MS3 – Supervision #2
Economics of firms and markets
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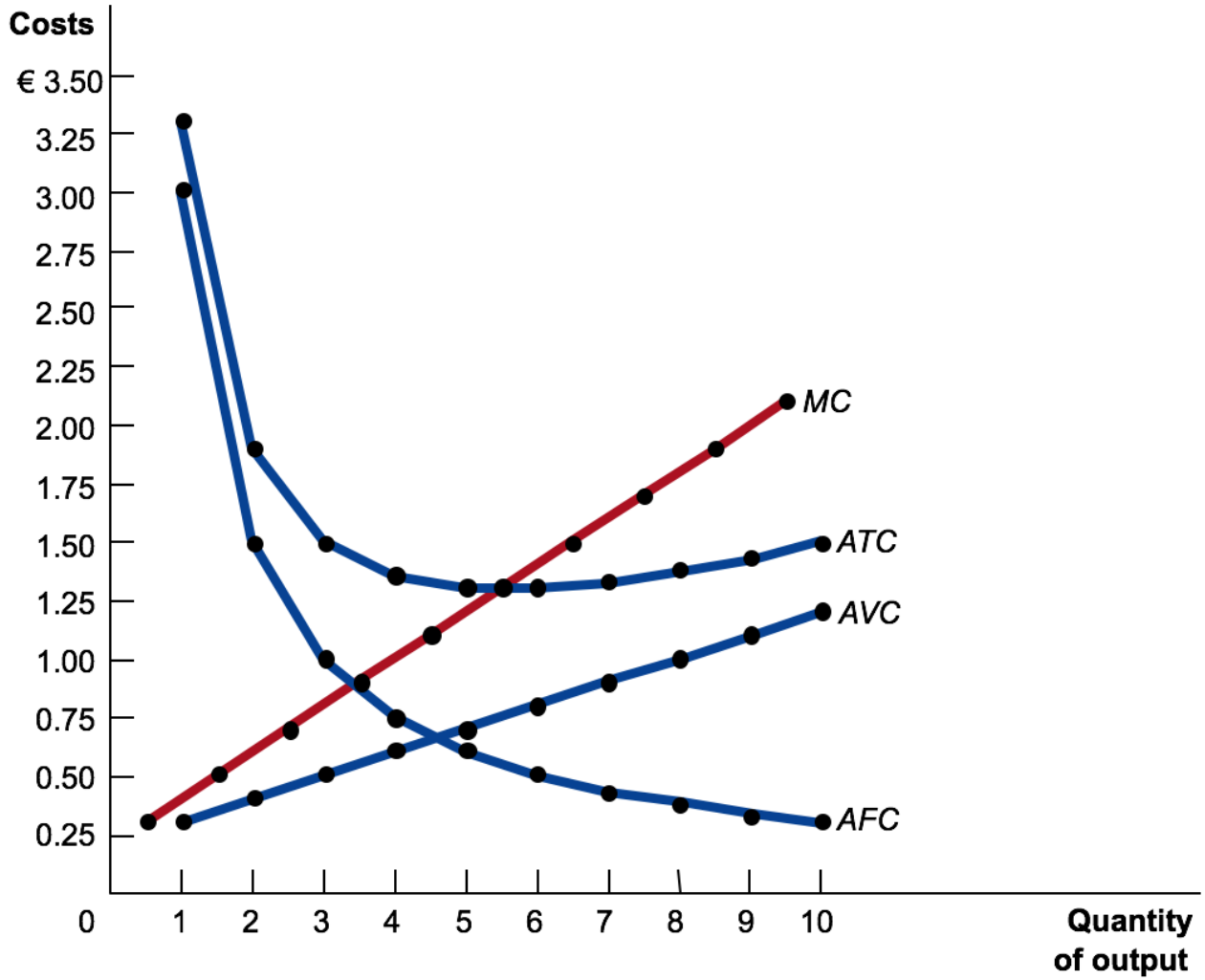
Costs

