

18. -

Lecture Notes in Economics and Mathematical Systems

Managing Editors: M. Beckmann and H. P. Künzi

Mathematical Economics

135

Hanjiro Haga

FB Mathematik TUD



58264725

A Disequilibrium–Equilibrium Model with Money and Bonds

A Keynesian–Walrasian Synthesis



Fachbereich Mathematik
Technische Hochschule Darmstadt
Bibliothek

Inv.-Nr. Q 15879

Springer-Verlag
Berlin · Heidelberg · New York 1976

TABLE OF CONTENTS

CHAPTER

| | | |
|------|---|----|
| I. | INTRODUCTION | 1 |
| II. | HOUSEHOLDS AND FIRMS | 6 |
| | 1. The Household | 6 |
| | 1.1 Notation | 6 |
| | 1.2 The Labourer's Maximization Behaviour | 9 |
| | 1.3 The Rentier's Maximization Behaviour | 10 |
| | 2. The Firm | 12 |
| | 2.1 Notation | 12 |
| | 2.2 The Firm's Maximization Behaviour | 14 |
| III. | THE GENERAL EQUILIBRIUM SYSTEM UNDER THE "DUAL-DECISION HYPOTHESIS" ——Disequilibrium-Equilibrium Model—— | 19 |
| | 1. The Standard General Market Equilibrium and the General Market Equilibrium under the "Dual-Decision Hypothesis" | 19 |
| | 1.1 Notation | 19 |
| | 1.2 The Standard General Market Equilibrium Condition | 19 |
| | 1.3 The General Market Equilibrium Condition under the "Dual- Decision Hypothesis" | 20 |
| | 2. Assumptions of the Model | 20 |
| IV. | THE EXISTENCE PROOF | 34 |
| | 1. The Household's and Firm's Budget Constraints and Money Con- straints Rewritten for Convenience | 34 |
| | 1.1 The Household's Budget Constraints and Money Constraints | 34 |
| | 1.2 The Firm's Budget Constraints and Money Constraints | 37 |
| | 2. Construction of Individual Demand or Supply Functions | 38 |
| | 2.1 Modified Individual <i>ex ante</i> Demand or Supply Functions | 39 |
| | 2.1.1 Modified <i>ex ante</i> Demand or Supply Functions of Individual Firms | 58 |
| | 2.1.2 Modified <i>ex ante</i> Demand or Supply Functions of Individual Households | 65 |
| | 2.1.2. a. Demand or Supply Functions of Individual Labourers | 65 |
| | 2.1.2. b. Demand or Supply Functions of Individual Rentiers | 68 |
| | 2.2 Modified Individual Demand or Supply Functions based on the Dual-Decision Hypothesis | 73 |
| | 2.2.1 Modified Demand-or Supply Functions of Individual Labourers based on the Dual-Decision Hypothesis | 73 |
| | 3. The Existence Proof (1) — The Model with Modified Functions based on the Dual-Decision Hypothesis — | 79 |

| | |
|---|-----|
| 3.1 Notation | 79 |
| 3.2 The Existence Proof (1) | 79 |
| 4. The Existence Proof (2) — The Original Model (Non-Modified Functions) based on the Dual-Decision Hypothesis — | 93 |
| V. CONCLUSIONS | 98 |
| APPENDIX I | 100 |
| APPENDIX II | 105 |
| APPENDIX III | 110 |
| APPENDIX IV | 112 |
| REFERENCES | 118 |