Chapter 14

Firms in Competitive Market

Introduction

- Perfect competition has the following characteristics
  - Many buyers and sellers
  - Selling homogeneous product
  - Both the economic agents are price taker
  - Free entry and free exit
- Example
  - Eatery joints in Perungudi/Kotturpuram
  - Informal vegetable market

Revenue

- Decision making: P=MR
- AR=TR/Q
- MR=dTR/dQ

Quantity (in gallons)	Price	Total Revenue	Average Revenue	Marginal Revenue
(Q)	(P)	$(TR = P \times Q)$	$(AR = TR/Q)$	$(MR = \Delta TR/\Delta Q)$
1	\$6	\$ 6	\$6	
2	6	12	6	\$6
3	6	18	6	6
4	6	24	6	6
5	6	30	6	6
6	6	36	6	6
7	6	42	6	6
8	6	48	6	6

Profit maximization and firm's supply

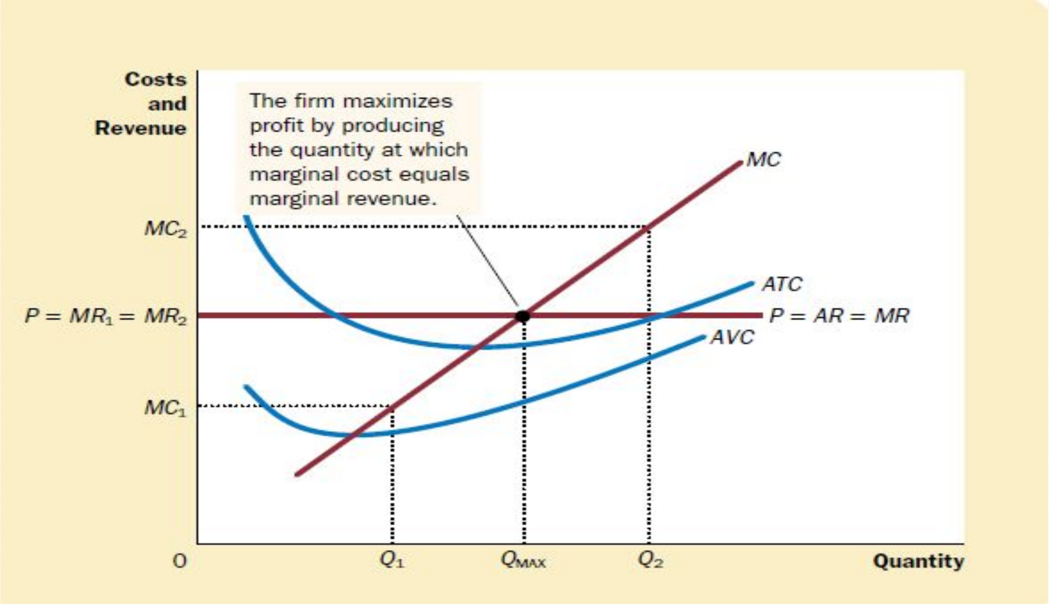
Maximization conditions

- MR=MC
- (dMR/dQ)<(dMC/dQ)

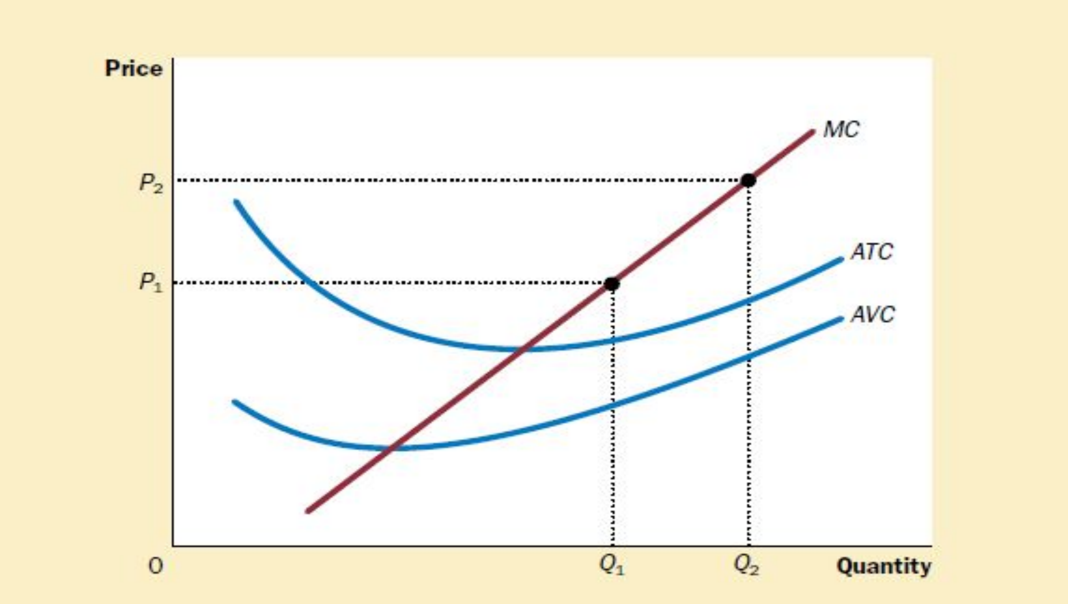
Quantity (in gallons) (Q)	Total Revenue (TR)	Total Cost (TC)	Profit (TR − TC)	Marginal Revenue (MR = ΔTR/ΔQ)	Marginal Cost (MC = ΔTC/ΔQ)
0	$ 0	$ 3	−$3		
1	6	5	1	$6	$2
2	12	8	4	6	3
3	18	12	6	6	4
4	24	17	7	6	5
5	30	23	7	6	6
6	36	30	6	6	7
7	42	38	4	6	8
8	48	47	1	6	9

