



## Theory Outline

### I. Review of Production Theory

- A. Diminishing Marginal Utility
- B. Cost Curves and the Production Function
- C. Profit Maximization and the Cost Curve
- D. Values of Marginal Product
- E. Budget Constraints with Multiple Inputs
- F. Summary of this Review

### II. Multi-dimensional Hyperbolae and Economic Science

- A. The Hyperbola Monograph
  - 1. Hyperbolic Descriptions of Technical Indifference
  - 2. The Polynomial Factoring Problem
  - 3. Budget Constraints and the Expansion Path
  - 4. The Total Cost Curve
  - 5. The Household Cost Curve
  - 6. Three Approaches to Optimality
  - 7.  $\beta$ ,  $\theta$ , and  $\zeta$
  - 8. Calibrating the Multi-dimensional Hyperbola

## B. Measurable Utility

1. The Scientific Assessment of a System Boundary
2. An Empirical Study
  - a. Primitive Data and Transformations
  - b. Calculations and Results
3. Prospectus

## C. Why the Hyperbola?

1. Nature's Use of Number
2. Spanning the Realm of Technical Potential

## III. The Stability of Economic Systems - a Neoclassical View

### A. A General Matrix Structure

1. Prospective Sector and Commodity Definitions
2. Prospective Definitions for Rival Economic Systems

### B. General Equilibrium Prices

### C. Equilibrium in a Dynamic Context

### D. General Economic Optima

## IV. A Dynamic for Economics

### A. Numerical Methods

### B. The Idea of Mathematical Delay

1. First Order Delays
2. Higher Order Delays

### C. Physical Flows in the Economic System

1. A Dynamic Hypothesis
2. Discourse on the Turnover Fraction
  - a. The Variability of a Generic Good J
  - b. A Household Sector's  $V_L$
  - c.  $V_0$ : the Velocity of Value
3. The Circuit of Physical Flows
4. Commodity Markets
5. Control of Physical Adjustments
6. Global Supply and Demand

### V. Price Determination

#### A. Supply and Demand Schedules

1. Marginal Costs and the Supply Schedule
2. Marginal Values and the Demand Schedule
3. Inference of the Equilibrium Price

#### B. Does Value Exist?

1. Value and the Reference Commodity
2. Value and Money
3. Value's Measure
4. Commodities' Marginal Valuations
5. Absolute Commodity Values

### C. Monetary Flows and the Financial State

1. Interest Rates of the Economies K
2. Financial Intermediation and the Capital Account
3. Savings: A Circuit of Funds for Investment
4. Leverage and the Investment Term
5. Capitalism's Destructive Singularity

### D. Currency Valuation

1. The Marginal Value Equations
2. Money's Marginal Value

## VI. Control of Economics' Dynamics

### A. Financial Intermediation

### B. Household Sectors' Dynamics

1. Issues in Household Utility
2. Households' Variable Utility

## VII. Recapitulations

### A. Conceptual Recapitulation

### B. Algorithmic Recapitulation