

PRODUCTION ECONOMICS

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Bruce R. Beattie and C. Robert Taylor, **The Economics of Production**, reprinted by Krieger Publishing Company; ISBN: 089464534X; reprint edition (January 1993)

C.A. Knox Lovell, "Production Frontier and Productive Efficiency," Chapter 1 in **The Measurement of Productive Efficiency: Techniques and Applications**, edited by Harold O. Fried, C.A. Knox Lovell, Shelton Schmidt, Oxford University Press, 1993.

Spiro E. Stefanou, **The Microeconomics of Dynamic Decisions**, unpublished lecture notes.

Other materials to be handed out.

COURSE OUTLINE

Theory of Production

- I. Technical Aspects of Production: The Production Functions
 - a. One-Product, One variable factor relationships
 - b. One Product, two variable factor relationships (then to the s-variable factor case)
 - c. Notes on functional forms and empirical studies
- II. Economic Aspects of Production: Factor Costs and Profit
 - a. The Input Perspective
 - One product, two variable factors
 - Least cost combinations, constrained output maximization, profit maximization factor demand functions, economic interdependence of factors, comparative statics of the cost minimization model, and economic regions of production
 - One product, s-variable factors
 - Functional Forms
 - b. The Output Perspective
 - Cost Functions
 - Revenue Functions
 - Profit Maximization
 - Product Supply Function
 - Long-run and Short-run Cost Curves

III. Multiple Output Production:

- a. Two Product, one allocable factor
- b. Multiproduct production with n-allocatable factors
- c. Relationship to Cost and Profit Functions

Statistical and Measurement Issues

IV. Econometric Specification and Estimation

- a. Primal function estimation: estimation production functions
- b. Dual Function estimation: cost and profit functions as system
- c. Errors in optimization versus errors in measurement

V. Firm Performance: Efficiency and Productivity

- a. Defining and measuring technical and Allocative inefficiency
- b. Productivity growth and technical change.

Dynamic Theory of the Firm

VI. Theory of the Long Run and Dynamic Decision making

- a. Defining the dynamic production problem
- b. Microeconomics of dynamic decisions making.