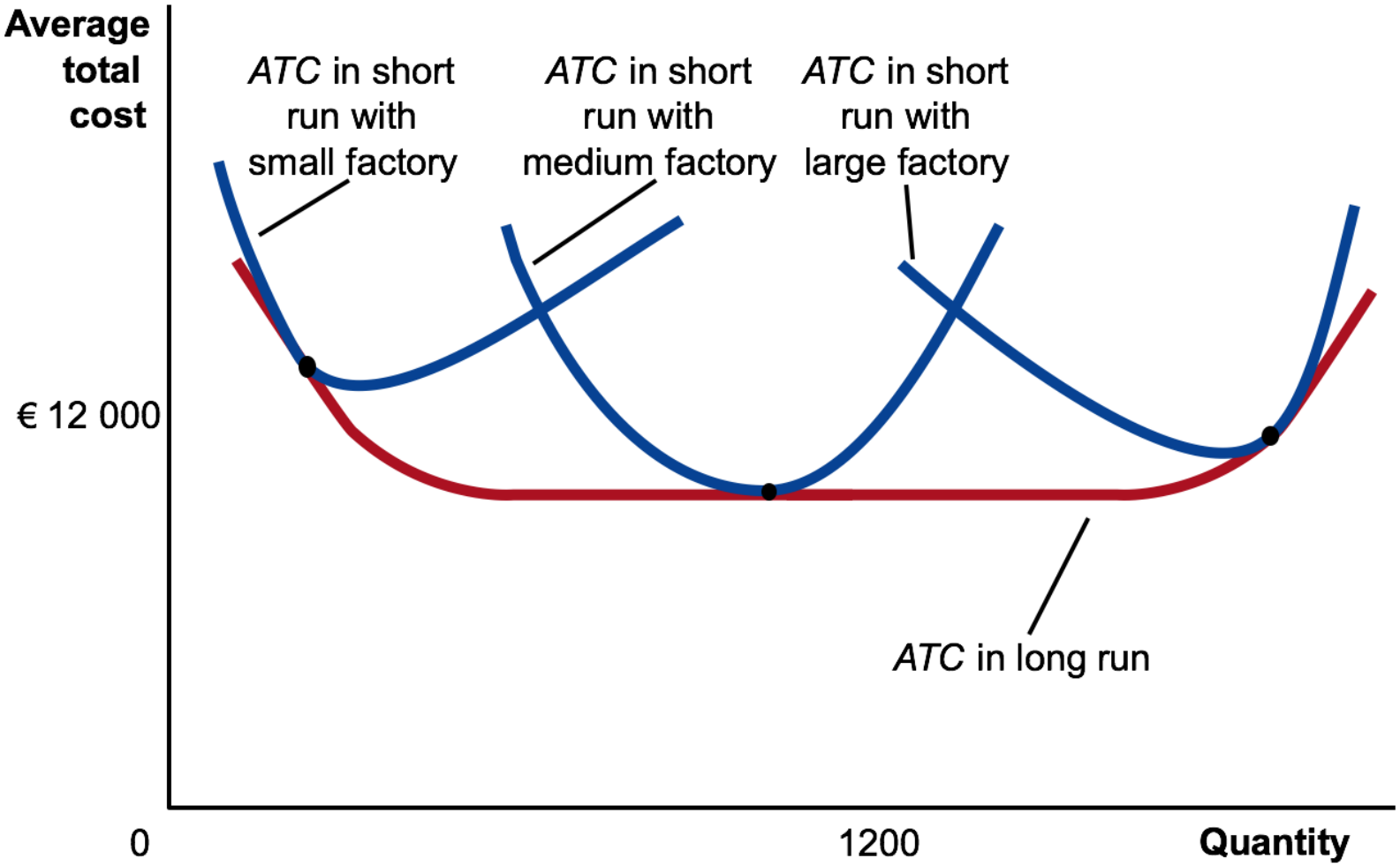

Costs
€ 3.50
3.25
3.00
2.75
2.50
2.25
2.00
1.75
1.50
1.25
1.00
0.75
0.50
0.25
0
1
2
3
4
5
6
7
8
9
10
Quantity of output
MC
ATC
AVC
AFC

