

Trade Protection

Trade Protection

Trade protection: Government intervention in international trade through the imposition of trade restrictions (or barriers) to prevent the free entry of imports into a country and protect the domestic economy from foreign competition.

Trading freely with economies may, in the short run, lead to lower revenues for domestic firms and possibly involve shutting down domestic industries in the long run that are less efficient than their foreign counterparts → unemployment and lower economic growth in the domestic economy.



Purpose: protect the domestic economy, particularly domestic firms and their workers, from foreign competition.

Types of Trade Protection

- 1. Tariffs
- 2. Quotas
- 3. Subsidies
 - 3.1 Production subsidies
 - 3.2 Export subsidies
- 4. Administrative barriers



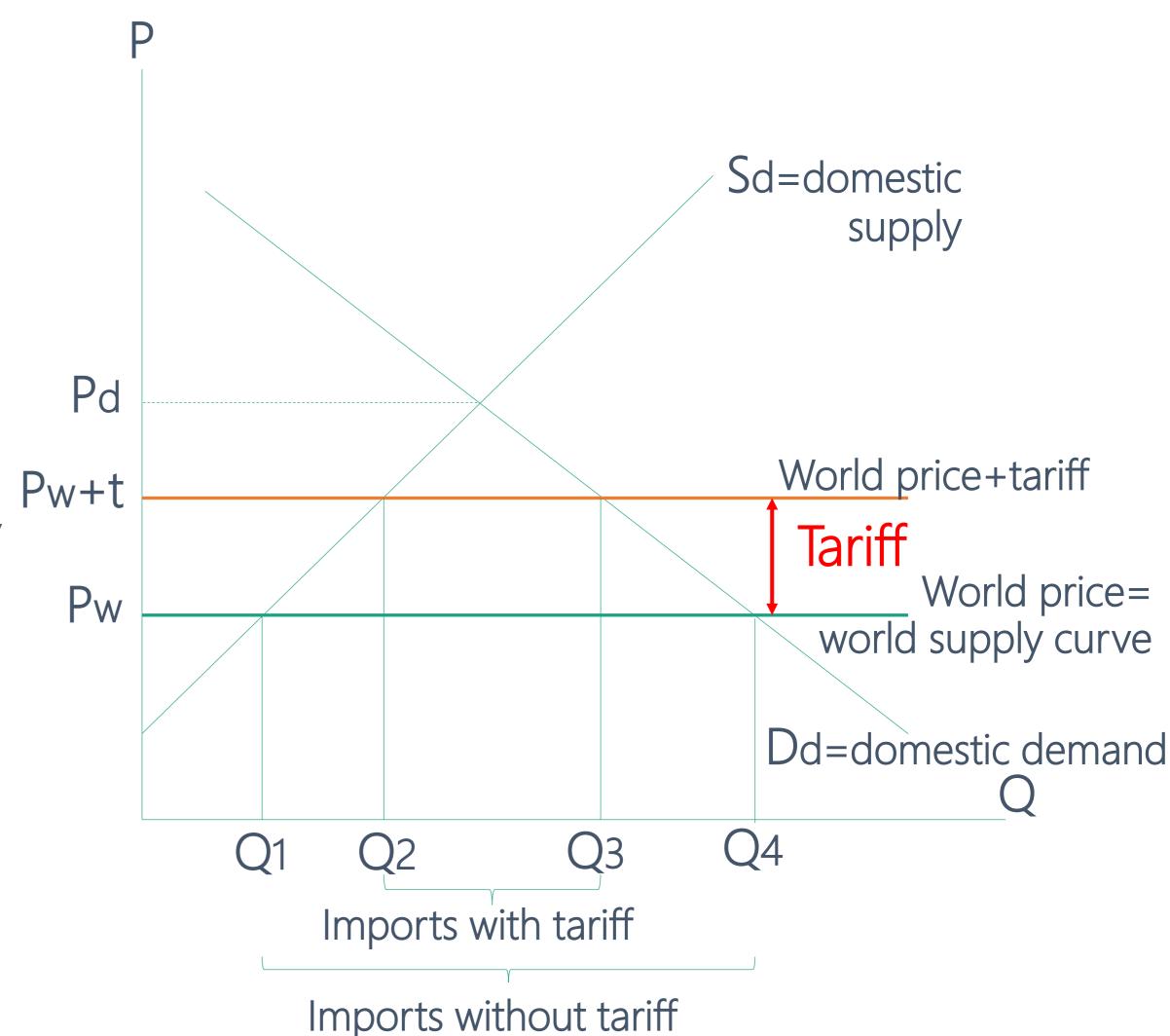
1. Tariffs

Tariffs, also known as 'customs duties', are **taxes on imported goods**, they are the most common form of trade restriction.

- Tariffs may serve two purposes:
 - to protect a domestic industry from foreign competition (a protective tariff);
 or
 - to raise revenue for the government (a revenue tariff).



- Under free trade, the country accepts the world price Pw (lower than Pd) comparative disadvantage in this good.
- Qd=Q4, Qs=Q1, excess demand, import Q4-Q1
- A tariff is imposed on the imported good, the price of this imported good increase to Pw+t, causing the domestic price of the good to rise above the world price by the amount of the tariff.
- At Pw+t, domestic quantity supplied increases from Q1 to Q2, domestic quantity demanded falls to Q3, the quantity of imports falls to Q3-Q2.



Welfare effects

Before the imposition of tariff

- Consumer surplus: a+b+c+e+f+g
- Producer surplus: d
- Social surplus: a+b+c+d+e+f+g

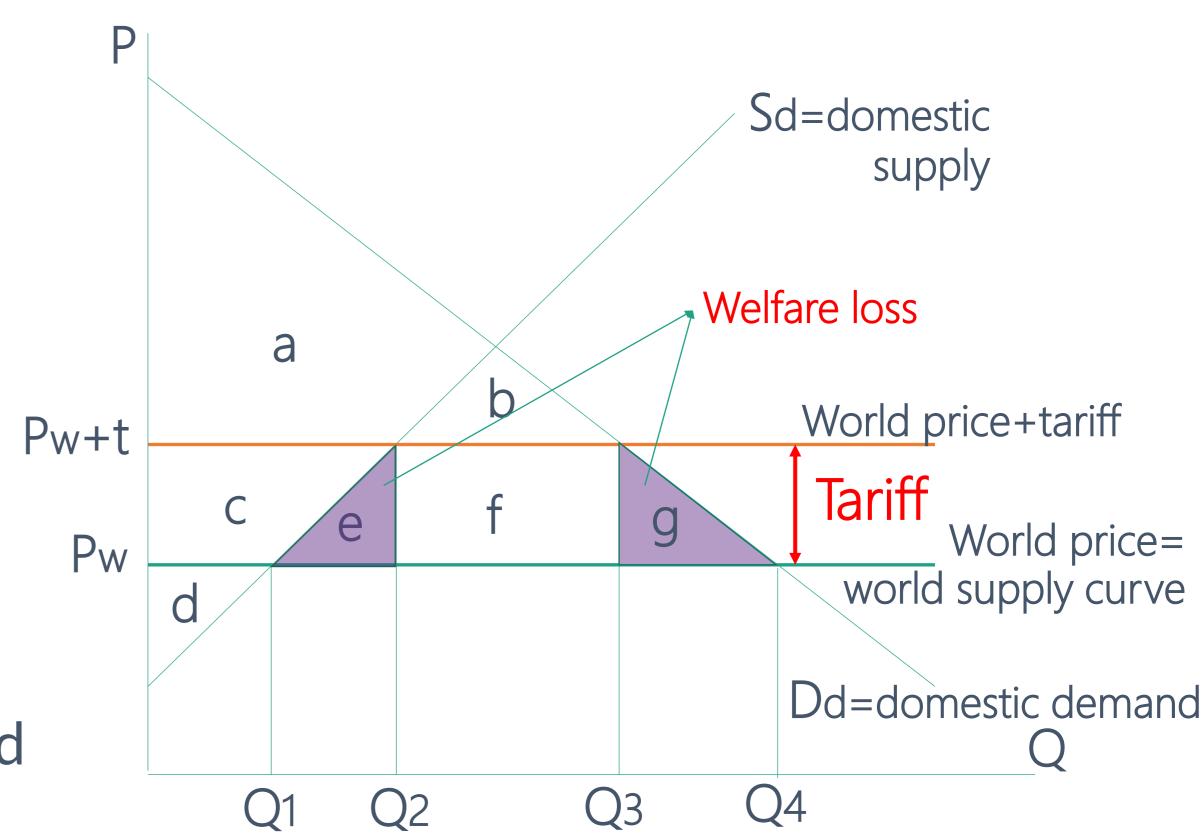
After the imposition of tariff

- Consumer surplus: a+b
- Producer surplus: c+d
- Government revenue: f
- Social surplus: a+b+c+d+f

Welfare loss:

$$=(a+b+c+d+e+f+g)-(a+b+c+e+g)=e+g$$

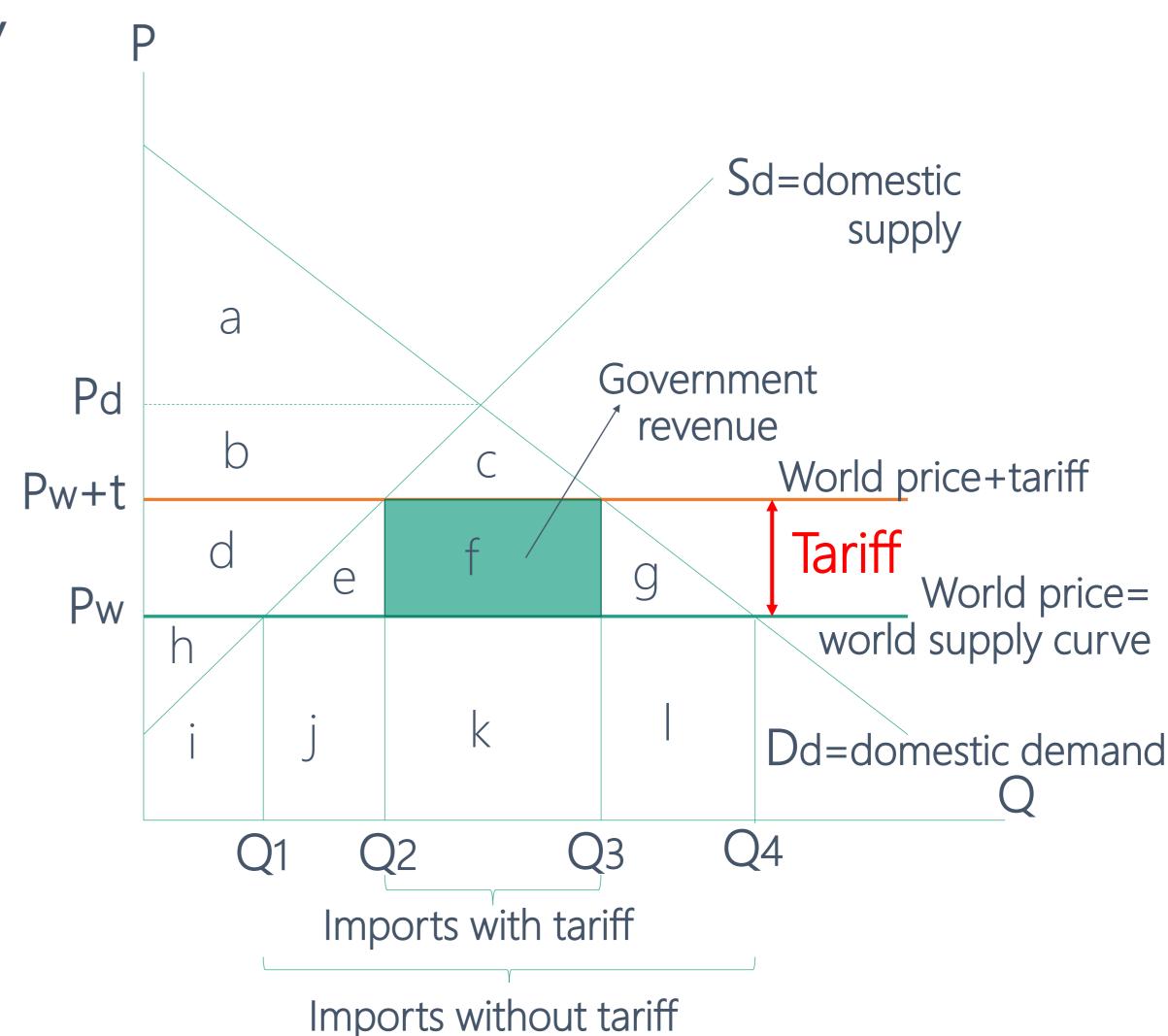
→ misallocation of resources caused by increased production by inefficient producers (area e) and decreased consumption of consumers (area g)



Effects of tariffs: winners

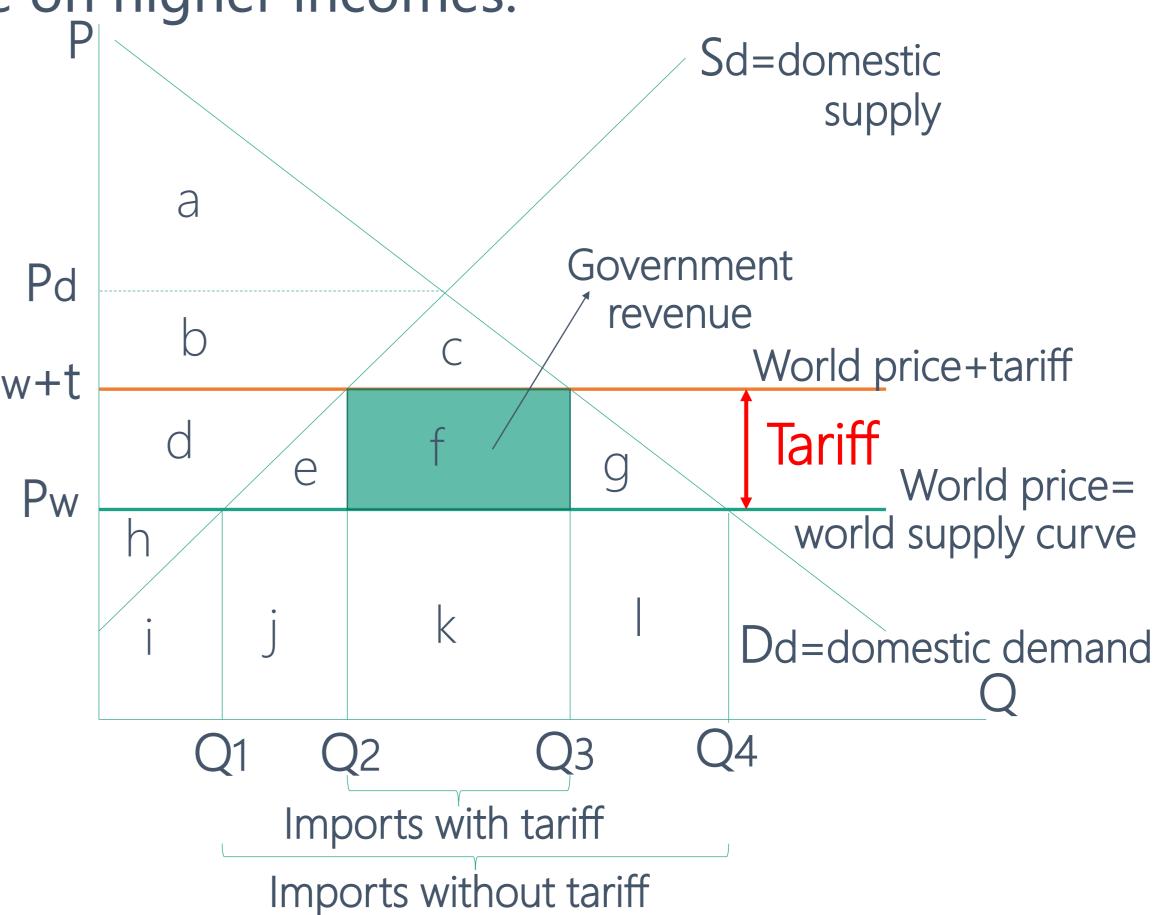
- Domestic producers in the protected industry receive a higher price Pw+t, sell a larger quantity, Q2 (rather than Q1).
 - Producer revenue: from h+i → d+e+h+i+j
 - Producer surplus: from h →h+d
- Domestic employment in the protected industry increases. (Quantities of production increased from Q1 to Q2)
- Government gains tariff revenues by the shaded area. (Tariff * the quantity of imports)

 income that is transferred from consumers to the government. (gain area f)

