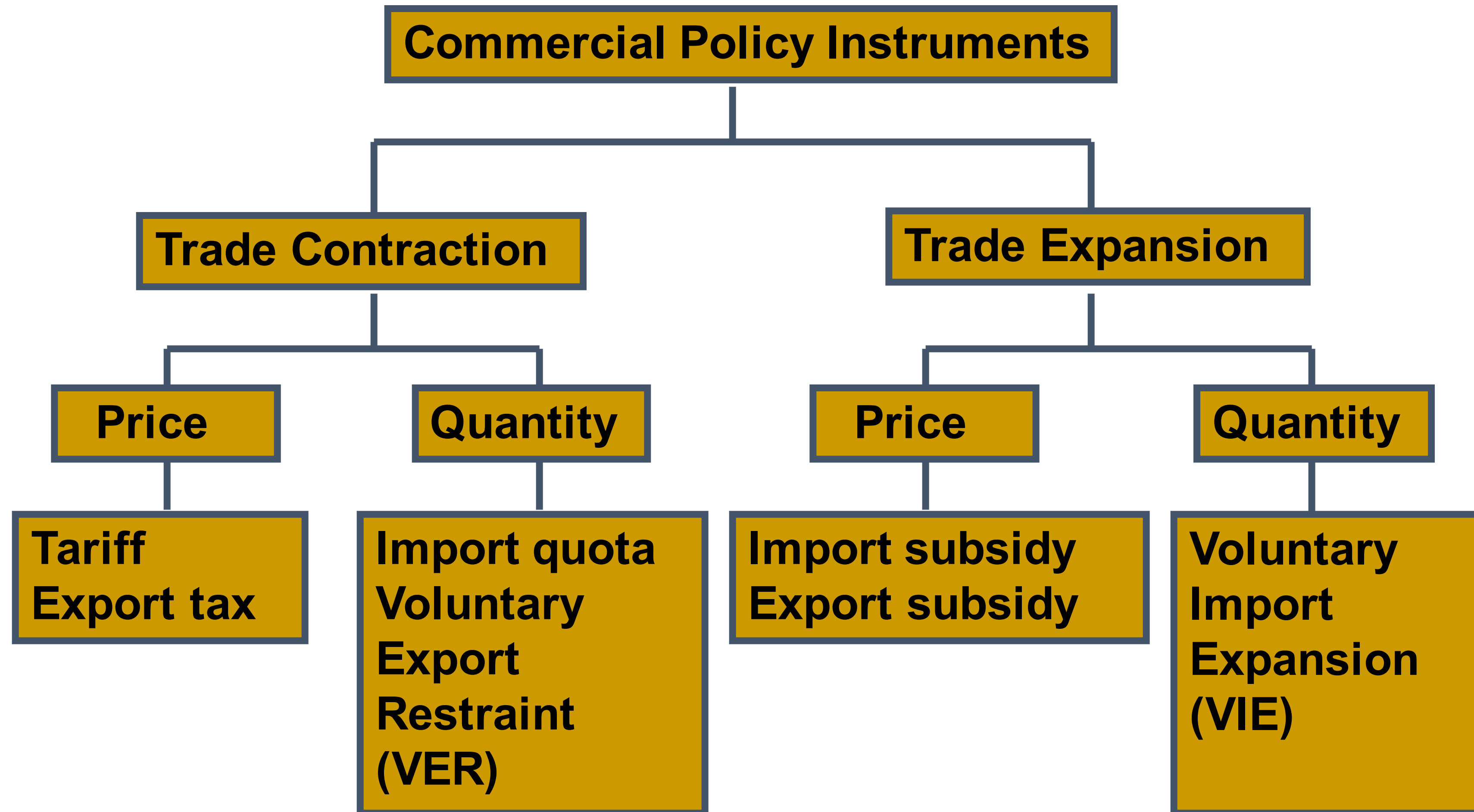


Check out: https://www.youtube.com/watch?v=zhD--UeRiOI

Other Instruments of Trade Policy

- Modern governments usually prefer to protect domestic industries through a variety of nontariff barriers, such as:
  - **Import quotas**
    - Limit the quantity of imports
  - **Export restraints**
    - Limit the quantity of exports
  - …