Costs – a numerical illustration

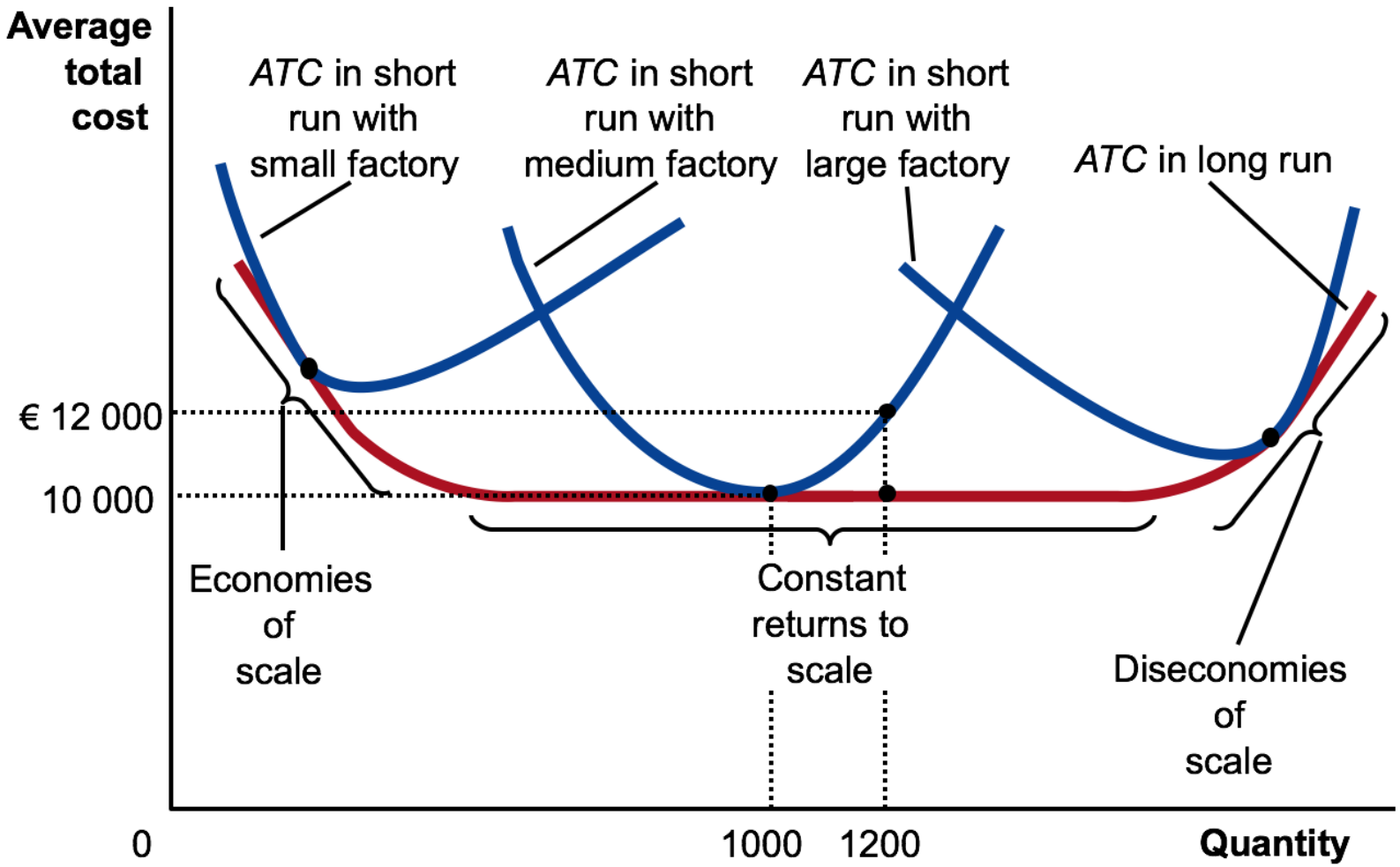
Table: Cost

Workers	Output of loaves	Marginal Product	Total cost	Average total cost	Marginal cost
0	0	NA	200	NA	NA
1	20	20	300	15	5
2	50	30	400	8	3.34
3	90	40	500	5.56	2.5
4	120	30	600	5	3.34
5	140	20	700	5	5
6	150	10	800	5.34	10
7	155	5	900	5.81	20

