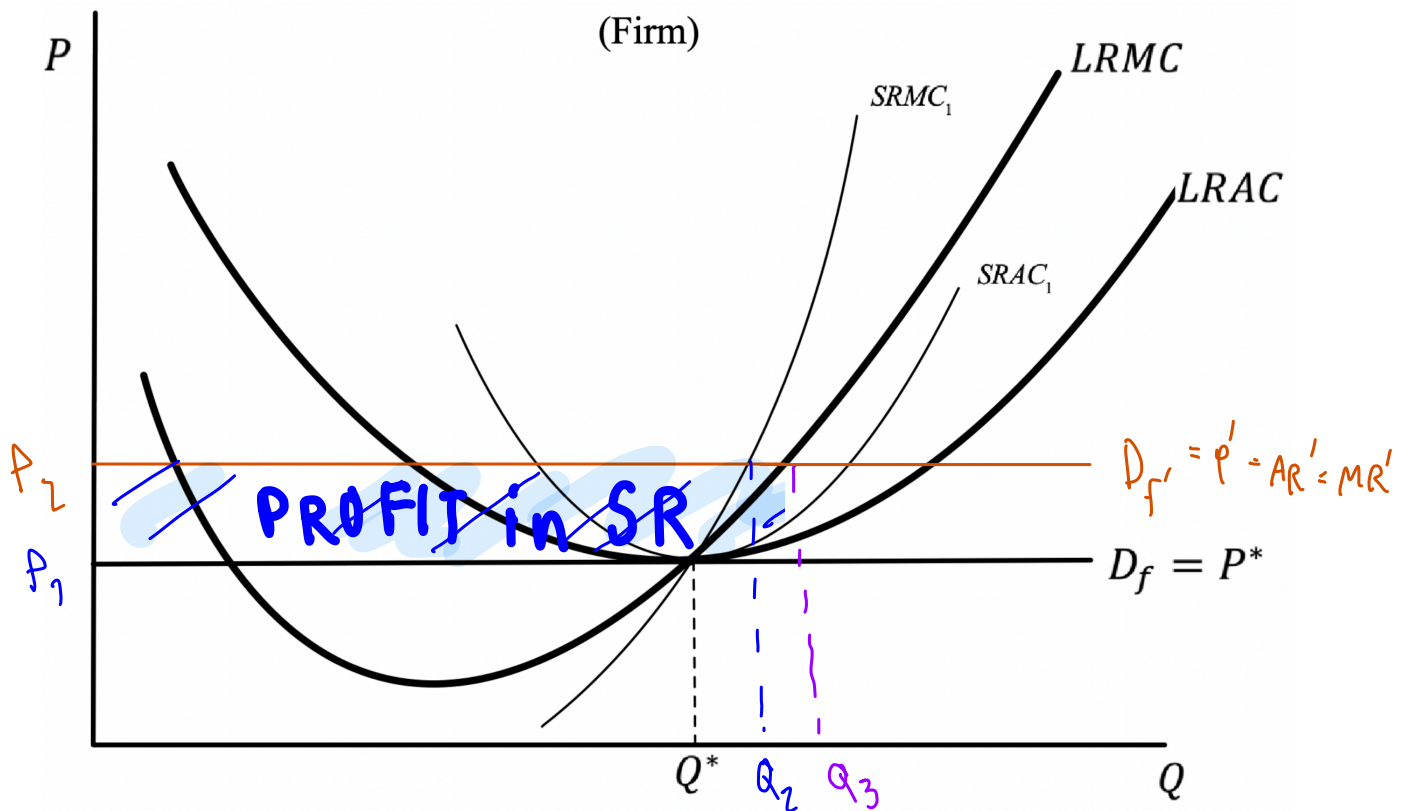


Thien # 640464929 9

HW#16

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.



A.) In LR, as price increases, the quantity will increase from Q^* to Q_L . There will be the new equilibrium where $MR'(Q_L) = LRMC(Q_L)$ and slope of $MR'(Q_L) < \text{slope of } LRMC(Q_L)$

In SR, as price increases from P_1 to P_2 , the quantity will increase from Q^* to Q_S . There will be the new equilibrium where $MR'(Q_S) = SRMC(Q_S)$ and slope of $MR'(Q_S) < \text{slope of } SRMC(Q_S)$

C.) The profit in LR is bigger than profit in SR because $SRTC(Q^*) > LRTC(Q^*)$. Moreover, SRTC sticks with labour and capital in fixed cost but LRTC is flexible in cost at any quantity and also in LR the firm can produce more than SR at Q_L as well.