

**CASE 1 Decrease in Demand & Decrease in Supply**

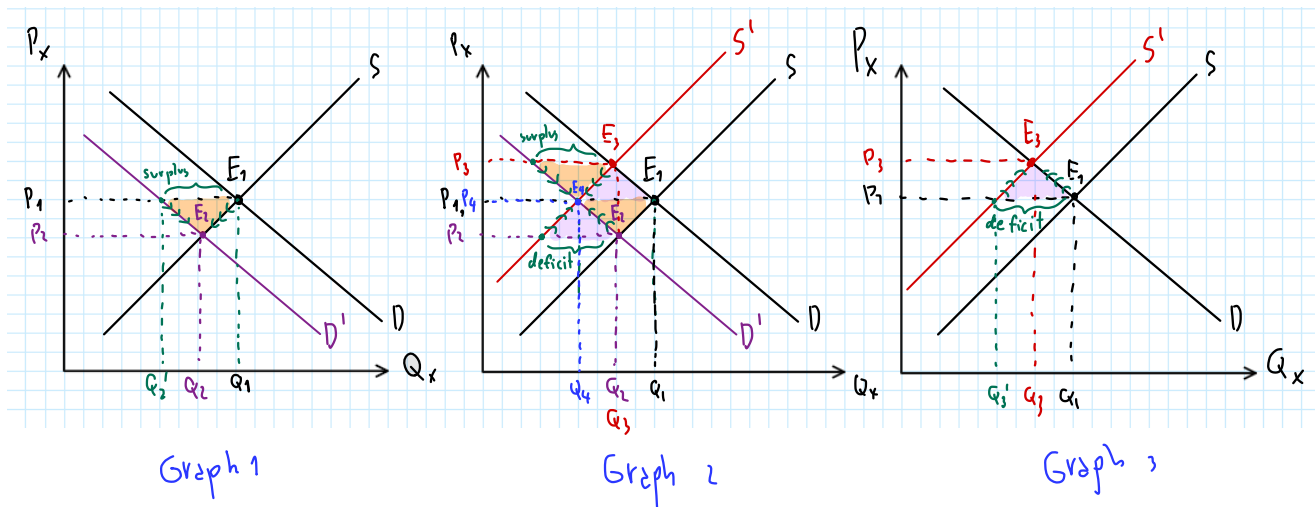
Consider Market for bakery store.

EVENT 1 (On Demand Side)

Buyers think that the taste of the bread is worse than before

EVENT 2 (On Supply Side)

Sellers are struggle with the temperature controlled machine which made the bread has mold quicker.



**Full Explanation**

Graph 1: when buyers think the taste of bread is change, the demand curve for bread will shifts to the left. from  $D \rightarrow D'$ . From the price ( $p_1$ ), it will be excess supply ( $Q^S > Q^D$ ) (price adjustment) or surplus. To get rid of unsold, sellers need to decrease the price ( $p_1 \rightarrow p_2$ ) to rise the quantity demanded and drop the quantity supplied ( $Q_2' \rightarrow Q_2 \leftarrow Q_1$ ) until meet  $Q_2$  or new equilibrium ( $E_1 \rightarrow E_2$ ) which has no excess. at  $p_2$ .

Graph 3: when sellers are struggle with machine, the supply curve for bread will shifts to the left. from  $S \rightarrow S'$ . From the price ( $p_1$ ), it will be excess demand ( $Q^D > Q^S$ ) (price adjustment) or deficit. To get rid of deficient, Sellers need to increase the price ( $p_1 \rightarrow p_3$ ) to drop the quantity demanded and rise quantity supplied ( $Q_3' \rightarrow Q_3 \leftarrow Q_1$ ) until meet  $Q_3$  or new equilibrium ( $E_1 \rightarrow E_3$ ) which has no excess. at  $p_3$ .

Graph 2: when we combined graph 1 & 3 together, we will get graph 2 which shows the decrease in demand and decrease in supply.

At quantity  $Q_{2,3}$ , it shows the surplus on point  $p_3$  and deficit on (price adjustment) point  $p_2$ . To solve these 2 problems, we need to find the middle price which is point  $p_4$ .

