Agenda

- Traditional Pricing
- Ramsey Pricing
- Capacity Considerations
- Internet Market Structure
- Interconnect Issues
- Conclusion/Summary

Traditional Pricing

- Allocation Mechanisms
  - Rationing
  - Pricing
  - Why the concern?
- Monopoly Pricing
  - de facto
  - de jure
  - Requirements

Monopoly
Traditional Pricing

- Allocation Mechanisms
- Monopoly Pricing
- **Competitive Pricing**
  - Price equals marginal cost
  - Pareto Optimal
  - Consumer surplus maximized

Competition

![Competition Diagram]

Traditional Pricing

- Allocation Mechanisms
- Monopoly Pricing
- **Marginal Cost Pricing**
  - Efficiency
  - Pareto Optimality (efficient/output)
  - Cannot improve CS + PS

Role of Competition

- Allocation of Resources
- Incentive for Efficiency
- Threat of Entry Discipline

Role of Competition

- Incentive for Efficiency
  - Prices => costs
  - Pressure to reduce costs
  - Selection of more efficient firms
  - Promote innovation
  - Diminish regulatory imperfections
Price
P_u
P_c
Demand
Q_u
Q_c
Quantity

Competition:
lower price;
increased quantity;
increased CS

Net change
in CS + PS

AC = MC

Traditional Pricing

- Allocation Mechanisms
- Monopoly Pricing
- Marginal Cost Pricing
- Average Cost Pricing

Rationale: Efficient Prices

- Welfare highest: PS + CS

Rationale: Efficient Prices

- Welfare highest: PS + CS
- Compensation of losers
- Regulated firm: break-even

Examples:
- Usage-Sensitive Pricing
- Peak Load-pricing
Traditional Pricing

- Allocation Mechanisms
- Monopoly Pricing
- Marginal Cost Pricing
- Average Cost Pricing
- Usage Sensitive Pricing

Examples: Usage Sensitive Pricing

- Usage Sensitive Pricing
  - Without measurement costs

Usage Sensitive Pricing

\[ P = \frac{AC - MC}{D} \]

Usage Sensitive Pricing

\[ P = \frac{AC - MC}{D} \]

Usage Sensitive Pricing

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Usage Sensitive Pricing

\[ P = \frac{AC - MC}{D} \]
Usage Sensitive Pricing

\[ AC = MC \]

Price
\[ P \]

Demand

Quantity

Usage Sensitive Pricing

\[ AC = MC \]

Price
\[ P \]

Demand

Quantity

Usage Sensitive Pricing

\[ AC = MC \]

Price
\[ P \]

Demand

Quantity

Usage Sensitive Pricing

\[ AC = MC \]

Price
\[ P \]

Demand

Quantity

Usage Sensitive Pricing

\[ AC = MC \]

Price
\[ P \]

Demand

Quantity

Economic Profits = 0

Gain of PS

25-30


**Usage Sensitive Pricing**

- If \( P > MC \), flat rate.
- Loss of CS with measurement costs
- AC = MC
- Net gain of surplus w/o measurement costs
- Economic Profits = 0

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**Example: Peak-load Pricing**

- **Usage Sensitive Pricing**
  - Without measurement costs
  - With measurement costs
- **Peak-load Pricing**

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**Capacity Considerations**

- **Rationale**
  - Improve efficiency
  - Less distortion
  - Break-even possibility
Peak Load Pricing

Economic Profits = 0

Price

AC = MCp
Uniform Price

AC = MCop
Demand

Quantity

Peak Load Pricing

Net change in CS + PS

Price

AC = MCp
Uniform Price

AC = MCop
Demand

Economic Profits = 0

Quantity

Traditional Pricing

- Allocation Mechanisms
- Monopoly Pricing
- Marginal Cost Pricing
- Average Cost Pricing
- Usage Sensitive Pricing
- Capacity Considerations

Capacity Considerations

- Rationale
- Method
- Peak-load Pricing
- Ramsey Pricing

Ramsey Pricing

- A Case of AC Pricing
- Multiproduct Case
- Ensures Cost Coverage
- Telephony Does Not Use