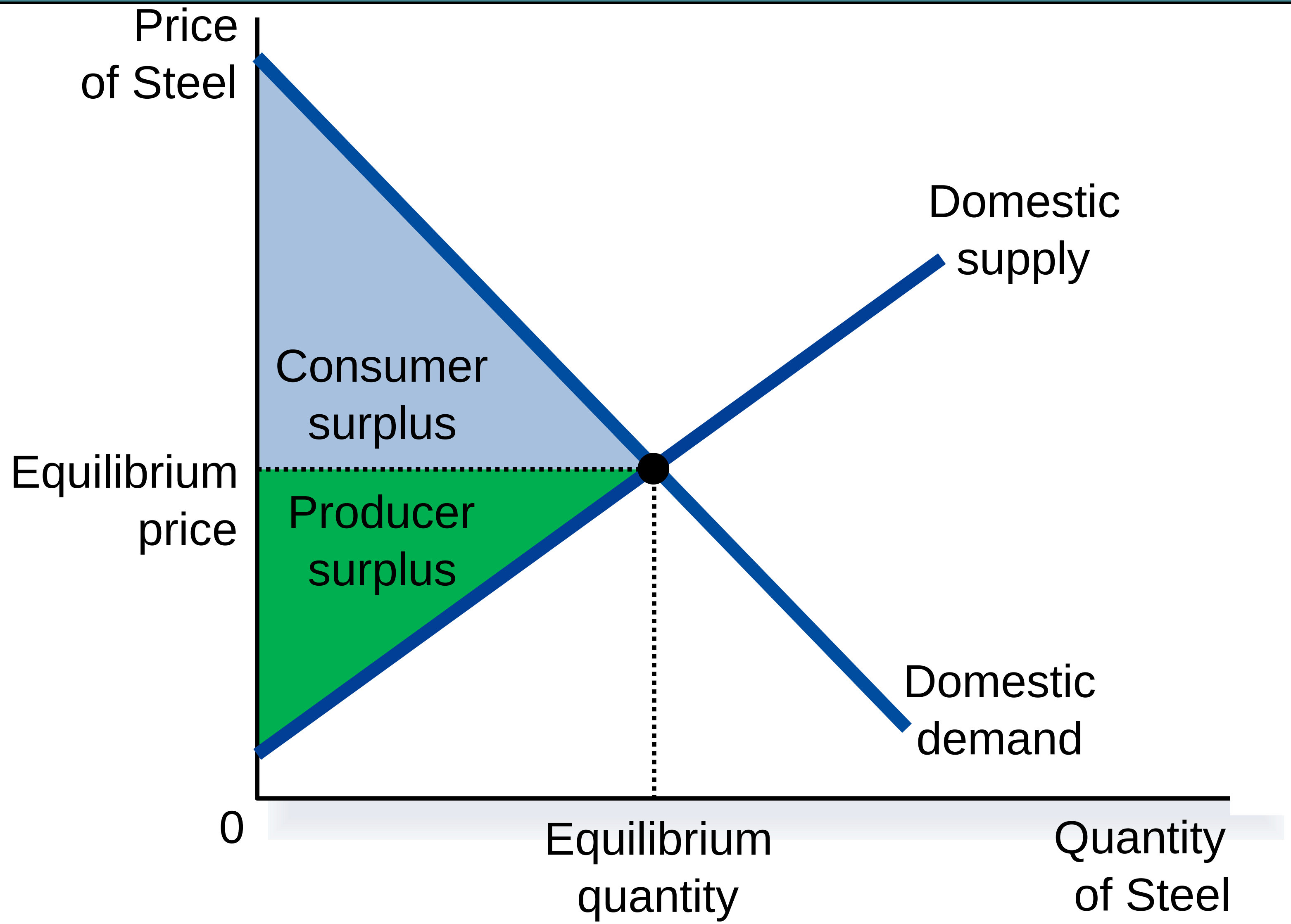
Chapter 9

International Trade

The Determinants of Trade

- Suppose a small, isolated country called Hamiltonia produces steel and there is <u>no</u> international trade.
- There are no steel exports leaving Hamiltonia and no steel imports coming in.
- A country that does not trade and is totally self-sufficient is called an autarky.
- Equilibrium price and qty of steel produced is determined by domestic market conditions:

Domestic Equilibrium in the Steel Market



- Now, what if there were international trade?
- An economy that engages in international trade is an open economy.

- Would Hamiltonia become a steel exporter or importer?
- If Hamiltonia has a comparative advantage in steel, the domestic price of steel will be lower than the world price and Hamiltonia should export steel.
- If the world has a comparative advantage in steel, the price of steel will be lower than the domestic price and Hamiltonia should import steel.

In general,

If a country has a comparative advantage

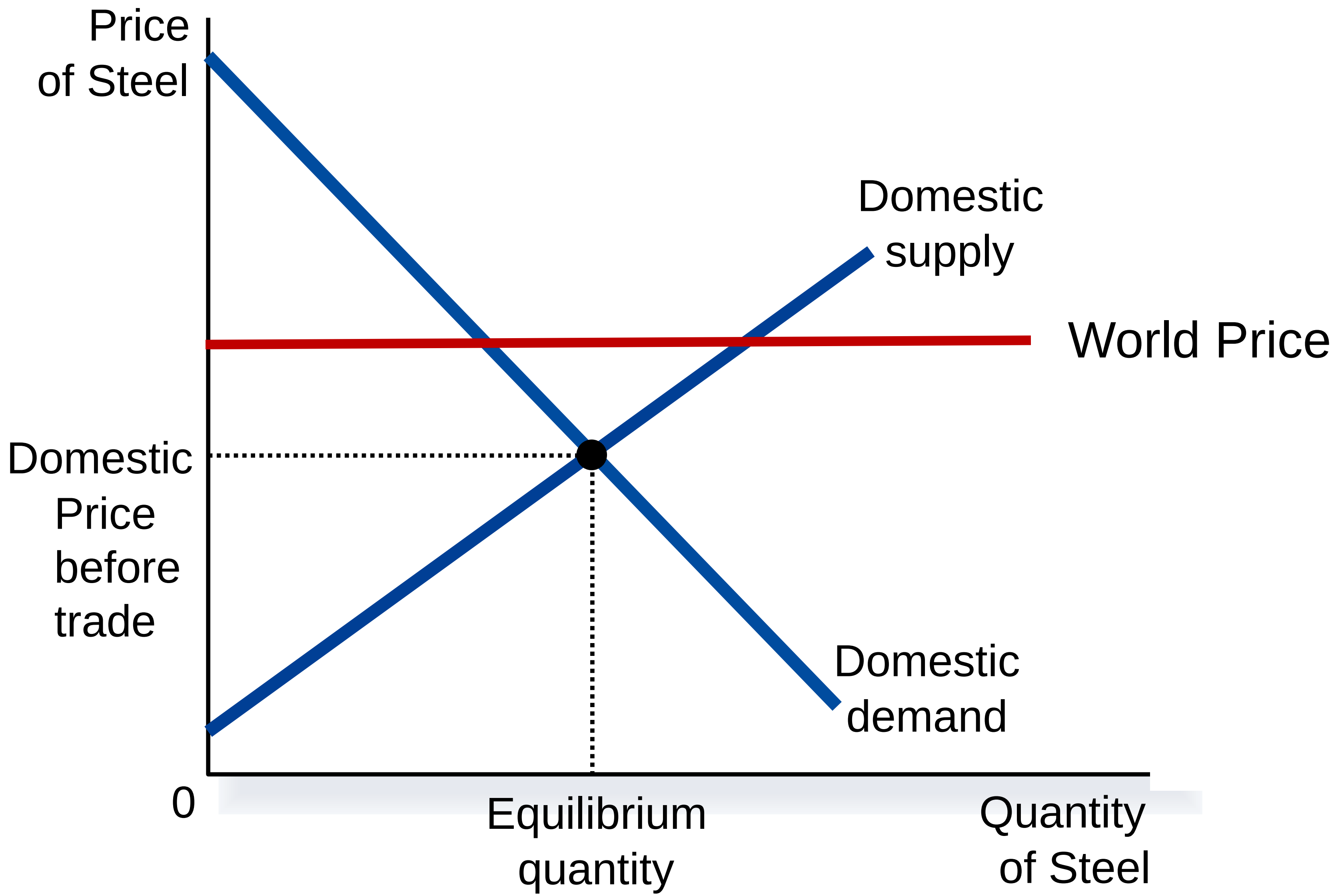
- the domestic price will be below the world price.
- the country will be an *exporter* of the good.

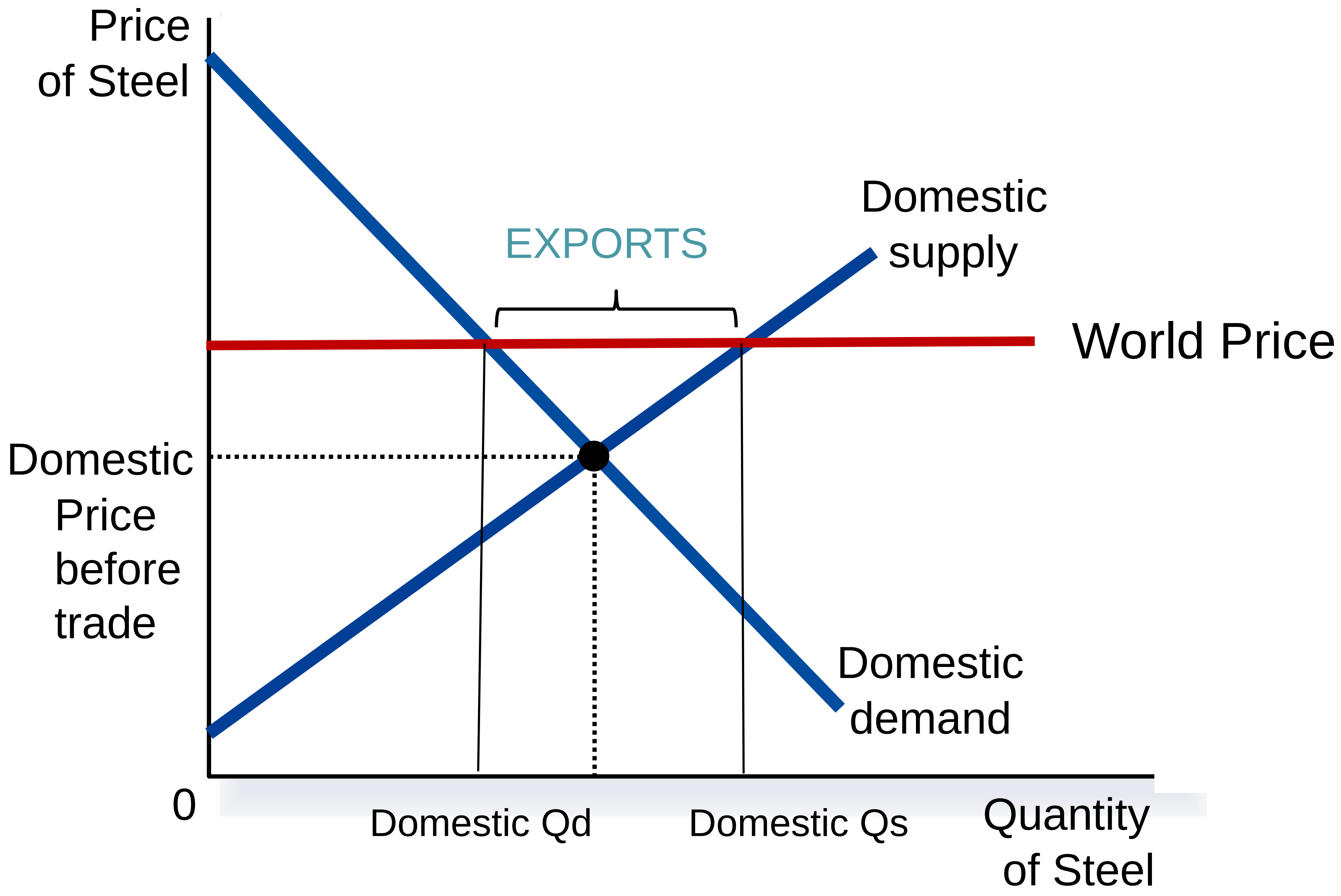
If the country does not have a comparative advantage

- the domestic price will be higher than the world price.
- the country will be an *importer* of the good.

