SYLLABUS REFERENCE 2.2[1]
Economics Models : Perfect Competition + Monopoly

The PC model suggests that:
1. Efficient - firms forced to produce at lowest point on AC curve[2]
2. Lower prices
3. Higher output for the Industry than in Monopoly
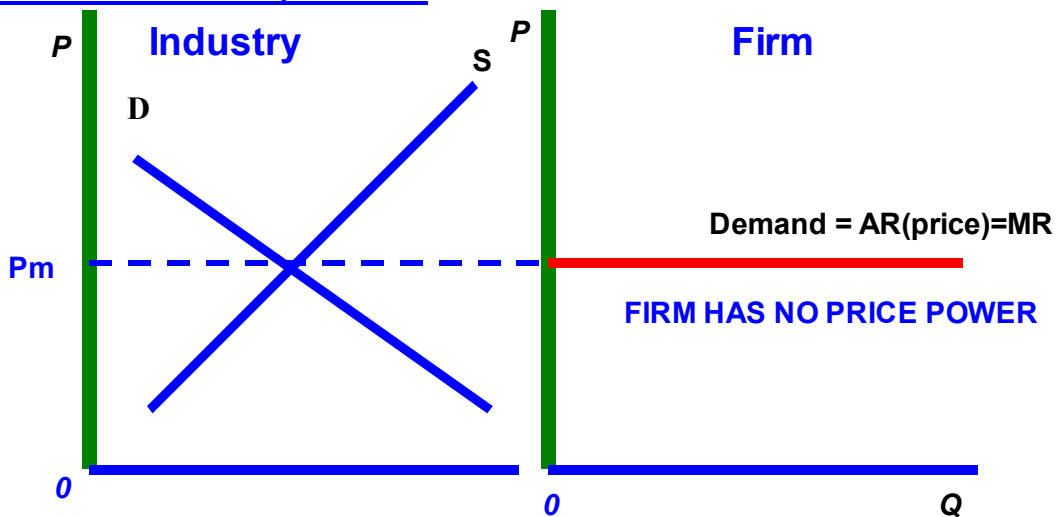4. Resource Allocation is better

5. Assumptions of the Model:
   - Many buyers and sellers
   - Homogenous product
   - Perfect knowledge
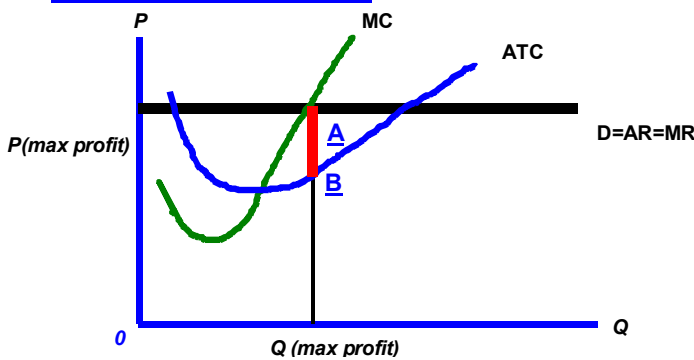   - No barriers to entry or exit

SHORT RUN AND LONG RUN
- Short run ~ at least one Fop is fixed
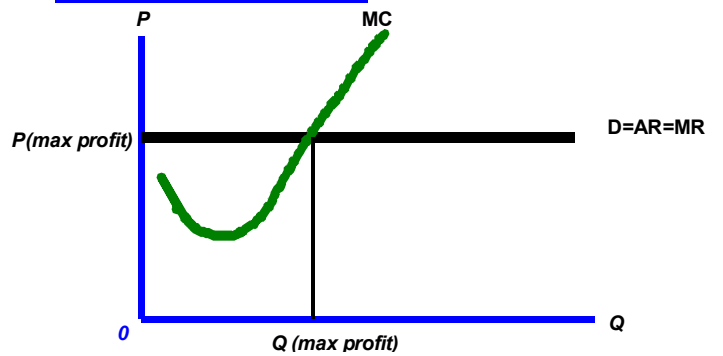- Long run ~ all factors variable