Classification of Commercial Policy Instruments



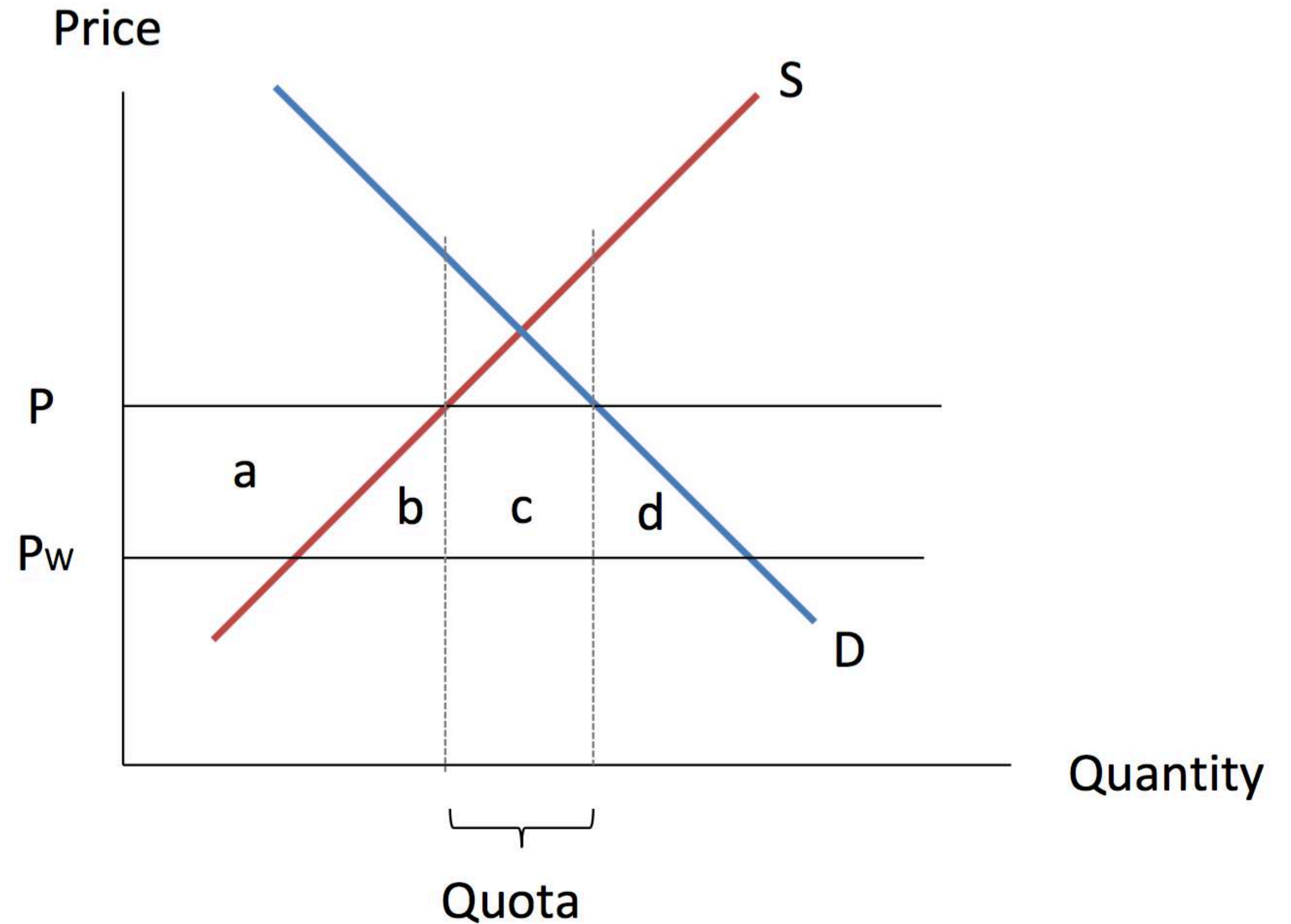
Import Quotas

- An import quota is a direct restriction on the quantity of a good that is imported.
- It is a legal limit on how much of a product can be imported, along with the granting of import or **export licenses**
- The tariff equivalent of a quota is the tariff that would result in the same import quantity
- An import quota is always worse for the importing country that its equivalent tariff
- In practice often taking the form of tariff rate quotas: one tariff rate applies up to a certain volume, another (much higher) once the quota is reached
- <u>Example</u>: The United States has a quota on imports of foreign cheese.

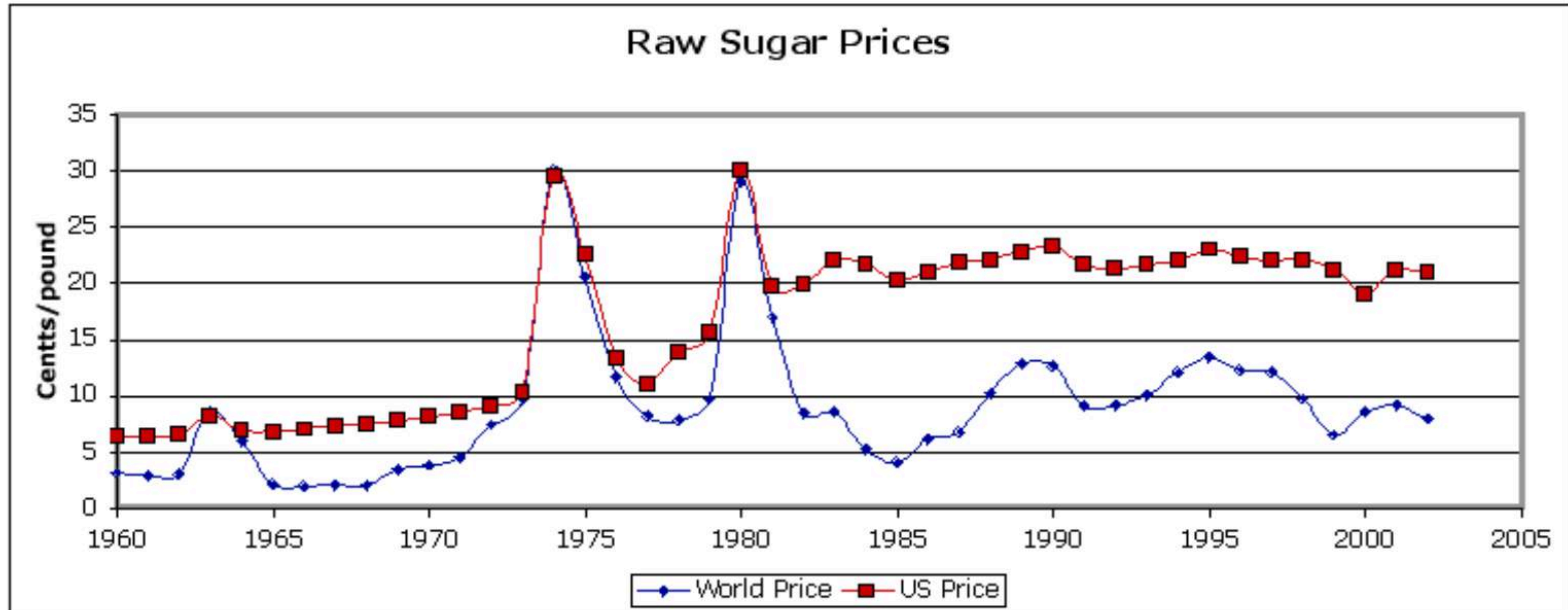
- The restriction is usually enforced by issuing licenses to some group of individuals or firms.
- Ex.: The only firms allowed to import cheese are certain trading companies.
- In some cases (e.g. sugar and apparel), the right to sell in the United States is given directly to the governments of exporting countries.
- An import quota always raises the domestic price of the imported good.
- License holders are able to buy imports and resell them at a higher price in the domestic market.
- The profits received by the holders of import licenses are known as **quota rents**.