Example: A Steel Exporter

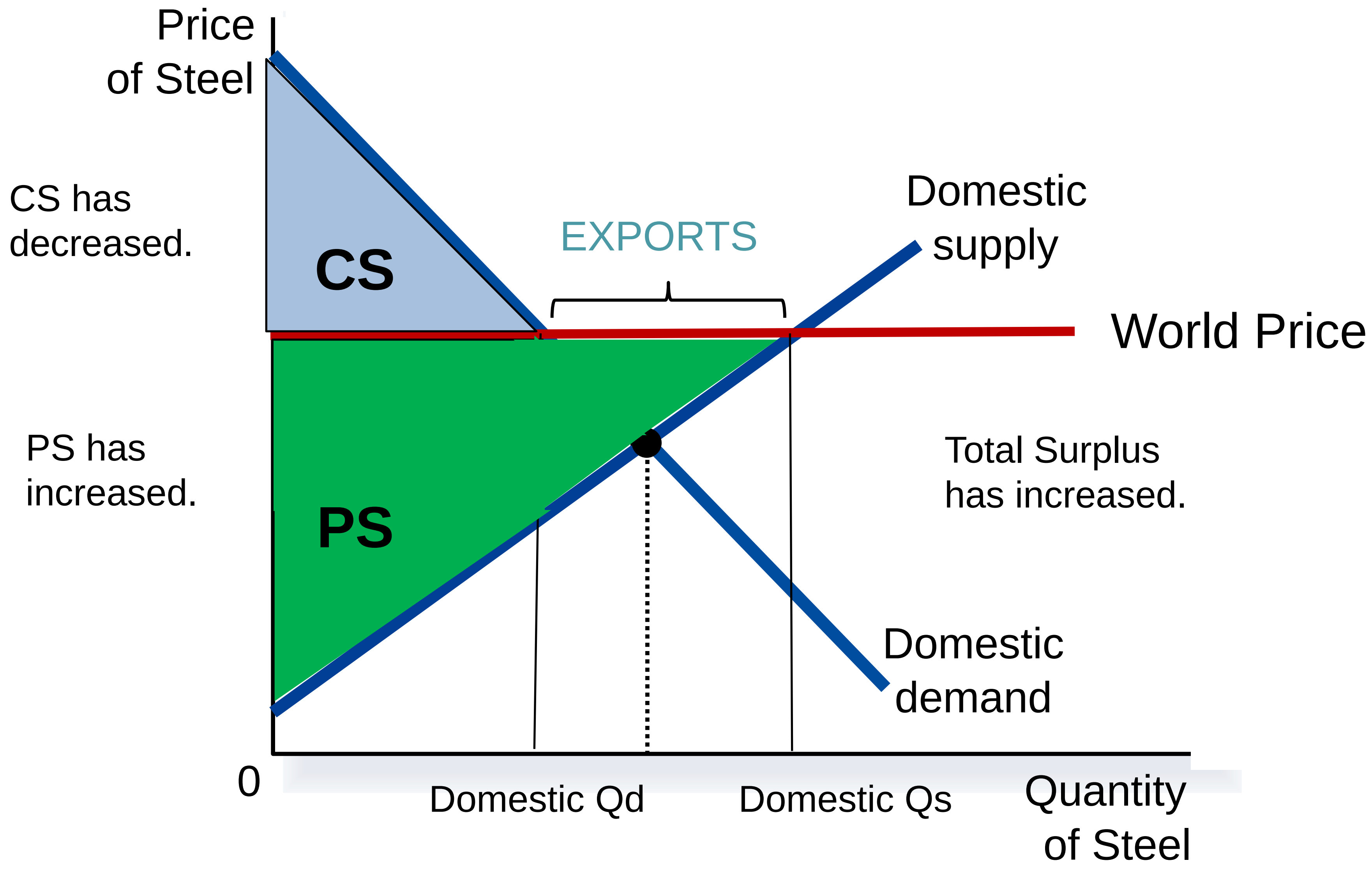
- If the world price of steel is higher than the domestic price, the country will be an exporter of steel when trade is permitted.
- Domestic consumers will have to buy steel at the higher world price because domestic firms now will not accept any price that is lower than what they can get from international buyers.
- Domestic producers of steel will increase output because the *domestic price moves to the world price*.

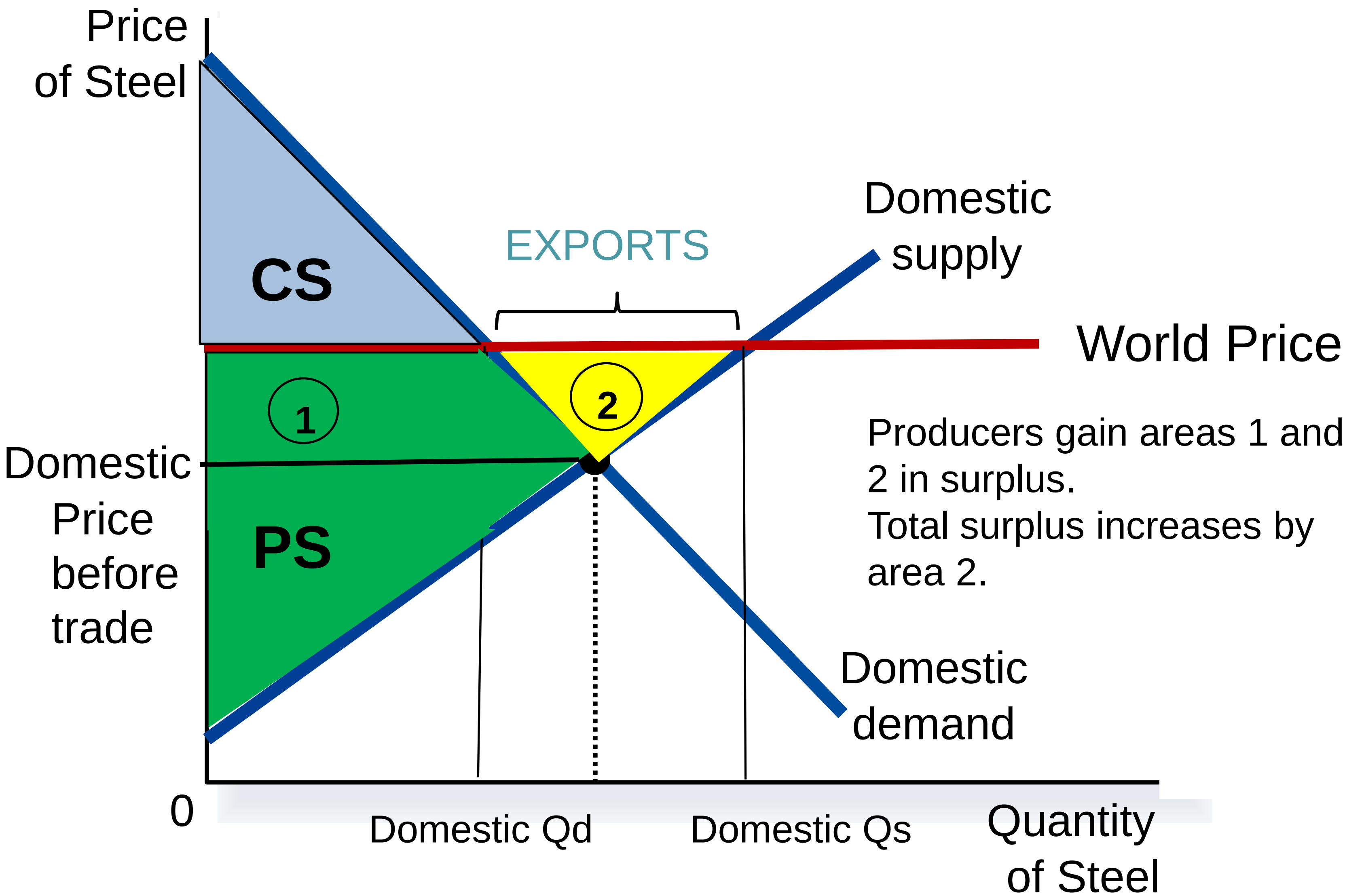

Price
of Steel
Domestic
supply
World Price
Domestic
Price
before
trade
Domestic
demand
0
Equilibrium
quantity
Quantity
of Steel


Price
of Steel
EXPORTS
Domestic
supply
World Price
Domestic
Price
before
trade
Domestic
demand
0
Domestic Qd
Domestic Qs
Quantity
of Steel

- The new world price and new domestic quantities produced and consumed will change total surplus in the exporting country.