DIAGRAM A: Firm is a price taker

Industry — P, D, S, Pm

Firm — Demand = AR(price)=MR

FIRM HAS NO PRICE POWER

B.   Firm: Short Run period

P, MC, ATC, P(max profit), D=AR=MR, A, B, Q (max profit)

C: Firm: Short Run period

P, MC, P(max profit), D=AR=MR, Q (max profit)
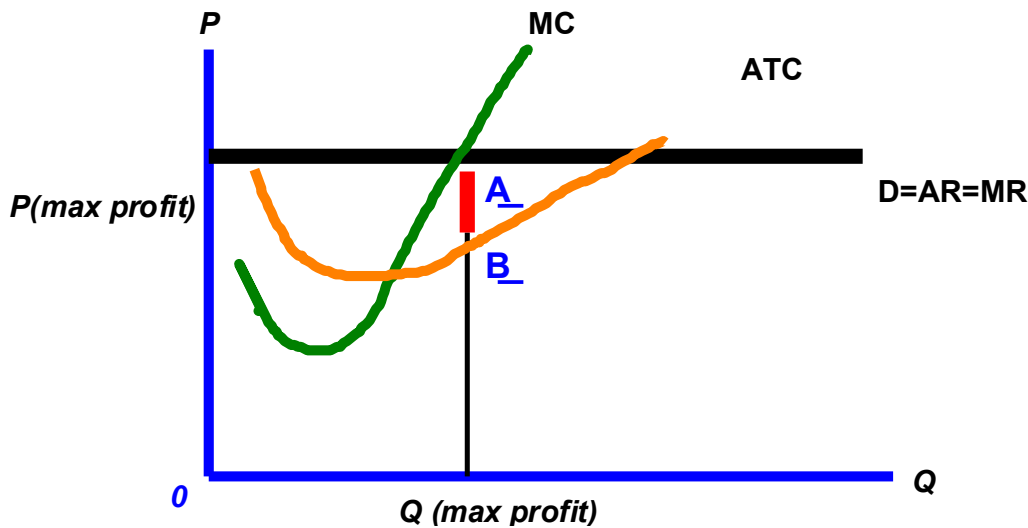
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[1] Page 1 of 3. TKB/SL/HL
[2] In the case of the above diagram this is not shown as it is possible to produce 'inefficiently' in the short run and earn S/N profits at AB

SYLLABUS REFERENCE 2.2 HL EXTENSION[3]

**Economics Models for Competition: Perfect Competition [4]**
What guides the firm ? Profit[5] ? Maximisation at MC=MR and
MC=AR (allocative efficiency)

D. Firm: Short Run Equilibrium

- o **Note: A firm will supply any quantity in the short run as long as it covers its AVC. Therefore the supply curve of the firm in PC is that part of the MC which lies above the AVC**
- o **In other words the firm does not have to cover all of its costs (fixed costs) in the short run. In the long run all costs have to be covered.**

E: Point of Maximum Profit for a Firm
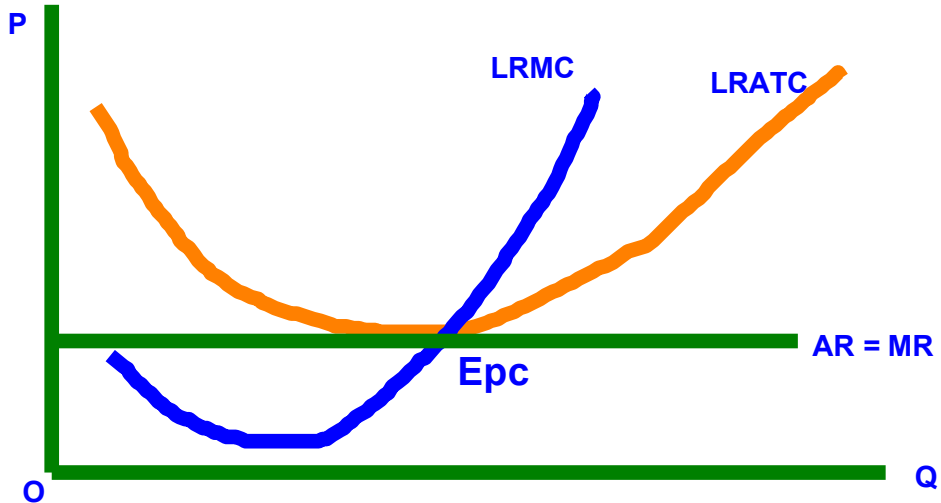
MC=MR

