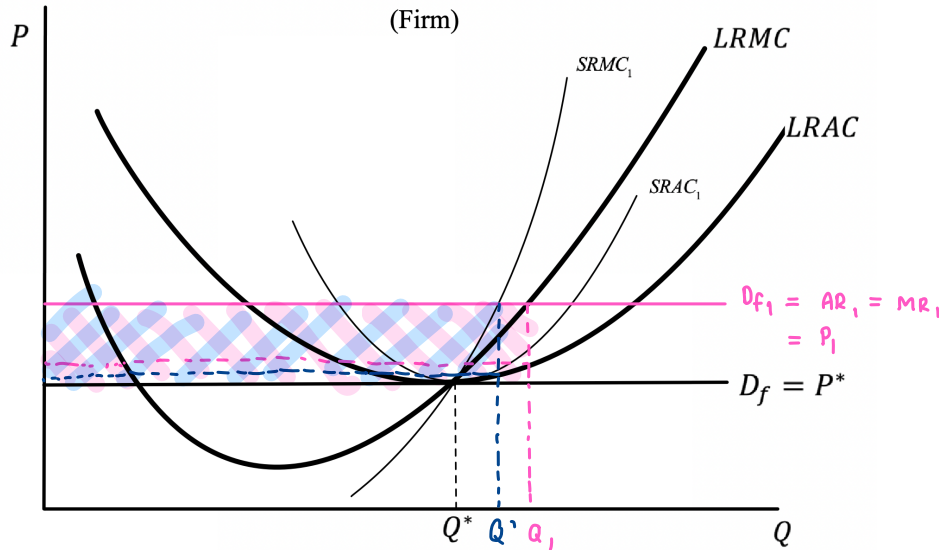


**HW#13 Due May 13, 2021**

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.



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

In long run : output increases from  $Q^*$  to  $Q_1$

● - profit received in long run

● - profit received in short run

The profit in long run is bigger than short run because the firm has fixed input in short run, so its potential to produce is at  $Q'$ . In contrast, the firm can change any input in long run, so it can produce at  $Q_1$ , which is greater amount than  $Q'$ . The increase in production leads to higher cost, but it is not too much cost compare to the profit gained by the firm.