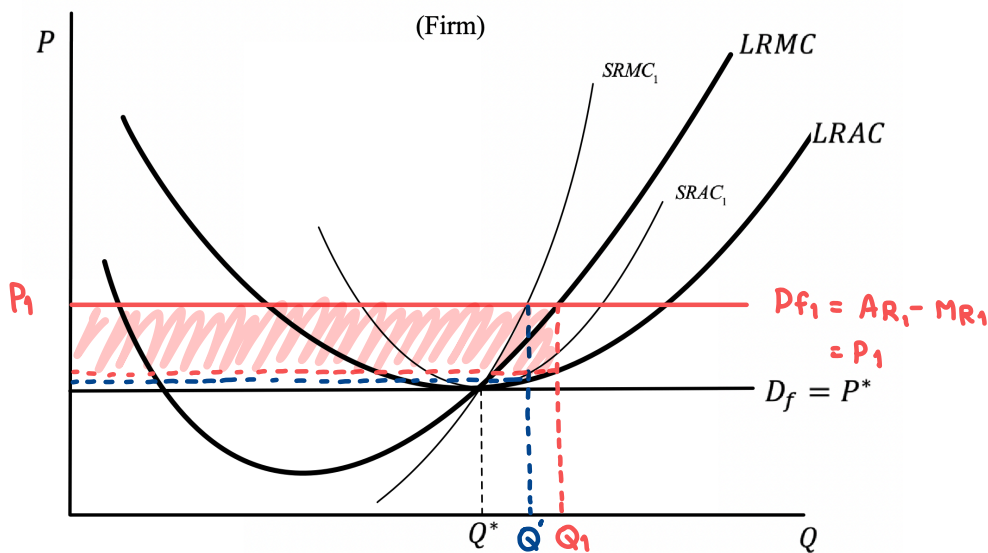


HW#13 Due May 13, 2021

Suppose that the market is in a Long-Run equilibrium where the price is at P^* and each firm produces Q^* . With the given $SRMC_1$ and $SRAC_1$ and $LRMC$ and $LRAC$, the market price increases from P^* to P_1 ,

- Show how the firm will change its output in Short Run and Long Run.
- Indicate the profit the firm receives in Short Run and Long Run.
- Explain why the profit in Long Run is bigger than profit in Short Run.



short run : output increases from Q^* to Q'

Long run : output increases from Q^* to Q_1

Since $LRAC$ is lower than $SRAC$ because $LR \text{ profit} > SR \text{ profit}$.

But the profit at Q' is not maximum in LR due to when

$MR(Q') > LRMC(Q')$. However, the profit is maximized at Q_1 where

$MR(Q_1) = LRMC(Q_1)$ and slope $MR(Q_1) < \text{slope } LRMC(Q_1)$.

The profit of LR at Q_1 is $> LR \text{ profit at } Q' > SR \text{ profit at } Q'$