It is the same level of the price ( $p_1$ ) in the beginning. The quantity drop from  $Q_{2,3} \rightarrow Q_4$  and change the  $E_1$  to  $E_4$  at price  $p_4$  (or  $p_1$ )

**CASE 2 Increase in Demand & Increase in Supply**

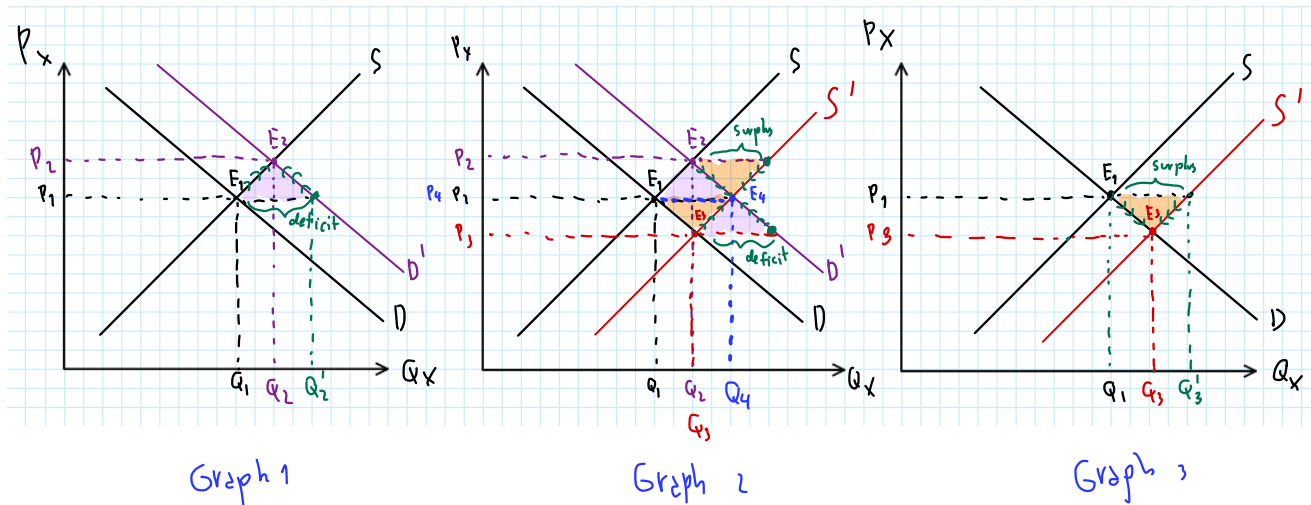
Consider Market for clothing store

**EVENT 1 (On Demand Side)**

buyers are obsess with the new trend. (more buyers in the market)

**EVENT 2 (On Supply Side)**

The number of sellers in the market is more



**Full Explanation!**

Graph 1: When buyers obsess with the new trend, the demand curve for cloth shifts to the right from  $D \rightarrow D'$ . From the price ( $p_1$ ), it will be excess demand or deficit ( $Q^D > Q^S$ ) ( $Q_2 > Q_1$ ). To get rid of deficient, sellers need to rise the price (price adjustment) from  $p_1 \rightarrow p_2$  so it affect the quantity demanded to drop and rise the quantity supplied ( $Q_1 \rightarrow Q_2 \leftarrow Q_1'$ ) to the point  $Q_2$  and change equilibrium from  $E_1 \rightarrow E_2$  which has no excess at  $p_2$ .

Graph 2: When numbers of sellers in market is more, the supply curve for cloth shifts to the right from  $S \rightarrow S'$ . From the price ( $p_1$ ), it will be excess supply ( $Q^S > Q^D$ ) or surplus. To get rid of unsold, sellers need to decrease the price (price adjustment) ( $p_1 \rightarrow p_3$ ) to rise the quantity demanded and drop the quantity supplied ( $Q_1 \rightarrow Q_3 \leftarrow Q_1'$ ) until meet  $Q_3$  or new equilibrium ( $E_1 \rightarrow E_3$ ) which has no excess at  $p_3$ .

Graph 2: When we combined graph 1 & 2 together, we will get graph 2 which shows the increase in demand and increase in supply. at quantity  $Q_{2,3}$ , it shows the surplus on point  $p_2$  and deficit on point  $p_3$ . we need to find the mid-price on point  $p_4$  which is the same level as  $p_1$  (beginning price) but rise in quantity from  $Q_{2,3} \rightarrow Q_4$  and equilibrium change to  $E_1 \rightarrow E_4$  at price  $p_4$ .

