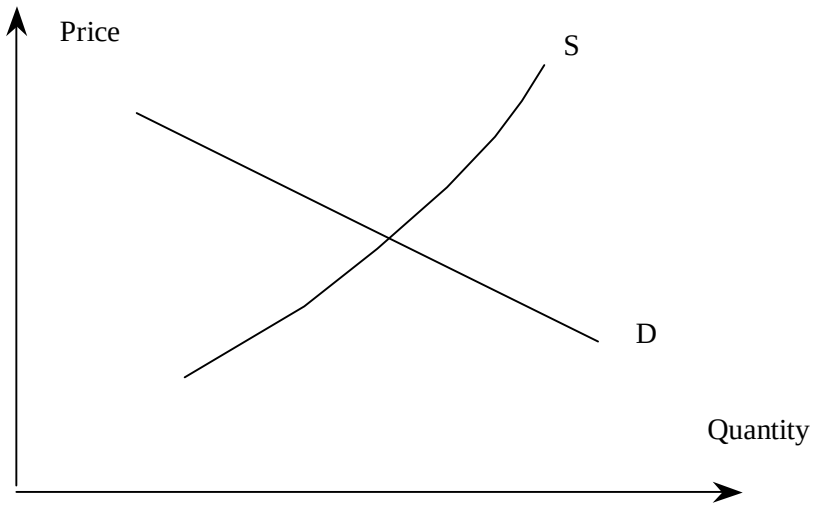
Supply and Demand:

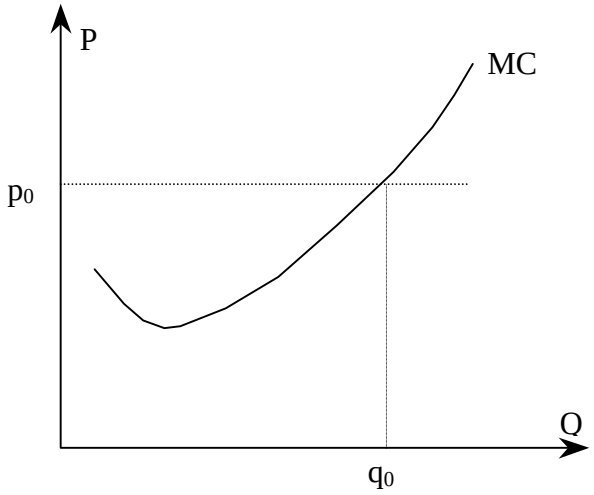
The supply curve of a good is what quantity of that good producers would produce if the price were p.

The demand curve of a good is what quantity of a good consumers would want to buy if the price of that good were p.

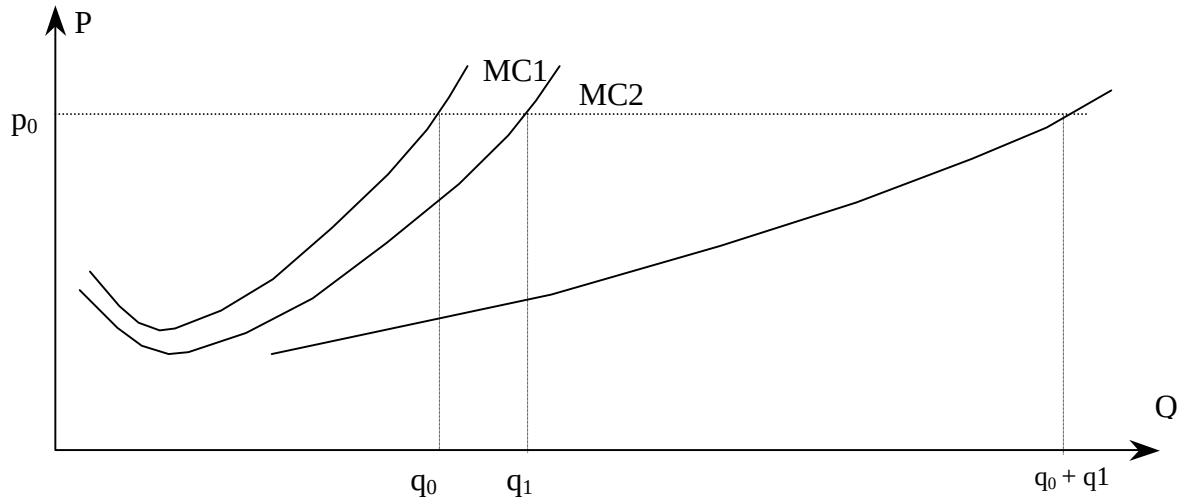


If for some reason a product becomes less desirable at the same price then the demand curve would shift left, if a product becomes more desirable at the same price the demand curve would shift right. The price changing does not shift demand.

