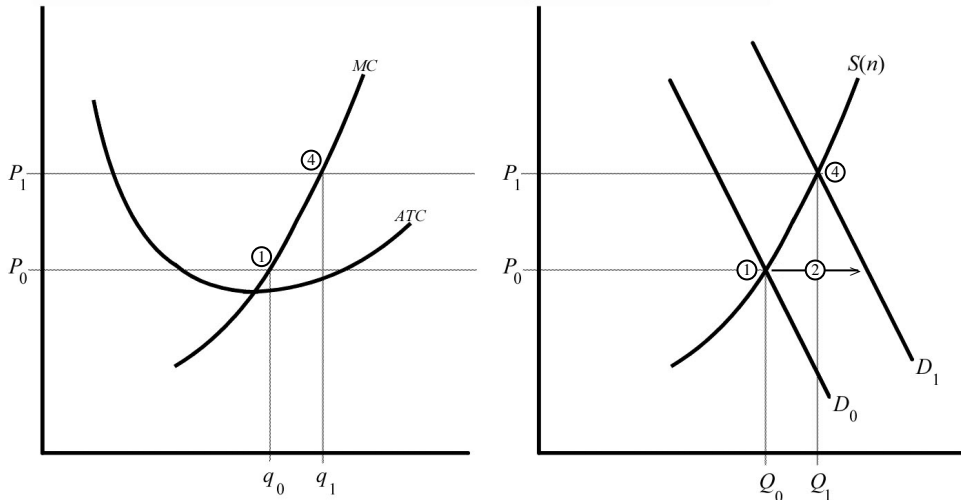


Competition ③

Suppose that all firms in the market sell an “identical” product. Firms’ products are identical if, whenever one firm charges a very slightly higher price, all buyers wish to buy from the other lower priced firms. If all firms charge the same price then they will all sell the same quantity.

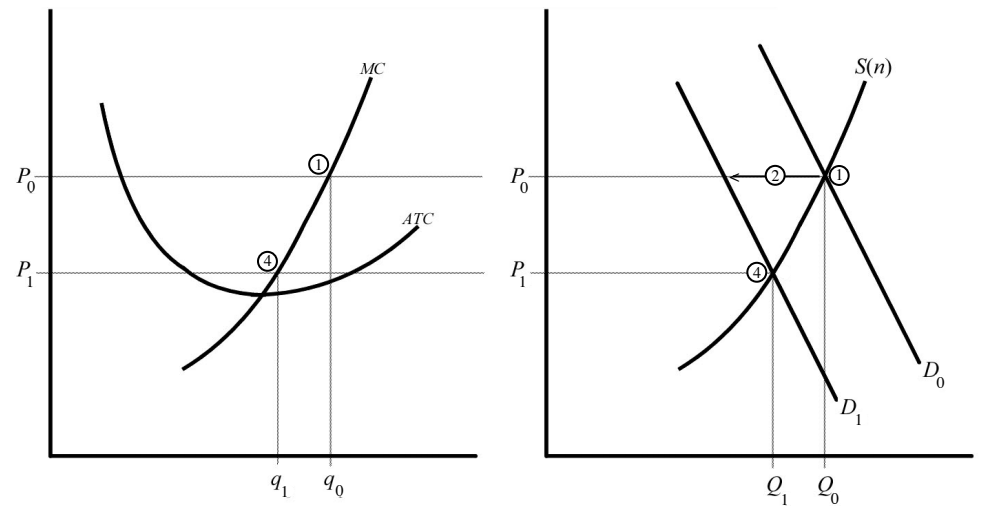
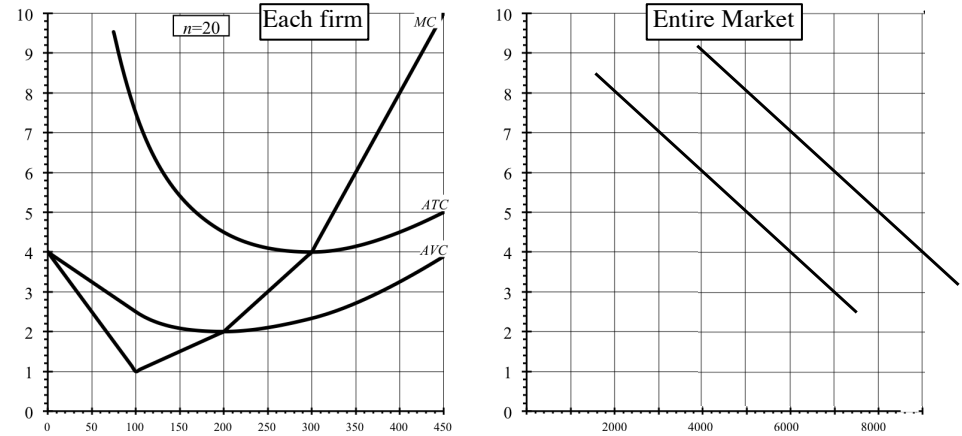
Effect of Demand Shift on Price and Quantity in the Short Run



Increase in Demand

- ① Initial equilibrium (P_0, Q_0) --how to find the supply curve and initial equilibrium are discussed on the previous pages. We can also find output and profit for each firm at the initial equilibrium
- ② Change in something other than price increases demand (from D_0 to D_1)
No change in supply (cost curves and number of firms fixed in short run)
- ③ Adjust price
From the buyers side: Some buyers would rather pay a higher price than not get the good at all and so will be willing to pay a higher price.
From the sellers side: There is excess demand in the market because each firm would sell up to MC and would have no incentive to produce at initial price P_0 (due to diminishing returns). However, one firm would find that if it raises price it would not lose customers (due to the shortage in the market). At the higher price it will make more profit. The other firms will then do the same, and they will continue raising price as long as there is a shortage. At price P_1 buyers get all they want to buy and so will refuse a higher price. Quantity supplied increases because firms will go further into diminishing returns at the higher price.
- ④ New equilibrium (P_1, Q_1) -- we can find output and profit for each firm at the new equilibrium

Competition ④



Decrease in Demand

- ① Initial equilibrium (P_0, Q_0) --same as previous case.
- ② Change in something other than price decreases demand (from D_0 to D_1)
No change in supply (cost curves and number of firms fixed in short run)
- ③ Adjust price
From the sellers side: Due to excess supply in the market each firm can no longer sell up to MC at initial price P_0 . However, one firm would find that if it lowers price it can sell to as many customers wishes as long as other firms do not lower price yet. It can temporarily produce where $P = MC$. The other firms will then lower price, and they will continue lowering price until they all produce where $P = MC$. This will be at P_1 where $Q_s = Q_d$.
- ④ New equilibrium (P_1, Q_1) -- find output and profit for each firm at new equilibrium