What is Perfect Competition

Markets are “perfectly competitive” if

- There are many buyers and sellers so that none has influence on price.
- There is freedom of entry and exit (in the long run)
- There is perfect knowledge of prices by buyers and sellers and agents are symmetric respect to information.
- All firms produce an homogenous and identical products. No branding or other marketing techniques of price discrimination.
Assumptions on Perfect Competition
Examples of Perfect Competition Markets

- The market for some agricultural produces (wheat, corn, soya beans).
  - Many sellers but a few buyers
  - Marketing techniques and branding (certificates of origin)
- The stock exchange market.
  - Asymmetries in the information
- The e-bay auctions
  - Asymmetries in the information
  - Branding, part-sales and other marketing techniques.
- The fully-competitive market DOES NOT exist!!

Assumptions on Perfect Competition
The individual and market demands

- The impact of individual firm decisions on total output is negligible in a perfect competition market.
- Firms cannot affect price by increasing or decreasing output
- A distinction is made between market demand and demand faced by an individual firm.
  - Market demand is as always negative slope
  - Demand faced by an individual firm is an perfectly elastic (horizontal line)
- Thus, a firm in perfect competition can sell all the output it can produce at the current market price.
We showed that the individual offer curve is given by the marginal cost curve.

...but only as long as the firm wants to keep producing

- If the MC is above the AC, the firm gets positive profits.
- If the MC is below the AC but above the AVC, still the firm wants to produce
- The firm wants to stop producing if they cannot even afford variable costs (MC below AVC).

Thus, the individual offer curve is the part of the MC above the AVC.
Firm wants to produce

Firm does not produce
The Short-Run Equilibrium
The Market Equilibrium

- In the short-run the number of firms is given and fixed. No firm can enter or leave.
- The market offer curve is the sum of the individual offer curves for every price.
- For each price, aggregate the quantities produced by every individual firm.
- The short-run equilibrium is the price such that the market demand equals the short-run market offer.

The Short-Run Equilibrium
The Market Equilibrium

- The market price in equilibrium $P^*$ determines the quantities produced by each firm and its profits.
- If $P^*$ is above AVC, but below AC will produce but with losses
- If it is above the AC, will produce with positive profits.
- If market price is below the minimum of AVC, then that firm will produce zero.
The Long-Run Equilibrium

In the long-run a firm will not make loss or abnormal profits:

- If a firm makes losses in the long-run, it will shut down.
- If a firm makes abnormal profits at current price, other firms will enter the market, offer increases, price reduces and approaches the minimum of long-run average costs.

The above argument requires the assumption that firms are ex-ante identical from the technological point of view. No firm can take advantage.

The Long-Run Equilibrium
The Possible Equilibria

- Type 1: All firms have identical U-shape AC cost functions. Firms enter the market until equilibrium price is at the minimum of the long-run AC.
- Type 2: All firms have identical increasing AC cost functions. Firms keep entering in the market. In the limit, each produces negligible amount.
- Type 3: All firms have identical decreasing AC cost functions. Since AC is always greater than price, all firms close in the long run. Market dissapears.
- Type 4: AC=MC and constant. In the long-run, price decreases until being equal to AC/MC. Equilibrium is not defined. One only firm can serve all market, or many serving small quantities.
Price moves downwards until zero.
Losses in the long-run. No production, no market

MC == AVC == Indiv. demand

Type III

Type IV