Economic Efficiency

Scarcity: The concern of economic theory.

How can the resources be optimally allocated?

Economic Costs: Measures the value of resources used.
Economic Efficiency

Demand:

Measures the value to consumers of resources.

Economic Efficiency

Supply and Demand:

Determines the allocation of resources.

Economic Efficiency

Exception: Market Failure for example, Monopoly.

Economic Efficiency

Demand

Measures the value of goods and services.
Demand
Function of
- Price
- Income
- Price of Other Goods
- Tastes

Demand

Elasticity
The Percentage Change in Quantity with respect to a Percentage Change in Price

Demand
Elastic
The Percentage Change in Quantity *greater* than the Percentage Change in Price

Demand
Inelastic
The Percentage Change in Quantity *less* than the Percentage Change in Price
Demand

Price / Quantity of Inputs

Price of Outputs

Consumer's Surplus:

Value beyond which the consumer pays for a good or service.

Supply Function

The relationship between quantity and cost (price).

Supply

Based on Cost (Incremental)
Demand & Supply Interaction

Price

Supply

Demand

Quantity

Q

Costs / Production Analysis

- Fixed versus Variable
- Relevant versus Irrelevant
- Marginal versus Average
- Economic versus Accounting

Costs / Production Analysis

- Irrelevant
  - Historic Costs
  - Sunk Costs
- Beware of
  - Accounting Costs
  - Allocated Costs

Costs / Production Analysis

- Relevant
  - Prospective (Future) Costs
  - Spectrum Costs
  - Joint / Common Costs

Costs / Production Analysis

- Fixed versus Variable
- Relevant versus Irrelevant
- Marginal versus Average

Costs / Production Analysis

Marginal versus Average

Economic versus Accounting
**Telecommunications Demand**
- Definition of Service
- Subscribers’ Access
- Demand for Usage
- Externality

**Telecommunications Demand**

**Role of Costs in Pricing**
- Marginal Cost Pricing
- Ramsey Pricing
- Other Alternatives

**Economic Efficiency**

**Telephony Guidelines**
- Prices Based on Costs
- Define Service Correctly
- Avoid Cross-Subsidies
- Competition
Economic Efficiency

Pricing Practices
- Fixed Costs, Fixed Prices
- Variable Costs, Variable Prices

Subsidies
- No Cross-Subsidies
- Targeted Subsidies, if any
- Subsidies Financed by Government

Equity Considerations
- Universal Service
- Cross-Subsidies
  - Targeted Subsidies
  - Service Subsidies

Theory of Monopoly
- Definition
- Pricing Practices
- Constraint of Output
- Sustainability
- De jure versus de facto
- X-inefficiency

Definition
- Economies of Scale
- Economies of Scope

Pricing Practices
- Higher Prices
- Constrain Output
Theory of Monopoly

- **Sustainability**

If economies of scale and scope exit, why would a firm want or need to keep out competition?

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Economics of Regulation

- Rate of Return Regulation
- Essential Services
- Alternative Methods
- Competitive Provision

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Rate of Return

- Determining Capital
- Determining Rate
- Averch-Johnson
- Rate Structure

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Cautions and Failures

- Duopoly Fallacy
- UK Situation
- Cellular Phone System
- Extended Area Service

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Role of Competition

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

- Competition Desirable
- No Entry Restrictions
- Specific Transition Period
- Prices Cost-Oriented
- Incentive Regulation
- Targeted Subsidies, if any

Summary (continue)

- Regulation in place
- Anti-Trust Required
- Interconnection determined
- Spectrum leased/sold
- Long Distance -- transition

Agenda

- Economic Efficiency
- Demand
- Supply
- Regulation
- Case Studies

Telecommunications Policy, Economics & Regulations

Overview

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