

MICROECONOMICS

Main Textbooks

1. Andreu Mas-Colell, Michael D. Whinston and Jerry R. Green: Microeconomic Theory There is a solution manual for the exercises in this book, written by Hara, Segal and Tadelis
2. Hal R. Varian: Microeconomic Analysis. There is a solution manual for the exercises in this book. Gary Yohe: Exercises and Applications for Microeconomic Analysis
3. David M. Kreps: Microeconomic Foundations I. Choice and Competitive Markets
4. Geoffrey A. Jehle and Philip J. Reny: Advanced Microeconomic Theory

Textbooks

1. Donald E. Campbell: Resource Allocation Mechanisms
2. W.D.A Bryant: General Equilibrium, Theory and Evidence
3. Arrow, Hahn: General Competitive Analysis
4. Donald Brown, Felix Kubler: Computational Aspects of General Equilibrium Theory. Refutable Theories of Value
5. Michael Magill, Martine Quinzii: Theory of Incomplete Markets, Vol. 1
6. Truman F. Bewley: General Equilibrium, Overlapping Generations Models, and Optimal Growth Theory
7. Atkinson, A. and Stiglitz, J: Lectures on Public Economics
8. Gareth D. Myles: Public Economics
9. Yves Balasko: Foundations of General Equilibrium Theory

Topics

Producer Theory

Production Sets, production functions, profit maximization
Testable implications of producer theory (WARP)
Properties of indirect profit/net supply functions <https://eclass.aueb.gr/courses/DEOS105/Spyros Vassilakis>
Representative producers.

Consumer theory

Preferences, utility functions, utility maximization.
Testable implications of consumer theory (WARP, GARP, SARP)
Properties of indirect utility functions
Properties of individual excess demand functions (H-W-B-SARP)
Properties of market excess demand functions (H-W-B - but not always SARP or WARP)
Positive and normative representative consumers.

Competitive equilibrium

Definition: computational examples, competitive equilibrium with taxes and lump-sum transfers
Special cases: (1x1x2 economy, 2x2x2 economy, exchange economy, small open economy, economies of Leontief and von Neumann).
Existence: large non-convexities relative to market size, non-interior endowments.
Uniqueness: WARP and constant returns to scale, WARP in an exchange economy, taxes, externalities, economies with an arbitrarily large number of equilibria, economies with Pareto-ranked equilibria.
Stability: WARP in an exchange economy, substitutes and complements, wealth effects, economies with a unique and unstable equilibrium.
Comparative statics: substitutes and complements, wealth effects, the transfer paradox the paradox of productivity, the paradox of piecemeal policy reforms, the paradox of immiserating growth.
Testable implications: level of aggregation, externalities, testability of local stability and uniqueness.

Welfare analysis

Pareto efficient points: definition, examples, two methods of calculation

First and second welfare theorems: conditions for efficient equilibria, interactions between efficiency and distribution

Distortions (third welfare theorem): efficiency when different agents face different relative prices

Compensatory distortions (second-best theorem)

Equilibrium with externalities/public goods: The four kinds of externalities, market and non-market corrections.

The national income test: national income as an index of welfare, with and without distortions.

MACROECONOMICS

Basic Textbook

Alogoskoufis, George (2019), *Dynamic Macroeconomics*, MIT Press, Cambridge MA.

Other Relevant Textbooks

1. Blanchard, Olivier J. and Fischer, Stanley (1989), *Lectures on Macroeconomics*, MIT Press, Cambridge MA.

2. Benassy, Jean-Pascal (2011), *Macroeconomic Theory*, Oxford University Press, Oxford.
Romer, David (2018), *Advanced Macroeconomics*, (5th Edition), McGraw Hill Irwin, New York.

Topics

The Intertemporal Approach

Models, Variables, and Functions. General Equilibrium in a One-Period Competitive Model. Savings and Investment in a Two-Period Competitive Model. Consumption and Labor Supply in a One-Period Competitive Model. Consumption and Labor Supply in a Two-Period Competitive Model. Money, Prices, and Inflation in a Two-Period Competitive Model. Fiscal Policy in a Two-Period Competitive Model. The Treatment of Time and the Intertemporal Approach.

Savings, Investment and Economic Growth: The Solow Model.