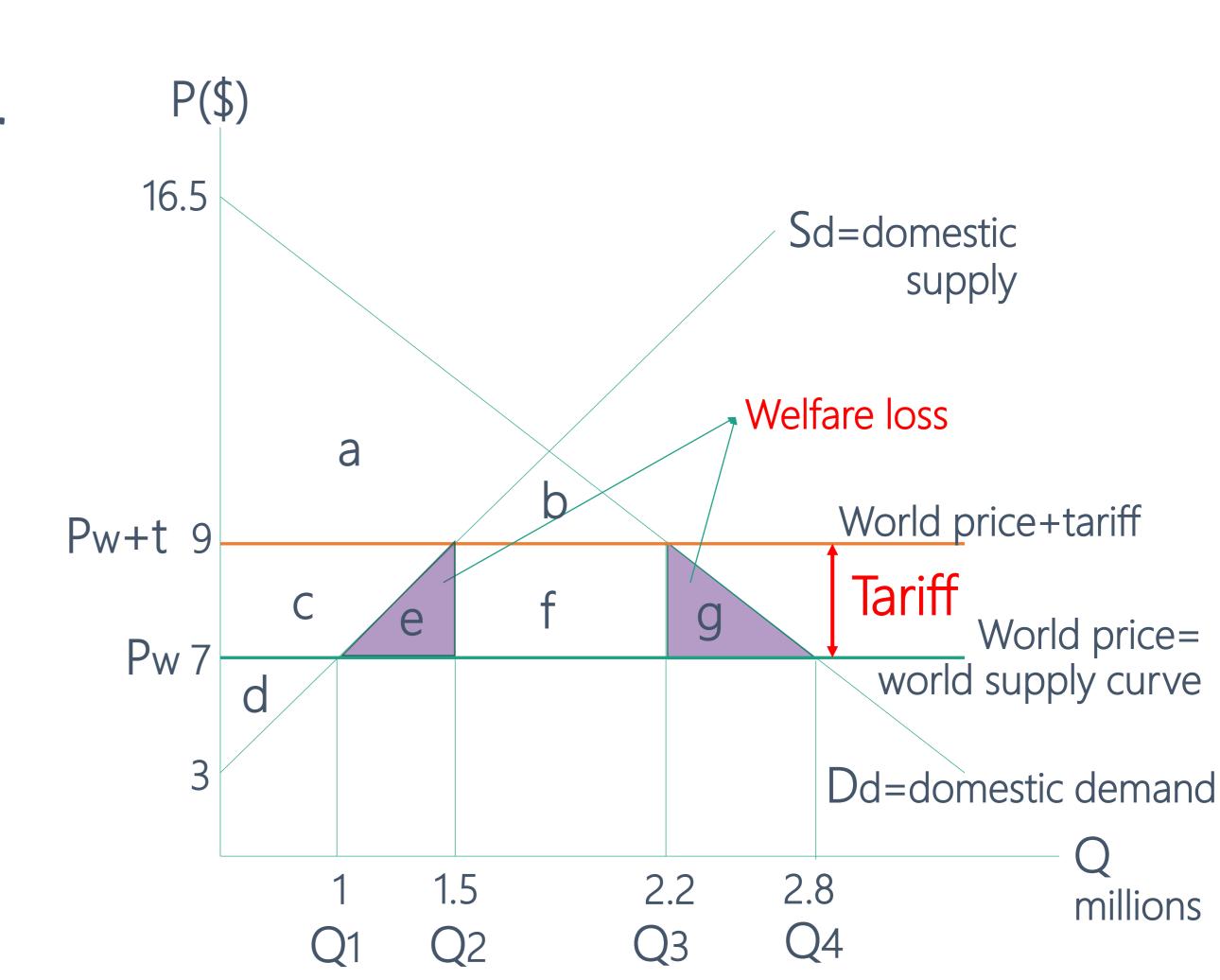


Effects of tariffs: losers

- Domestic consumers: pay higher price Pw+t, buy a smaller quantity from Q4 to Q3.
 - Consumer surplus decreased from a+b+c+d+e+f+g →a+b+c
- Domestic income distribution worsens due to regressive tariff tax, which burdens people on lower incomes proportionately more than people on higher incomes.
- Increased inefficiency in production. Increase in production by relatively inefficient domestic producers, resulting in a waste of scarce resources (inefficiency)
- Foreign producers: the producers of the exporting countries are worse off, they receive the Pw+t world price Pw, export a smaller quantity \rightarrow lower export revenues from $j+k+l \rightarrow k$
- An increase in the **misallocation of resources** both domestically and globally. (Welfare loss e+g)
 - Decrease in consumption
 - Shift of production away from more efficient foreign producers towards more inefficient domestic producers



- a) Calculate the fall in import expenditure
- b) Calculate the change in consumer expenditure
- c) Calculate the change in domestic producer revenue
- d) Government revenue
- e) Calculate the change in foreign producer's revenue
- f) Calculate the change in consumer surplus
- g) Calculate the change in producer surplus
- h) Calculate the welfare loss



a) Calculate the fall in import expenditure

Import expenditure = (2.8 - 1) * \$7 = \$12.60 million Import expenditure = (2.2 - 1.5) * \$7 = \$4.90million

 \rightarrow Fall in import expenditure = 12.60-4.90 = \$7.70 million

* Tariff (\$9-\$7) is collected by the government, not import expenditure

b) Calculate the change in consumer expenditure

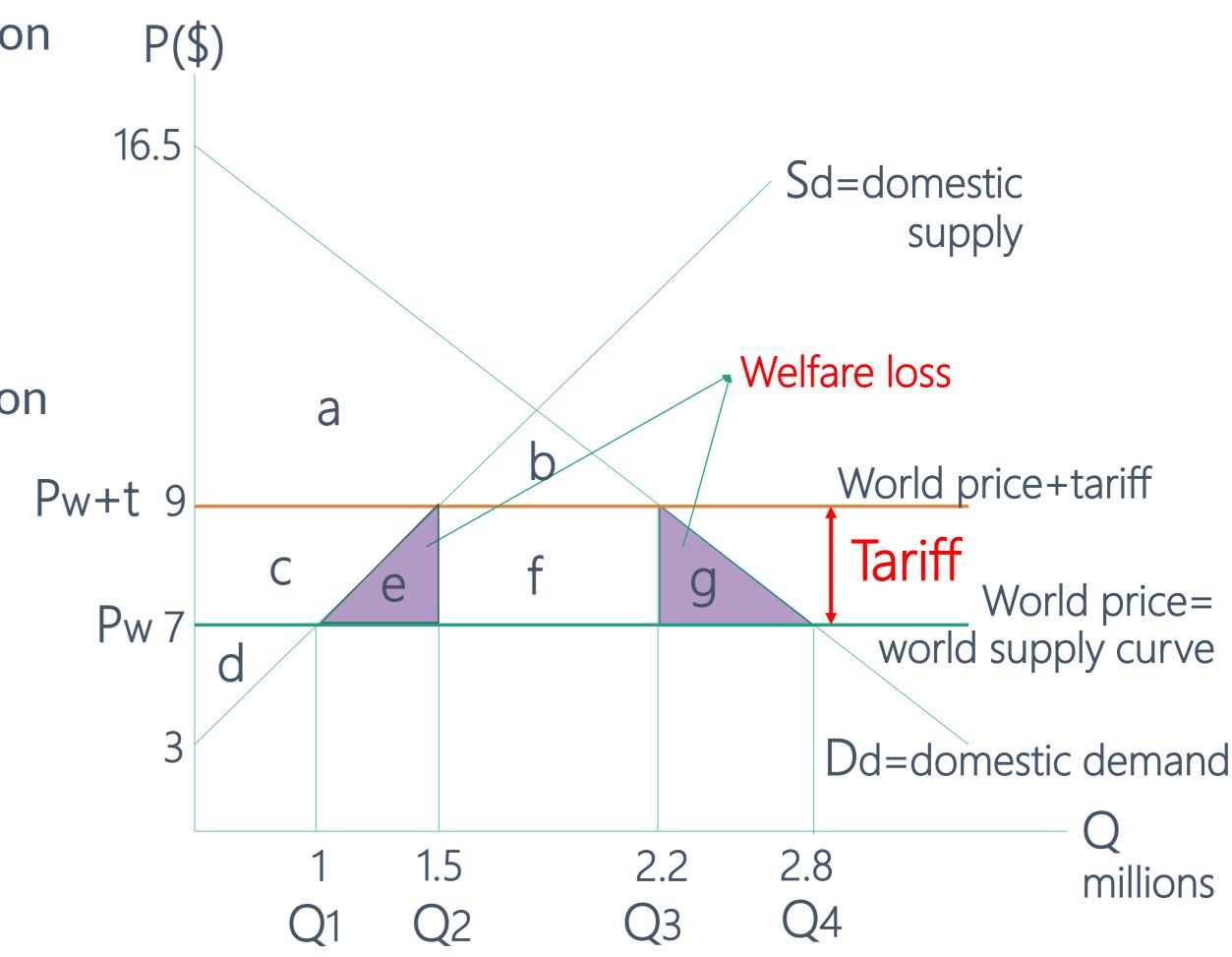
Before the tariff: \$7 * 2.8m = \$19.60 million After the tariff: \$9 * 2.2m = \$19.80 million Consumer expenditure <u>increased</u>: 19.8-19.6=\$0.2 million

c) Calculate the change in domestic producer revenue

Before the tariff: \$7 * 1m = \$7 million After the tariff = \$9 * 1.5m = \$13.5 million Producer revenue increased: 13.5-7=\$6.50 million.

d) Government revenue

Tariff per unit * quantity of imports after the tariff = \$2 * 0.7m=\$1.40 million.



e) Calculate the change in foreign producer's revenue

(2.8-2.2)+(1.5-1)* \$7 = \$7.70 million (increase) (same as the fall in import expenditure)

f) Calculate the change in consumer surplus

Before: (16.5-7) * 2.8/2 = \$13.30 million After: (16.5-9) * 2.2/2 = \$8.25 million

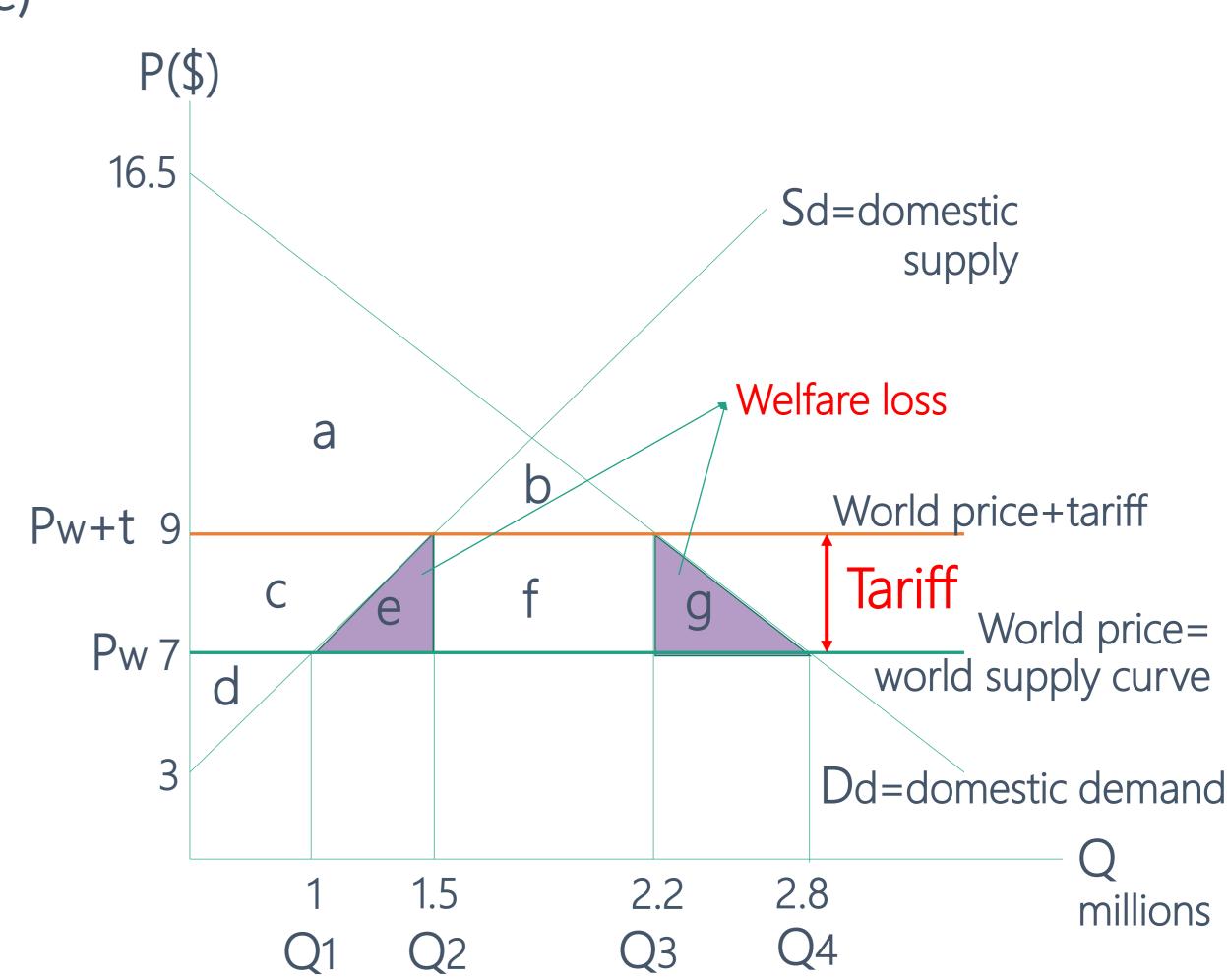
CS falls by 13.3-8.25=\$5.05 million

g) Calculate the change in producer surplus

Before: (7-3) *1 /2 = \$2 millionAfter: (9-3) *1.5/2 = \$4.50 millionPS increases by 4.5-2 = \$2.50 million

h) Calculate the welfare loss

(9-7)*(1.5-1)/2 + (9-7)*(2.8-2.2)/2 = \$1.10 million



2. Import quotas

mport quotas is a type of trade protection that involves setting a **legal limit to the quantity of a good** that can be imported over a particular time period (typically a year).

