
Contents

Introduction	
Scope and methodology of economics	1
Scope of Economics: <i>Economics in the Small and in the Large</i> . Norms and Policy. Methodology: <i>Model Analysis</i> . An Overview of this Book.	
Advanced reading	7
part I	
Theory of consumer behavior and demand	9
1. Theory of utility and preference	11
Introduction: <i>The Nature of Commodities</i> . Full Knowledge. <i>The Theory of Consumer Preference</i> . Utility and Preference: <i>The Utility Surface</i> . <i>The Indifference Curve</i> . Summary. Characteristics of Indifference Curves. Marginal Rate of Substitution. Conclusion.	
2. Theory of consumer behavior	29
Introduction: <i>Maximization of Satisfaction</i> . Limited Money Income. <i>Shifting the Budget Line</i> . Consumer Equilibrium: <i>The Relevant Part of Commodity Space</i> . <i>Maximizing Satisfaction Subject to a Limited Money In-</i>	

come. Changes in Money Income: The Income-Consumption Curve. Engel Curves. Engel Curves and the Income Elasticity of Demand. Changes in Price: The Price-Consumption Curve. The Demand Curve. The Elasticity of Demand. Elasticity of Demand and the Price-Consumption Curve.

3. Topics in consumer demand 52

Introduction. Substitution and Income Effects: The Substitution Effect in the Case of a Normal or Superior Good. The Income Effect in the Case of a Normal Good. Normal or Superior Goods. Inferior Goods: Inferior Goods and Giffen's Paradox. Income and Substitution Effects for an Inferior Good. Substitution and Complementarity: Classification by Cross-Elasticities. Geometric Illustrations. Application of Indifference Curve Analysis: The Economic Theory of Index Numbers: Information from the Budget Map. Index Numbers as Indicators of Individual Welfare Changes. Applications of Indifference Curve Analysis: The Choice between Leisure and Income: The Income-Leisure Graph. Equilibrium between Income and Leisure. Overtime Rates. Demand for General Assistance Payments. Time Preference—Consumption and Saving over the Life Cycle. Choices Involving Risk: Probabilities and Expected Value. The Expected Utility Hypothesis. Indifference Curves and State Preference Analysis. An Example of Decision Making In a Risky Situation.

4. Characteristics of market demand 90

Introduction. From Individual to Market Demand: The Determinants of Demand. Determining Market Demand. Elasticities of Demand: Price Elasticity of Demand. Coefficient of Price Elasticity. Graphical Measurement of Point Elasticity. Factors Affecting Price Elasticity. Price Cross-Elasticity of Demand. Income Elasticity of Demand. Marginal Revenue: Calculation of Marginal Revenue. The Geometry of Marginal Revenue Determination. Demand, Revenue, and Elasticity: Elasticity and Total Revenue. Elasticity and Marginal Revenue. Demand Curve for a Firm in Perfect Competition.

Advanced reading, part I 120

part II

Theory of production and cost 123

5. Production with one variable input 125

Introduction: Fixed and Variable Inputs, the Short and Long Runs. Fixed or Variable Proportions. The Production Function: Total Output or Product. Average and Marginal Products. Law of Diminishing Marginal Physical Returns. The Geometry of Average and Marginal Product Curves:

Geometry of Average Product Curves. Geometry of Marginal Product Curves. Total, Average, and Marginal Products. The Three Stages of Production. Linearly Homogeneous Production Functions.

6. Production and optimal input proportions: Two variable inputs 144

Introduction: Production Table. Input Substitution. Production Surface: Production Surface for Discrete Case. Production Surface for Continuous Case. Production Isoquants. Fixed-Proportions Production Functions. Input Substitution: Marginal Rate of Technical Substitution. Diminishing Marginal Rate of Technical Substitution. Economic Region of Production. Optimal Combination of Resources: Input Prices and Isocosts. Maximizing Output for a Given Cost. Minimizing Cost Subject to a Given Output. The Expansion Path: Isoclines. Changing Output and the Expansion Path. Expenditure Elasticity. Changes in Input Price: The Substitution and Output Effects. "Inferior Factors" and the Output Effect. Analogies Between Consumer and Producer Behavior. Conclusion.