Import quota

Gain for producer: a
Loss for consumer: a+b+c+d



US sugar quota



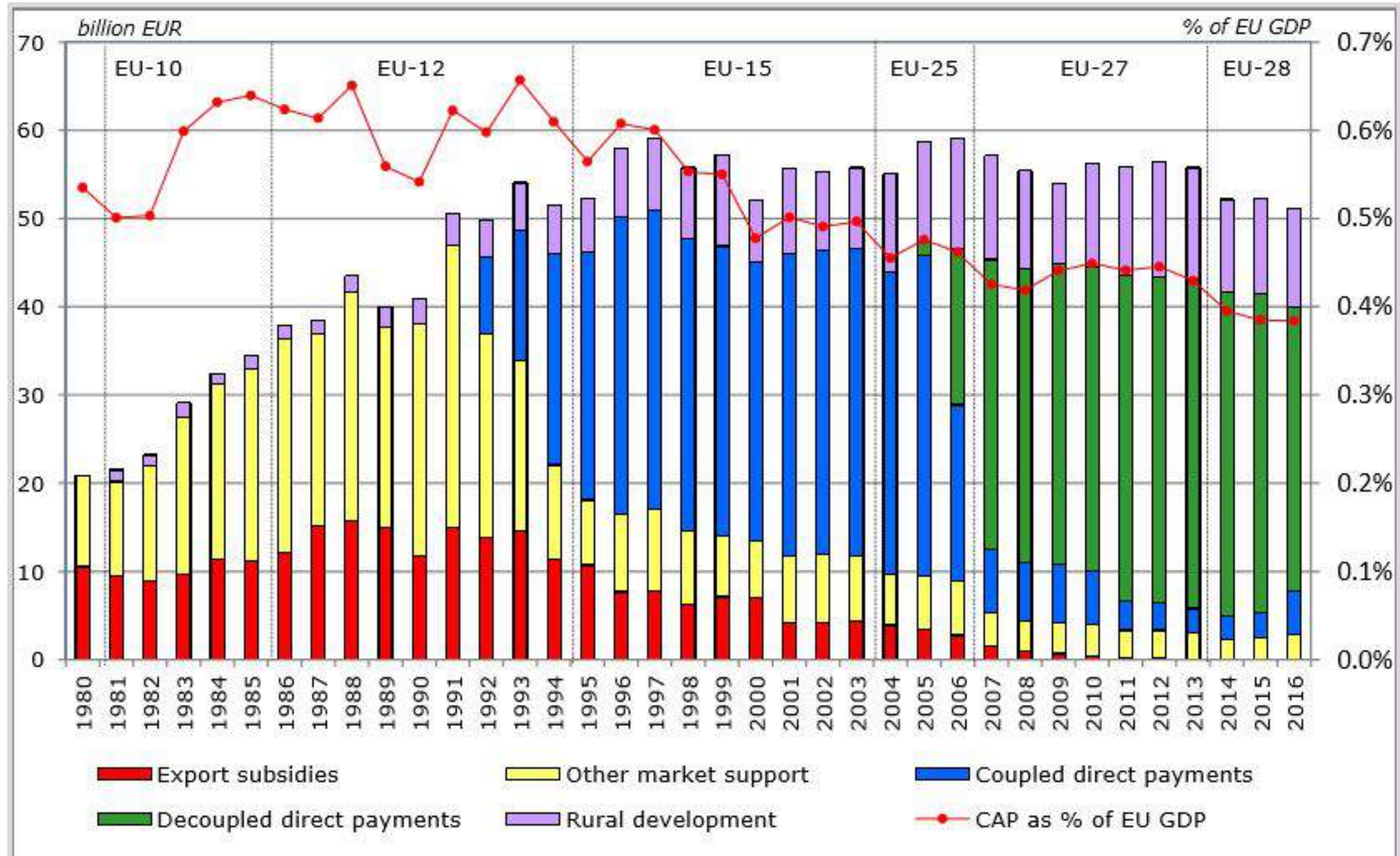
Export Subsidies

- Export subsidies are public support granted to firms that sell abroad (ad valorem or specific)
- A payment by the government to a firm or individual that ships a good abroad
- When the government offers an export subsidy, shippers will export the good up to the point where the domestic price exceeds the foreign price by the amount of the subsidy.
- It can be either specific or ad valorem
- An export subsidy raises prices in the exporting country while lowering them in the importing country

