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Lecture 6

Market Failure &
Government Intervention

Economics
& Society

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Previously in E&S

- Monopolistic Competition
- Cournot Oligopoly
- Bertrand Oligopoly
- Collusion
- Kinked demand model

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Market Failure & Government Intervention

Lecture 6

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Market failure

- Market failure is the situation when the market ***outcome*** is ***socially undesirable***
- Different societies have ***different preferences***:
  - In Singapore
  - In L.A.
  - In Tehran
- Market failure is a ***subjective*** notion

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Types of market failure

- Monopolies are known to cause economic ***inefficiency*** and are socially ***disliked***
- But even PC outcomes, which are ***100% efficient***, are socially disliked at times
- There are ***7 main types*** of market failure:
  1. Market prices may fail to reflect the ***real cost*** or the ***real benefit*** of the product
  2. The market may fail to ***allocate*** the good to those who value it the most
  3. The market may fail to produce the good at the ***min opportunity cost***
  4. The market may produce a good that fails to ***cover the real needs*** of the society
  5. The market may fail to control the abuse of ***monopoly power***
  6. Consumers may ***fail to evaluate the consequences*** of the use of a product
  7. The market may fail to ***equilibrate*** for various reasons.

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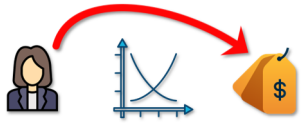
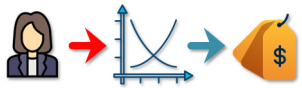
Response to market failure

- There are ***2 approaches*** to regulatory intervention:
  1. ***Direct*** intervention:
     - The regulator overrides the market and directly ***sets the desired outcome***
     - For example, setting ***prices***, product ***specifications*** or product ***variety***.
  2. ***Indirect*** intervention:
     - The regulator ***adjusts the market rules*** to steer clear of failing outcomes
     - For example, ***antitrust*** or ***other legislation*** that enables the market to yield the desired outcome





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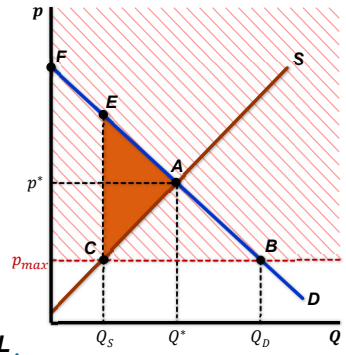
Price ceiling

- Market equilibrates at *A* with price p^*
- If a ***maximum price*** p_{max} is imposed:
  - Quantity demanded ***increases*** from Q^* to Q_D
  - Quantity supplied ***decreases*** from Q^* to Q_S
  - A shortage equal to $Q_D - Q_S$ is created.
- Producers ***sell less*** at ***lower price***
- Consumers along *EA* can ***no longer*** buy
- Consumers along *FE* ***buy cheaper***
- This policy creates ***winners and losers***
- Intervention decreases price but creates a ***DWL***



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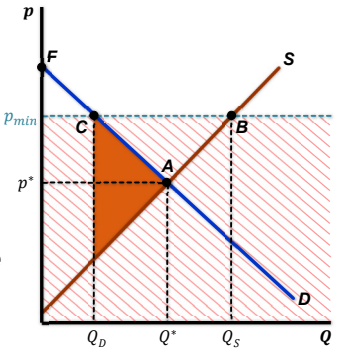
Price floor

- Market equilibrates at *A* with p^*
- If a ***minimum price*** p_{min} is imposed:
  - Quantity supplied ***increases*** from Q^* to Q_S
  - Quantity demanded ***decreases*** from Q^* to Q_D
  - A surplus equal to $Q_S - Q_D$ is created.
- Producers ***sell less*** (Q_D) at ***higher price***
- Consumers along CA can ***no longer*** buy
- Consumers along FC ***buy but more expensive***
- The policy creates ***winners and losers***
- Intervention comes at an ***efficiency cost***



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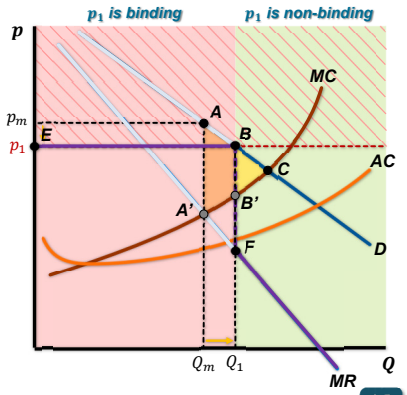
Price regulation in monopoly