7. Theory of cost 179

Introduction: Social Cost of Production. Private Cost of Production. The Role of the Entrepreneur. Short and Long Runs: Long-Run Costs and the Production Function. Short-Run Costs and the Production Function. Fixed and Variable Costs in the Short Run. Theory of Cost in the Short Run: Total Short-Run Cost. Average and Marginal Cost. Geometry of Average and Marginal Cost Curves. Short-Run Cost Curves. Long-Run Theory of Cost: Short Run and the Long. Long-Run Average Cost Curve. Long-Run Marginal Cost. The Envelope Curve and the Expansion Path. Cost Elasticity and the Function Coefficient: The Function Coefficient. Cost Elasticity. Shape of LAC: Economies of Scale. Diseconomies of Scale. Long-Run Cost and Changes in Factor Price: Changes in Long-Run Average Cost. Changes in Long-Run Marginal Cost and Minimum Average Total Cost. Conclusion.

Advanced reading, part II 216

part III

Theory of the firm and market organization 219

8. Theory of price in perfectly competitive markets 222

Introduction. Perfect Competition: Price Taking Demanders and Suppliers. Homogeneous Product. Free Mobility of Resources. Perfect Knowledge. Equilibrium in the Market Period: Industry Equilibrium in the Market Period. Price as a Rationing Device. Short-Run Equilibrium of a

Firm in a Perfectly Competitive Market: *Short-Run Profit Maximization, Total Revenue—Total Cost Approach. Short-Run Profit Maximization, the Marginal Approach. Proof of the Short-Run Equilibrium. Profit or Loss? Short-Run Supply Curve of a Firm in a Perfectly Competitive Industry. Short-Run Equilibrium in a Perfectly Competitive Industry: Short-Run Industry Supply Curve. Short-Run Market Equilibrium, Profit or Loss. Demand-Supply Analysis. Long-Run Equilibrium in a Perfectly Competitive Market: Long-Run Adjustment of an Established Firm. Long-Run Adjustment of the Industry. Long-Run Equilibrium in a Perfectly Competitive Firm. Constant Cost Industries. Increasing Cost Industries. The Competitive Model in Practice. Conclusion.*

9. Theory of price under pure monopoly 259

Introduction: *Definition. Bases of Monopoly. Demand Under Monopoly. Cost and Supply Under Monopoly: Cost with Monopoly in the Input Market. A Word on Monopoly Supply. Short-Run Equilibrium Under Monopoly: Total Revenue—Total Cost Approach. Marginal Revenue—Marginal Cost Approach. Short-Run Equilibrium. Monopoly Supply in the Short Run. Multiplant Monopoly in the Short Run. Long-Run Equilibrium Under Monopoly: Long-Run Equilibrium in a Single-Plant Monopoly. Comparison with Perfect Competition. Long-Run Equilibrium in a Multiplant Monopoly. Comparison with Perfect Competition. Special Topics in Monopoly Theory: Price Discrimination. Bilateral Monopoly.*

10. Competition and monopoly: Some theoretical exercises 292

Introduction: Excise Taxes in a Competitive Industry: *Short-Run Effects on Cost, Price, and Output. Long-Run Effects of the Tax. Ad Valorem Taxes. Lump-Sum Taxes: Short-Run Effects of a Lump-Sum Tax in a Competitive Industry. Long-Run Effects of a Lump-Sum Tax. Lump-Sum Taxes and the Size Distribution of Firms. Price Controls: Price Controls in a Competitive Industry. Price Controls in a Monopoly. Price Supports and Output Restrictions: Price Floors. Output Restrictions. Suppression of Inventions in a Monopoly.*

11. Theory of price under monopolistic competition 312

Introduction: *Historical Perspective. Product Differentiation. Industries and Product Groups. A Different View of Perfect Competition: Short-Run Equilibrium in Monopolistic Competition: Long-Run Equilibrium in Monopolistic Competition: Characteristics of Monopolistic Competition: "Ideal Output" and Excess Capacity. Nonprice Competition and Excess Capacity. Comparisons of Long-Run Equilibria: Equilibrium in the Firm. Long-Run Equilibria in Industries and Product Groups. An Appraisal of Monopolistic Competition.*