**CASE 3 Decrease in Demand & Increase in Supply**

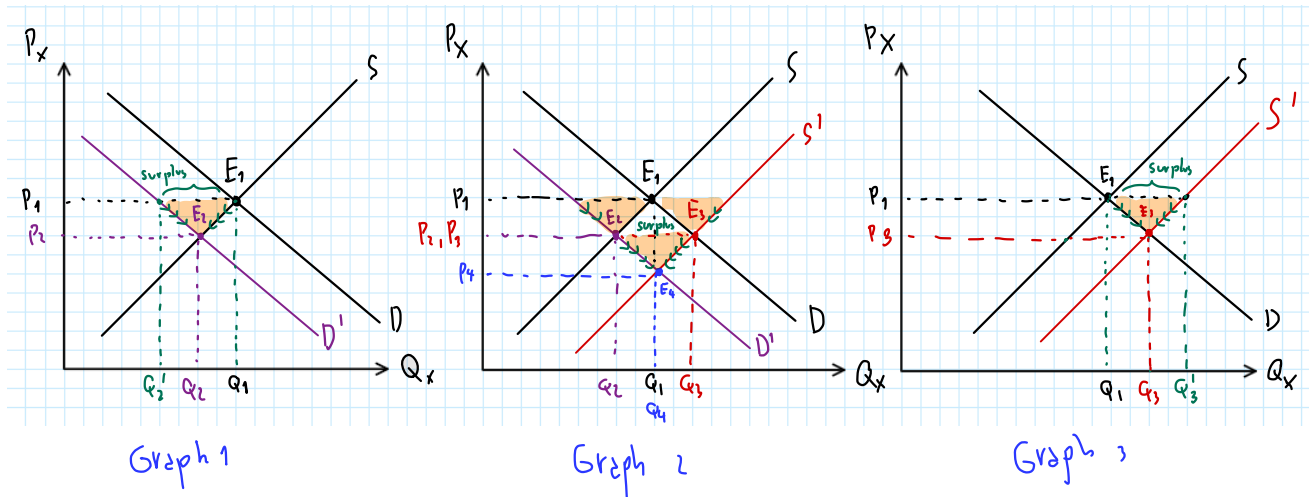
Consider Market for jewelry shop

EVENT 1 (On Demand Side)

buyers' income decrease.

EVENT 2 (On Supply Side)

the technology of jewelry production is better



**Full Explanation**

Graph 1: when buyers' income decrease, the demand curve for jewelry will shift to the left. from  $D \rightarrow D'$ . From the price ( $p_1$ ), it will be excess supply ( $Q^S > Q^D$ ) or surplus. To get rid of unsold, sellers need to decrease the price ( $p_1 \rightarrow p_2$ ) to rise the quantity demanded and drop the quantity supplied ( $Q_2' \rightarrow Q_2 \leftarrow Q_1$ ) until meet  $Q_2$  or new equilibrium ( $E_1 \rightarrow E_2$ ) which has no excess. at  $p_2$

Graph 3: When the technology of jewelry production is better, the supply curve for jewelry shifts to the right from  $S \rightarrow S'$ . From the price ( $p_1$ ), it will be excess supply ( $Q^S > Q^D$ ) or surplus. To get rid of unsold, sellers need to decrease the price ( $p_1 \rightarrow p_3$ ) to rise the quantity demanded and drop the quantity supplied ( $Q_1 \rightarrow Q_3 \leftarrow Q_3'$ ) until meet  $Q_3$  or new equilibrium ( $E_1 \rightarrow E_3$ ) which has no excess. at  $p_3$ .

Graph 2: When we combined graph 1 & 3 together we will get graph 2 which shows the decrease in demand and increase in supply. At price point ( $P_{2,3}$ ) shows excess supply or surplus ( $Q^S > Q^D$ ) or ( $Q_3 > Q_2$ ). To get rid of unsold, sellers need to decrease the price which will attract buyers. ( $P_{2,3} \rightarrow P_4$ ) until the quantity meet the  $Q_4$  point (the same level of quantity in the  $E_1$  equilibrium) and change to  $E_4$  equilibrium at  $p_4$ .

