

Section 4: Diminishing returns, Technology, Contestability

Diminishing returns
-Variable FOPs are added to a fixed factor, resulting in falling TP, AP and MP (graph is opposite)

Returns to scale (production in the LR)
How output changes as input increases

Increasing returns to scale
when FOP increases, output increases at a faster rate

Constant returns to scale
when FOP increases, output increases at the same rate

Decreasing returns to scale
when FOP increases, output increases at a slower rate

MES (Minimum efficient scale)
-MES at a high quantity for industries with high fixed costs (many large firms)

Profit (TR-TC)

-Normal profit: $TR=TC$, economic profit of zero which is the min level needed to keep resources in their current use in LR
-Supernormal profit: $TR>TC$,

Role
-incentive to invest
-incentive for entrepreneurs to take risk
-promotes dynamic, allocative and productive efficiencies
-signal for other firms to enter the market

Technological change (industries become more capital intensive and less labour intensive)

Technological changes:
-Structure of market
-Production methods
-Consumption of G and S

Invention: advancements in pure science
Innovation: application of new knowledge to production methods
-technical EOS is achieved
-tech advancements can reduce or increase barriers to entry

Creative destruction
-markets constantly changing due to tech advancements destroy industries and jobs and create new ones
-in LR jobs will also be created
-railroads destroyed canals, while motorways and lorries destroyed railroads

Examples
-internet has reduced barriers to entry due to more online retailing
-Cars are cheaper and more efficient
-Uber dominating the taxi market
-Airbnb impacts established hotel chains
-music and video online streaming
-diverse range of products
-tech advancements improve knowledge and knowledge of prices

Contestability of firms to enter a specific market

High contestability (behaves like perfect competition)
-Low barriers to entry-low sunk costs, low consumer loyalty, demand is highly elastic
-many new entrants willing and able to enter the market
-equal access to industry technologies

Low contestability (behaves like a monopoly)
-High barriers to entry-low sunk costs, high consumer loyalty, demand is highly inelastic
-few new entrants willing and able to enter the market
-Unequal access to industry technologies due to patents

Advantages of high contestability
-allocative efficiency
-productive efficiency
-X-efficiencies: waste minimised
-Job creation: higher quantity in the market so more labour needed

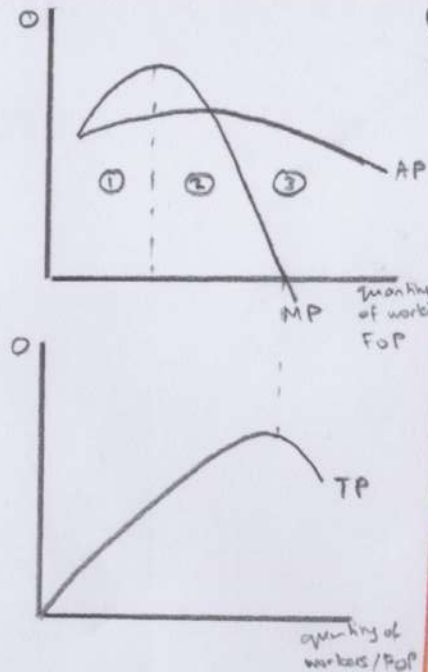
Disadvantages of high contestability
-lack of dynamic efficiency
-Creative destruction

Actions of incumbent firms to make market less contestable (to hold their large profits)
-Predatory pricing
-excessive advertising
-set lower prices to prevent making supernormal profits as this will attract new entrants (so sacrifices SR profits)

Evaluation
-length of contestability- if incumbent firms use anticompetitive strategies it won't be contestable in LR
-role of technology - decreases barriers but patents reduce contestability
-regulation - prevents strategic behavior by incumbent firms
-dynamic efficiency- there still may be this as new firms bring in new inventions

Hit and run: firms enter when there are large supernormal profits to be made, and leave when prices are driven down to normal profit levels
-in LR contestable markets move towards allocative and productive efficiency because supernormal profits are competed away

Economies of scope
-Economies of scope happen when it is cheaper to produce a range of products rather than specialize in a limited number.
-Procter and Gamble and Gillette merger allowed for more products to be sold through common branding, channels and logistics



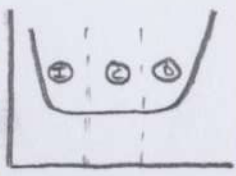
- ① Each additional worker brings more output so MP ↑
- ② Diminishing returns set in when each additional worker brings less output. Fixed FOP become constraint on production
- ③ As soon as $MP < 0$, then TP starts to decrease

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