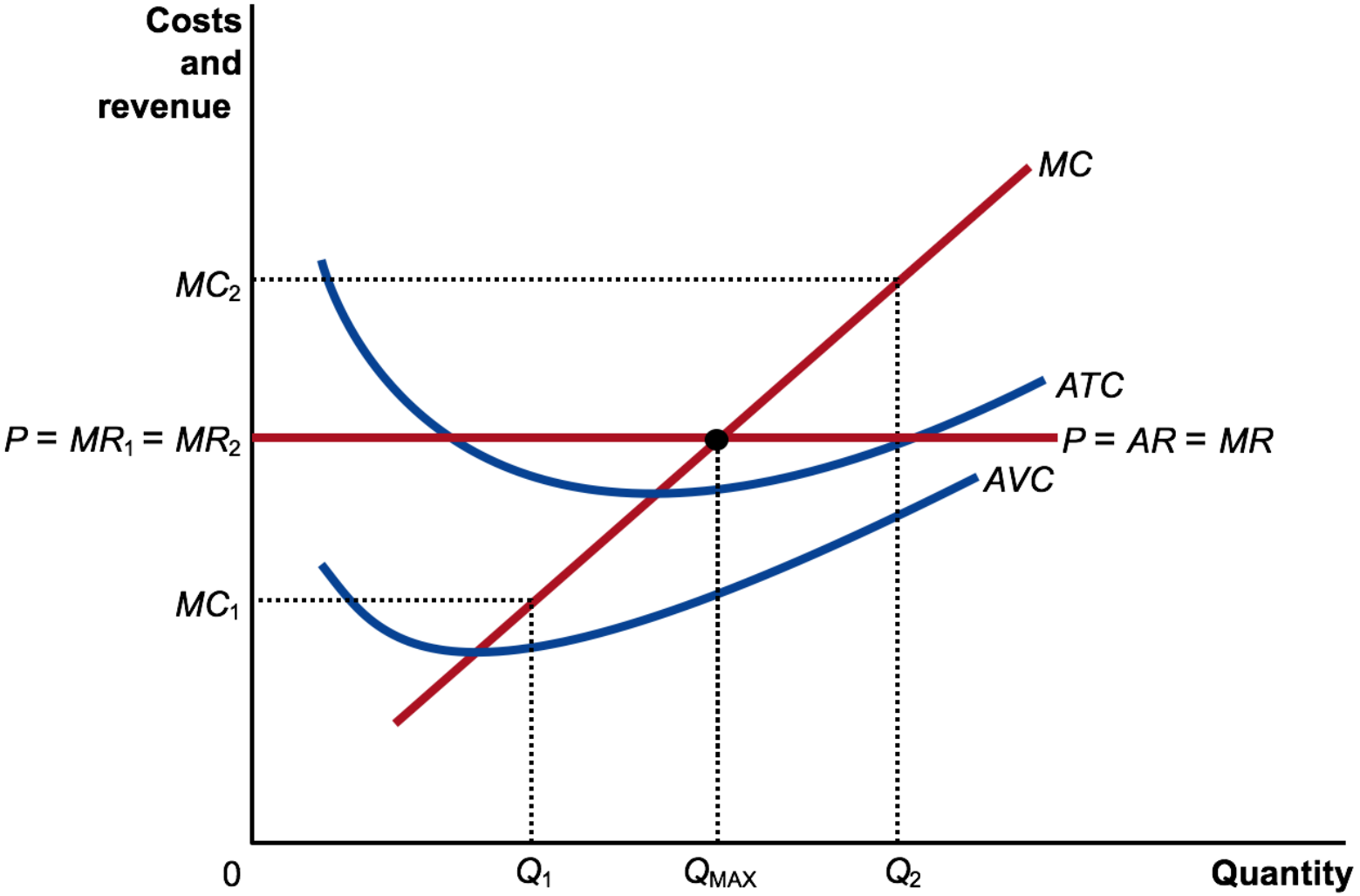
ATC and Minimum Efficient Scale (1)



ATC and Minimum Efficient Scale (2)