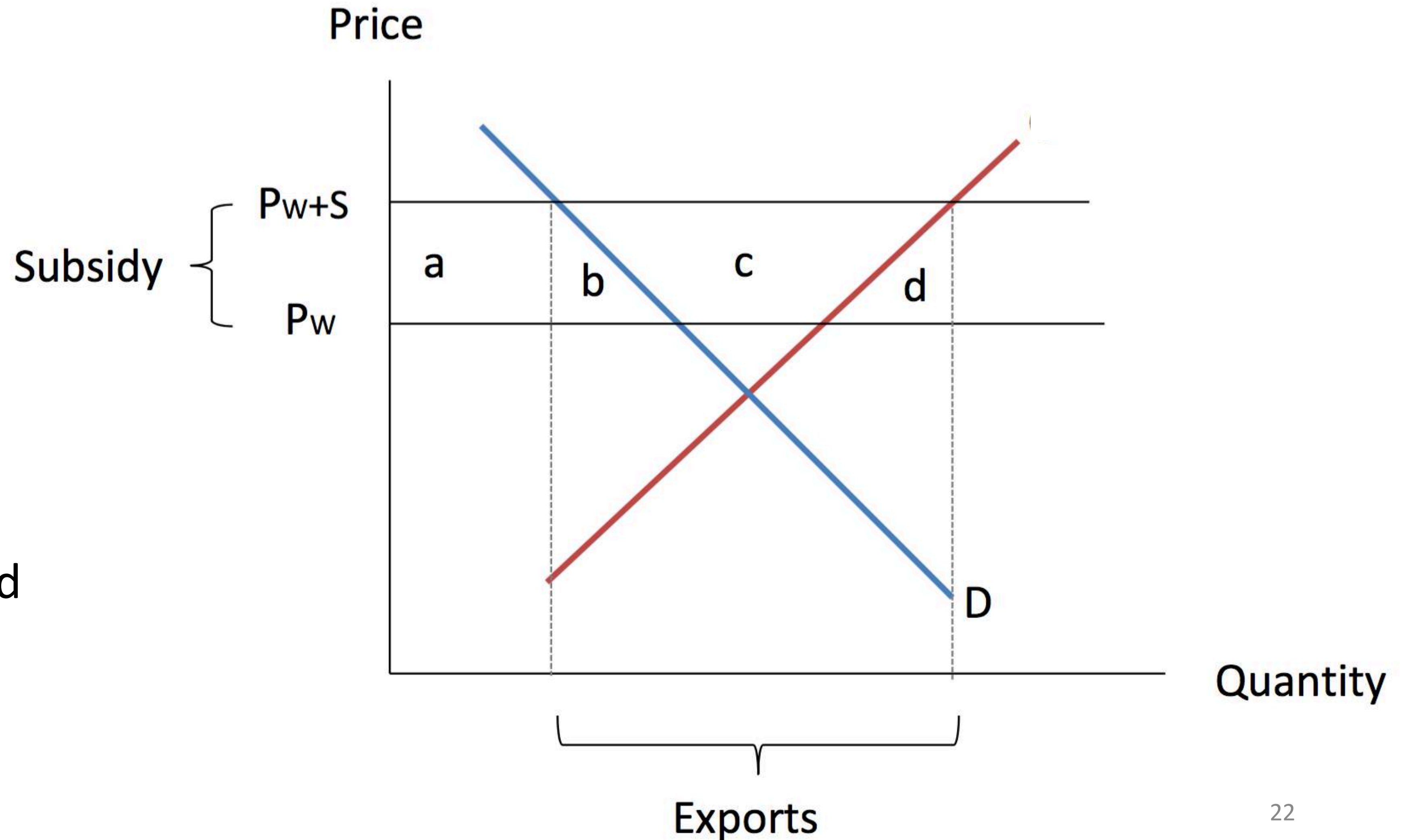
- Consequence: Increase in prices on the domestic market

- They exist almost exclusively in agriculture
  - **Common Agricultural Policy** CAP: cost of € 58 billion in 2013 + cost for consumers
  - Guaranteed prices progressively replaced by direct « decoupled » income support after 2003
  - Export subsidy component of the CAP phased out and eliminated progressively since 2013

CAP expenditure



Export subsidy



Gain for producer: a+b+c
Loss for consumer: a+b
Cost of state subsidy: b+c+d

Voluntary Export Restraints

- A voluntary export restraint (VER) is an export quota administered by the exporting country.
- It is also known as a voluntary restraint agreement (VRA).

- VERs are imposed at the request of the importer and are agreed to by the exporter to stop other trade restrictions.
- A VER is exactly like an import quota where the licenses are assigned to foreign governments and is therefore very costly to the importing country.
- A VER is always more costly to the importing country than a tariff that limits imports by the same amount.

- The tariff equivalent revenue becomes rents earned by foreigners under the VER.
- Example:
  - About 2/3 of the cost to consumers of the three major U.S. voluntary restraints in textiles and apparel, steel, and automobiles is accounted for by the rents earned by foreigners.
  - VER agreement on Japanese cars exported to the US (1981)
  - Solar panels exported to EU (2013)
- A VER produces a loss for the importing country.

Impact of the various instruments

	Tariff	Import quota	Export subsidy	Voluntary export restraint
Producer surplus	Higher	Higher	Higher	Higher
Consumer surplus	Lower	Lower	Lower	Lower
Fiscal balance	Higher	Unchanged	Lower	Unchanged
Domestic welfare	Lower	Lower	Lower	Lower

Local Content Requirements

- A local content requirement is a regulation that requires that some specified fraction of a final good be produced domestically.
- Defined in terms of value added or stages of production

- Example: Brazil in 2011: additional 30% tax on automobiles except if local content (from Mercosur) is at least 65%

- This fraction can be specified in physical units or in value terms.
- Local content laws have been widely used by developing countries trying to shift their manufacturing base from assembly back into intermediate goods.