The Solow Growth Model. Competitive Markets, the Real Interest Rate, and Real Wages. The Savings Rate and the Golden Rule. Total Factor Productivity and Population Growth. Speed of Convergence toward the Balanced Growth Path. The Process of Economic Growth and the Solow Model. Convergence with a Cobb Douglas Production Function. Dynamic Simulations of a Calibrated Solow Model.

The Representative Household Model.

The Optimal Intertemporal Path of Consumption. The Ramsey Model of Economic Growth. Dynamic Adjustment and the Balanced Growth Path. Properties of the Adjustment Path and the Speed of Convergence. Dynamic Simulations of a Calibrated Ramsey Model.

Models of Overlapping Generations.

The Diamond Model. The Blanchard-Weil Model. Dynamic Simulations of a Calibrated Blanchard-Weil Model.

Fiscal Policy and Economic Growth.

The Government Budget Constraint. Ricardian Equivalence and the Ramsey Model. Dynamic Effects of Fiscal Policy in the Blanchard-Weil Model. Dynamic Effects of Distortionary Taxation.

Money, Inflation and Economic Growth

Private Consumption and Money Demand in a Representative Household Model. Aggregate Capital Accumulation in a Ramsey Model with Money. Effects of the Growth Rate of the Money Supply in the Ramsey Monetary Model. Effects of Monetary Growth in an OLG Model.

Externalities, Human Capital and Endogenous Growth.

Externalities from Capital Accumulation and Economic Growth. Investment in Human Capital and Economic Growth. Ideas, Innovations and Technical Progress. Unified Growth Theory and the Transition from Stagnation to Growth. Institutions and Long-Run Growth. The New Stylized Facts of Economic Growth.

Dynamic Stochastic Models under Rational Expectations

A Stochastic Expectational Model of a Competitive Market. Rational Expectations for Linear Autoregressive Processes. First-order Linear Expectational Models. Second-Order Linear Expectational Models. Multivariate Linear Models with Rational Expectations. Rational Expectations and Learning.

The New Classical Theory of Aggregate Fluctuations

The Stochastic Growth Model. A simplified version of the model. A log-linear approximation to the general version of the model. Solving and simulating the stochastic growth model. A perfectly competitive model without capital. Monetary factors in a perfectly competitive model. Imperfect information and the non-neutrality of money. Models of informational frictions and rational inattention.

The Keynesian Approach and the Inflation-Unemployment Tradeoff

The original Keynesian models. The Samuelson multiplier-accelerator model. The theory of discretionary monetary and fiscal policy. The Phillips Curve and inflationary expectations. The natural rate of unemployment and aggregate demand policies.

A New Keynesian Model with Periodic Wage Setting

Alternative views of the labor market and equilibrium unemployment. Households and Optimal Consumption and Money Demand. Firms and Optimal Pricing and Production. Wage setting by labor market insiders. Inflation and Aggregate Fluctuations under a Taylor rule. Staggered pricing and the new keynesian Phillips curve.

Equilibrium Unemployment and Matching in the Labor Market

The matching function. Flows into and out of employment, equilibrium unemployment and the Beveridge curve. Firms and the creation of vacancies. The behavior of unemployed job seekers. Wage determination and equilibrium unemployment. Dynamic adjustment to the steady state. Matching models and nominal rigidities.

ECONOMETRICS

Main Textbook

W.H. Greene (2012): Econometric Analysis, 7th ed, Prentice Hall

Textbooks

1. F. Hayashi (2000): Econometrics, Princeton UP - ch1 can be freely downloaded.
2. J. Johnston and J. DiNardo (1997): Econometric Methods, 4th ed, McGraw-Hill.

Topics

1. Classical Linear Regression (CLR) model: definition-assumptions, OLS algebra, finite sample properties, hypothesis testing under normality.

Readings: Greene (ch 2-5), Hayashi (ch 1).

2. Large sample properties of the OLS, hypothesis testing without the normality assumption.

Readings: Greene (ch 4.4), Hayashi (ch 2).

3. Maximum Likelihood (ML) estimation of the CLR model: formulation, estimation, testing.

Readings: Greene (ch 14), Hayashi (ch 1).

4. Generalized Least Squares (GLS): Heteroskedasticity, Autocorrelation.

Readings: Greene (ch 9, 20), Hayashi (ch 1, 2).

5. Instrumental Variables (IV) and Generalized Method of Moments (GMM) estimation and testing

Readings: Greene (ch 13), Hayashi (ch 3).