Changes in Welfare in an Exporting Country





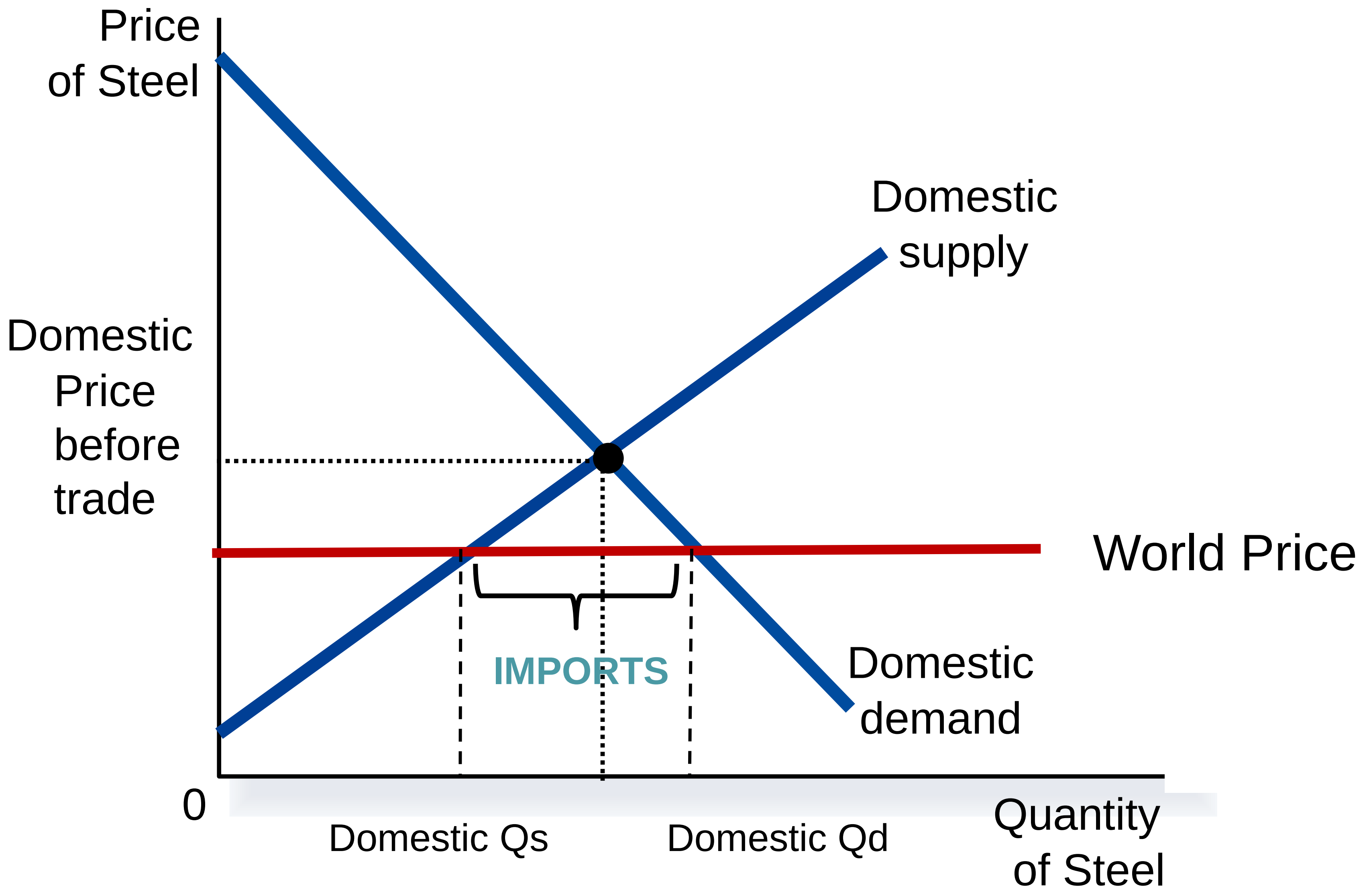
Producers gain areas 1 and 2 in surplus.
Total surplus increases by area 2.

Winners and Losers from Trade

- Domestic consumers lose – they face a higher price and lose CS.
- Domestic producers gain – they receive a higher price and gain PS.
- The nation as a whole gains – total surplus increases.

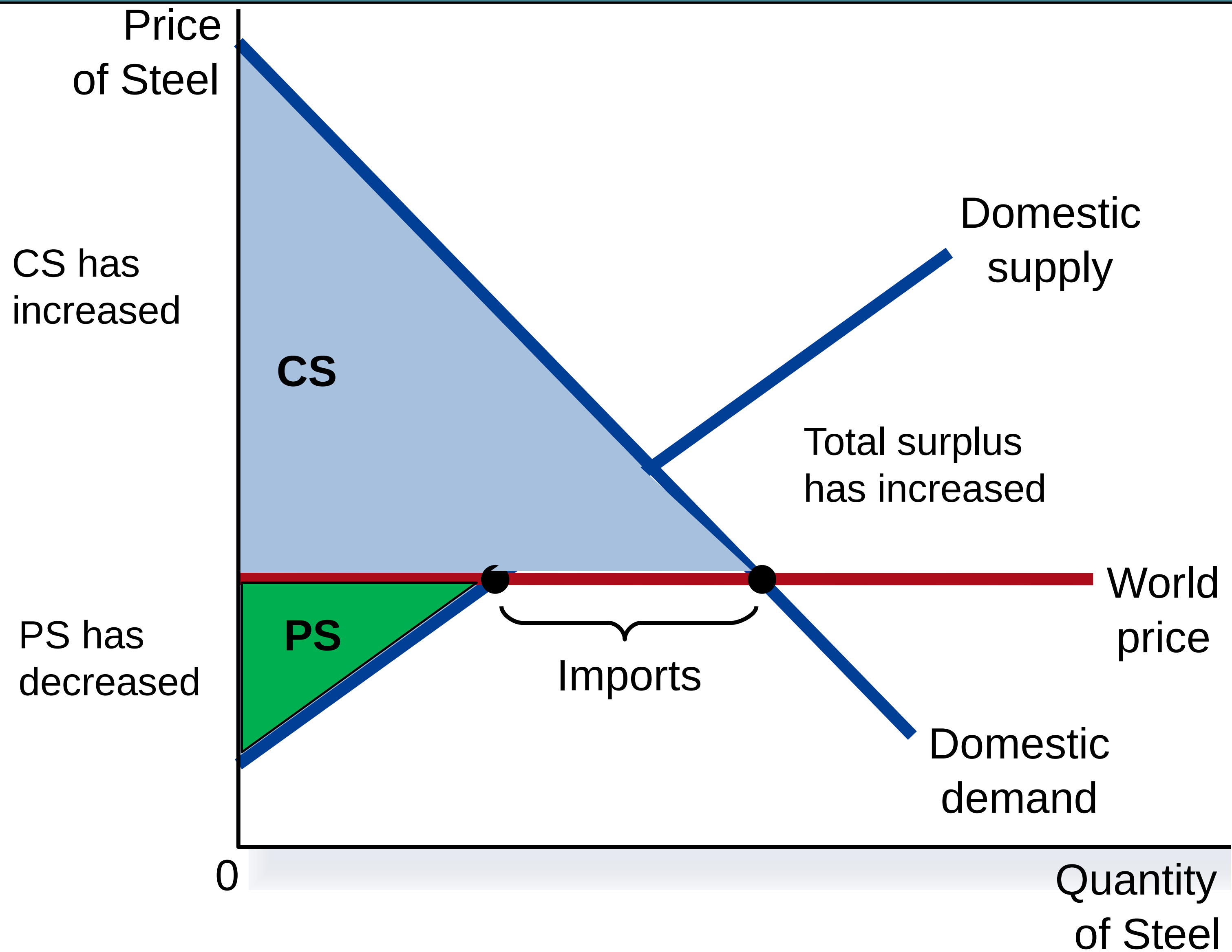
Example: A Steel Importer

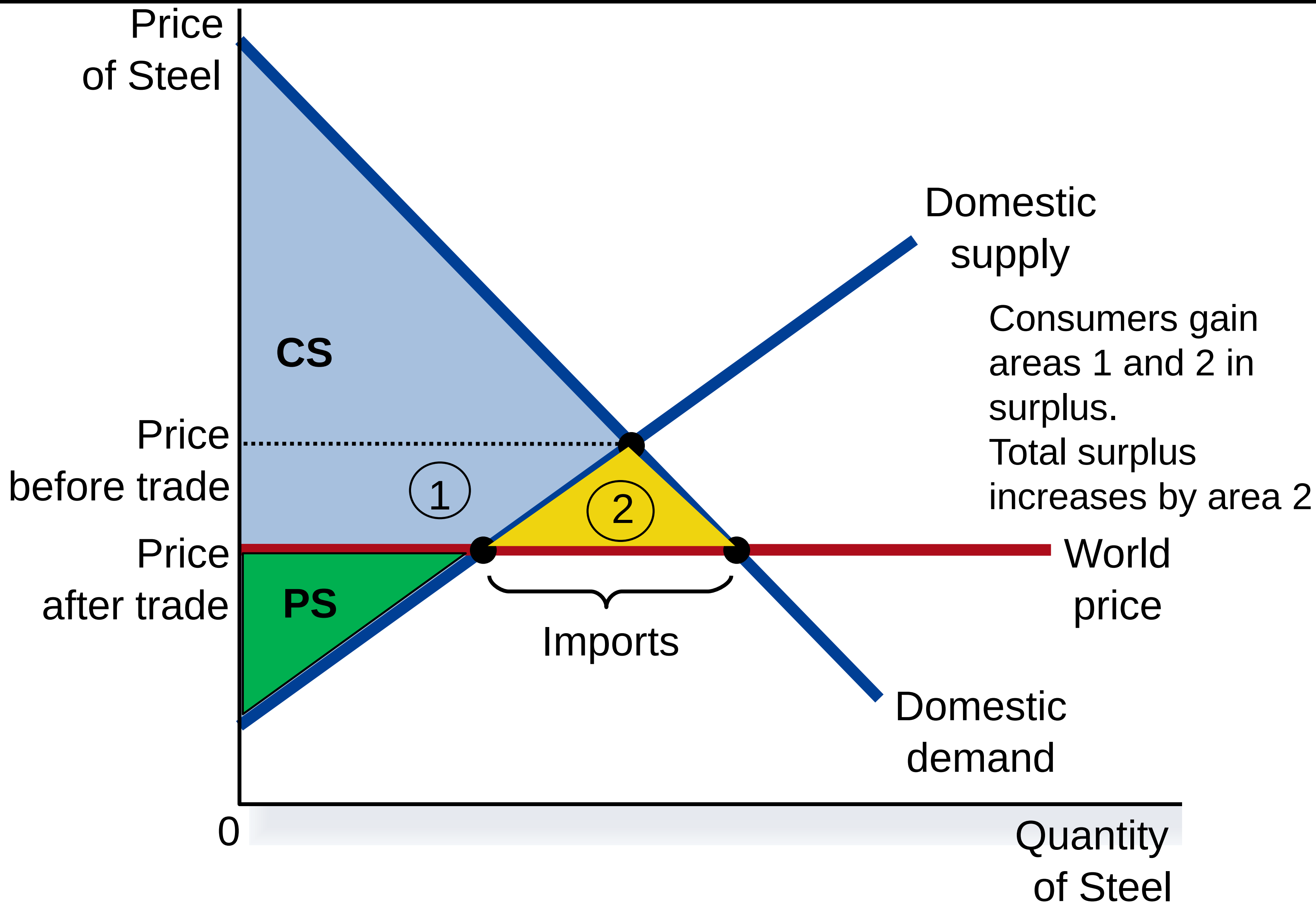
- If the world price of steel is lower than the domestic price, the country will be an importer of steel when trade is permitted.
- Domestic consumers will want to buy steel at the lower world price and will buy it from world exporters if they must.
- Domestic producers of steel will have to lower their output because the *domestic price moves to the world price.*



Price
of Steel
Domestic
Price
before
trade
Domestic
supply
World Price
IMPORTS
Domestic
demand
0
Domestic Qs
Domestic Qd
Quantity
of Steel

Changes in Welfare in an Importing Country





Price
of Steel
CS
Price
before trade
1
2
Price
after trade
PS
Domestic
supply
Consumers gain
areas 1 and 2 in
surplus.
Total surplus
increases by area 2.
World
price
Imports
Domestic
demand
0
Quantity
of Steel

Winners and Losers from Trade

- Domestic consumers consume more at a lower price – they gain CS.
- Domestic producers sell less and receive a lower price – they lose PS.
- The nation as a whole gains in total surplus.

- For both importing and exporting nations, the gains by winners exceed the losses of the losers.
- In each case, the economy as a whole is made better off, so the gains from trade are universal.
- From the individual consumer or firm's perspective, if they lose out, then trade is not good for them.

- A better scenario would be one where the winners from trade compensated the losers so that everyone would be better off.
- In practice, this doesn’t happen.
- Sometimes, the losers from trade have so much political clout that they can successfully lobby for trade restrictions and tariffs.