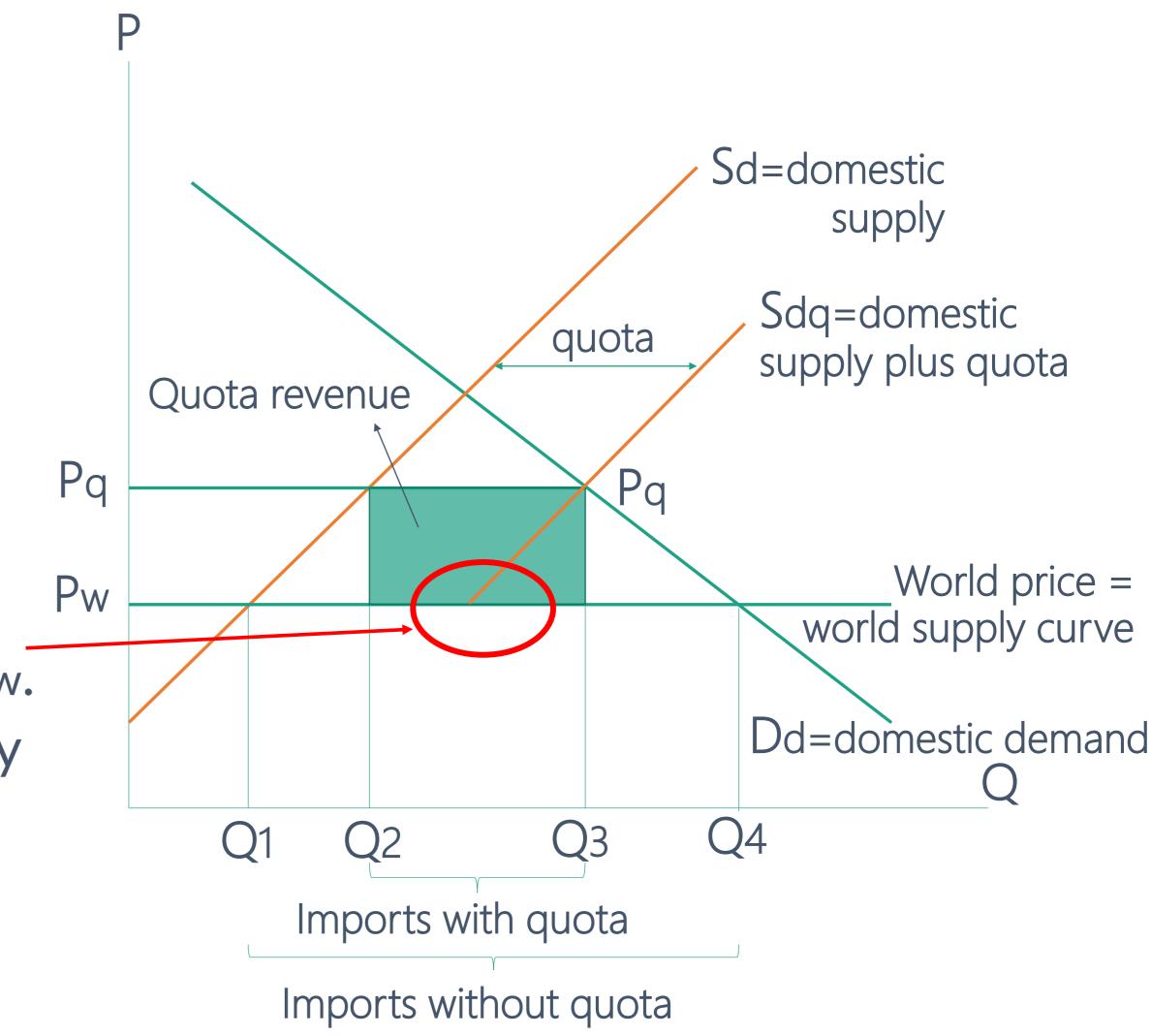
- The government issues a limited number of import licenses determining the legal limit on the quantity of imports, the holders of these licenses are the only individuals with the legal right to import.
- The government gives the licenses to governments of exporting countries, which then distribute them to their own producers or exporters, who buy at the world price Pw and sell at higher price after quota Pq, earning quota revenue.
- Foreign governments/producers prefer having quotas rather than tariffs imposed upon their exports.



Comparison between tariff and quota

- Tariffs and quotas are two different ways of achieving the same result
- Objective
 Iower quantity of imports and a higher domestic price.
 - Tariff achieve the aim by increasing the price of import, allowing demand and supply to arrive at the new, lower, quantity of imports.
 - Quotas work by restricting the quantity of imports, allowing demand and supply to arrive at the new, higher, price of imports.

- Initially the country is importing under free trade. Quantity Q1 is supplied by domestic producers, quantity Q4 is demanded, excess demand, import Q4-Q1.
- The government decides to impose a quota on imports, limiting the quantity that can ben legally imported. → new supply Sd shift rightwards to Sdq. curve Sdq is created by the addition of the amount of the quota to domestic supply (domestic supply+quota)
- For each price, the quantity that is available to be purchased by domestic consumers is equal to the quantity produced by domestic producers plus the quantity of imports permitted by the quota.
- Sdq begins at price Pw, indicating that it is not possible to import the good at a price lower than Pw.
- New equilibrium domestic price Pq is determined by the intersection of Dd with Sdq.
- As the new supply curve, Sdq, domestic production increases to Q2, domestic quantity demanded falls to Q3, the quantity of imports falls to Q3-Q2.

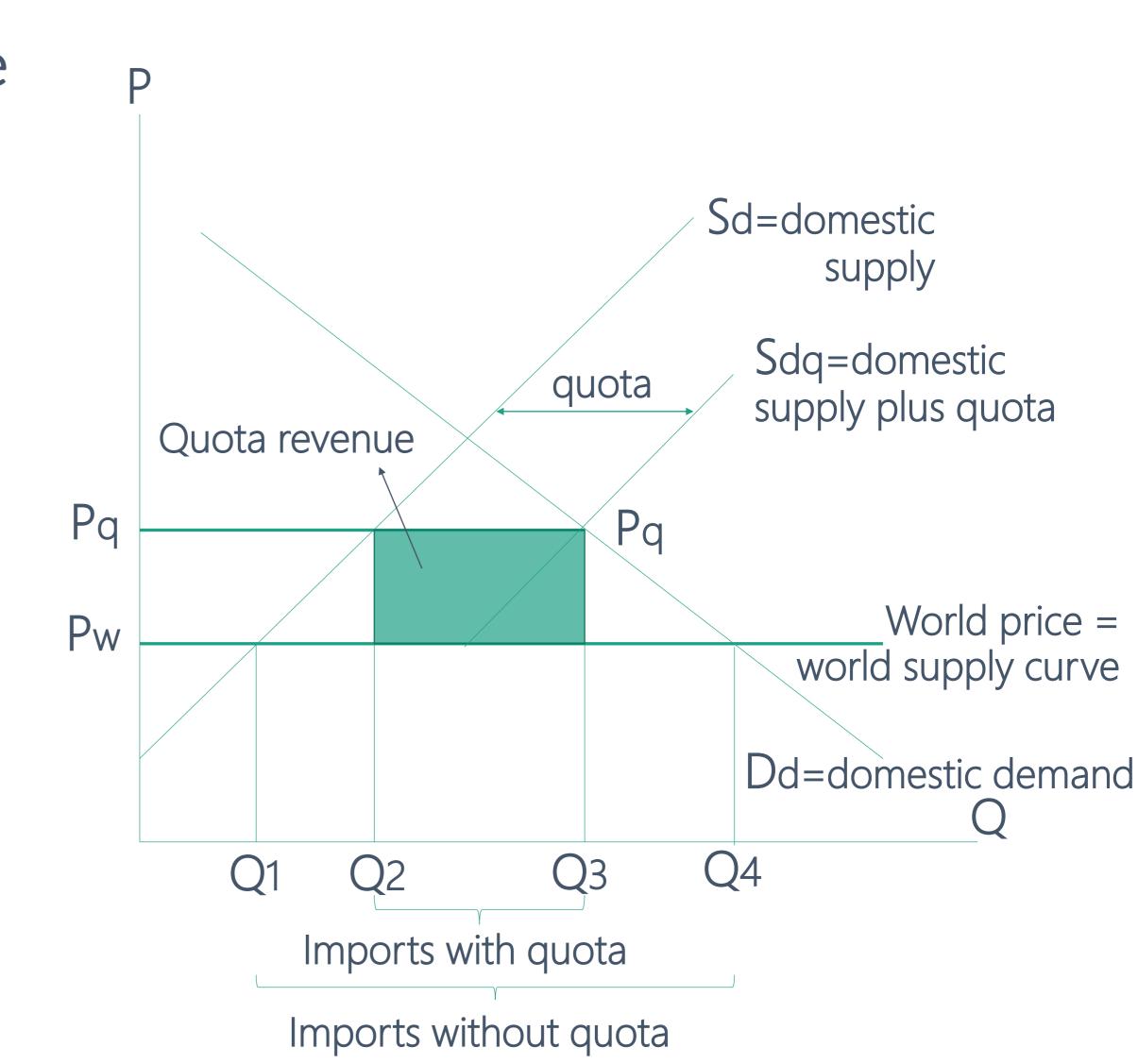


Effects of a quota – winners

- Domestic producers receive a higher price
 Pq and sell a larger quantity Q2.
- Domestic employment increases since producers increase the quantity of output they produce.

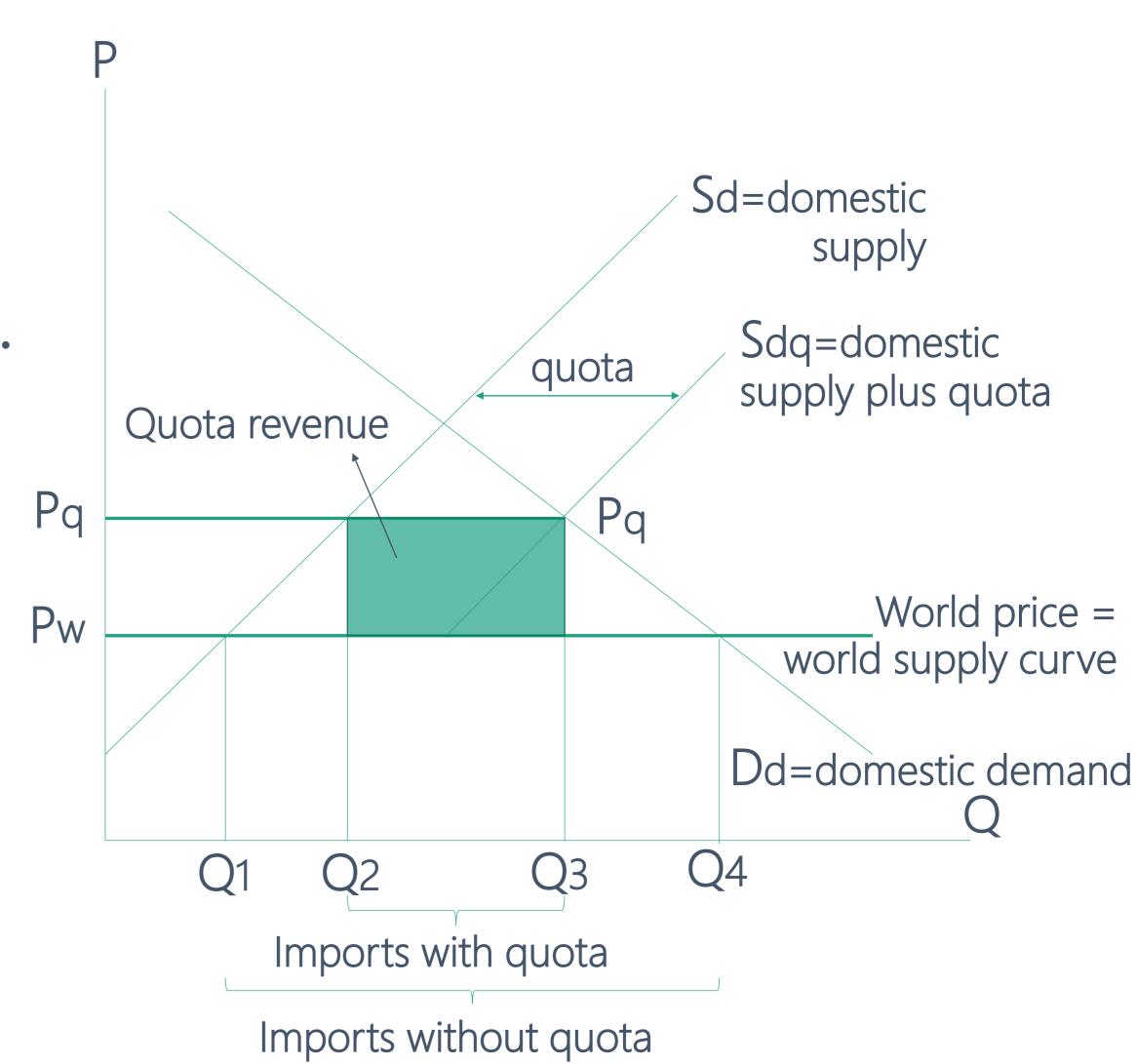
Effects of a quota – neutral impact

• The government neither gains nor loses. The government budget is not affected.



Effects of a quota – losers

- Domestic consumers pay a higher price Pq and buy a smaller quantity Q3.
- Domestic income distribution worsens. The increase in price of Pq-Pw has the same effect as the tariff in that it is regressive. it represents a higher fraction of income when income is low.
- Increased inefficiency in production.
- The exporting countries may be worse off or better off.
 - Exporting countries receive the import licenses and gain the quota revenues
 - Export Smaller quantity
 - It depends on which is larger, the loss of export revenues or the gain of quota revenues.
- A global misallocation of resources.



