

## **Introduction**

Technical view (Frank Knight) vs. world view (Alfred Marshall) of economics

Positive vs. normative methodology

Comparative static vs. market process

Partial vs. general equilibrium analysis

## **Demand theory**

Indifference curve, budget constraint, and marginal rate of substitution (MRS)

Income expansion path (income-consumption curve) and engel curve

Price expansion path (price-consumption curve) and demand curve

Normal, inferior, and giffen goods

Substitutes and complements

Substitution (hicks and Slutsky), income, and total effects

Hicksian, Slutsky, and Marshallian demand curves

Slutsky equation

Equivalent and compensating variation, and consumer surplus

Demand curve and price elasticity of demand

Cross-price elasticity of demand

Individual to market demand curves

Lancaster's new approach to consumer theory (Lancaster, 1966)

## **Production theory**

Total, average, and marginal product curves

Isoquant and marginal rate of technical substitution (MRTS)

Increasing, constant, and decreasing returns to scale

## **Cost theory**

Total, average, and marginal (short-run) cost curves

Isocost, isoquant, and scale expansion path (SEP)

Economies of scale

Long-run (average and marginal) cost curves

## **Exchange**

Edgeworth box

Invisible hand (first welfare) theorem

Equity-efficiency (second welfare) theorem

Exchange and production (Fisher separation theorem)

Production and consumption equilibriums

## **Pure competition**

Pure competition defined

Short-run competitive equilibrium

Long-run competitive equilibrium

## **Monopoly**

Monopoly defined

Short-run monopoly equilibrium

Long-run monopoly equilibrium

Efficiency loss of monopoly

## **Price Discrimination**

First-degree (perfect) price discrimination

Second-degree price discrimination (non-linear pricing)

- Declining multi (two) blocks pricing / quantity discount
- Multi (two) parts pricing

Third-degree price discrimination (market segmentation)

## **Imperfect competition**

### **Monopolistic Competition**

Monopolistic competition defined

Short-run (Chamberlinian) equilibrium

Long-run (Chamberlinian) equilibrium

Excess capacity theorem

Product differentiation

- Spatial or location model (Hotelling, 1929)
- Representative consumer model (Spence, 1976)

## **Oligopoly**

Oligopoly defined

Nash equilibrium

Prisoner's dilemma

Cournot equilibrium (simultaneous quantity competition)

Bertrand solution (simultaneous price competition)

Stackelberg solution (sequential quantity leadership)

Kinked demand curve model (Sweezy, 1939)

Contestable market theory (Baumol, 1982)

## **Factor markets**

### **Labor**

Short-run demand for labor in competitive labor market

Long-run demand for labor in competitive labor market

Individual and market demand curve for labor

Individual and market supply curve for labor

Monopsony

### **Capital**

#### **Intertemporal choice**

Basic elements

Pure exchange

- Individual supply of lending or demand for borrowing
- Market supply of lending and demand for borrowing
- Consumption vs. income tax

Exchange and production (Fisher separation theorem)

Investment decisions (NPV rule)

Perpetuity problem

### **Interest rate and Inflation**

Determinants of positive *real* interest rate (1-4)

1) Time preference

2) Time endowment

3) Time productivity

4) Risk premium

Determinants of positive *nominal* interest rate (1-5)

5) Anticipated inflation

Unanticipated and anticipated inflation

Real vs. nominal interest rate (Fisher's equation)

Efficient market hypothesis

Economic rent

## **Welfare economics**

### **Externalities**

Direct/technological externalities

- Negative externalities and Pigouvian tax
- Positive externalities and subsidy

Pecuniary externalities

Coase theorem (Coase, 1960)

The tragedy of the common (Hardin, 1968)

### **Public Goods**

Joint demand and supply

Non-excludability and free rider problem

Non-diminishibility and price discrimination (Demsetz, 1970)