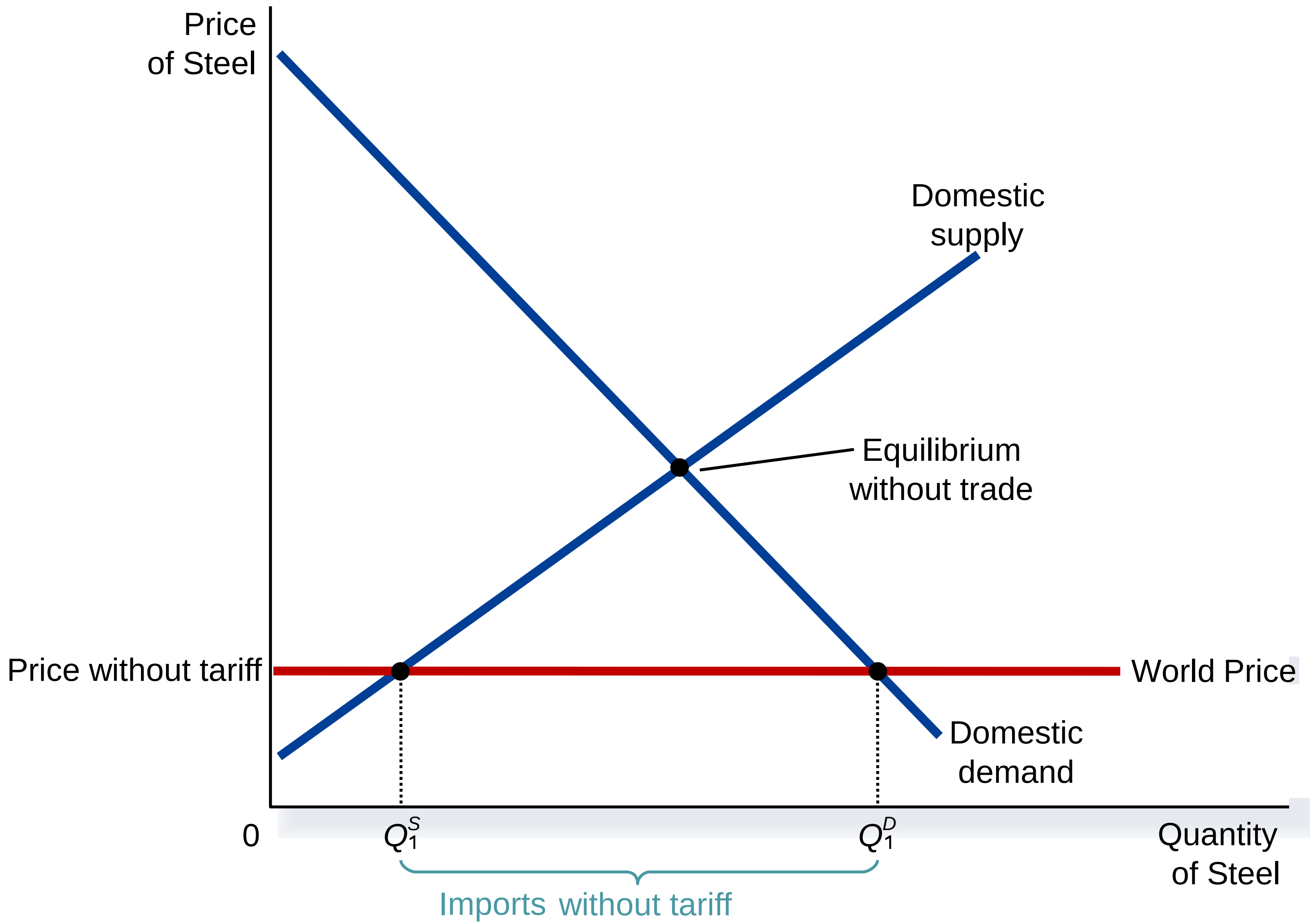
Tariffs

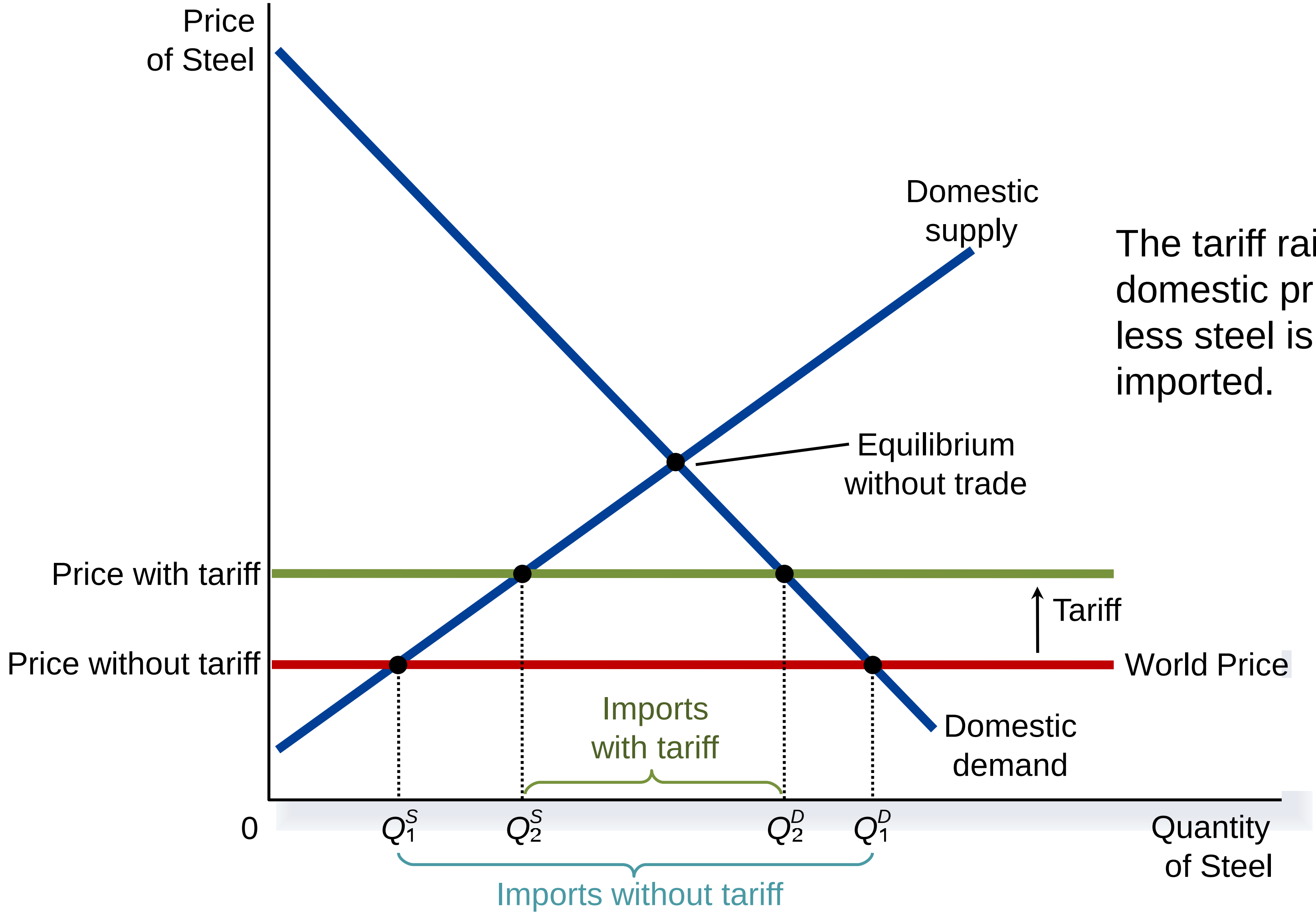
- A tariff is a tax on imports.
- Its purpose is to increase the price that domestic consumers of imported goods would pay such that it would not be worthwhile for them to buy imported goods.
- Example: before NAFTA, automobiles were much cheaper in the US, but the tax (duty) to buy one there and bring it back to Canada made them more expensive than domestic automobiles.

The Effects of a Tariff

- Suppose Hamiltonia is an importer of steel (the world price is lower than the domestic price).
- The Hamiltonian government considers imposing a tariff on steel imports so that domestic steel producers aren't hurt as badly.