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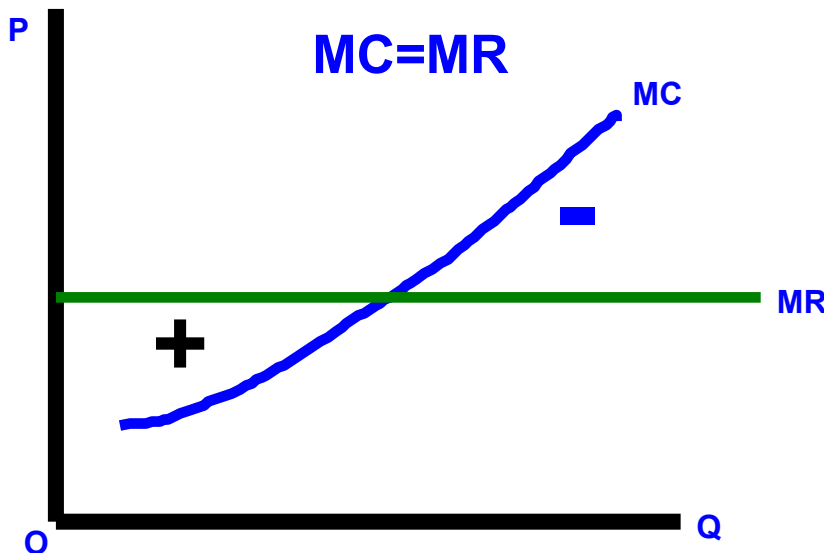
[3] **Page 2 of 3**
[4] **MC = MR applies to all market structures**
[5] **Always a consideration. Prestige and sales revenue maximisation (market share) also important. Shareholder vs Owner debate. See webnote 422.**
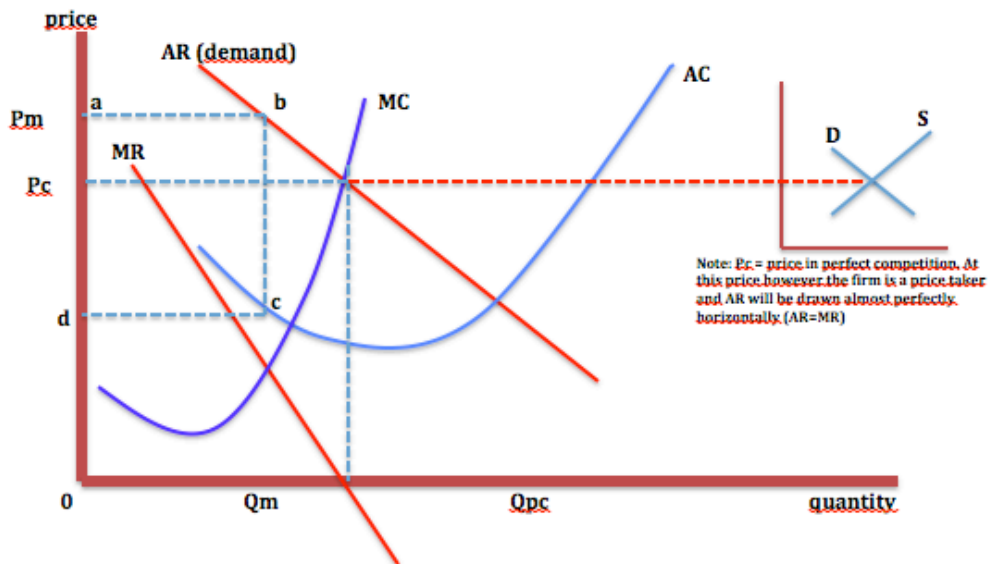
SYLLABUS REFERENCE 2.2 HL EXTENSION[6]
Economics Models for Competition: Perfect Competition

