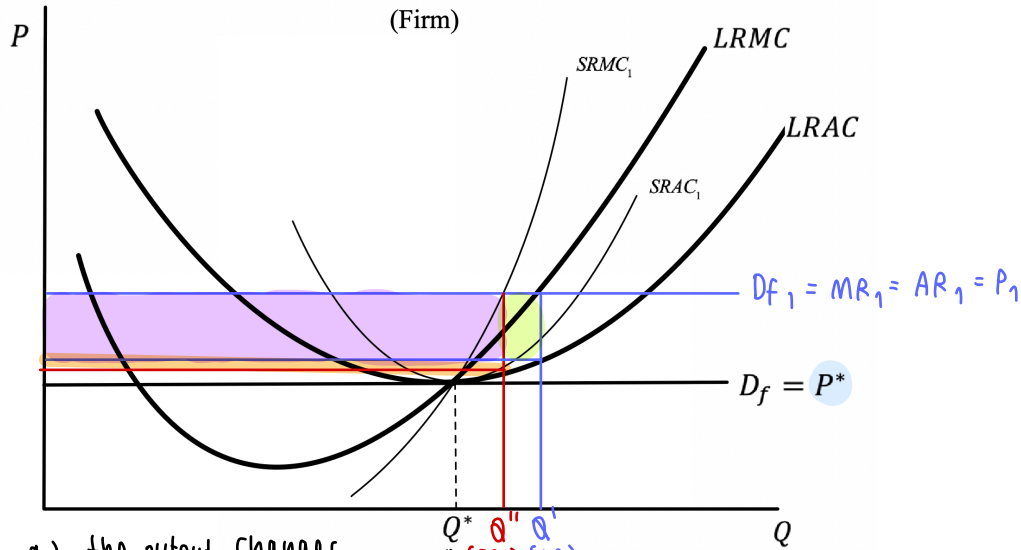


HW#13 Due May 13, 2021

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.



- the output changes
in short run from Q^* to Q''
in long run from Q^* to Q'
- profit the firm receives
in short run : +
in long run : +
- At Q'' , LR profit is more than SR profit since $LRAC$ is less than $SRAC$ and the profit at Q'' is not the maximum in LR because $MR(Q'') > LRMC(Q'')$ so profit will be maximized at Q' where $MR(Q') = LRMC(Q')$ and slope of $MR(Q') < \text{slope of } LRMC(Q')$
 $\therefore LR \text{ profit at } Q_1 > LR \text{ profit at } Q' > \text{short run profit at } Q'$