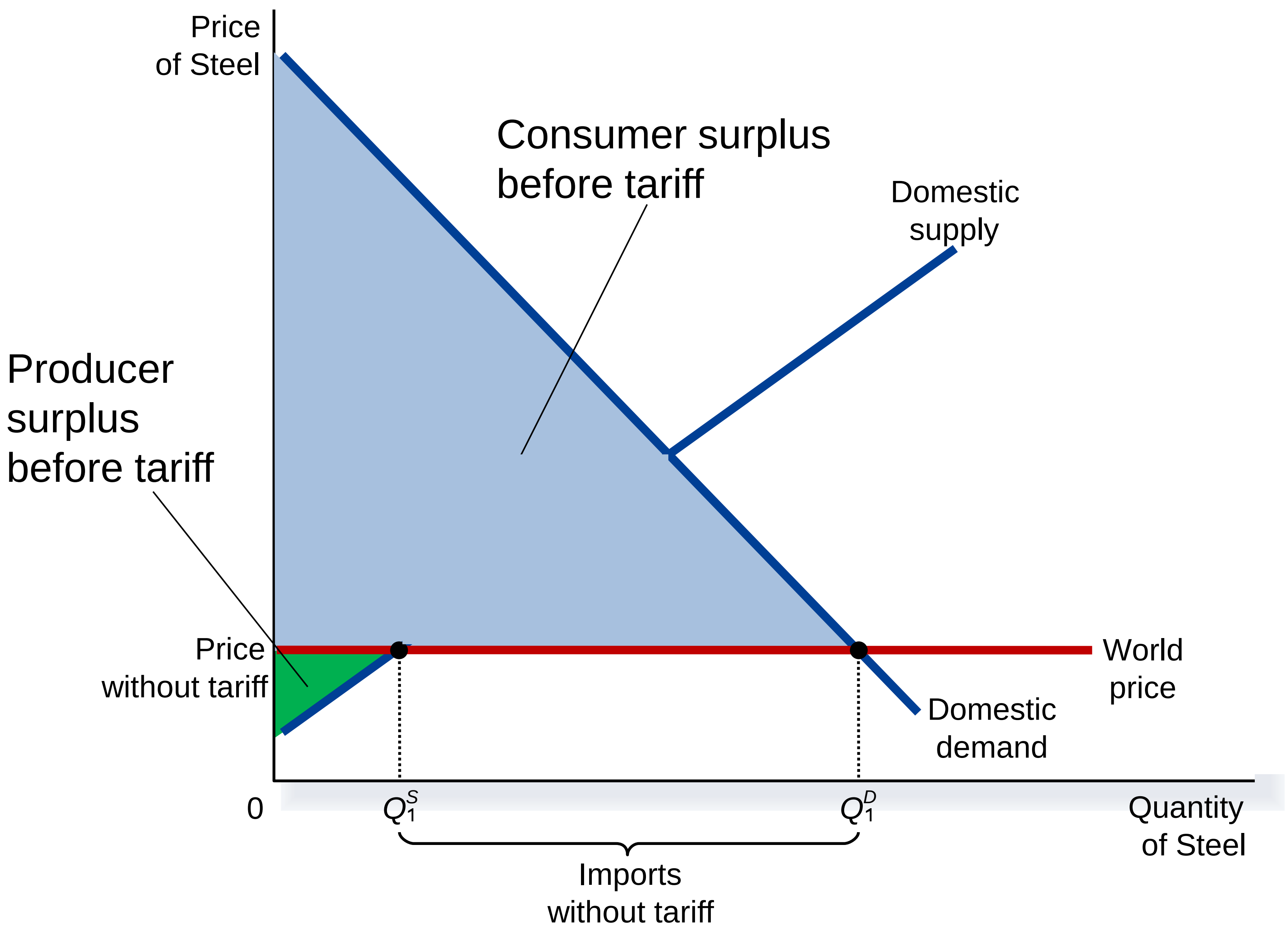
The Effects of a Tariff





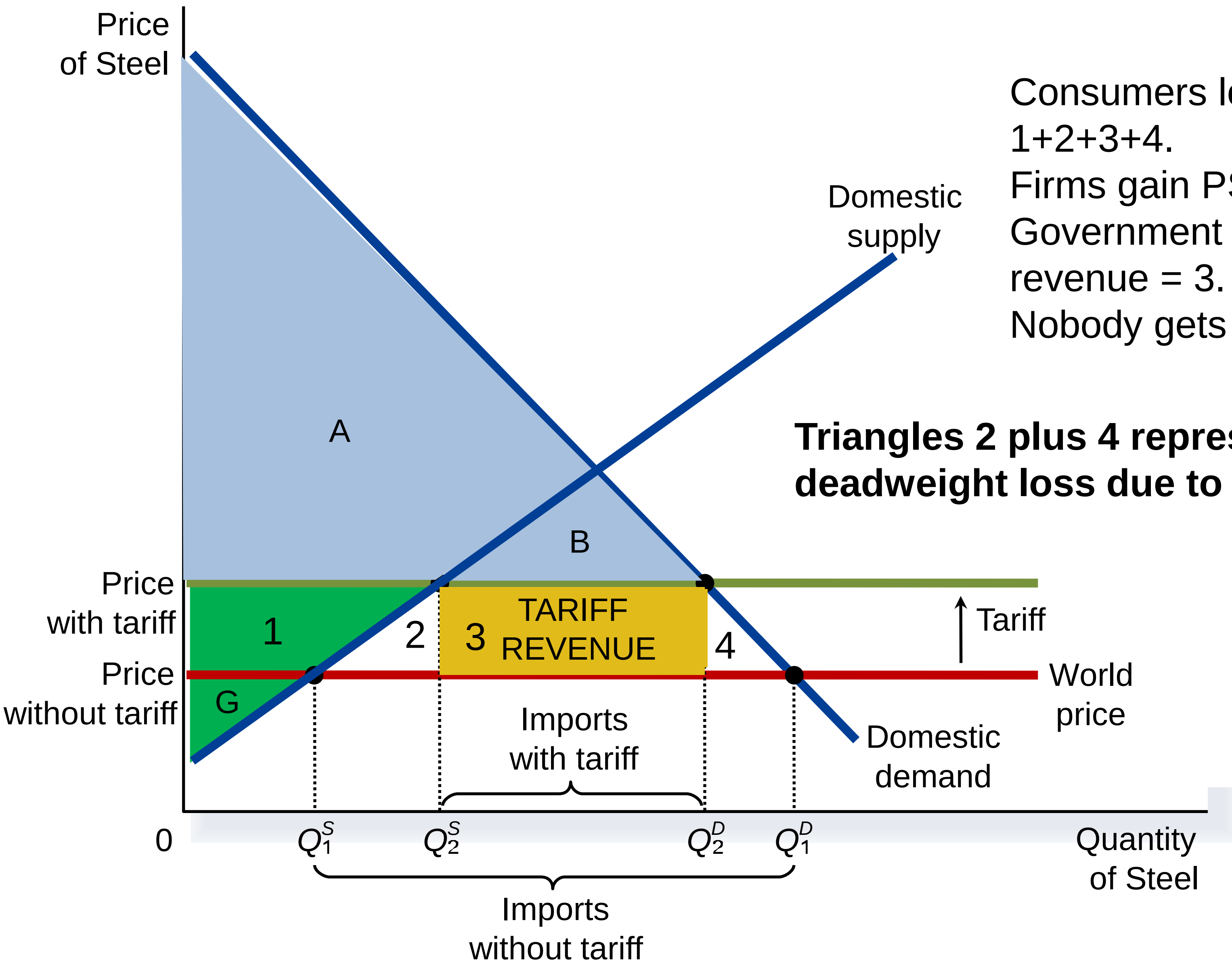
The tariff raises the domestic price and less steel is imported.

- The tariff raises the domestic price of steel.
- Fewer steel imports are bought.
- More domestically produced steel is consumed.
- Domestic steel producers gain by the tariff.
- Domestic steel consumers lose with the tariff.
- The country of Hamiltonia as a whole loses welfare compared to when there was free trade, but the government gains by collecting the tariff revenue.



Price
of Steel
Consumer surplus
before tariff
Domestic
supply
Producer
surplus
before tariff
Price
without tariff
World
price
Domestic
demand
0
Q_1^S
Q_1^D
Quantity
of Steel
Imports
without tariff

The Deadweight Loss Due to a Tariff



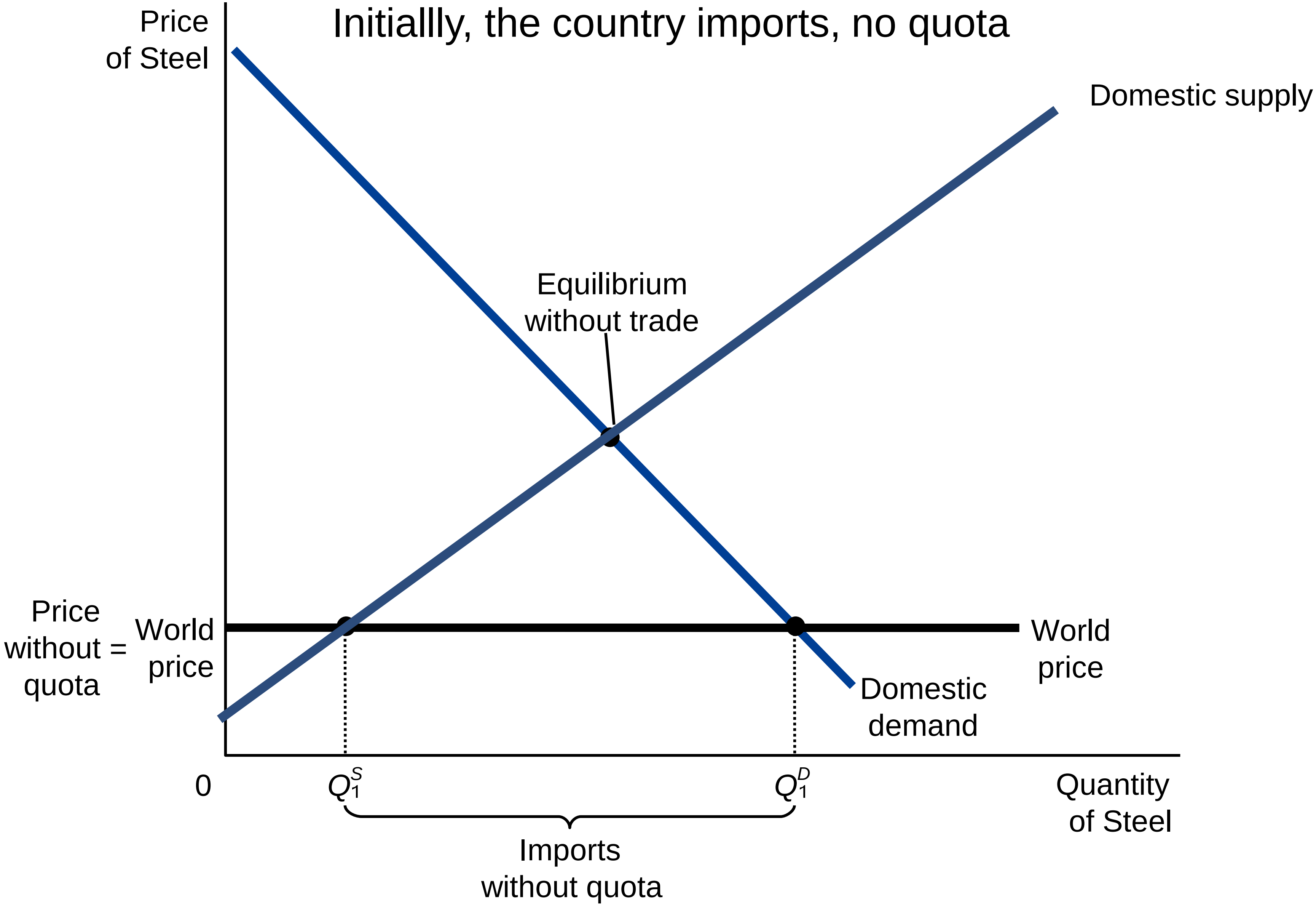
Consumers lose CS = 1+2+3+4.
Firms gain PS = 1.
Government gains tariff revenue = 3.
Nobody gets 2+4.

Triangles 2 plus 4 represent the deadweight loss due to a tariff.

Import Quotas

- The government of Hamiltonia could restrict the quantity of steel allowed to be imported into the country.
- This would result in higher domestic prices.
- Domestic consumers would be worse off.
- Domestic producers would be better off.
- There would be a deadweight loss from the quota, making the entire country of Hamiltonia worse off than if there were free trade.

