Regulation

What is economic regulation?

- “A state imposed limitation on the discretion that may be exercised by individuals or organizations, which is supported by the threat of sanction”
- Example: minimum wage
- Restrictions on decisions over price, quantity, entry and exit
- Difficult to regulate everything

Instruments of Regulation

- Price control
  - Price caps to long-distance calls
  - Price floors to avoid predation
  - Normal rate of return on investment
- Quantity control
  - Maximum oil production
- Entry and exit control
  - Limitation of entry in public utilities
  - Limit exit to provide a wider service
- Others

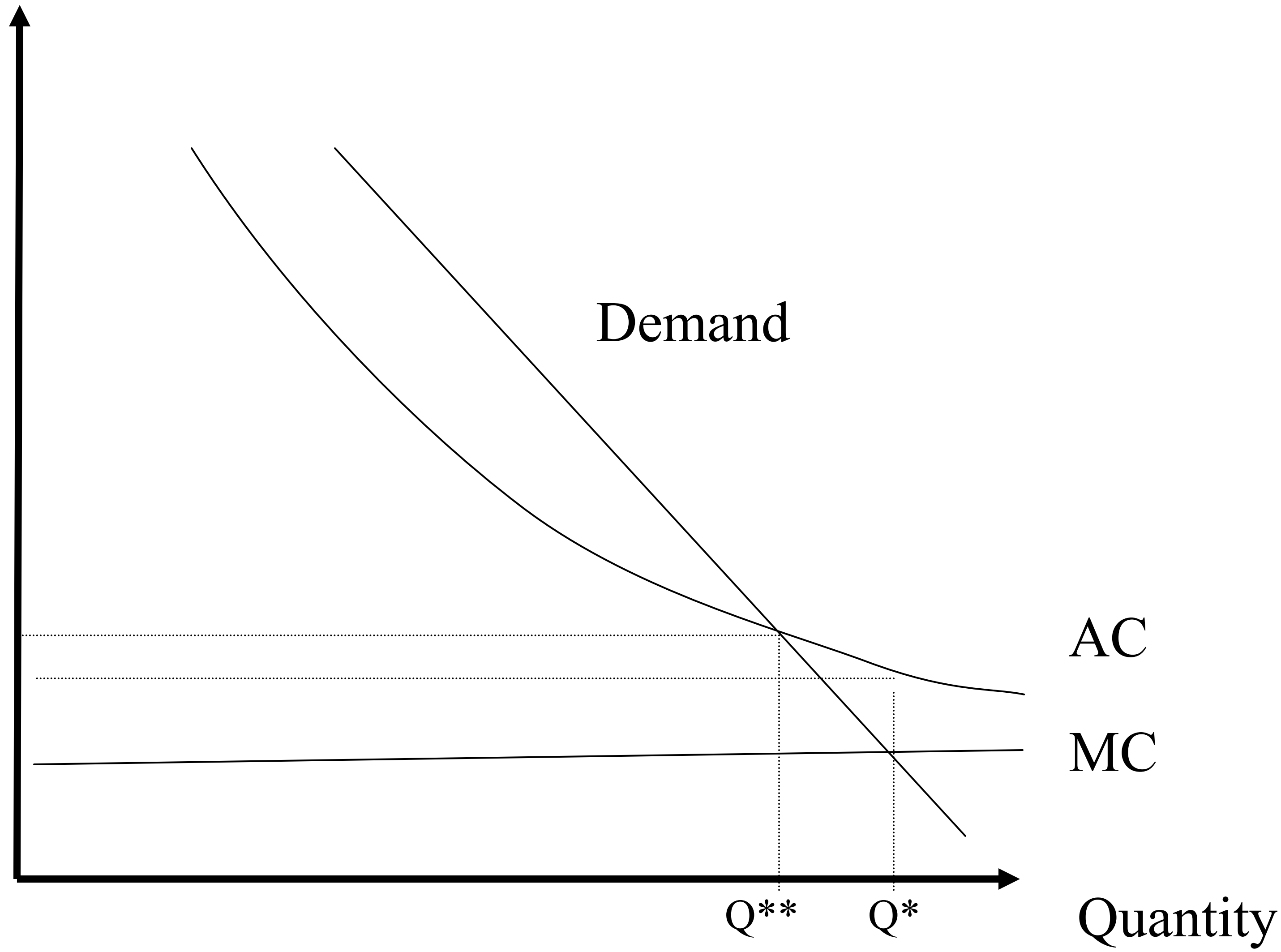
Natural monopoly

- Rationale: market failure again
- Large economies of scale or scope
- Definition:

"A single firm can produce an output, or a set of outputs at a lower cost for the relevant levels of output than two or more firms can"

- Examples:
  - Hydroelectric projects
  - Local telephony
- But… technologies change: deregulation!
  - Example: Long-distance calls

Natural monopoly



Marginal or average cost pricing?

- Allocative efficiency achieved using marginal cost pricing
- But then… subsidies may be needed!:
  - Unfair?
  - Marginal cost difficult to observe
  - Costs of raising revenue
- Or… firm may earn well above normal profits!

Non-linear pricing

- Examples:
  - Two part tariffs: local telephony
  - Multipart pricing: electricity
- Non-uniform prices can improve efficiency:
  - Allow provision when it could not be achieved by uniform pricing
  - Usage fee closer to marginal costs even if costs could be covered with uniform pricing

Non-uniform pricing