For any firm the quantity produced is equal to q, where MC(q) = p.



If you add up the quantity supplied by each firm, one gets the market supply curve.

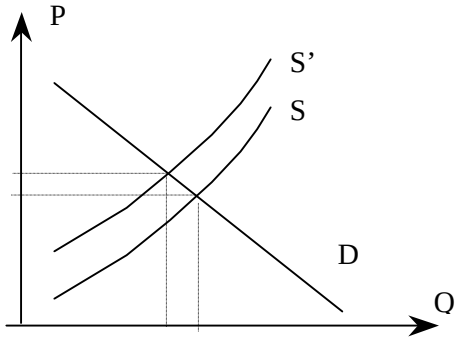


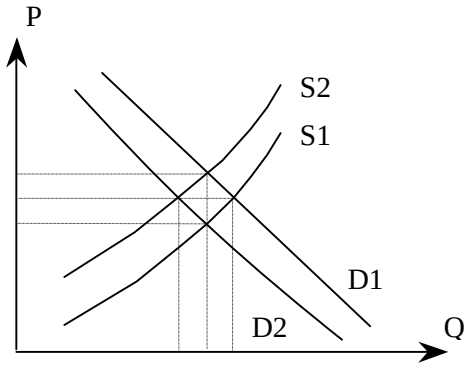
If there are two firms in a market, one with marginal cost MC1, and the other with marginal cost MC2, and they are perfectly competitive, then the market supply curve would be S. For price p_0 Firm 1 makes q_0 and firm 2 makes q1 so the market supply at price p_0 is $q_0 + q1$. S

The same thing goes for the demand curve, if there are 5 people in a market. And if at price p_0 one person want 2 units of something, and every one else wants 3 units of that good, then the quantity demand at price p_0 would be 14 units.

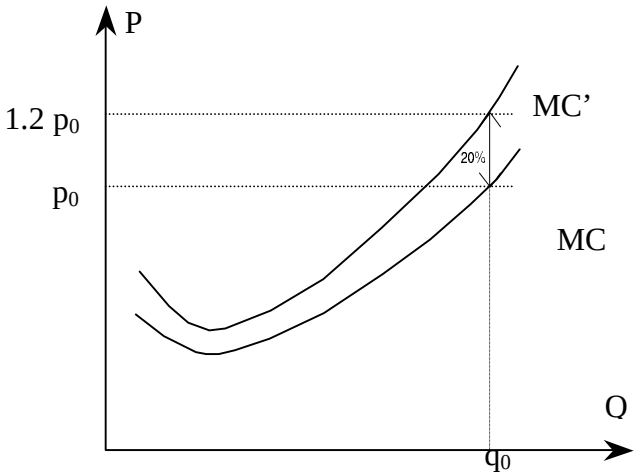
Remember how changes in the supply and demand affect equilibrium price and quantity?

Supply	**Demand**	**Price**	**Quantity**
Left	Same	Up	Down
Right	Same	Down	Up
Same	Right	Up	Up
Same	Left	Down	Down
Left	Left	Can't Tell	Down
Left	Right	Up	Can't Tell
Right	Left	Down	Can't Tell
Right	Right	Can't Tell	Up



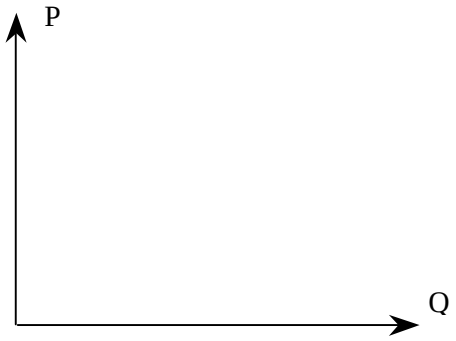


Suppose that the cost of labor in the production of steel goes up by 20%. And labor is the only variable cost, based on what was discussed earlier what would happen to the market equilibrium, price and quantity?