- Local content laws do not produce either government revenue or quota rents.
- Instead, the difference between the prices of imports and domestic goods gets averaged in the final price and is passed on to consumers.

- <u>Example</u>: Suppose that auto assembly firms are required to use 50% domestic parts. The cost of imported parts is $6000 and the cost of the same parts domestically is $10,000. Then the average cost of parts is $8000 (0.5 x $6000 + 0.5 x $10,000).

- Firms are allowed to satisfy their local content requirement by exporting instead of using parts domestically.

Other Instruments of Trade Policy

- **Export credit subsidies**
  - A form of a subsidized loan to the buyer of exports.
  - They have the same effect as regular export subsidies.

- **National procurement**
  - Purchases by the government (or public firms) can be directed towards domestic goods, even if they are more expensive than imports.

- **Red-tape barriers**
  - Sometimes governments place substantial barriers based on health, safety and customs procedures.

Why do countries undertake active trade policies?

Reasons not to interfere with trade

- What reasons are there for governments **not to interfere with trade**?
  - There are three arguments in favor of free trade:
    - Free trade and efficiency
    - Economies of scale in production
    - Political argument

National Welfare Arguments Against Free Trade

- Activist trade policies can sometimes increase the welfare of the nation as a whole.
- There are two theoretical arguments *against* the policy of free trade:
  - The **terms of trade argument for a tariff**
  - The **domestic market failure**

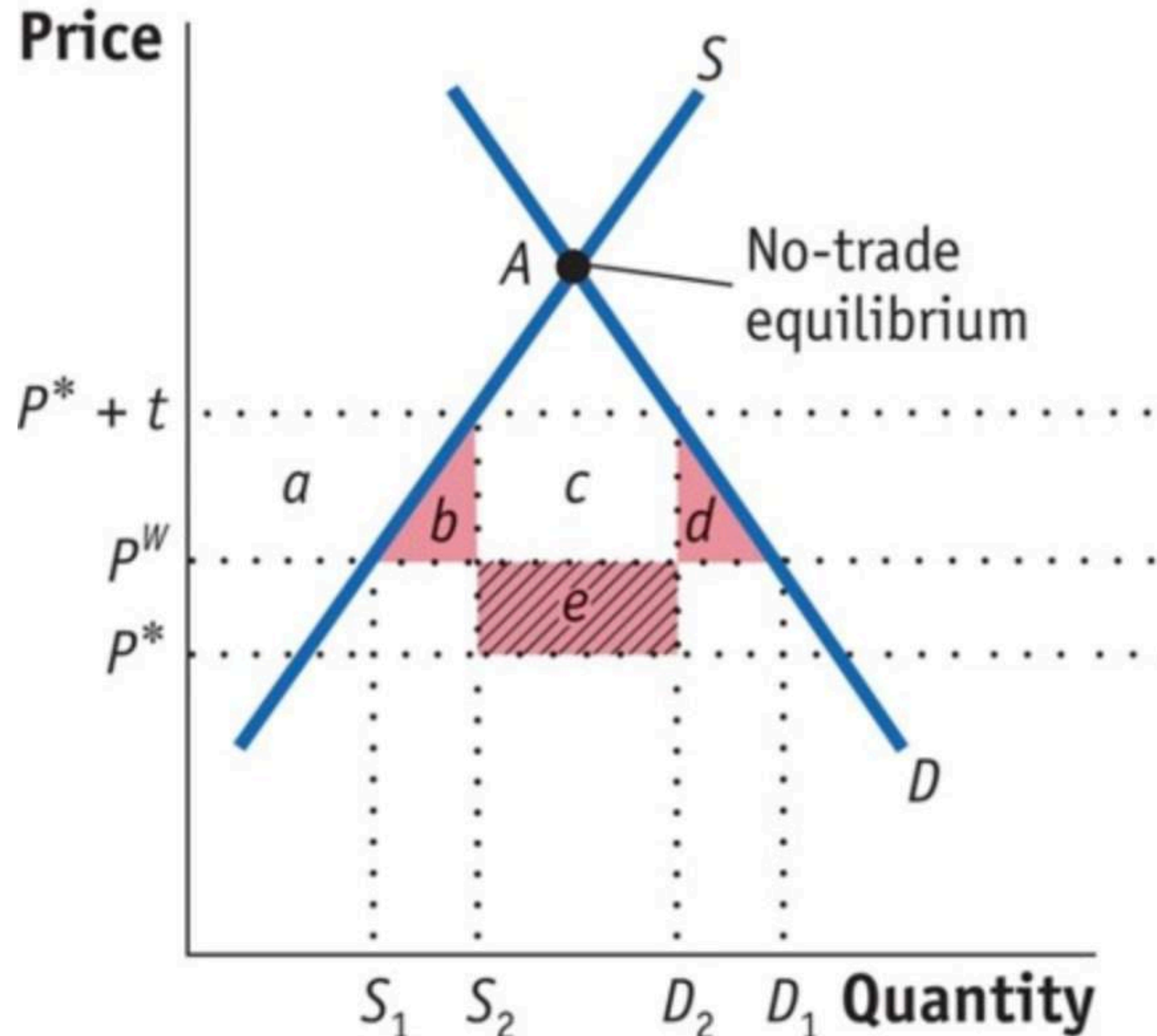
The Terms of Trade Argument for a Tariff:

- For a large country (that is, a country that can affect the world price through trading), a tariff lowers the price of imports and generates a terms of trade benefit
- This benefit must be compared to the costs of the tariff (production and consumption distortions)
- It is possible that the terms of trade benefits of a tariff outweigh its costs.
- Therefore, free trade might not be the best policy for a large country.