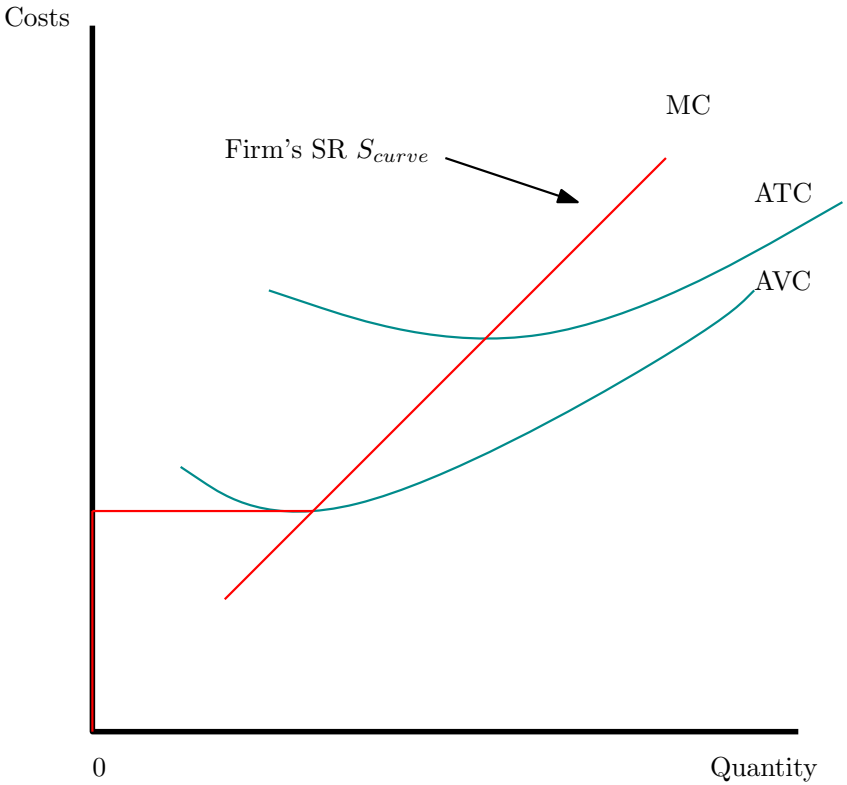


Profit maximisation – perfect competition



Operation vs. Shut down — Entry vs. Exit (Sloman, J. Hinde K. & Garratt, D. – 2013) (1)

Operation vs. shut down



$$TR < VC \Leftrightarrow \frac{TR}{Q} < \frac{VC}{Q} \Leftrightarrow P < AVC$$

Operation vs. Shut down — Entry vs. Exit (2)

Operation vs. shut down

- Shutdown condition: $p = AR < AVC \Leftrightarrow TR < TVC \Leftrightarrow$ Operating loss
- If $p > AVC$, SR operation to *reduce the loss*

Entry vs. exit

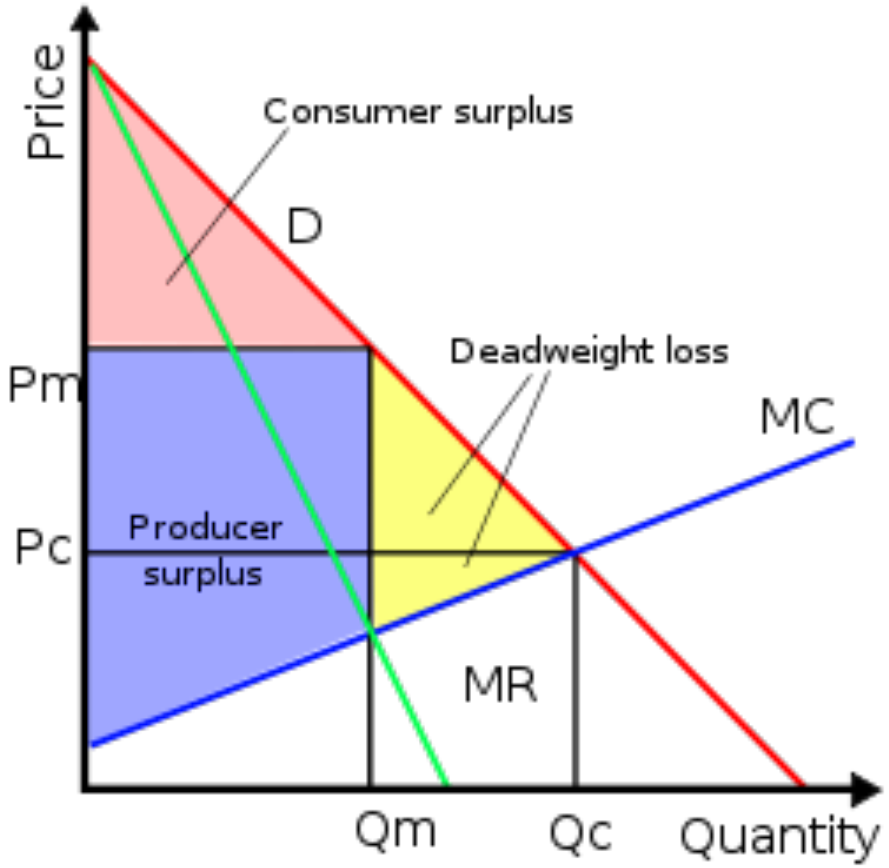
- Exit condition: $p = AR < AC \Leftrightarrow TR > TC \Leftrightarrow$ loss
- If $p < AC$, exit.

Perfect competition vs. . . .

. . . other market structures

- Monopoly
- Monopolistic competition
- Oligopoly (non-collusive)
- Collusion
- Contestable markets: the threat of new entrants induces perfect competition outcomes

Monopoly


Price
Consumer surplus
D
Deadweight loss
Pm
MC
Pc
Producer
surplus
MR
Qm
Qc
Quantity