- If ***left alone***, the seller charges p_m
  - ***DWL*** *ACA'* exists in the market
- The regulator may ***impose*** max price p_1:
  - to ***raise*** quantity to Q_1;
- For quantities up to Q_1:
  - *D* yields prices ***above*** p_1
  - *D* and MR ***do not apply*** with regulation
  - The seller ***takes*** p_1 from the regulator
  - ***Demand*** and ***MR*** are line EB.
- Above Q_1, original demand and MR ***apply***
- Monopolist indeed ***wants to produce*** Q_1



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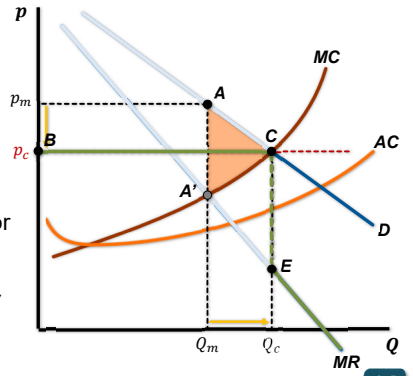
Elimination of DWL

- If ***left alone***, the seller charges p_m
  - ***DWL*** *ACA'* exists in the market
- The regulator may ***impose*** max price p_c:
  - to ***raise*** quantity to Q_c; ***eliminate*** the DWL
- Up to Q_c, *D* yields prices ***above*** p_c
  - *D* and MR ***do not apply*** with regulation
- Up to Q_c, seller ***takes*** p_c from the regulator
  - with regulation, ***demand*** and ***MR*** are line BC
- Above Q_c, original demand and MR ***apply***
- Monopolist indeed ***wants to produce*** Q_c



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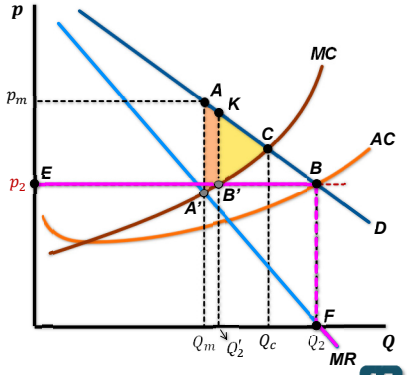
Price regulation overshooting

- If ***left alone***, the seller charges p_m
  - ***DWL*** *ACA'* exists in the market
- The regulator may ***impose*** max price p_2
  - to cause ***quantity to increase*** to Q_2
- With regulation, ***MR curve*** becomes *EBF*
- At Q_2 the monopolist has ***zero profit***
- Monopolist ***maximizes profit*** at Q_2'
- Regulation is ***unsuccessful***:
  - ***Limits quantity*** to $Q_2' < Q_c$
  - ***Yields significant DWL*** *KCB'*



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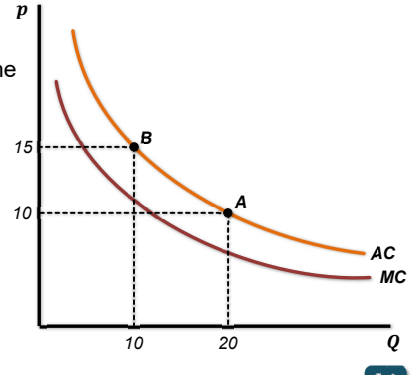
Natural monopolies

- Some production processes may exhibit ***intense Economies of Scale***
- In this case, a single firm could produce the entire output at ***lower cost*** than if production was split over several firms
  - A monopoly would produce 20 units with cost 20·\$10 = **\$200**
  - If the 20 units were split between 2 firms, cost would be 10·\$15 + 10·\$15 = **\$300**.
- **Examples:** metro, airports, city water



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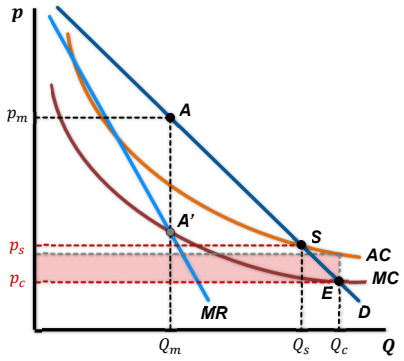
Regulating a natural monopoly

- Unregulated monopolist would produce Q_m and charge p_m
- Regulation at p_c yields the ***maximum market efficiency*** but at ***losses***
- Regulation at p_s allows the monopolist to ***break even*** and offers ***financial sustainability***

  however, a ***lower quantity*** is produced



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Thank you!

(you are welcomed to stay for *consultation* or *discussion*)

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