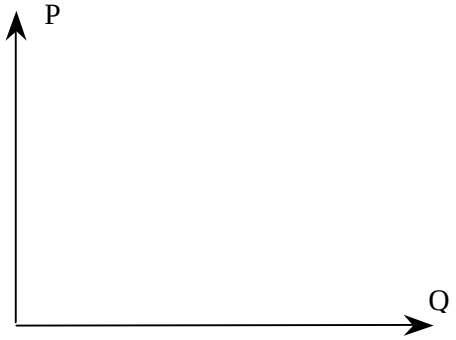


Think about the supply curve, and the demand curves and how they shift.

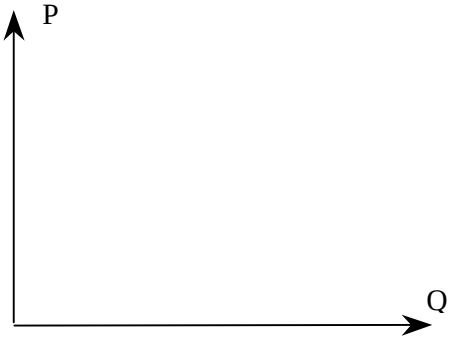
Take the example of the domestic car production, suppose that government institutes a $500/car tax on car suppliers, what would happen. To the equilibrium price and demand. By how much did the price change assuming $\varepsilon_d>0$. What if ε_d is very high.



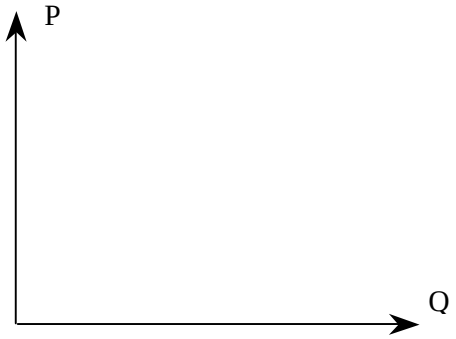
What would happen if instead the government invoked a lump sum tax on car manufacturers of $1,000,000.



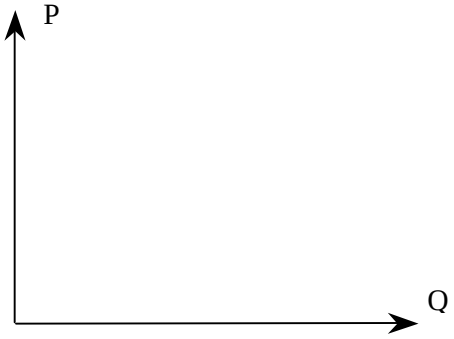
What if there is a new innovation that decreases the marginal cost of car making by 50% at each level of output?



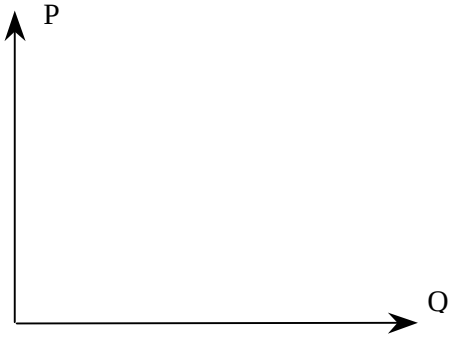
Suppose now that the government wants to boost U.S. car sales, so it puts a quota on imported cars which is much less than the current amount of imported cars. What happens to the supply curve, to the demand curve? The equilibrium?



What if the government rebuilds the large network of railroads, makes bullet trains (trains that go at speeds above 100 mph) available to the public, and makes it cost only $1 to go from city to city. It also improves and subsidizes mass transit.



The government concerned that not enough people own hybrid cars and wants to increase ownership by 200,000. So it does some R+D and designs a hybrid car similar to the Toyota Prius. Then it builds 200,000 cars and sells them at the market price, regardless of whether or not it loses money. What would happen to supply? Demand? What is the new equilibrium? Did the government achieve its goal?



The government decides instead to pay builders $1000 for each home they build. What would happen to supply, what about demand? Would the new equilibrium be $1000 lower?