F: Long Run Equilibrium of Firm in Perfect Competition

G. 2 Firms: Comparison of Perfect and Monopoly
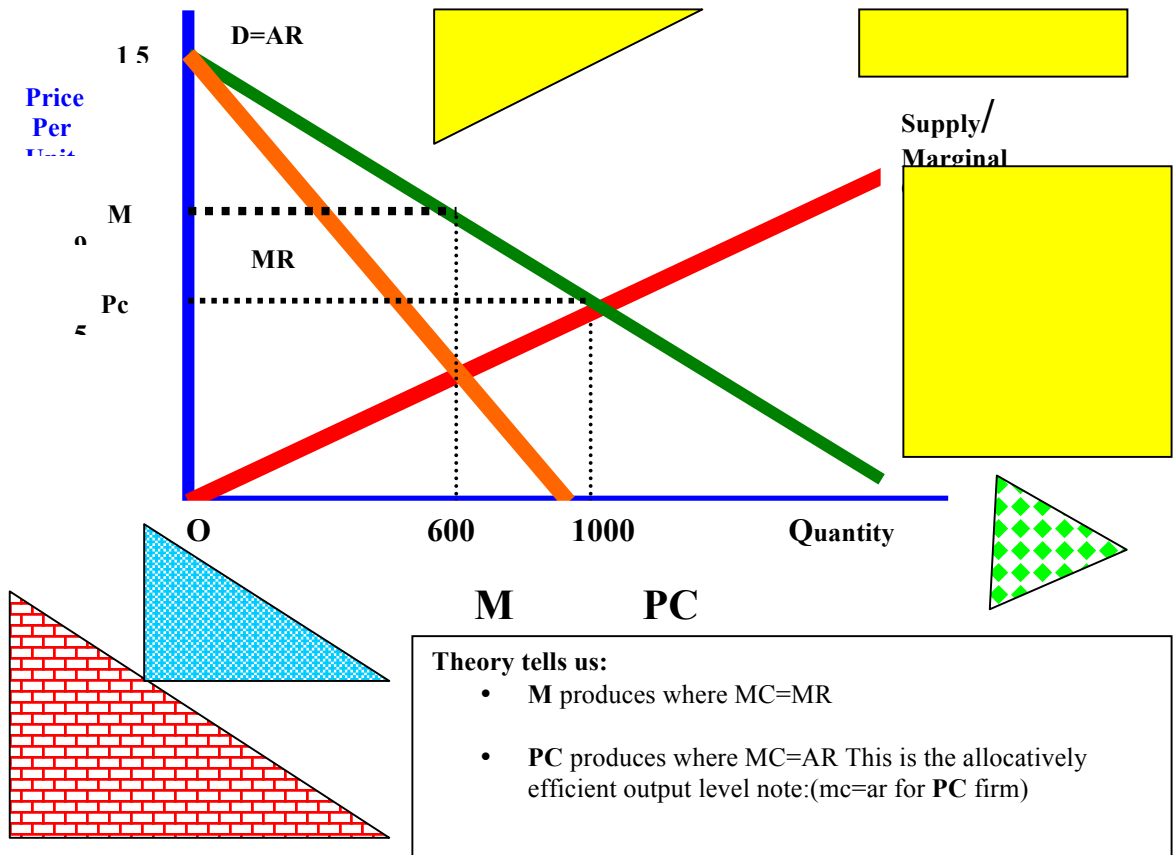

Note: Pc = price in perfect competition. At this price however the firm is a price taker and AR will be drawn almost perfectly horizontally (AR=MR)