12. Theories of price in oligopoly markets 329

Introduction: *The Oligopoly Problem. Some Concepts and Assumptions.* Some "Classical" Solutions to the Duopoly Problem: *Cournot Case. Edgeworth Case. Stability in Oligopoly Markets: Chamberlin Solution. Stability in Oligopoly Markets: Sweezy Solution. Theory of Games and Oligopoly Behavior.* Some "Market" Solutions to the Duopoly Problem: *Cartels and Profit Maximization. Cartels and Market Sharing. Short and Turbulent Life of Cartels—The Great Electrical Conspiracy. Price Leadership in Oligopoly.* Competition in Oligopoly Markets. Welfare Effects of Oligopoly.

part IV

Theory of distribution

363

13. Marginal productivity theory of distribution in perfectly competitive markets 365

Introduction. Demand for a Productive Service: *Demand of a Firm for One Variable Productive Service. Individual Demand Curves When Several Variable Inputs Are Used. Determinants of the Demand for a Productive Service. Market Demand for a Variable Productive Service.* Supply of a Variable Productive Service: *General Considerations. Indifference Curve Analysis of Labor Supply. The Market Supply of Labor.* Marginal Productivity Theory of Input Returns: *Market Equilibrium and the Returns to Variable Productive Services. Short Run and Quasi Rents. Clark-Wicksteed Product Exhaustion Theorem.* Distribution and Relative Factor Shares: *Least-Cost Combinations of Inputs and Linearly Homogeneous Production Functions. The Elasticity of Substitution. Elasticity of Substitution and Changes in Relative Factor Shares. Classification of Technological Progress. Biased Technological Progress and Relative Factor Shares.* Appendix to Chapter 13: *The Clark-Wicksteed Theorem. The Output Elasticity of Productive Services.*

14. Theory of employment in imperfectly competitive markets 397

Introduction. Monopoly in the Commodity Market: *Marginal Revenue Product. Monopoly Demand for a Single Variable Service. Monopoly Demand for a Variable Productive Service When Several Variable Inputs Are Used. Market Demand for a Variable Productive Service. Equilibrium Price and Employment. Monopolistic Exploitation.* Monopsony: Monopoly in the Input Market: *Marginal Expense of Input. Price and Employment under Monopsony When One Variable Input Is Used. Price and Employment under Monopsony When Several Variable Inputs Are Used. Monopsonistic Exploitation. Monopsony and the Economic Effects of Labor Unions.*

part V

Theory of general equilibrium and economic welfare 423

15. Theory of general economic equilibrium 426

Introduction: *A Simple Two-Person Economy. The Farmer as Entrepreneur. The Farmer as Consumer-Laborer. General Equilibrium and Walras's Law. General Equilibrium of Exchange: Edgeworth Box Diagram. Equilibrium of Exchange. Deriving the Utility-Possibility Frontier. General Equilibrium of Production and Exchange: General Equilibrium of Production. General Equilibrium of Production and Exchange. Deriving the Production-Possibility Frontier or Transformation Curve. General Competitive Equilibrium in a Two-Good Economy: Production in a Two-Good Economy. Equilibrium in a Two-Good Economy. Factor Intensities and the Relationship Between Factor Prices and Commodity Prices.*

16. Theory of welfare economics 452

Introduction: *Marginal Conditions for Social Welfare. Welfare Maximization and Perfect Competition. Input, Output, and Distribution: General Assumptions. Retracing Some Steps: From Production Functions to the Production-Possibility Frontier. Production Possibilities and the Optimum Conditions of Exchange. Retracing Some Steps: From the Contract Curve to the Utility-Possibility Frontier. From a Utility-Possibility Point to the Grand Utility-Possibility Frontier. From the Utility-Possibility Frontier to the Point of "Constrained Bliss." Constrained Bliss and Efficiency. Inputs, Outputs, Distribution, and Welfare. From "Constrained Bliss" to Prices, Wages, and Rent. Minimum Wages and Pareto Efficiency: A Digression. External Economies and Welfare Economics: A Final Word on Free Enterprise: Social Benefits and Costs. Ownership Externalities. Technical Externalities. Public Good Externalities. Externalities and Free Enterprise.*

Advanced reading, part V 479

Appendix: A comprehensive examination in microeconomic theory for graduate students 485

Author index 521

Subject index 525