An Import Quota

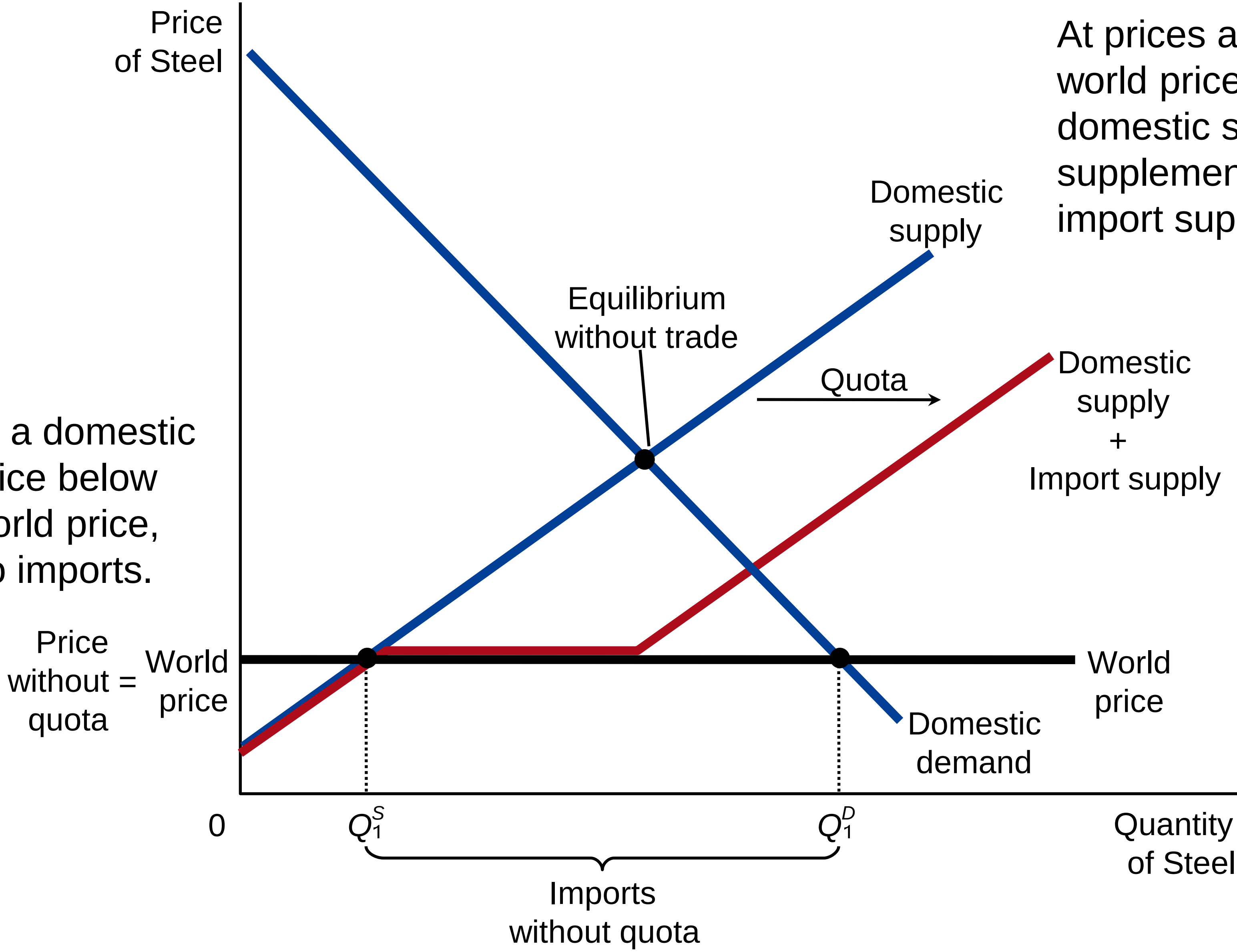


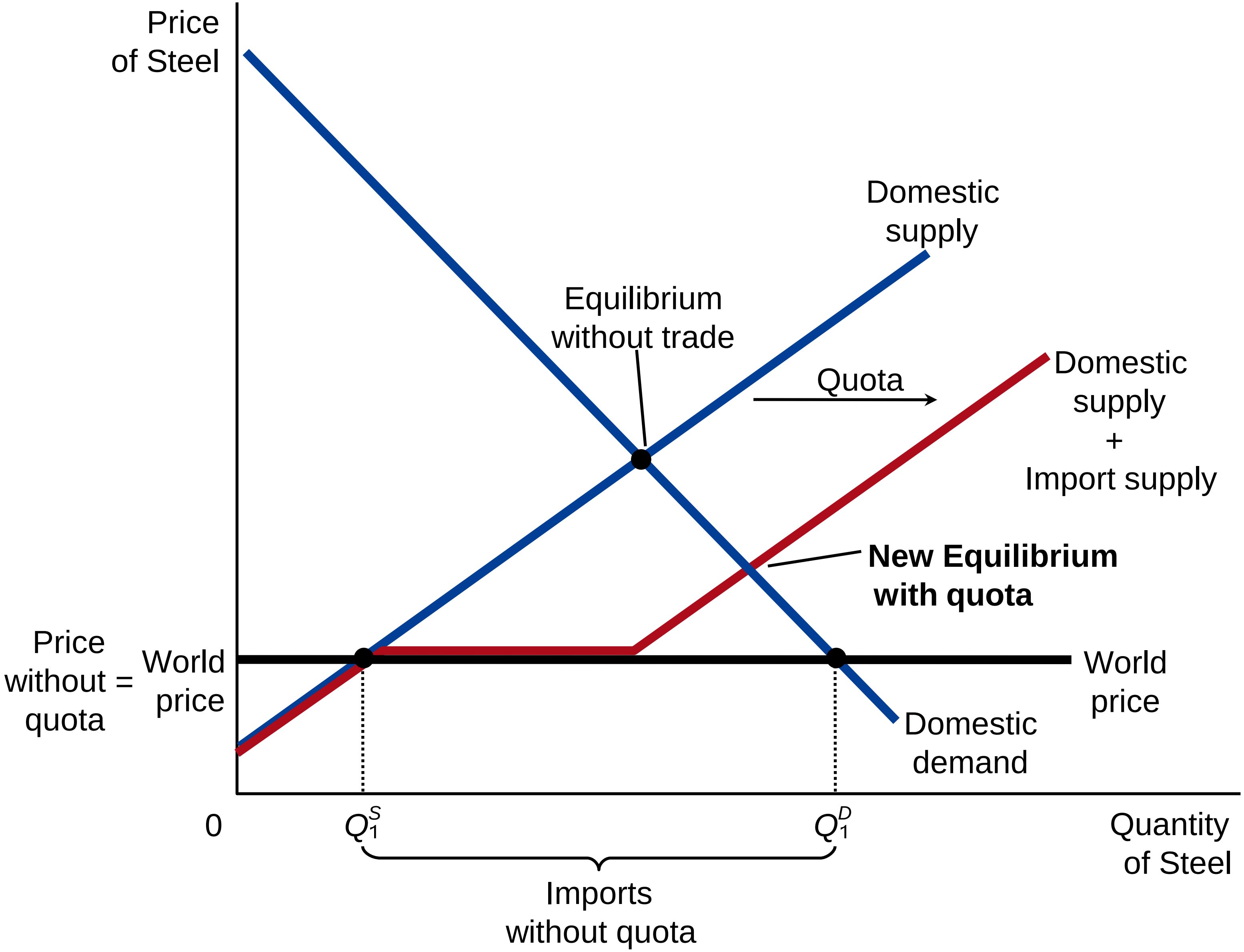
- Hamiltonia distributes licences that give the holders the right to purchase a predetermined amount of steel from the rest of the world.
- As long as the domestic price is higher than the world price, licence holders will import steel to add to the supply in Hamiltonia.
- This means the supply curve shifts out once the price is above the world price.

An Import Quota

At prices above world price, domestic supply is supplemented with import supply.

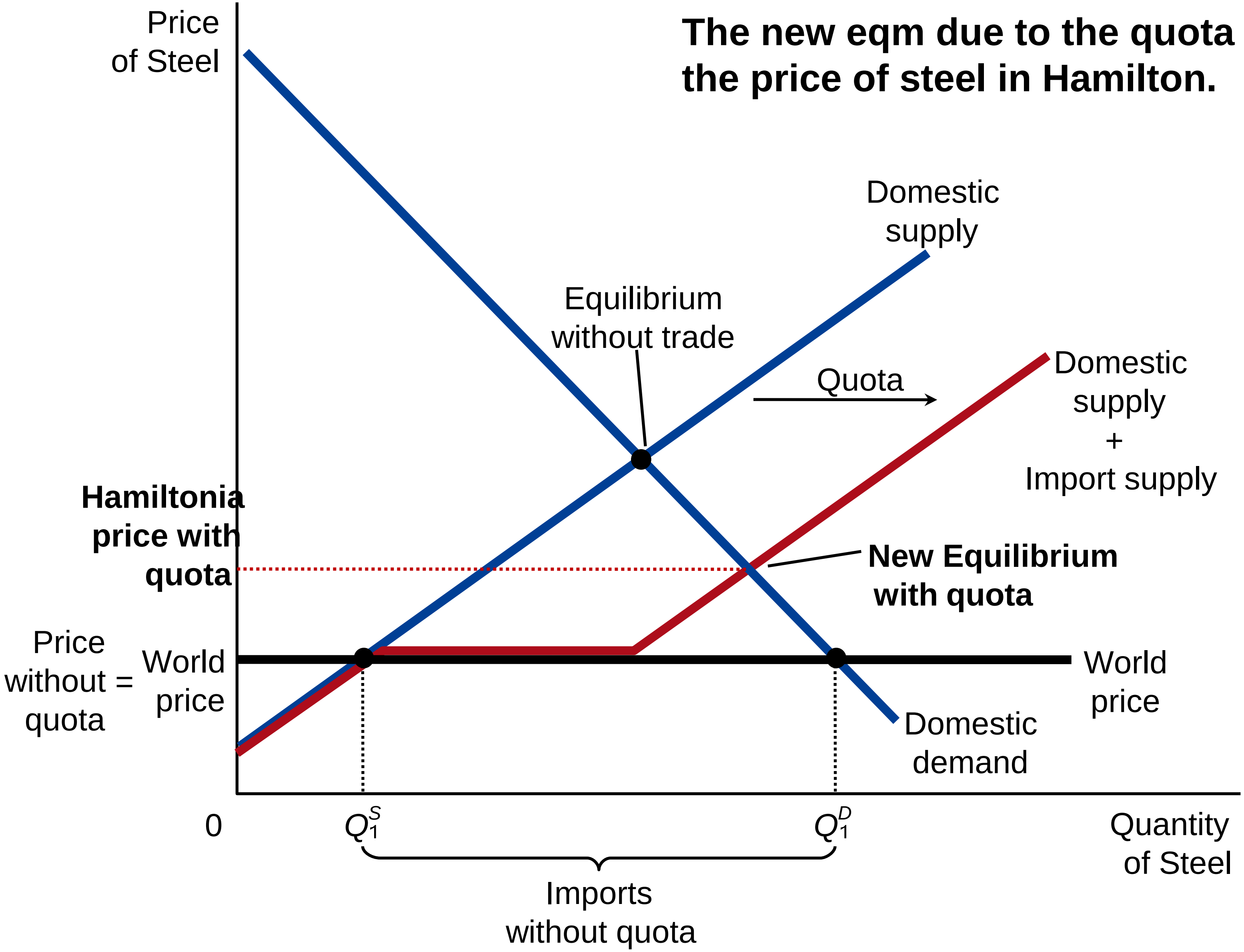
At a domestic price below world price, no imports.