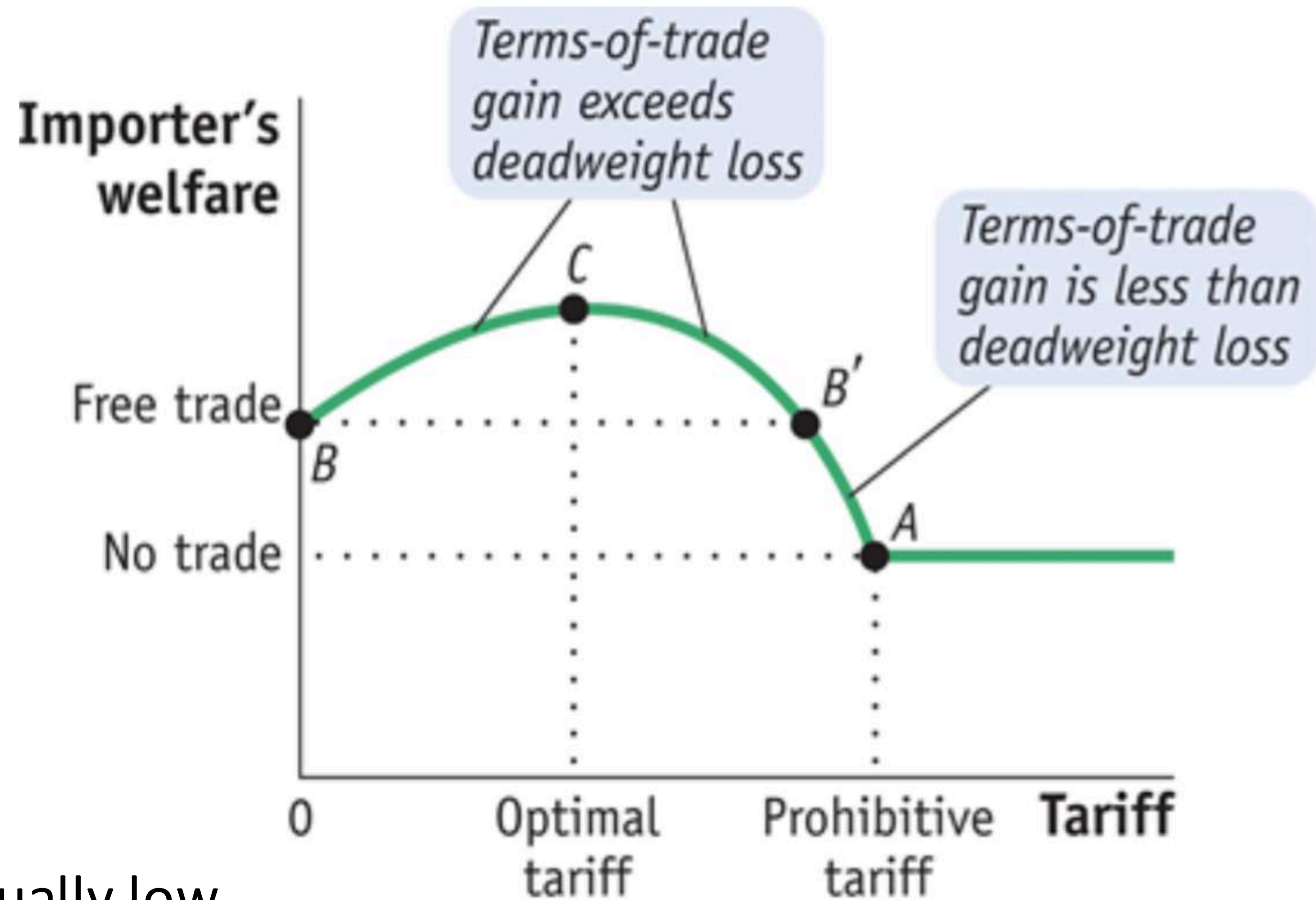
Improving terms of trade

- Countries sufficiently big to influence world prices can use tariffs to improve their terms of trade

- For a « large country », the total effect of a tariff is ambiguous; there is an optimal tariff >0



Optimal tariff for a large country



In practice optimal tariffs are usually low

- **Optimum tariff**
  - The tariff rate that maximizes national welfare
  - It is always positive but less than the prohibitive rate that would eliminate all imports.

National Welfare Arguments Against Free Trade

- What policy would the terms of trade argument dictate for export sectors?
- An export subsidy worsens the terms of trade, and therefore unambiguously reduces national welfare.
- Therefore, the optimal policy in export sectors must be a negative subsidy, that is, a tax on exports.
- Like the optimum tariff, the optimum export tax is always positive but less than the prohibitive tax that would eliminate exports completely.
- The policy of Saudi Arabia and other oil exporters has been to tax their exports of oil, raising the price to the rest of the world

- The terms of trade argument against free trade has some important **limitations**, however:
- Most small countries have very little ability to affect the world prices of either their imports or other exports, so that the terms of trade argument is of little practical importance.
- For big countries like the United States, the problem is that the terms of trade argument amounts to an argument for using national monopoly power to extract gains at other countries' expense
- The United States could surely do this to some extent, but such a predatory policy would probably bring retaliation from other large countries. A cycle of retaliatory trade moves would, in turn, undermine the attempts at international trade policy coordination

The Domestic Market Failure Argument Against Free Trade

- Producer and consumer surplus do not properly measure social costs and benefits.
- Consumer and producer surplus ignore domestic market failures such as:
  - Unemployment or underemployment of labor
  - Technological spillovers from industries that are new or particularly innovative
  - Environmental externalities
- A tariff may raise welfare if there is a marginal social benefit to production of additional goods that is not captured by producer surplus measures.