Welfare effects

Consumer surplus

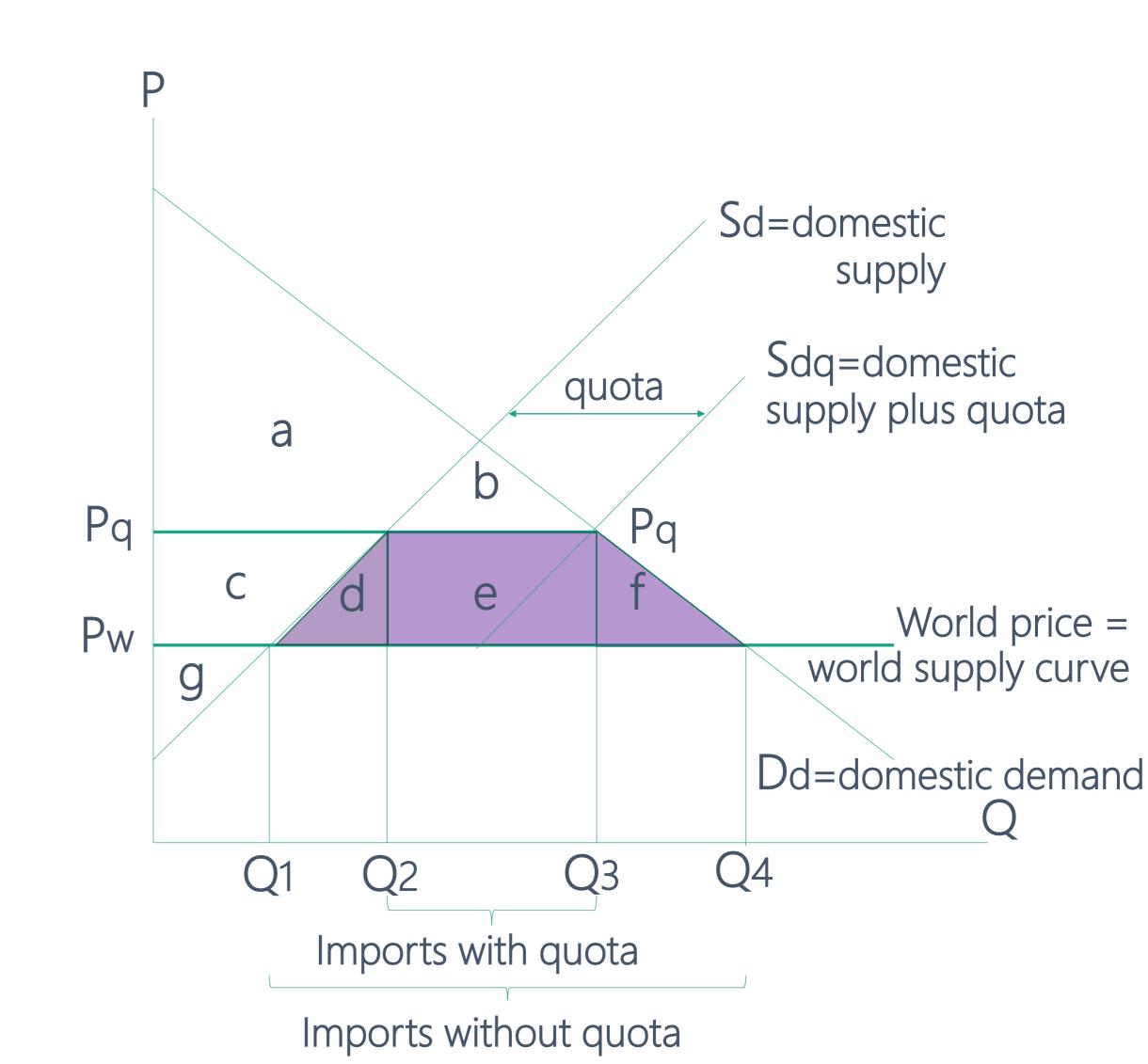
- Before the quota = a+b+c+d+e+f
- After the quota = a+b

Producer surplus

- Before the quota = g
- After the quota = g+c

Welfare loss

- (a+b+c+d+e+f)+g (a+b)-(g+c) = d+f+e
- Area d is lost due to inefficiencies in production
- Area f is lost due to reduced consumption
- Area e represents quota revenue that is transferred abroad to exporting countries.



- a) Calculate the change in import expenditure

 Before the quota = 10* (20-5)= €150 million

 After the quota = 14 * (16-11)= €70 million

 The import expenditure fell by (150-70)= €80 million
- b) Calculate the change in consumer expenditure

 Before the quota = 10*20 = €200 million

 After the quota = 14*16 = €224 million

 Consumer expenditure increase by 224-200 = €24 million
- c) Calculate the change in domestic producer revenue

 Before the quota = 10*5 = €50 million

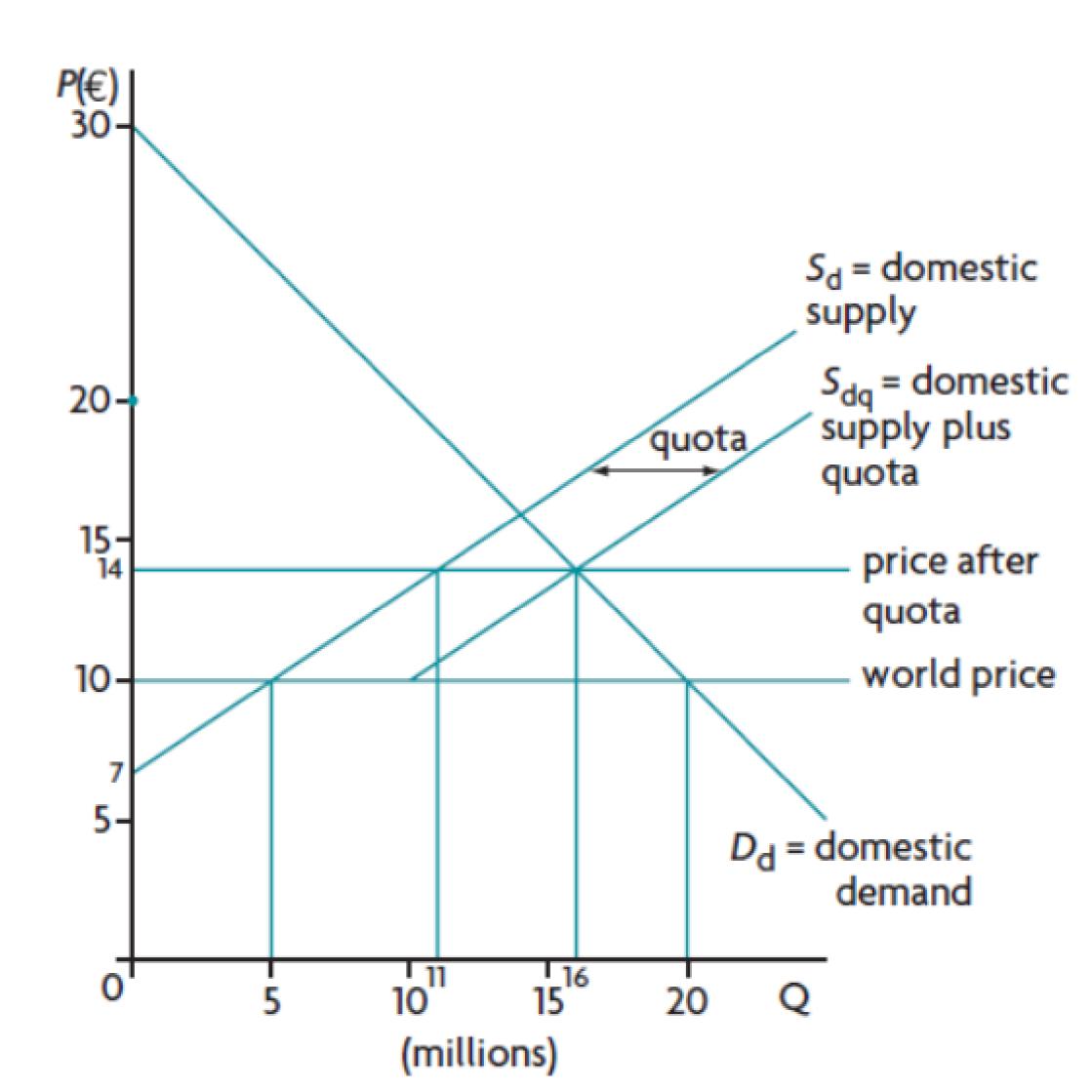
 After the quota = 14*11 = €154 million

 Producer revenue increased by 154-50= €104 million.
- d) Calculate the gain or losses of foreign producers

 Δ in export revenue = €10 * 10m = €100 million (loss)

 Quota revenue = €4 *5m = €20 million (gain)

 Total = €100m €20m = €80 million. (losses → worse off)

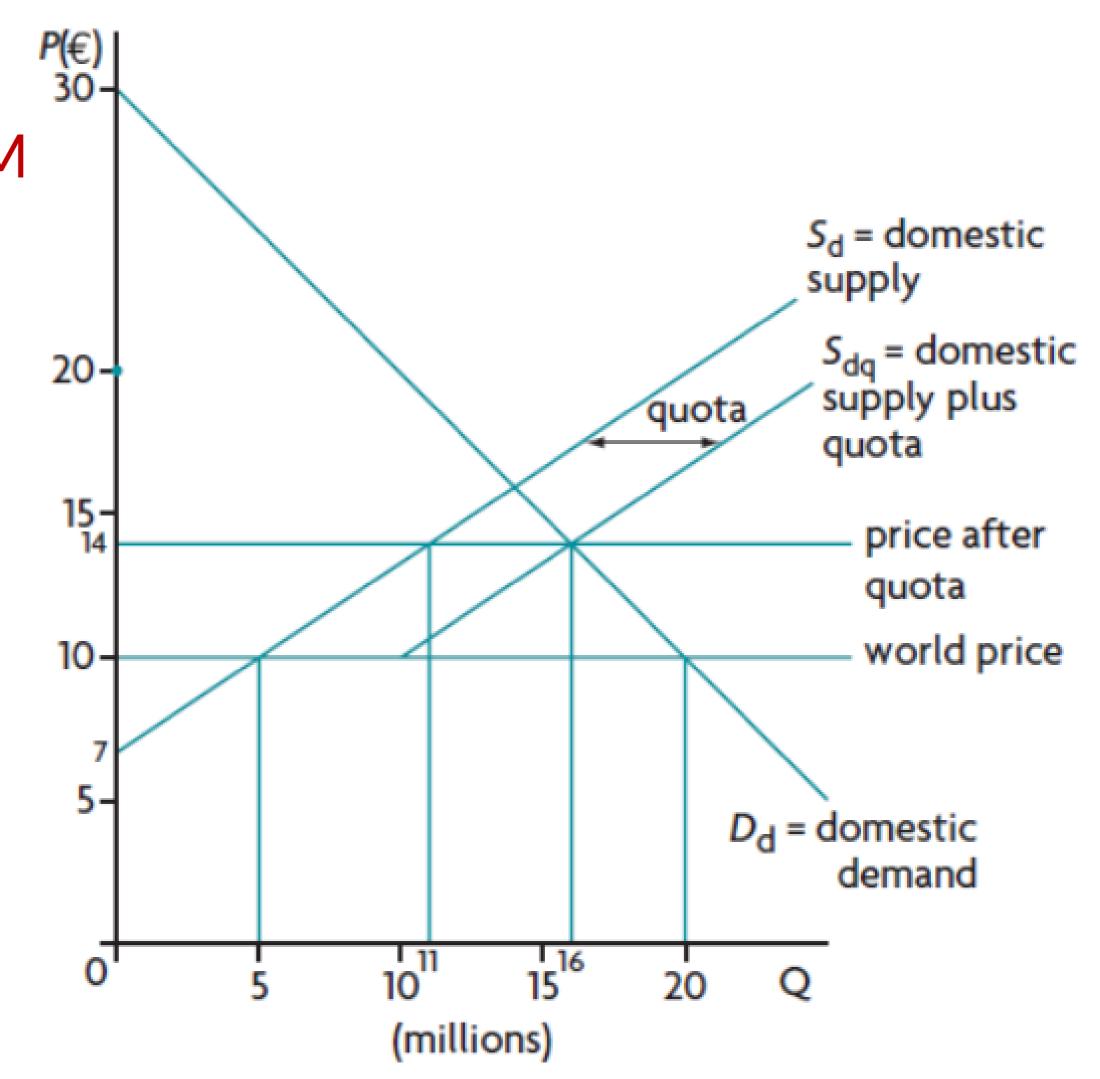


- e) Calculate the change in consumer surplus
 - Before the quota = (30-10)*20/2= €200 million After the quota = (30-14)*16/2= €128 million The Δ in consumer surplus: fell by (200-128)= €72M
- f) Calculate the change in producer surplus

 Before the quota = (10-7)*5/2= €7.5 million

 After the quota = (14-7)*11/2= €38.5 million

 The Δ in PS: increase by (38.5-7.5) = €31M
- g) Welfare loss



3. Subsidies



Recall: Subsidy

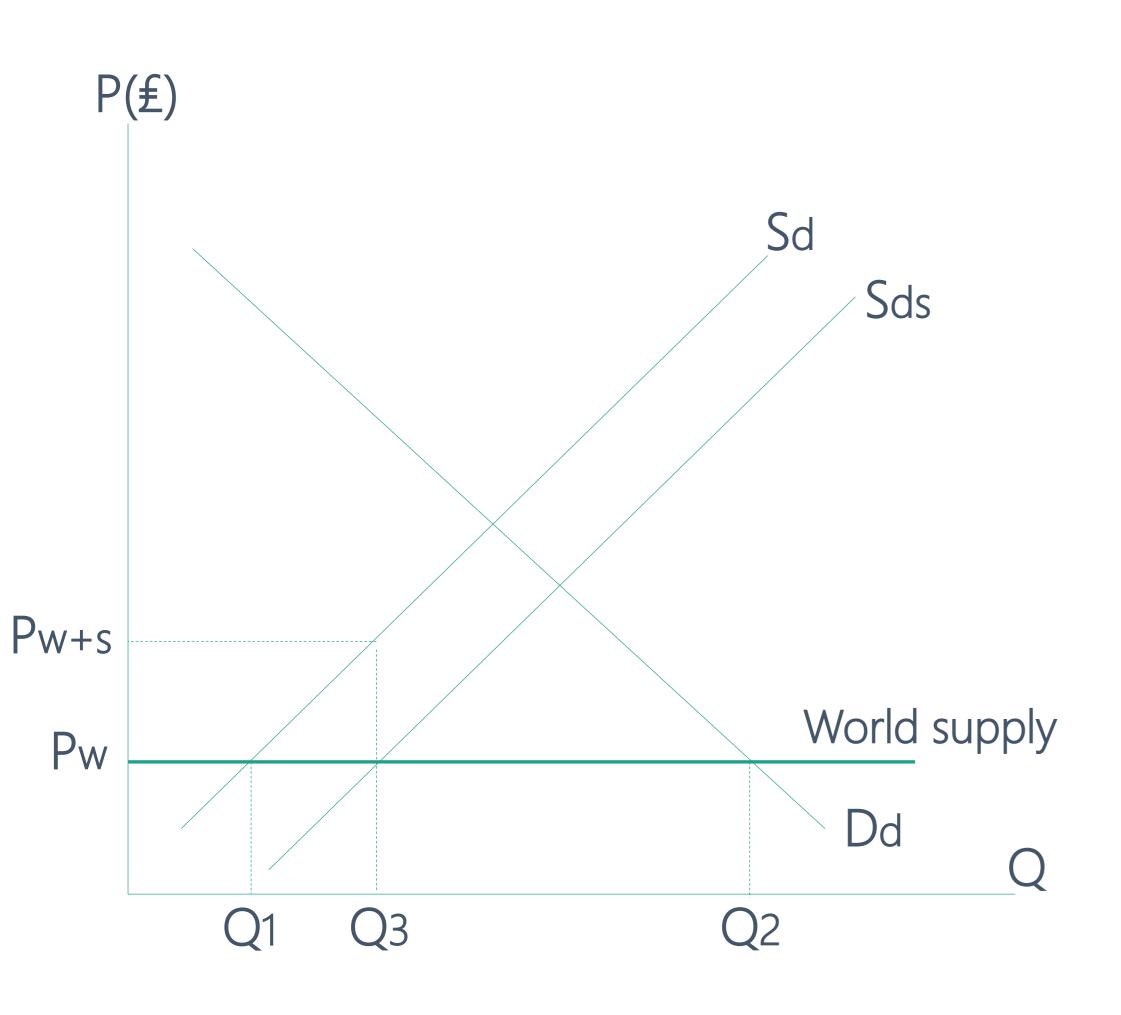
- An amount of money paid by the government to firms for a variety of reasons:
 - to prevent an industry from failing,
 - to support producers' incomes, or
 - as a form of protection against imports (due to the lower costs and lower prices that arise from the subsidy)
- An subsidy given to a firm results in a higher level of output and lower price for consumers. May also be paid to consumers as financial assistance or for income redistribution.
- In the context of trade protection:
 - 3.1 Production subsidy protect domestic firms that compete with imports
 - 3.2 export subsidy protect domestic firms that export