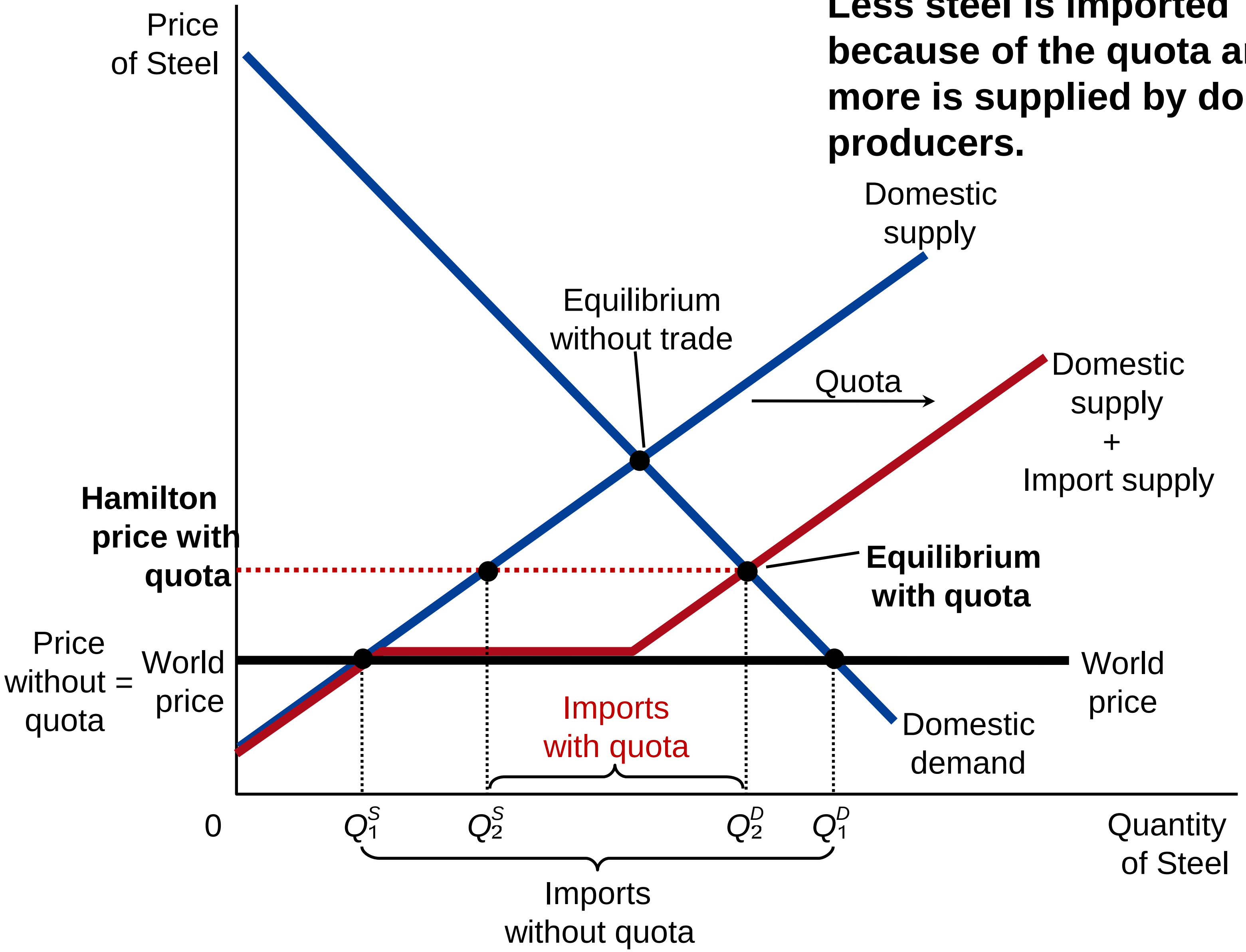


Price of Steel
Domestic supply
Equilibrium without trade
Quota
Domestic supply + Import supply
New Equilibrium with quota
Price without quota
=
World price
World price
Domestic demand
0
Q_1^S
Q_1^D
Quantity of Steel
Imports without quota

The new eqm due to the quota raises the price of steel in Hamilton.



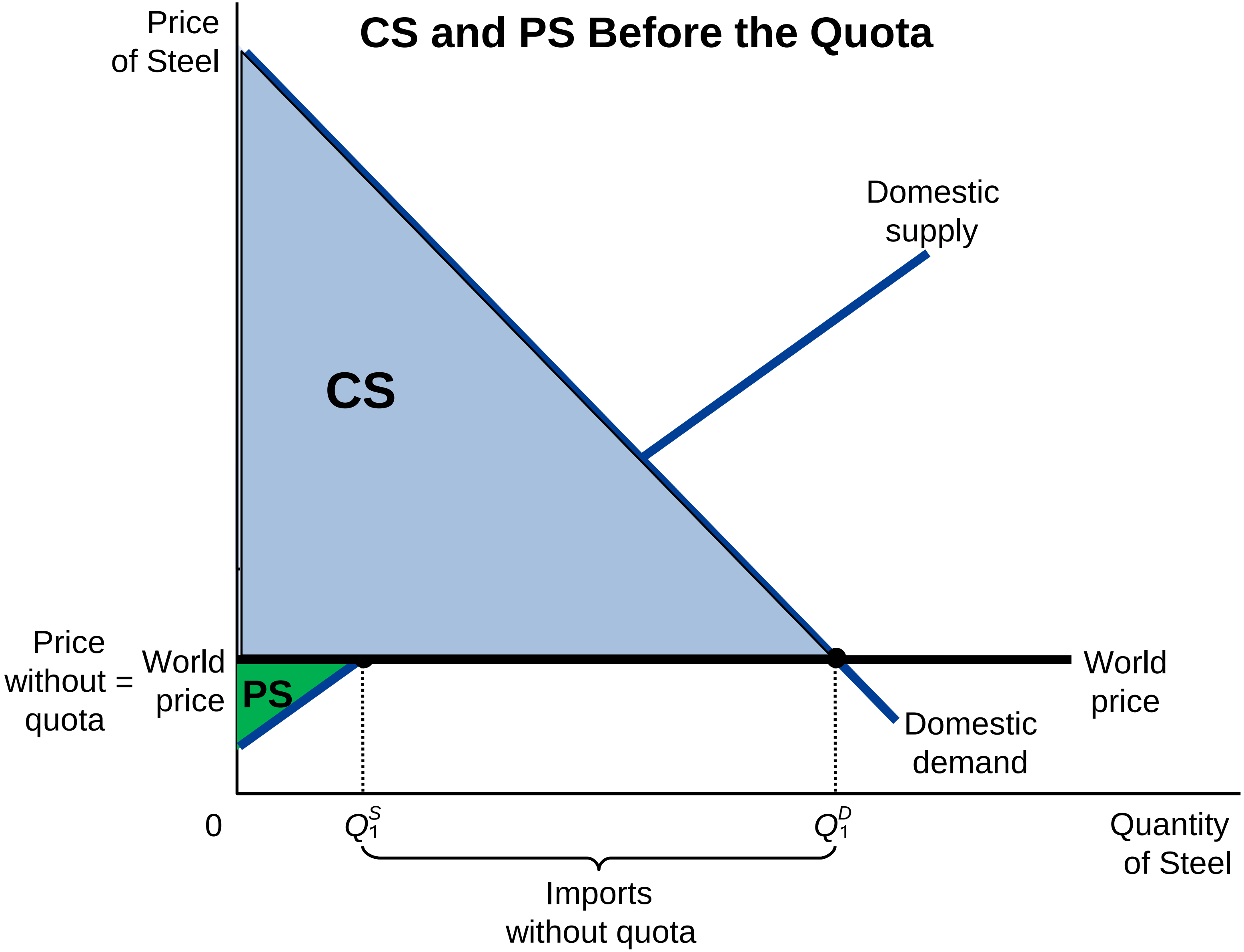
Less steel is imported because of the quota and more is supplied by domestic producers.



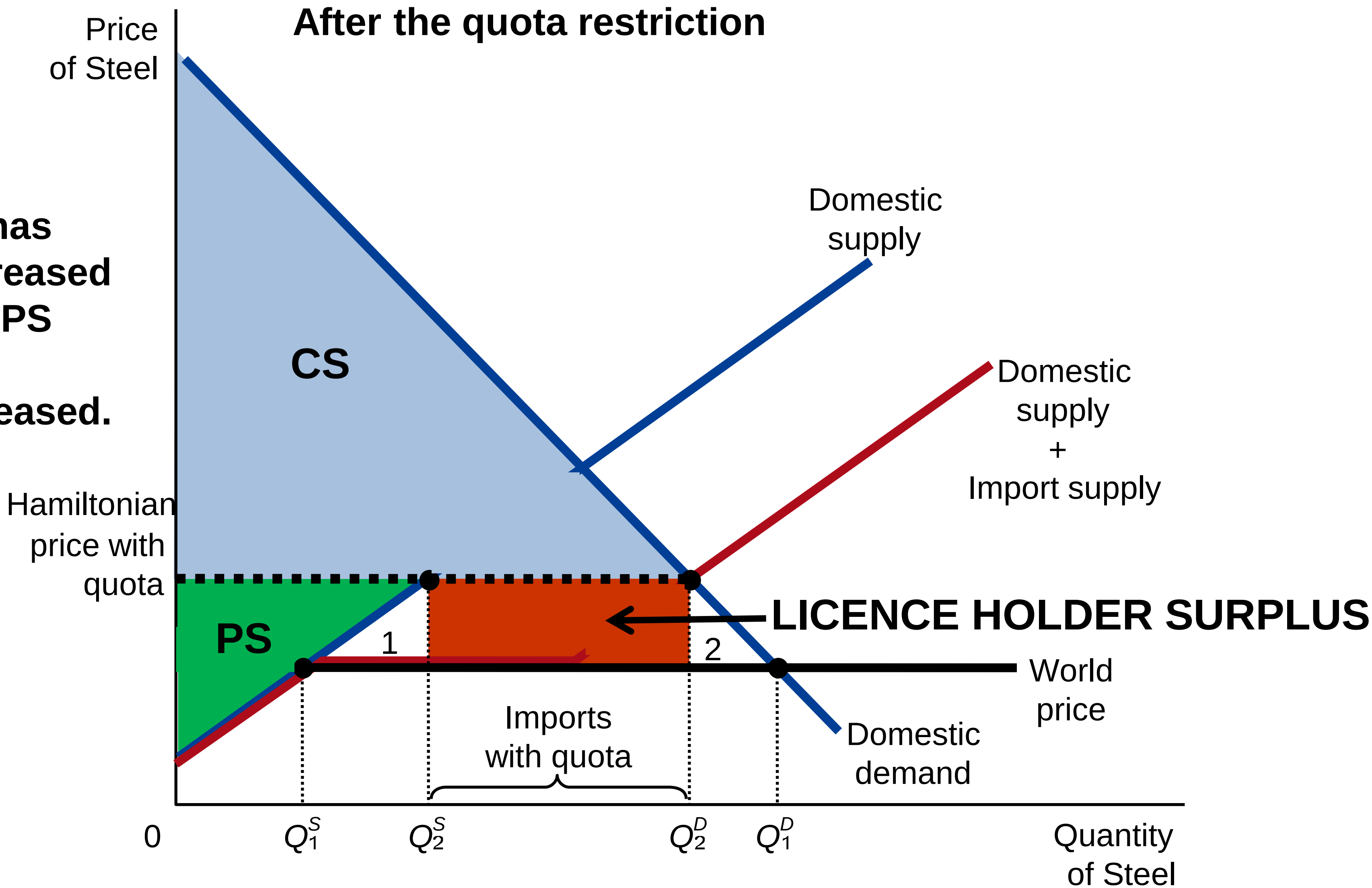
Changes in Welfare

- The imposition of a quota will change CS, PS and total surplus.
- Domestic producers will gain.
- Domestic consumers will lose.
- Total surplus in the economy will decrease since there will be a deadweight loss.

Changes in Welfare Due to a Quota



CS has decreased and PS has increased.



No one gets triangles 1 and 2 – this is the deadweight loss from the quota.

- Tariffs and import quotas are essentially the same.
- They both result in deadweight losses and a reduction in society's welfare.
- The only difference is that tariffs raise revenue for the government, where import quotas create surplus for licence holders.
- In practice, governments rarely issue licences to restrict imports (they prefer tariff revenues).