Remember the maximum profit finder is where:

MR=MC

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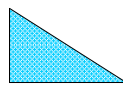
[6] Page 3 of 3

Perfect Competition and Monopoly: Compare on Industry

D=AR

1 5

**Price
Per
Unit**

**M
9**

MR

**Pc
5**

**Supply/
Marginal**

O   600   1000   Quantity

M   PC

Theory tells us:
- **M** produces where MC=MR

- **PC** produces where MC=AR This is the allocatively
  efficient output level note:(mc=ar for **PC** firm)
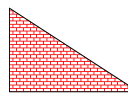
Evaluate Perfect competition and Monopoly on an industry level:

- **Industry is originally in PC and shifts into Monopoly. How are the stakeholders affected?**
- **Producer: M- output falls and price rises to M9. If a Monopolist takes over a PC some firms will be shut down in order to bring production to 600 units. Unemployment occurs.   PC output rises (1000 units) and price falls to Pc 5.**
- **Consumer: PC lower prices – surplus rises   M higher prices – surplus falls**
- **Society: PC perfect allocation at MC= AR (ar=mr) M results in a 'deadweight loss'**

= consumer surplus after M takes control of industry

= producer surplus under M

= consumer surplus under PC

Evaluation:

Perfect Competition (Firm)
1. **D = P = AR=MR=MC and AR = AC** (at lowest point)
2. perfect productive / technical efficiency
3. PC approaches the concept of Pareto optimality which identifies a level of production in an economy whereby no person can be made better off without another person being worse off. Pareto efficiency must include:
   - ⊙ Productive efficiency -AC
   - ⊙ Allocative efficiency- PPF
   - ⊙ Distributional efficiency, whereby consumers do not wish to spend disposable income in any other way

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Monopoly
1. **AR >AC, MR=MC, AC** not likely to be at lowest point of AC so it is "productively inefficient" **MC ≠ AC**
2. poor productive /technical efficiency
3. if the monopoly firm enjoys economies of scale then the AC operating point (according to MC=MR) could be lower than for the industry in PC and monopoly could be lower. However price is still likely to be greater than MC and **AR >AC = S/N** profits

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Resource Allocation: **Economic efficiency and productive (technical) efficiency.**

1. **What is the optimal level of resource allocation? Pareto Efficiency suggests Firms in PC are productively efficient.**
2. **Under PC the consumer is sovereign and influences WHAT ? is produced.**
3. **The monopoly firm has on the other hand producer sovereignty with a large degree of price power.**
4. **Resources (FoP) follow profits and therefore if resources can be allocated efficiently then competition will enter the industry and competition follows. This is assuming of course that the factors of production can be allocated from one industry to another. In reality factor immobility may play a significant factor in reducing the level of competition for firms at least in the short run but also in some cases in the long run e.g. restaurants and small monopolistic firms that enjoy a special location and competing firms cannot affect their price power in the long run by offering a competitive alternative nearby.**
   - ⊙ **See webnote 115**
   - ⊙ **See syllabus section 2.3 'productive and economic efficiency'**
5. **To show allocative efficiency use the PPF or MSB = MSC (see syllabus section 1.3 and 'overproduction'.**
6. **To show productive efficiency use the ATC**

Evaluation Summary

Monopoly :   for

1. Economies of scale more likely than PC
2. S/N profits may be reinvested in R+D
3. No overproduction likely as in PC and less possibility of externalities
4. Government regulation can improve consumer surplus

Monopoly : against

1. S/N profits in the long run
2. Poor allocation
3. Productively inefficient – not at lowest point of AC
4. Compared to PC price is higher and output lower
5. 2 opposite may well be inaccurate
6. See also price discrimination by a monopolist