Equilibrium

Qmax is the equilibrium



MC curve is the supply curve



Shut-down point

- Firm produces and makes a loss of (TR-TC)
- Firm does not produce and face a loss of (0-TFC)
- If the loss of the former is greater than the latter then the firm shuts down
- Condition: $P<AVC$

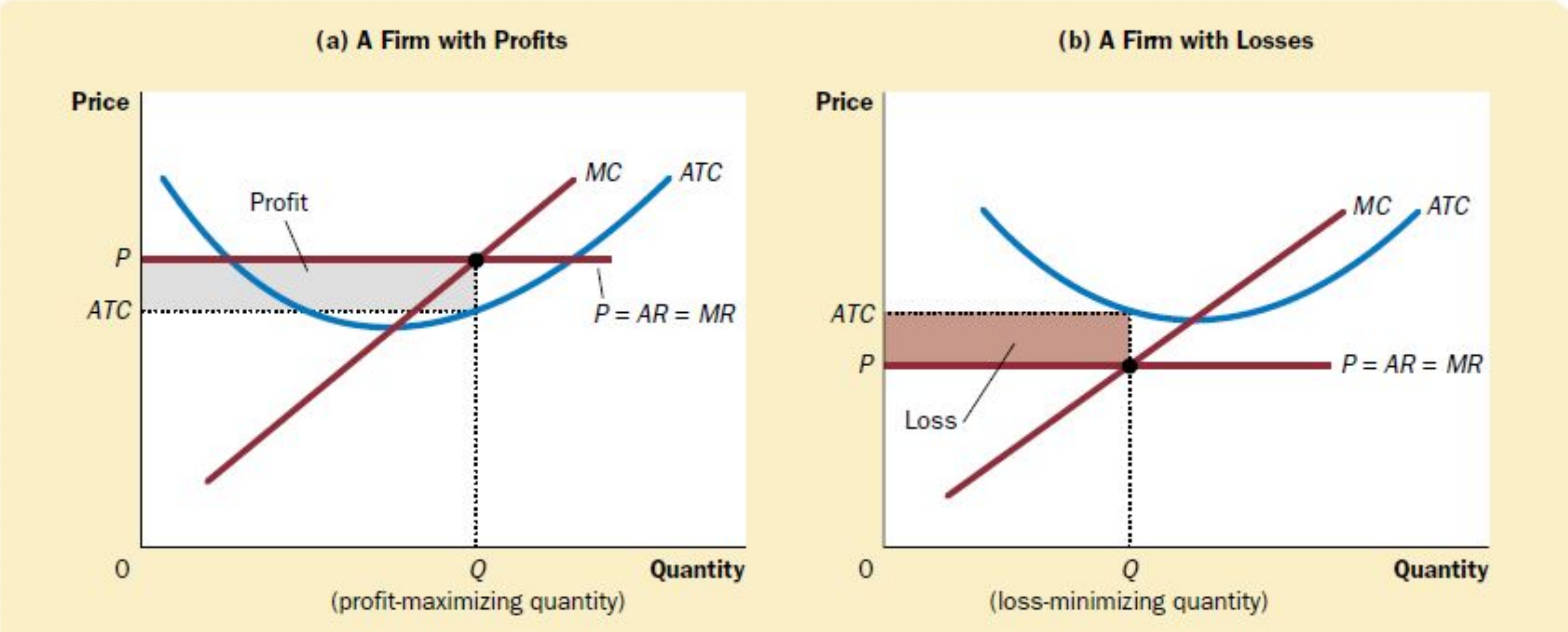
Sunk Cost

- Cost that cannot be recovered
- Example:
  - Furniture
  - Chairs
  - Tables
  - Fan
  - AC

Long-run equilibrium

- Exits if $TR<TC$, i.e. $AR<AC$, or, $P<ATC$
- Similarly enters if $P>ATC$
- Equilibrium: $TR=TC$, or, $AR=ATC$, or, $P=ATC$

Long-run profit and loss



Equilibrium