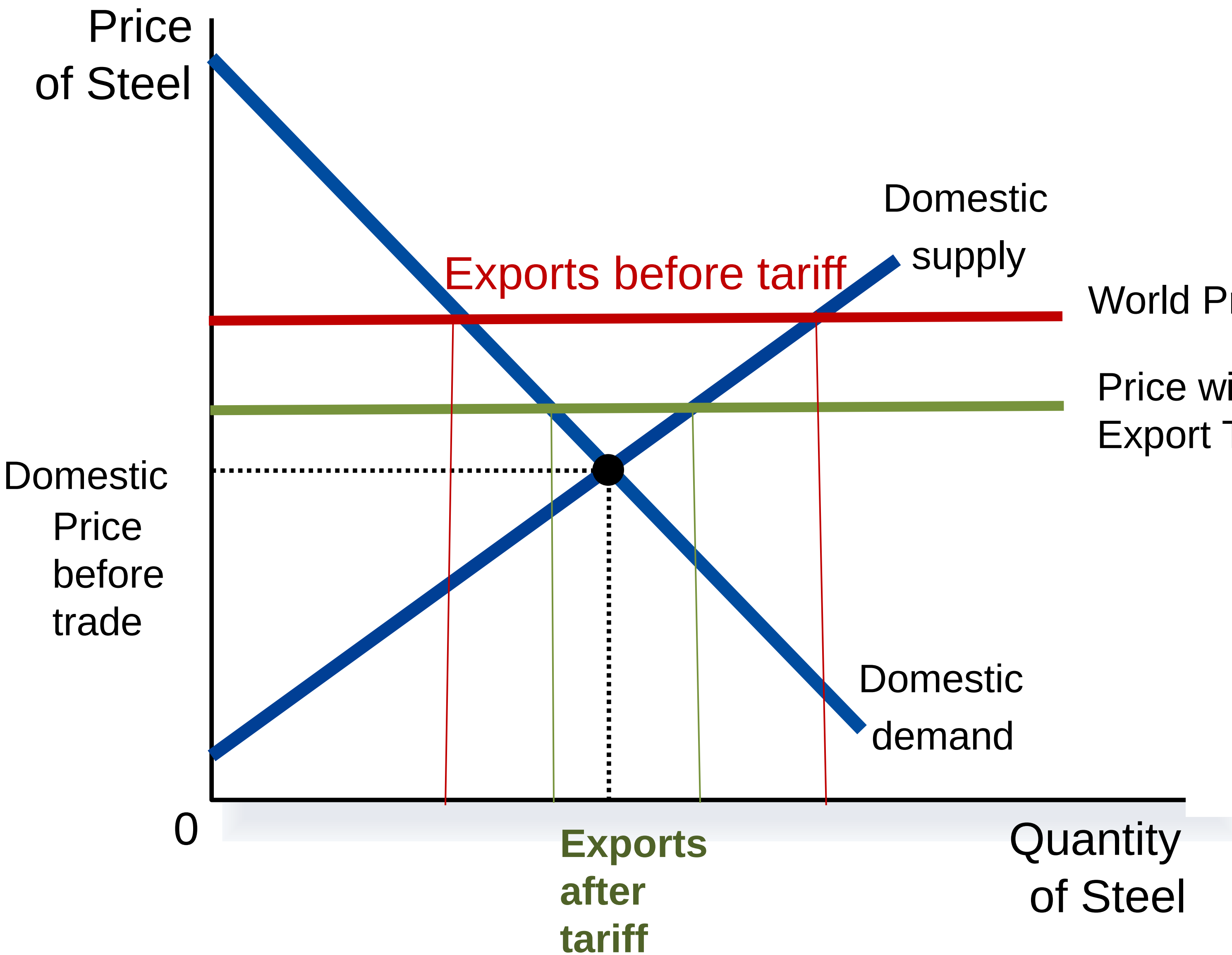
- If governments did use a licencing scheme, they would sell the licences and collect revenues that way.
- Deadweight losses could be even larger if potential licence holders use up resources lobbying government to give them a licence.

Export Tariffs

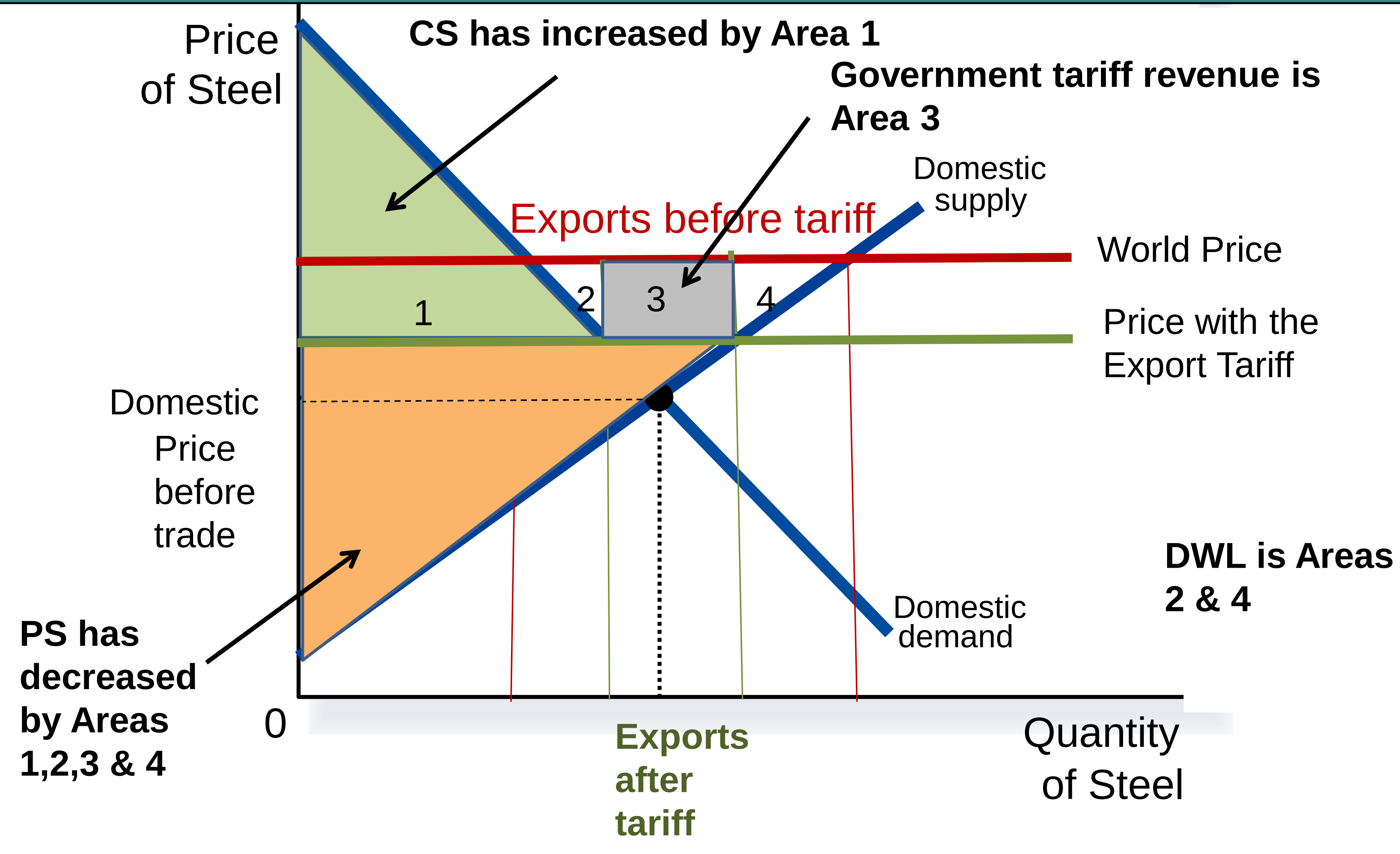
- An export tariff is a tax on a good as it leaves the country.

- Suppose Hamiltonia is a steel exporter.
- The world price of steel is higher than the domestic price.
- The government levies a tariff on Hamiltonia's steel exports.
- This reduces the price steel exporters receive from their exports.

Effect of an Export Tariff



Changes in Welfare from an Export Tariff



- Hamiltonia loses total surplus compared to when there was free trade.
- They still gain as a whole compared to when there was no trade at all.

Benefits of International Trade

1. Increased variety for consumers

- Consumers can buy goods to which they would otherwise not have access.

2. Increased competition

- Domestic firms now have to compete with foreign firms for customers.

3. Lower costs through economies of scale

- Firms producing more to service both a domestic and foreign market may be able to lower production costs if there exist economies of scale.

4. Faster transfers of technology

- Countries can pick up new ideas, new products and new processes faster from trading partners who have already made innovations.

Arguments Against Free Trade

1. Job losses

- Opponents of trade argue that domestic jobs will be lost.
- Defenders argue that trade creates new jobs in exporting sectors of the economy, and displaced workers will find employment there.

2. National security concerns

- Critics of trade argue that a nation could become dependent on a foreign power to supply key resources.
- What if that country goes to war with their foreign supplier?
- Protecting *key* industries is a valid argument, but there is not much to worry about with respect to non-essential industries.

3. Infant industry argument

- An infant industry is a new industry that is just starting up.
- Trade opponents argue that these new industries should be protected from foreign competition so that they have a chance to develop a domestic market and become a mature industry.

- The counter - argument is that it is difficult to predict which new industries will be able to mature and become viable – that is, which new industry is “worth protecting?”
- If you do protect an industry, can you guarantee that once protection is removed, the industry will survive on its own?

4. Unfair competition

- Some argue that in some economies, foreign governments unfairly subsidize industries so that they can sell abroad at lower prices than domestic industries.
- Dumping is the act of charging a lower price, often below cost, for a good in a foreign market than one charges for the same good in a domestic market.

- Under the World Trade Organization (WTO) Agreement, dumping is condemned (but is not prohibited) if it causes or threatens to cause material injury to a domestic industry in the importing country.
- Plus, international trade agreements like NAFTA prohibit subsidization among partners.

5. Bargaining power

- Some argue that by threatening to restrict trade, a country can strengthen its political and economic power on the world stage.
- For instance, ‘if you put a tariff on our exports of steel, we’ll put a tariff on our imports of your lumber.”
- There’s no guarantee that the threat would work, and it could backfire.

- Note that in our discussion of trade we assumed that the domestic economy was a small economy which could not influence world prices.
- Certainly, large open economies can and often do impact world prices.

The Real World of International Trade

Free trade policies can be:

- Unilateral: a nation removes trade restrictions on it own without making deals with other nations.
- Multilateral: nations make trade agreements with other nations.

NAFTA

- The North American Free Trade Agreement, NAFTA, is a multilateral trade agreement among Canada, the US and Mexico.
- It replaced the FTA (Canada and US only) in 1993 (took effect in 1994).
- It set out to reduce and eventually eliminate tariffs in many areas, including motor vehicles, agriculture, computers, textiles, etc.

- It protects intellectual property rights (patent laws, copyrights).
- It removed investment restrictions.
- Signatories can opt out of the agreement (they have to give 6 months notice).
- There is a tribunal to deal with trade disputes.
- Canada has won every dispute it has had with the US.

- Since NAFTA, trade among partners has increased significantly, more than doubling.
- The automobile and auto parts sector is the largest sector in NAFTA – about 20% of all trade among Canada, the US and Mexico.

- Mexico’s exporting sector is characterized by maquiladoras – factories that import raw materials and export finished goods.
- These industries have come under much international scrutiny because of poor working conditions.
- Actually, the non-maquiladora sector has grown faster since NAFTA.

WTO

- The World Trade Organization, WTO, is an international organization, founded in 1995, that oversees and fosters trade liberalization among its 151 members.
- It is the successor to the General Agreement on Tariffs and Trade, GATT, established in 1947, and enforces the agreement.

- GATT has reduced average tariffs from 40% after WWII to about 5% today.
- Negotiations are ongoing.

- Note that all nations, upon entering into a trade agreement, have to ratify the agreement.
- In Canada, international trade agreements fall under the jurisdiction of our federal government and must by ratified by Parliament.
- Also note that most economists believe that free trade is the way to go.