3.1 Production Subsidies

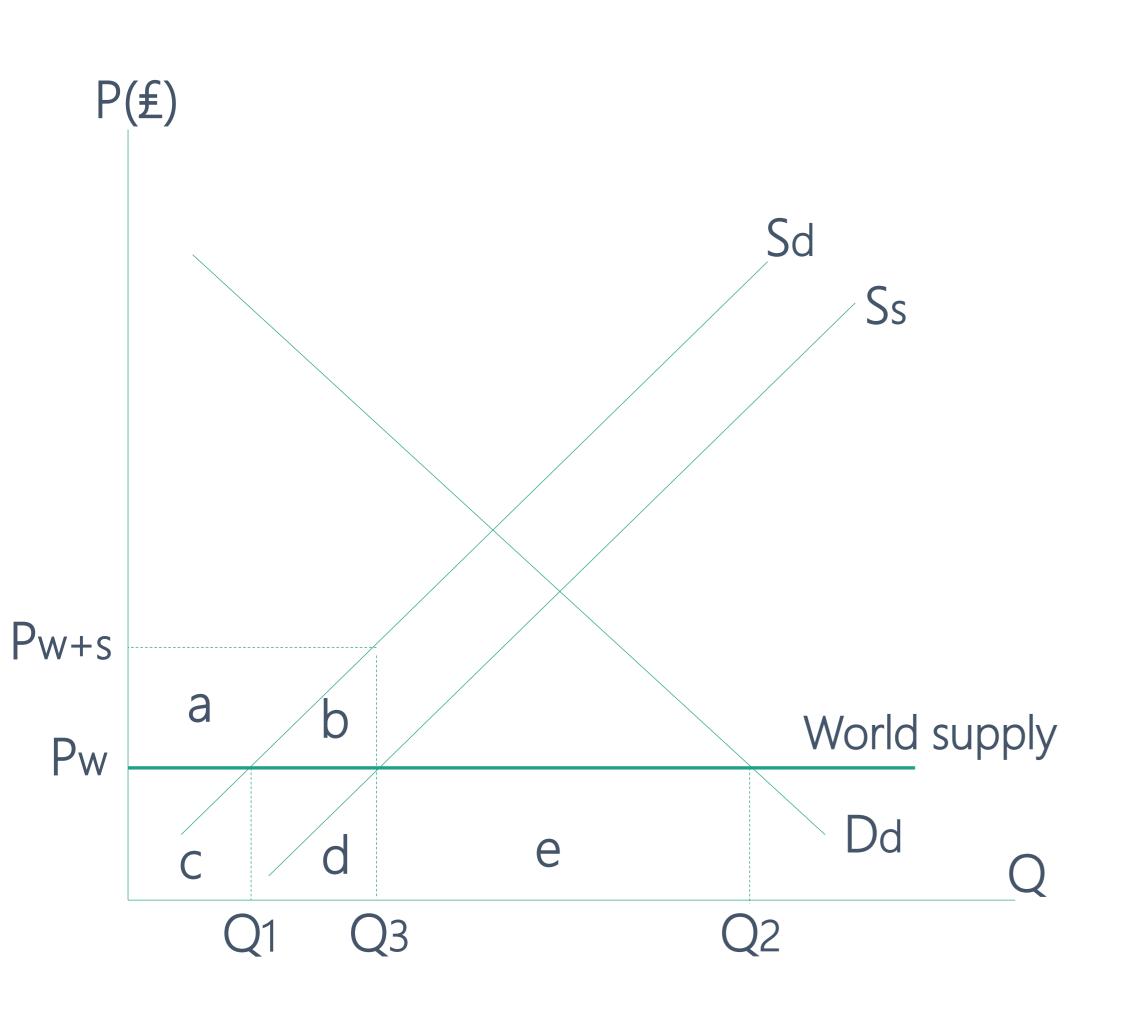
Production subsidies are payments per unit of output granted by the government to domestic firms that compete with imports.

• raise the domestic price (lower the cost of production) to producers and increase their quantity supplied, thus decreasing the quantity of imports > protection to producers (and their workers)





- Under free trade, quantity produced is Q1, quantity demanded is Q2, excess demand of Q2-Q1 would be satisfied by imports.
- Government grants a subsidy to domestic firms per unit of output produced.
 Domestic supply curve shift downward by the amount of the per unit subsidy, to Sds, this intersects the world price Pw at a quantity of Q3.
- The good continues to sell domestically at the world price, Pw, though the price received by producers is now Pw+s.
- The importation of the product reduce from Q2-Q1 to Q2-Q3.

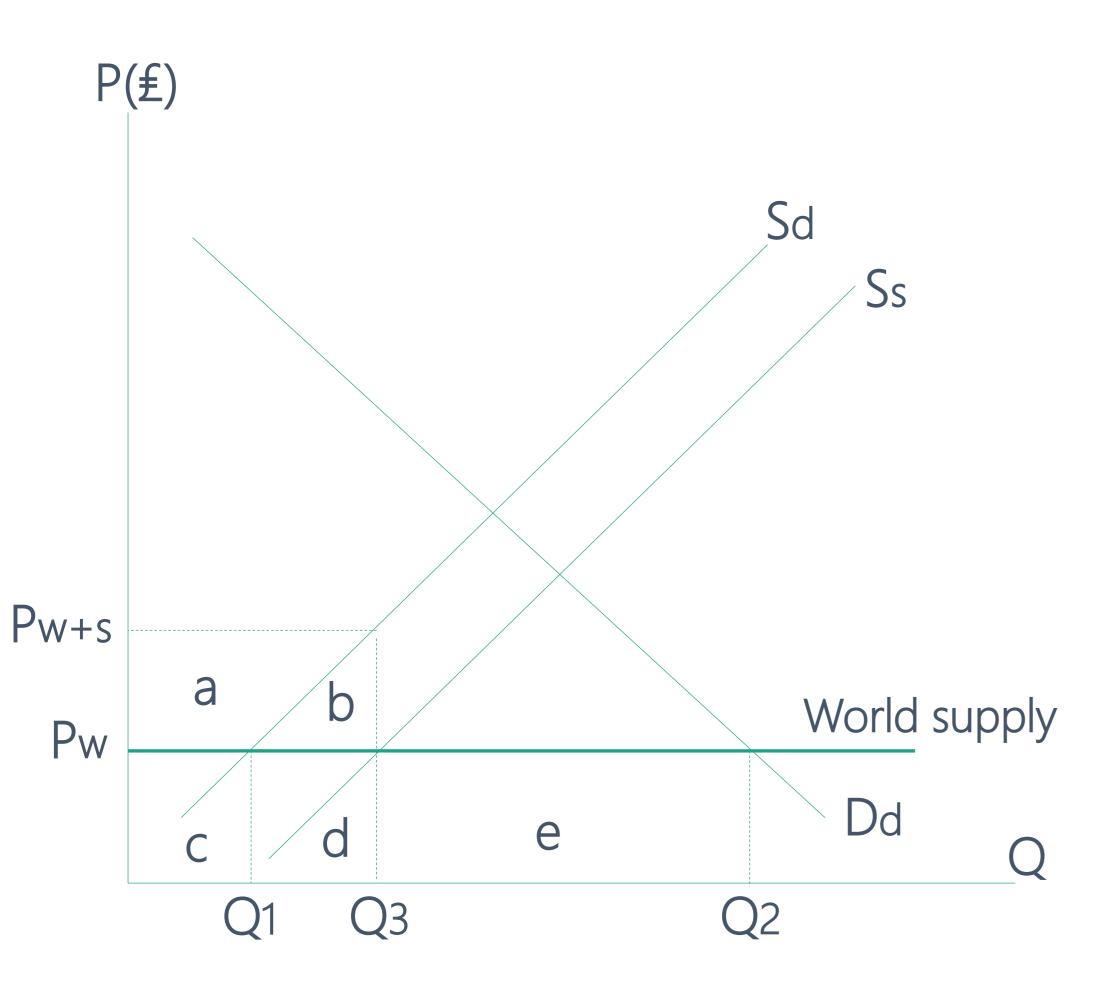


Effects of production subsidies – winners

- Domestic producers receive high price Pw+s(=Pw plus the subsidy per unit), higher production quantity from Q1 to Q3.
 - Producer revenue increase from Pw*Q1 to Pw+s*Q3 (area c to area a+b+c+d)
- Domestic employment increases.

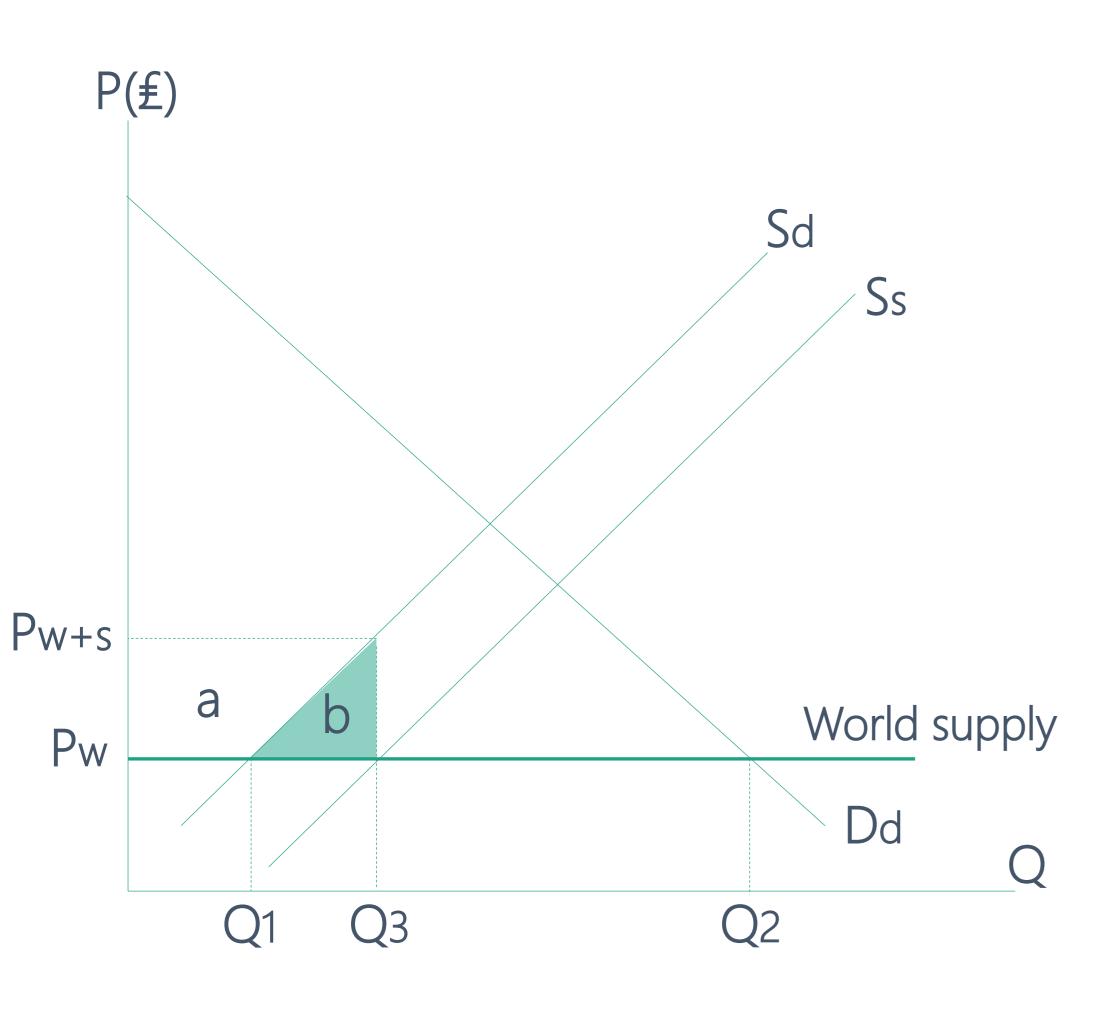
Effects of production subsidies – neutral impact

- Consumers are not affected
 - Price unchanged
 - Quantity of demand unchanged. (buy more domestic goods and less imported goods)
 - Consumer expenditure: Pw*Q2 (area c+d+e)



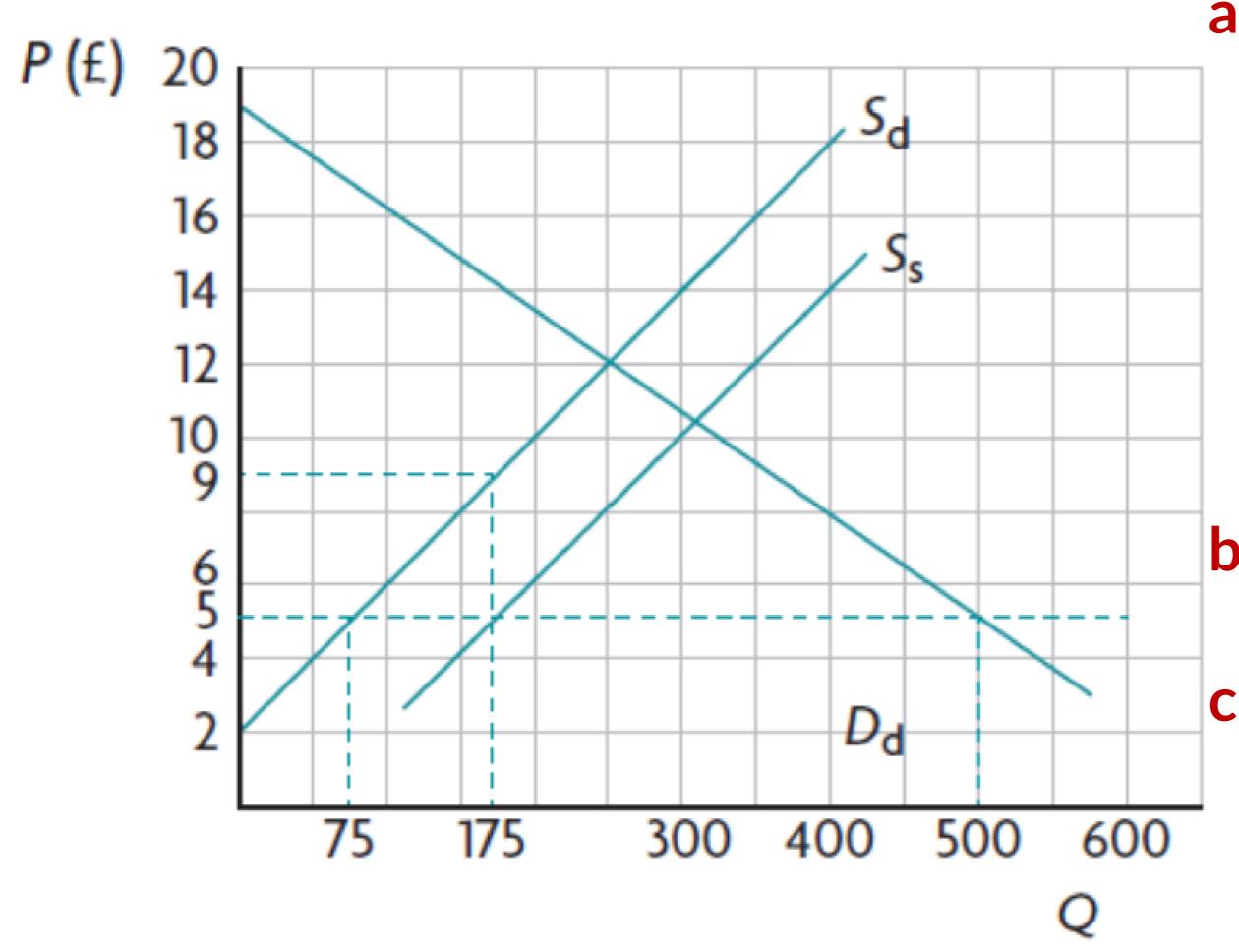
Effects of production subsidies – Losers

- The government budget is negative affected.
 - Government spending (Pw+s-Pw) * Q3 (area a+b)
- Taxpayers a portion of tax revenue is spent on increasing production of inefficient producers. (opportunity costs)
- Increased inefficiency in production
- The exporting countries are worse off less exporting goods, less export revenue. Foreign producer's revenue decrease from Pw*(Q2-Q1) to Pw*(Q2-Q3) (area d+e to e)
- A global misallocation of resources.
- ***If the subsidy is very large, the quantity supplied becomes greater than all of domestic quantity demanded. excess supply will be exported.
- → A higher cost country becomes an exporter
- >even greater domestic and global misallocation of resources.