How Convincing Is the Market Failure Argument?

- The are two basic arguments in defense of free trade in the presence of domestic distortions:
  - Domestic distortions should be corrected with domestic (as opposed to international trade) policies.
    - Example: A domestic production subsidy is superior to a tariff in dealing with a production-related market failure.
  - Market failures are hard to diagnose and measure.
    - Example: A tariff to protect urban industrial sectors will generate social benefits, but it will also encourage migration to these sectors that will result in higher unemployment.

Tariff vs. quota

- A tariff might raise welfare, despite the production and consumption distortion it causes, because it leads to additional production that yields social benefits.

- If the same production increase were achieved via a production subsidy rather than a tariff, however, the price to consumers would not increase and the consumption loss would be avoided.

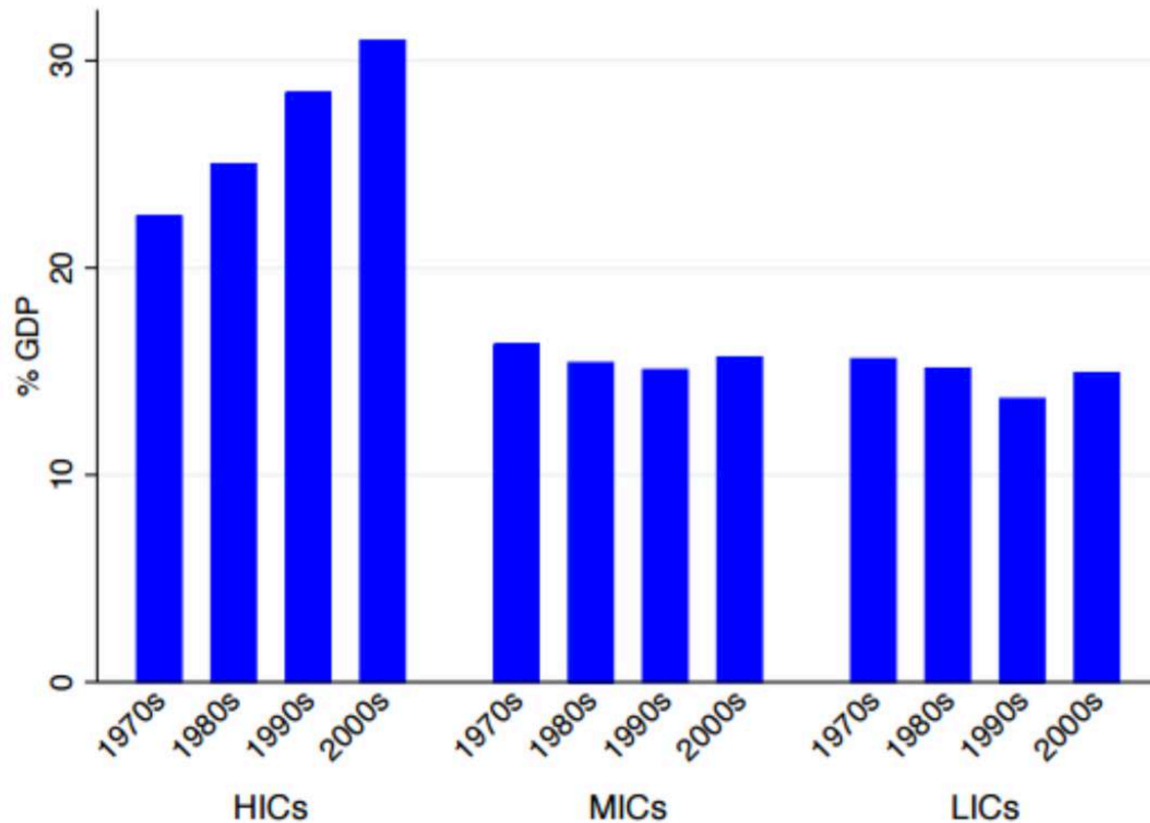
- In other words, by targeting directly the particular activity we want to encourage, a production subsidy would avoid some of the side costs associated with a tariff.