**CASE 4 Increase in Demand & Decrease in Supply**

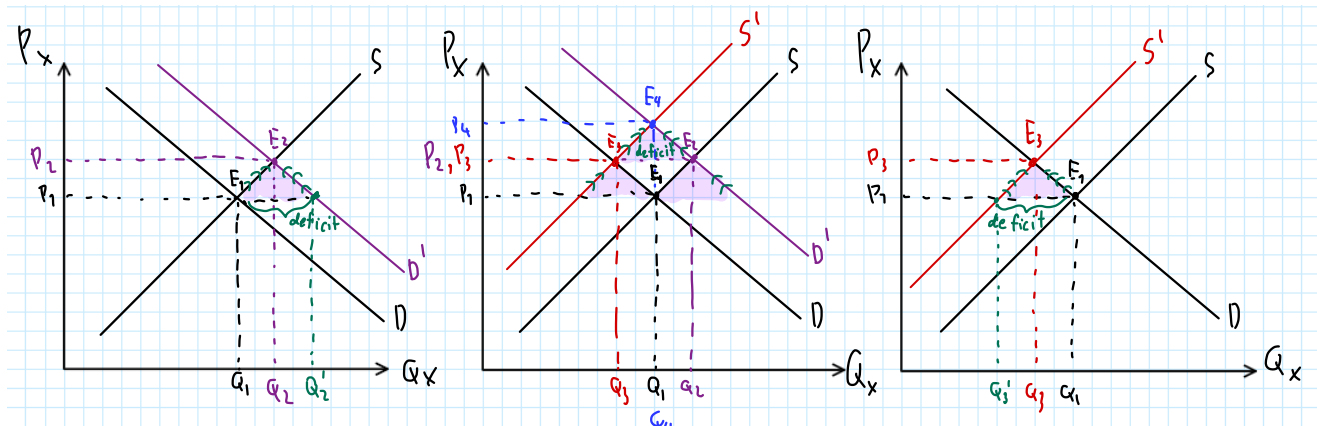
Consider Market for Coffee shop.

EVENT 1 (On Demand Side)

More buyers interesting in coffee in the market.

EVENT 2 (On Supply Side)

The coffee shop are closing because of the price increased in raw materials.



Graph 1

Graph 2

Graph 3

Full Explanation

Graph 1: when more buyers in the market, the demand curve for coffee shifts to the right from  $D \rightarrow D'$ . From the price ( $P_1$ ), it will be excess demand or deficit ( $Q^D > Q^S$ ) ( $Q_1' > Q_1$ ). To get rid of deficit, sellers need to rise the price (price adjustment) from  $P_1 \rightarrow P_2$  so it affect the quantity demanded to drop and rise the quantity supplied ( $Q_1 \rightarrow Q_2 \leftarrow Q_1'$ ) to the point  $Q_2$  and change equilibrium from  $E_1 \rightarrow E_2$  which has no excess at  $P_2$ .

Graph 2: when raw materials are more expensive, the supply curve for coffee will shift to the left.

from  $S \rightarrow S'$ . From the price ( $P_1$ ), it will be excess demand (price adjustment) ( $Q_1 > Q_3'$ ) or deficit. To get rid of deficit, sellers need to increase the price ( $P_1 \rightarrow P_3$ ) to drop the quantity demanded and rise quantity supplied ( $Q_1 \rightarrow Q_3 \leftarrow Q_1'$ ) until meet  $Q_3$  or new equilibrium ( $E_1 \rightarrow E_3$ ) which has no excess at  $P_3$ .

Graph 3: when we combined graph 1 & 2 together, we will get graph 2 which shows the inc. in demand and dec. in supply. At price  $P_2, P_3$ , it shows the excess demand or deficit ( $Q_1 > Q_3$ ) ( $Q_2 > Q_3$ ). To get rid of deficit, sellers need to increase the price from  $P_3 \rightarrow P_4$  which will drop quantity demanded and increase quantity supplied ( $Q_3 \rightarrow Q_1 \leftarrow Q_2$ ) change equilibrium  $E_1 \rightarrow E_2$  at price point  $P_4$ .