Welfare effects

- Consumer surplus same (same price, same Qd)
- Producer surplus gain area a due to the higher price they receive and larger quantity they sell.
- Government loses the area (Pw+s-Pw)*Q3 = a+b.
- Welfare loss → area b
 - The subsidy will attract new domestic producers to the industry or encourage existing producers to expand their production.
 → the subsidy encourages inefficient output from domestic firms.



a) Calculate the change in import expenditures

Before the subsidy = £5 * (500-75) = £2125thousands

After the subsidy = £5 * (500-175) = £1625thousands

 $\Delta = 1625 - 2110 = £500$ thousands

OR = £5 * (175-75) = £500thousands

* For foreign producers, their export revenue also falls £500 thousands

b) Calculate the consumer spending

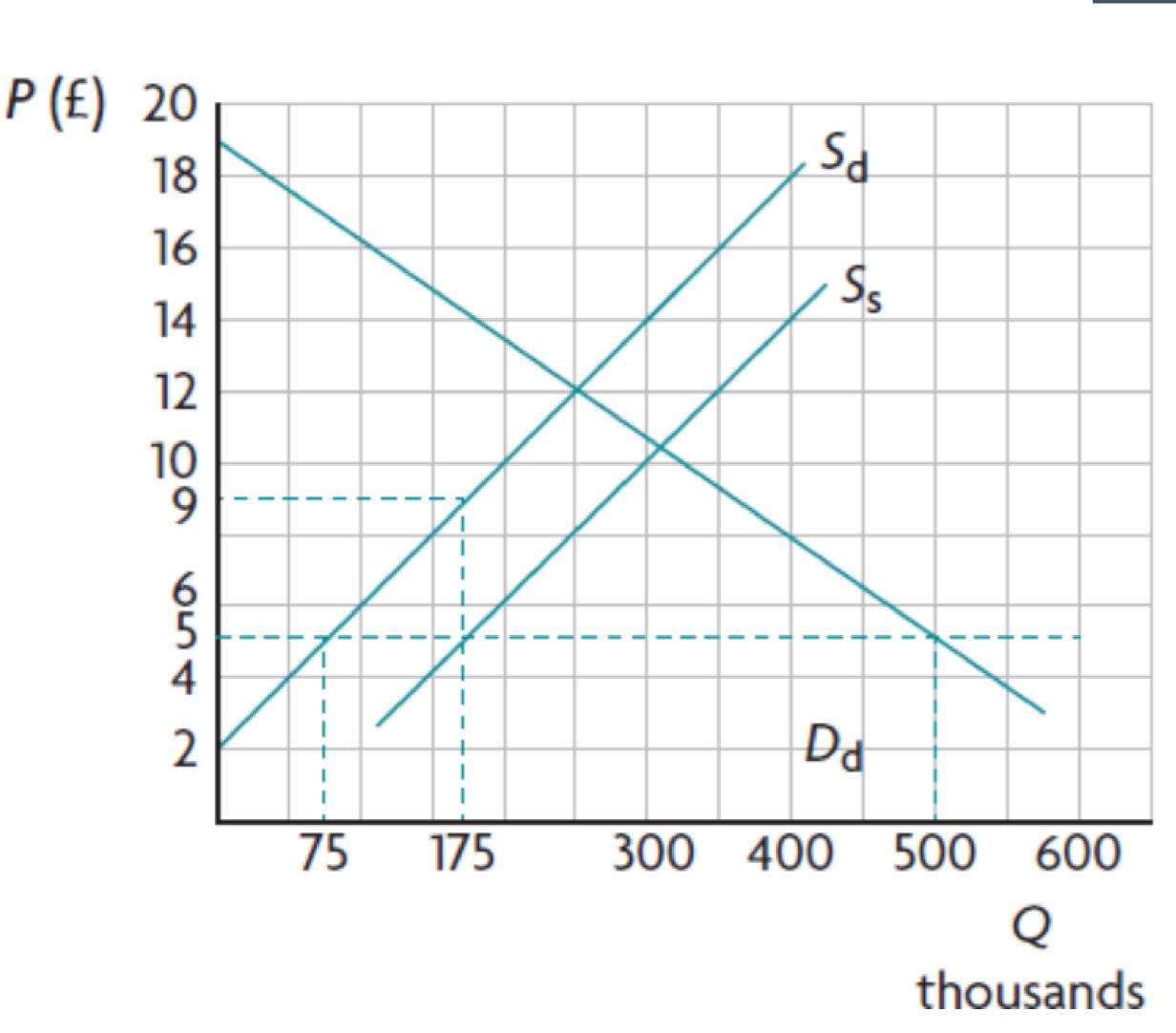
£ 5 * 500 = £ 2500 thousands

c) Calculate change in producer revenue

Before the subsidy = £5*75 = £375 thousands After the subsidy = £9*175 = £1575 thousands Δ = 1575-300= £1200 thousands

thousands d) Calculate the government expenditure

(9-5)*175 = £700 thousands



- a) Calculate the consumer surplus (19-5)*500/2 = £3500 thousands (No change)
- b) Calculate the change in producer surplus

 Before the subsidy = (5-2)*75/2 = £112.5 thousands

 After the subsidy = (9-2)*175/2 = £612.5 thousands $\Delta = 612.5 112.5 = £500$ thousands

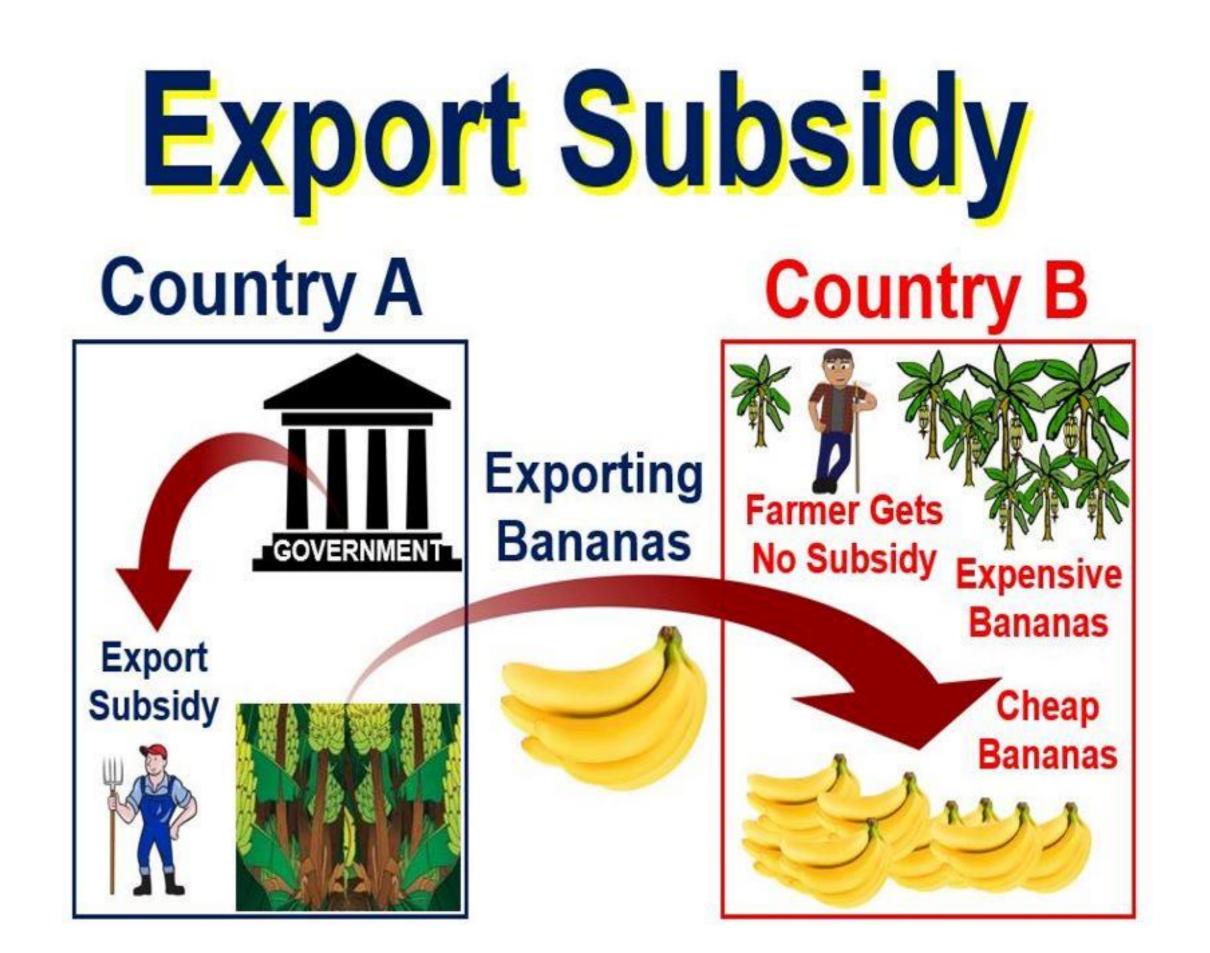
 OR (75+175)*(9-5)/2 = £500 thousands

c)Welfare loss

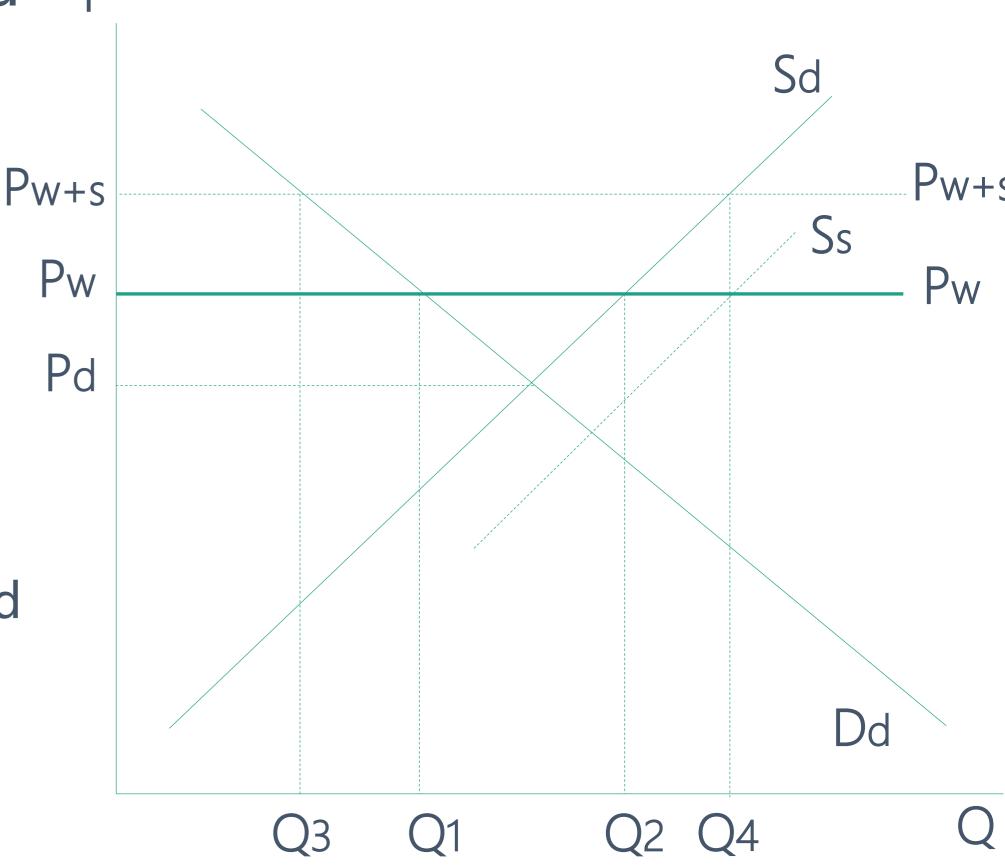
 $(9-5)^*(175-75)/2 = £200$ thousands

3.2 Export subsidies

Export subsidies involve a payment by the government per unit of the subsidized good, the subsidy is paid for each unit of the good that is exported.

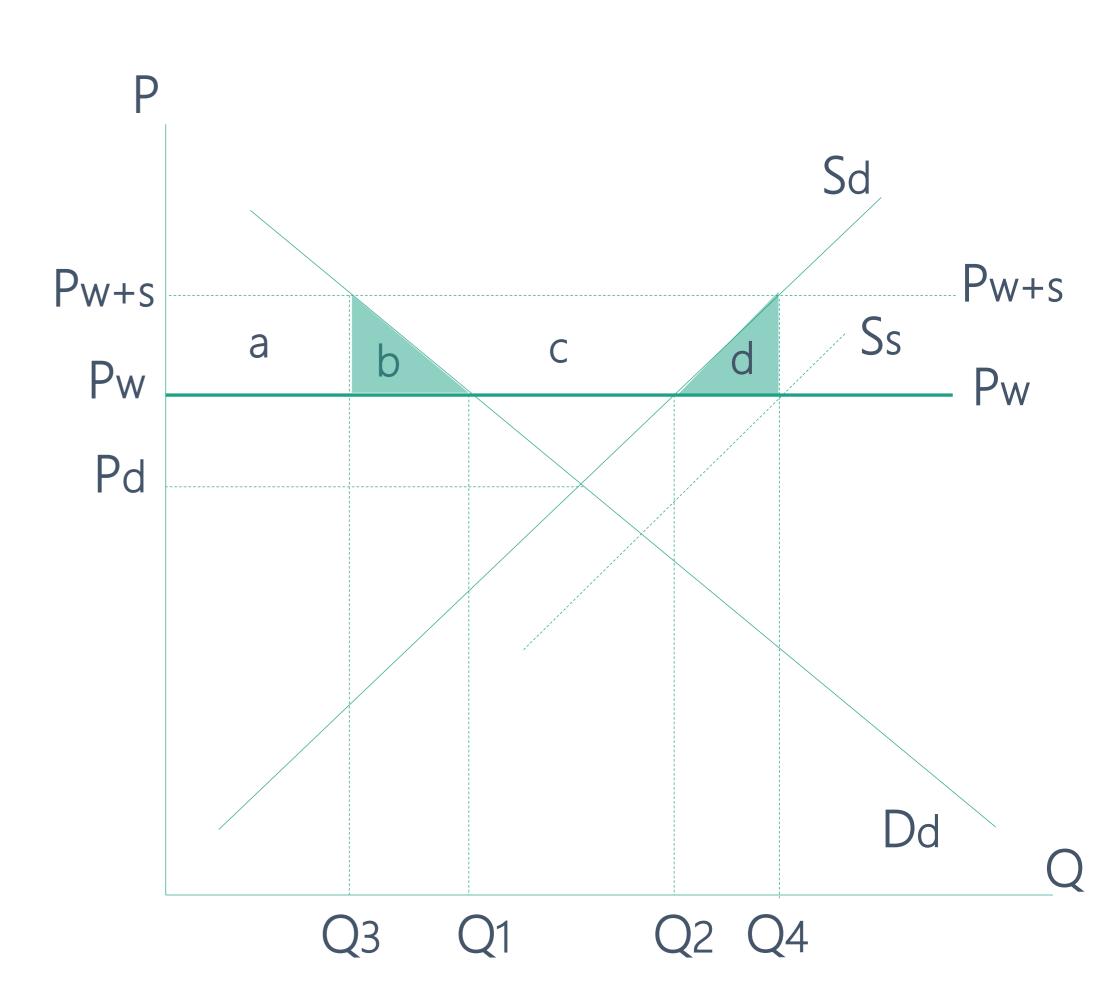


- Before trade, the world price Pw is higher than the domestic price.
- The country opens itself up to trade, it becomes an exporter of the good. At Pw, domestic Qd is Q1, domestic Qs is Q2, export Q2-Q1.
- The government grant an export subsidy per unit of the good exported, the S curve shifts downward by the amount of the subsidy per unit to Ss.
- At the intersection of Ss with the world price line Pw, draw a vertical line upward to find the new higher domestic price Pw+s (Pw+subsidy per unit).
- Export subsidy reduce the quantity of the good available in the domestic market from Q1 to Q3, thus resulting in an increase in price to Pw+s. (upward movement along Dd)
- At higher price Pw+s, Qs increase from Q2 to Q4, Qd decrease from Q1 to Q3, the quantity Q4-Q3 represents exports.
- The price paid by foreigners remains at Pw.