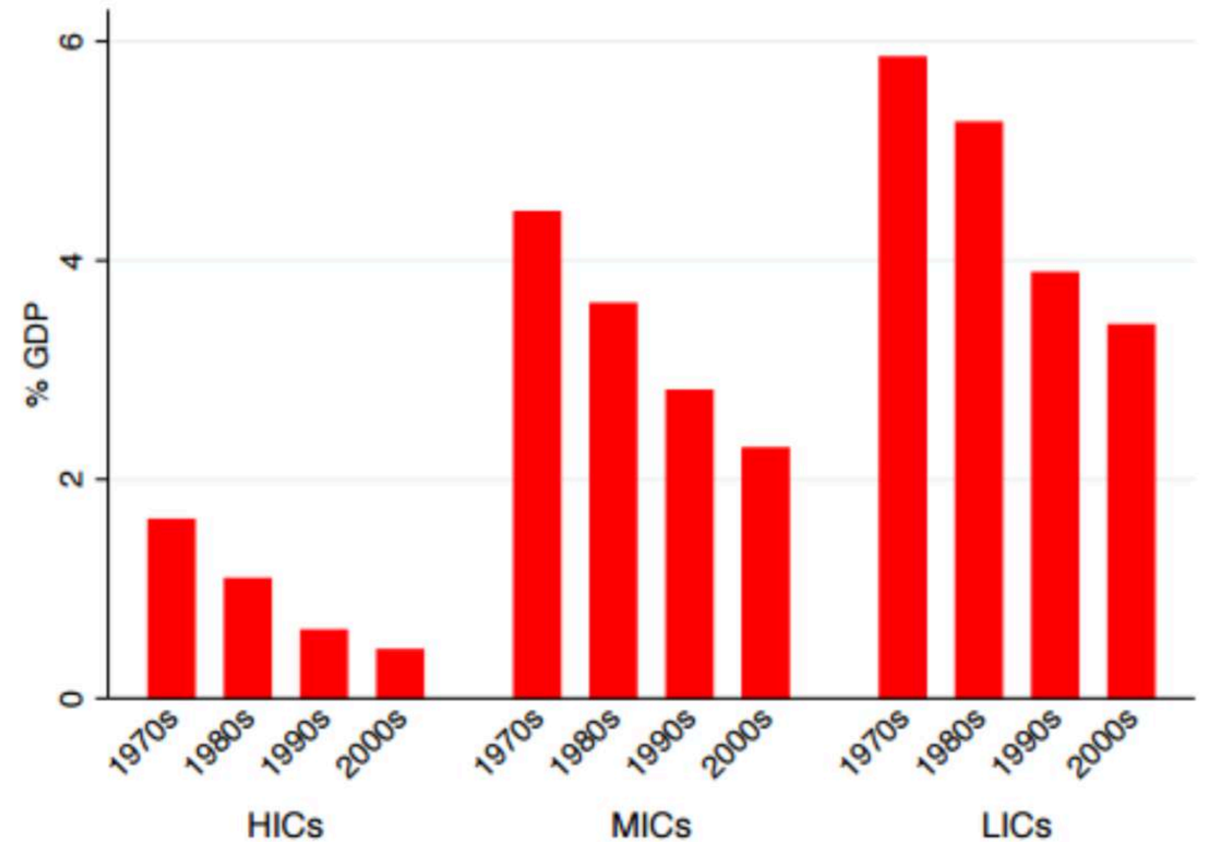
- It is always preferable to deal with market failures as directly as possible, because indirect policy responses lead to unintended distortions of incentives elsewhere in the economy

- Any proposed trade policy should always be compared with a purely domestic policy aimed at correcting the same problem. If the domestic policy appears too costly or has undesirable side effects, the trade policy is almost surely even less desirable-—even though the costs are less apparent

- In the United States, for example, an import quota on automobiles has been supported on the grounds that it is necessary to save the jobs of autoworkers. The advocates of an import quota argue that U.S. labor markets are too inflexible for autoworkers to remain employed either by cutting their wages or by finding jobs in other sectors.
- Now consider a purely domestic policy aimed at the same problem: a subsidy to firms that employ autoworkers. Such a policy would encounter massive political opposition. For one thing, to preserve current levels of employment without protection would require large subsidy payments, which would either increase the federal government budget deficit or require a tax increase.
- Furthermore, autoworkers are among the highest-paid workers in the manufacturing sector; the general public would surely object to subsidizing them. It is hard to believe an employment subsidy for autoworkers could pass Congress. Yet an import quota would be even more expensive, because while bringing about the same increase in employment, it would also distort consumer choice. The only difference is that the costs would be less visible, taking the form of higher automobile prices rather than direct government outlays.

Financing state budgets





Source: Cagé and Gadenne (2014)

Strategic trade policy

- A strategic trade policy is designed to influence firms' strategic decisions on an oligopolistic world market.
- Example: to enter or not to enter a new market?

		Airbus	
		Enters	**Does not enter**
Boeing	Enters	**-5, -5**	**50, 0**
	Does not enter	**0, 50**	**0, 0**

- "First mover advantage" if there are no subsidies

Sources: Brander and Spencer (1985); Krugman (1995)

- Suppose Europe commits to granting a subsidy of 10 to Airbus if the firms enters the market.

		Airbus	
		Enters	Does not enter
Boeing	Enters	**-5, 5**	**50, 0**
	Does not enter	**0, 60**	**0, 0**

The Case for Free Trade

- Few countries have anything approaching completely free trade. The city of Hong Kong, which is legally part of China but maintains a separate economic policy, may be the only modern economy with no tariffs or import quotas.
- Nonetheless, since the time of Adam Smith economists have advocated free trade as an ideal toward which trade policy should strive.
- At one level, theoretical models suggest that free trade will avoid the efficiency losses associated with protection. Many economists believe that free trade produces additional gains beyond the elimination of production and consumption distortions.

Political economy of protectionism

- Protectionist policies create winners and losers
  - Concentrated gains and dispersed losses → The collective action problem (M. Olson)
  - Remember the US sugar quota...
- Lobbying and campaign financing by special interest groups: «protection for sale »
- Examples
  - Agriculture: EU (CAP), Japan (tariff on rice up to 1000%), USA
  - Textile: Multifiber Arrangement until 2005, then gradual lifting of barriers

Summing up

- Tariffs are just one of many tools for protecting domestic markets
- Barriers to free trade generally lead to an overall welfare loss and strong distributive effects
- There can be welfare gains in some cases: influencing world markets, competitive head start, correcting market imperfections
- Where redistribution is the goal, trade policy is usually not the best tool... A general principle is to minimize distance between objective and means!