Welfare effects

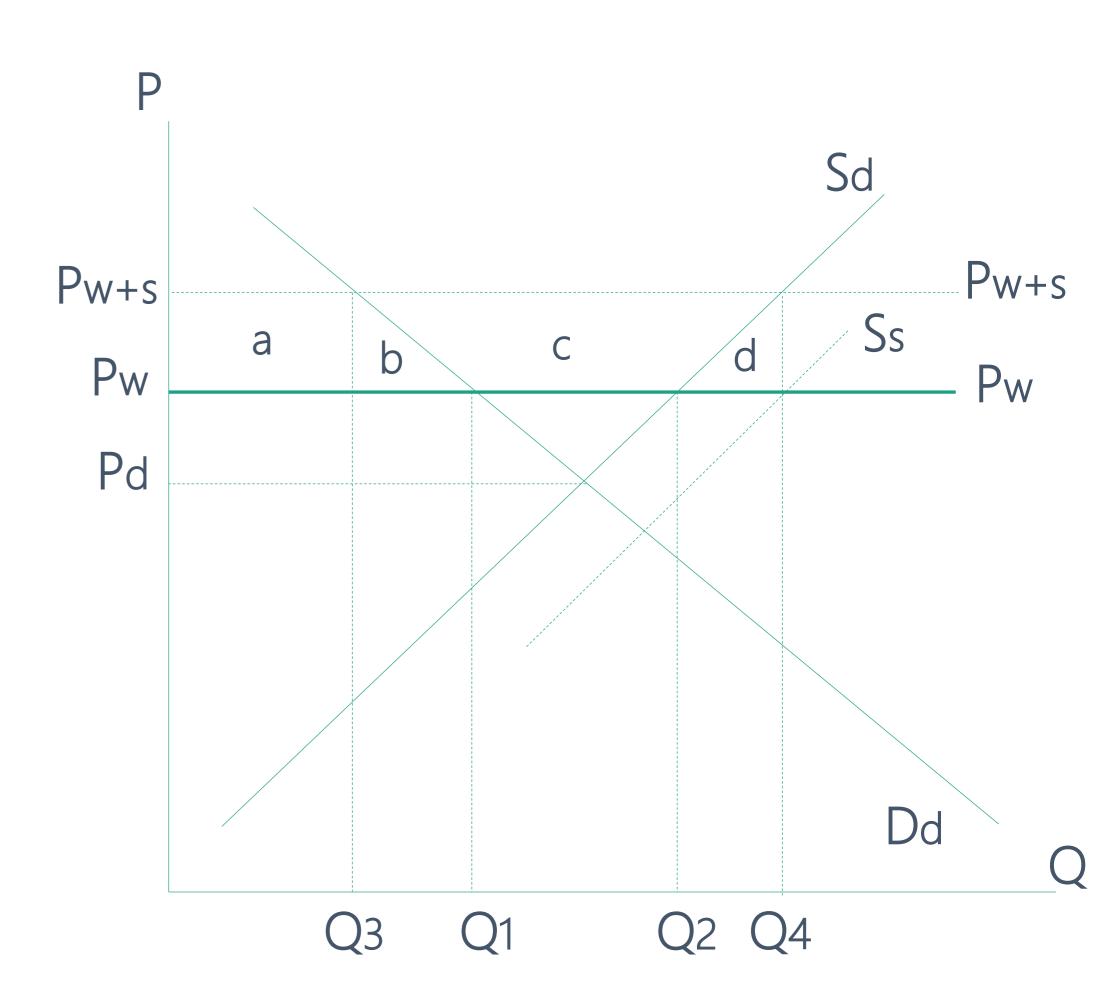
- Consumer surplus lose area a+b due to the higher price and lower quantity they buy.
- Producer surplus gain area a+b+c as they are receiving higher price and producing a larger quantity.
- The government loses areas b+d+c, it is the amount they pay for the subsidy. Subsidy per unit * (Q4-Q3)
- Welfare loss = (a+b+c)-(a+b)-(b+c+d)=-(b+d)
 - the subsidy encourages inefficient output from domestic firms. – area d
 - Reduced domestic consumption area b



Effects of export subsidies – winners

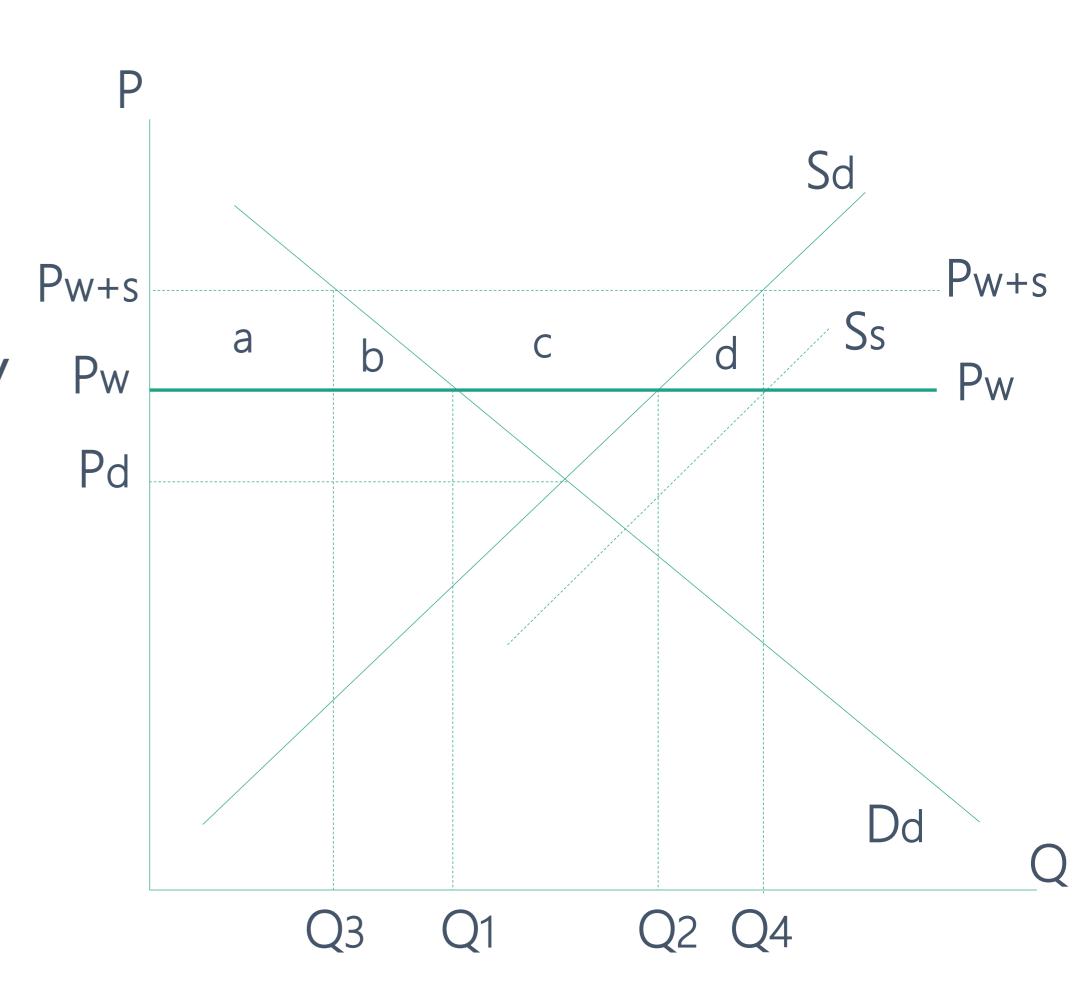
• Producers – receive a higher price Pw+s and sell a larger quantity Q4 rather than Q2.

Domestic employment increases.



Effects of export subsidies - losers

- Consumers pay higher price Pw+s and they consume a smaller quantity, Q3 rather than Q1.
- Negative effect on the government budget.
- Taxpayers pay indirectly for the subsidy as the subsidy is financed out of tax revenues (opportunity cost)
- Domestic income distribution worsens
- Increased inefficiency in production
- Foreign exporting producers lose a share of their global market through the increase in subsidized exports, their export revenues fall.
- An increase in the global misallocation of resources.
 consumers and producers around the world are negatively affected since the inefficiency of resource allocation around the world increases.



a) Calculate the change in export revenue

Before: $(325-200)^* \pm 12 = \pm 1500$ thousand

After: $(450-100)^* \pm 12 = \pm 4200$ thousand

 $\Delta = 4200 - 1500 = £2700$ thousand

OR: $(350-125)^*$ £12 = £2700 thousand (\nearrow)

b) Calculate change in domestic consumer expenditure

Before: 12*200= £2400 thousand

After: 16*100 = £1600 thousand

 $\Delta = 1600-2400 = - £800$ thousand (\triangle)

c) Calculate the change in domestic producer revenue

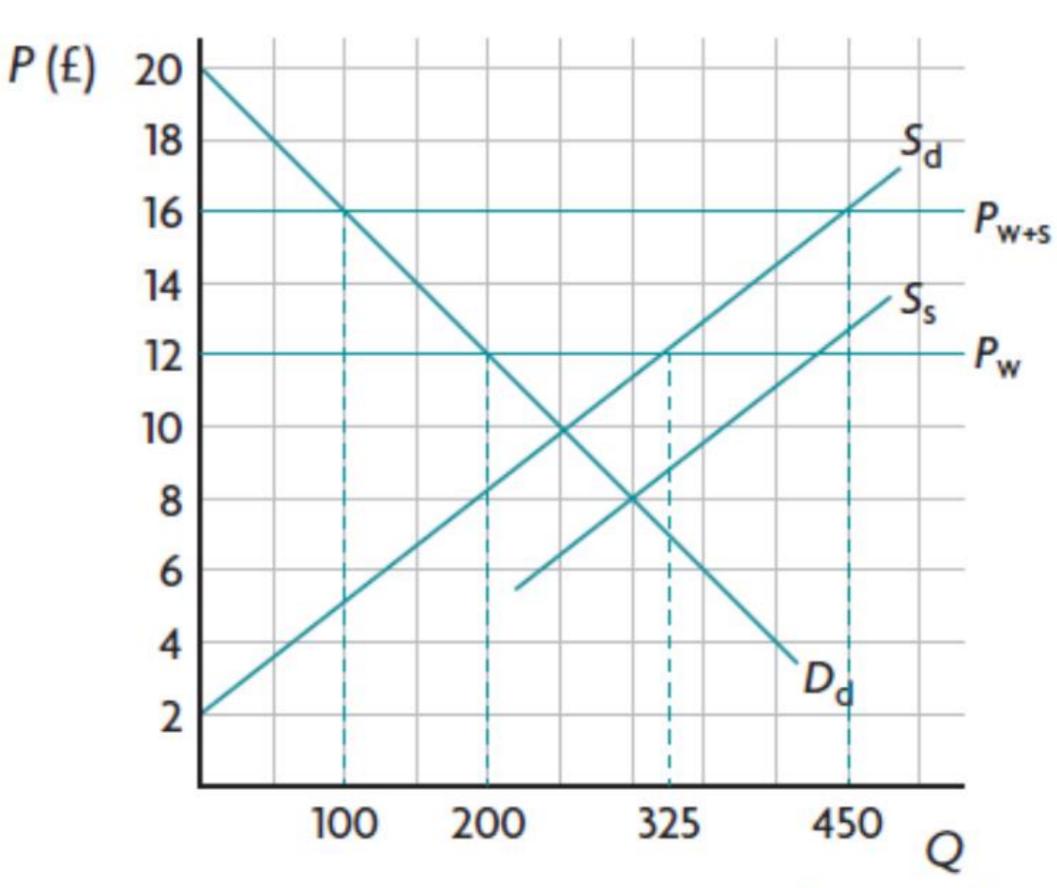
Before: £12*325= £3900 thousand

After: £16*450 = £7200 thousand

 $\Delta = 7200 - 3900 = £3300$ thousand (\nearrow)

d) Calculate the government expenditure

£4*350=£1400 thousand



thousand units

e) Calculate the consumer surplus

Before: (20-12)*200/2 = £800 thousand

After: (20-16)*100/2 = £200 thousand

 $\Delta = £200 - £800 = -£600$ thousand (\checkmark)

f) Calculate the producer surplus

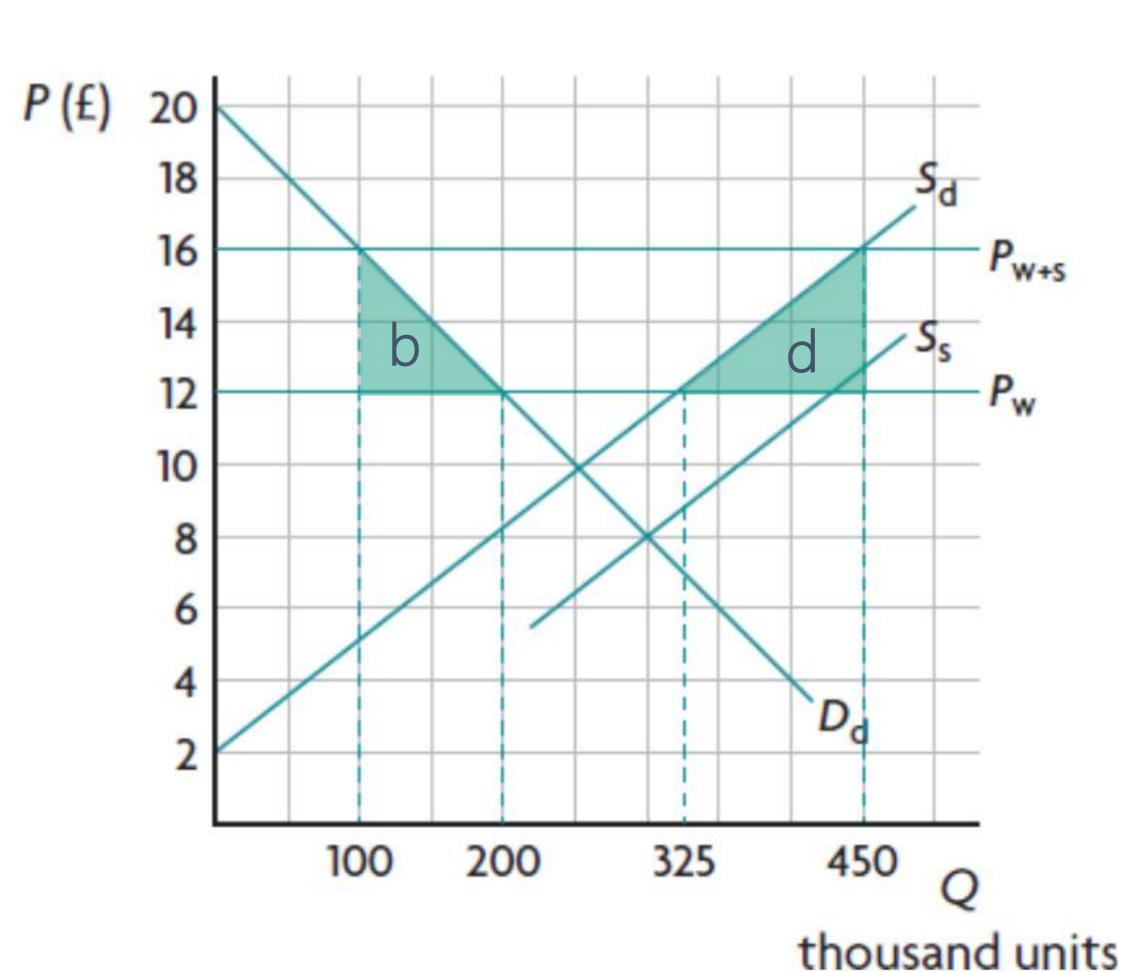
Before: (12-2)*325/2 = £1625 thousand

After: (16-2)*450/2 = £3150 thousand

 $\Delta = \pm 3150 - \pm 1625 = \pm 1525$ thousand (\nearrow)

g) Welfare loss

Area b = (16-12)*(200-100)/2 = £200 thousand Area d = (16-12)*(450-325)/2 = £250 thousand Area b+d = 200+250 = £450 thousand



4. Administrative barriers

Administrative barriers are the application of standards and regulations (bureaucratic rules and policies) imposed on foreign firms.

- Complying with these administrative trade barriers increases the costs for foreign firms, thereby giving an advantage to domestic firms.
 - → The costs of complying with rules and regulations
 - →Additional time needed to get imports into the country. It slow the supply chain of foreign goods and services, which creates a shortage so enables the gap to be filled by domestic firms.

4. Administrative barriers

Actions of the government:

- Red-tape checks and procedures inspections, valuation, packaging requirement, etc.
 - When goods are imported, there are usually administrative processes that have to be undertaken
 - If these processes are lengthy and complicated, then they can act as a restriction to imports
- Health and safety standards & environmental standards
 - Various restrictions may be placed on the types of goods that can be sold in the domestic market, or on the methods used in the manufacture of certain goods
 - time-consuming testing and inspection procedures
 automatically eliminate a range of imports
- Embargos: a complete ban on imports and is usually put in place as a form of political punishment.
 - An embargo is a extreme quote, it is rare. Economic sanctions are more common.
- → Ultimately reduce the quantities of imports



4. Administrative barriers

Objectives:

- Concerns for health and safety of the domestic population
- Reduce possible negative Environmental effects
- Disguised attempt to limit imports, and therefore is a kind of 'hidden' trade protection.

Effects:

- Increase the domestic price of the imported good
- Protecting inefficient producers
- Increase allocative inefficiency.



Summary

Impact on stakeholders	Tariffs	Quotas	Production subsidies	Export subsidies	Administrative barriers
Producers	gain	gain	gain	gain	gain
Workers	gain	gain	gain	gain	gain
Government	gain	neutral	lose	lose	neutral
Taxpayers	neutral	neutral	lose	lose	neutral
Consumers	lose	lose	neutral	lose	lose
Domestic society Producer efficiency	lose	lose	lose	lose	lose
Domestic society Income distribution	lose	lose	neutral	lose	lose
Domestic society Resource allocation	lose	lose	lose	lose	lose
Foreign producers	lose	lose	lose	lose	lose
Global society Resource allocation	lose	lose	lose	lose	lose

Arguments for and against trade protection (AO3)



- 1. Protection of infant(sunrise) industries
- 2. National Security
- 3. Health, safety and environmental standards
- 4. Economically least developed country (ELDCs) diversification
- 5. Anti-dumping
- 6. Unfair competition
- 7. Correcting a balance of payment deficit
- 8. Tariffs as a source of government revenue
- 9. Protection of domestic jobs

- 1. Domestic firms lack incentive to become more efficient
- 2. Increased costs
- 3. Higher prices
- 4. Less choice
- 5. Misallocation of resources
- 6. Reduced export competitiveness
- 7. Retaliation
- 8. potential for corruption
- 9. negative effects on the price level, real GDP and employment.

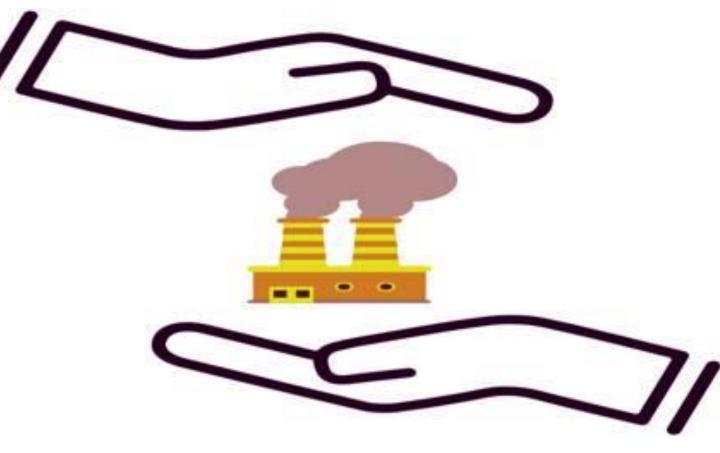


Protection of infant(sunrise) industries

- An **infant industry** is a new domestic industry that has not had time to establish itself and achieve efficiencies in production, and may therefore be unable to compete with more 'mature' competitor firms from abroad with economies of scale, lower cost and lower price.
 - A country may have a comparative advantage in the production of a particular industrial good, but cannot specialize in it unless it first receives some **temporary protection** before it matures.
 - Nowadays, it is used mainly for developing countries trying to expand their production into new areas and industries.

- It may be difficult for government to know which particular industries have the potential to become low cost producers.
- Protected firms may have no incentive to become efficient
- Government may continue to protect an industry even long after it has matured and is no longer an infant.







National Security

• Certain industries are essential for national defense (such as aircraft, weapons, chemicals, certain minerals), and should be protected so that it remain 'self-sufficient' in case of times of major crisis, such as global political conflict, trade wars or armed wars.

- It can be used by industries that have an indirect use in defense to try to acquire protection against foreign competitions. Such as steel industry, candles, gloves, umbrellas, plastics, and so on.
- Political and military decision, not economic decision.



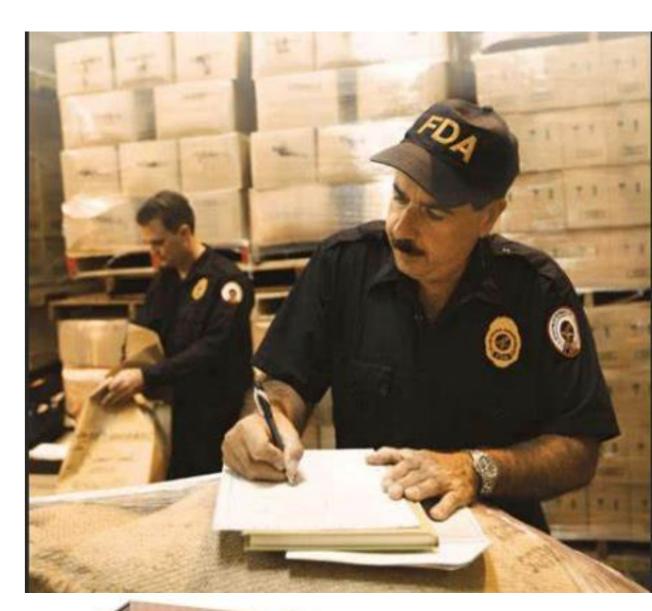


Health, safety and environmental standards

- Many countries sets its own health, safety and environmental standards that all imported products must meet before they are allowed to enter.
 - Sometimes, domestic firms relocate their production facilities to avoid stricter controls and fines, they then import their goods back into the economy. This makes it hard for the firms that stayed domestically and adhered to cleaner production guidelines to compete. Trade protections might be introduced

Drawbacks:

• It may be used as a form of 'hidden' protection to keep certain goods out if they are competing with domestically produced goods.







Economically least developed country (ELDCs) diversification Economic diversification is the opposite of specialization.

- An Economically least developed country is a low-income country that faces severe structural barriers to sustainable economic development.
- Many ELDCs are very highly specialized in producing and exporting only a few primary commodities (with low PED and high price volatility), countries may be better off diversifying their production and exports.
- To be able to diversify, countries use trade protection policies to keep out imports of goods they would like to produce themselves.



- Government may not know which products or industries are the most appropriate to select for protection that will allow for successful diversification.
- Higher price for Consumers. In the short run, this could lead to a lower standards of living, which might eventually lower economic growth and development in the long run.



Anti-dumping

- Dumping refers to the practice of selling a good in international markets at a price that is <u>below the</u> <u>cost of producing it</u> (usually by providing export subsidies), it often threatens the survival of local firms.
- It is illegal according to international agreements.
- If a country suspects that a trading partner is practicing dumping, it should have the right to impose tariffs or quotas in order to limit imports of the subsidized, or dumped good.

- It is difficult to prove
- Many governments often use it as an excuse to offer protection to their domestic producers.







Prevent Unfair competition

- Unfair competition refers to practices that countries may use in order to gain a competitive advantage over other countries in order to unfairly increase their exports at the expense of other countries. Examples include:
 - Dumping
 - The more general use of production and export subsidies → lower costs of production → more export
 - Administrative barriers or 'hidden protection' countries limit their imports using questionable means.
 - Undervalued currencies whereby countries seek a lower value for their currency to make their export more competitive in foreign markets
 - Violation of intellectual property firms or individuals within countries illegally obtain ideas, trade secrets, inventions or anything else which is a creation of the human mind (intellectual works) and then use these to their own advantage.

- It is difficult to prove
- Many governments often use it as an excuse to offer protection to their domestic producers.





Correcting a balance of payment deficit

- A balance of payments deficit occurs when the outflow of money from a country is greater than the inflow, and usually happens when there are more imports than exports.
- Possible solution
 impose barriers to the entry of imports into the country, limiting imports and therefore the need to make payments abroad.

- Falling exports in exporting countries
- Risk of retaliation
- Only short term emergency solution.





Tariffs as a source of government revenue

- More common in developing countries.
- Easy to collect.
- Government tend to target goods and services that have a low PED, so that the government will be able to impose relatively large taxes without much impact on the availability of products to consumers. E.g. Luxury goods.



- Regressive tax → negative impacts on income distribution
- Negative effects on allocative efficiency.
- The convenience of relying on tariff revenues may work as an excuse for governments to delay tax system reform.
- Short-term and temporary measure.





Protection of domestic jobs

- Whenever domestic consumers buy imported goods, they are creating a derived demand for labour in another country rather than in their own domestic country. → job losses in domestic industries → negative impacts on the standards of living of households in an economy.
- Import restrictions increase domestic production, thus increasing employment.



- If import restriction apply to goods (A) that are used as inputs in the production of other goods (B) → higher cost of production of other goods (B) → lower production in these industries → increased unemployment. The increased employment in industry A may even be less than the decreased employment in industry B.
- The foreign countries that are hurt may retaliate by imposing import restrictions of their own.
- In the long run the economy will be more efficient if those resources were allocated to more competitive sectors of the economy.



Domestic firms lack incentive to become more efficient

- Producers and workers are the only stakeholders who gain from all types of trade protection.
- The increase in domestic production is inefficient. In the long-run, the lack of competition for domestic firms could lead to inefficiency and lower productivity (X-inefficiency)



Increased costs

- Some countries import a large amount of their factors of productions (raw materials, capital and even labour), such as HK, PRC and Singapore. If the government engages in trade protection measures, the price of these imported products will increase and therefore an increase in the cost of production for domestic producers. → reduced profits of domestic firms
- Possibility of firms moving their production overseas.



higher prices

Consumer lose in most cases, due to higher prices of protected goods and lower quantities of goods available in the market. (except production subsidies)

- → Lower standard of living
- Income distribution in most cases worsens. (except production subsidies)
 - Regressive effect of tariff



Less choice

- Trade protection measures can lead to foreign firms exiting the local market.
- It results in less competition in the market and leaves domestic consumers with less choice or only domestically produced goods to satisfy their needs and wants.
- Lack of competition → less incentive for domestic firms to be competitive, productive or innovative → less choice for domestic consumers → a fall in overall standards of living.



Misallocation of resources

Domestic and global resource allocation lose under all forms of trade protection.

- In most cases, it cause a loss in domestic consumer surplus and a gain in domestic producer surplus, but the sum of CS and PS is lower after the imposition of trade protection.
- Resource misallocation domestically.
- There is resource misallocation on a global scale as production moves away from lower cost producers in other countries to higher cost producers who are enjoying the protective measures.

Reduced export competitiveness

Trade protection may have negative effects on a country's export competitiveness.

• In a protected industry, the product will have lower competitiveness in export markets due to the higher price.

• E.g. The government protect fertilizer industry \rightarrow higher price of fertilizer \rightarrow farmers buying the fertilizer face higher cost of production \rightarrow final agricultural products to sell at a higher price \rightarrow lower competitiveness of

export markets.



Retaliation

Trade protection may give rise to trade wars through retaliation.

- Unilateral retaliation
- Multilateral retaliation (group of economies)
- As one country imposes barriers on imports, other countries may retaliate by imposing their own barriers.
- → Chain reactions with countries becoming more and more protectionist, with serious negative effects on global output and resource allocation.

Trade protection creates a potential for corruption

 Restrictions on imports may pave the way for bribes and smuggling goods illegally into a country, or may result in tariff and other revenues going into the pockets of bureaucrats rather than the government budget.





- Trade protection may have negative effects on the price level, real GDP and employment.
 - If domestically produced good A that are protected be used as inputs in the production of good B. → domestic price of good A increase → producers of good B will have higher cost of production.
 - the price of good B increase
 - If we look it from macroeconomics point of view, the short run aggregate supply decreases, SRAS curve shifts to the left → cost-push inflation → real GDP falls and unemployment increases, price level increases.



Free trade versus trade protection (AO3)

- The arguments in favor of and against trade protection discussed above.
- The benefits of trade discussed in Chapter 14, section 14.1.
- The advantages and disadvantages of the various trade protection measures discussed in chapter 14, section 14.3.
- → From different stakeholder perspectives
- → Consider the short-term and long-term implications of free trade and trade protection.
- → Different types of goods and services.
 - Generally the consumer suffers, but what if the trade protection is on socially undesirable goods, such as tobacco products, junk food, high caffeine energy drinks and violent video games?
 - The tariffs and quotas will reduce efficiency in the domestic market, but it may be socially desirable if the good or service generates considerable negative externalities.
- → The link between consumers and producers. Households are employed by firms, the increase in revenue to domestic firms will trickle down to their employees and therefore consumers in the long run.