Macroeconomics II

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Timetable

Week 1: Optimization in discrete time (I)

- Session 1: The neo-classical growth model as an example
- Session 2: Deterministic problems: Lagrangeans; Euler Equation in the neo-classical growth model.

Week 2: Optimization in discrete time (II) and business-cycle measurement.

- Session 1: Transversality conditions in infinite-horizon problems. Event-tree formulation for stochastic problems.
- Session 2: The Hodrick-Prescott Filter. Measures of volatility, cyclicality, and persistence of business cycles.

Week 3: OLG economies (I)

- Session 1: Overlapping-generations (OLG) economy. Endowment economy with time-0 trading.
- Session 2: Review of Problem Set 1.

Week 4: OLG economies (II)

- Session 1: Dynamic inefficiency. Money as a benign bubble.
- Session 2: Diamond model: Introducing capital

Week 5: OLG economies (III)

- Session 1: Solving the Diamond model: Rational expectations
- Session 2: Review of Problem Set 2

Week 6: Pension systems (I)

- Session 1: Facts on demographics and institutional aspects of pension systems
- Session 2: Pay-as-you-go pension system in a Diamond economy

Week 7: Review

- Session 1: Review
- Session 2: Review of Problem Set 3

Week 8: MIDTERM EXAM

1. Session 1: Review session
2. Session 2: MIDTERM EXAM

Week 9: Pension systems (II)

- Session 1: Capital-funded systems and policy analysis
- Session 2: Review of Problem Set 4

Week 10: The life-cycle consumption-savings model (I)

- Session 1: The life-cycle hypothesis in a deterministic setting
- Session 2: Hall's random-walk hypothesis (stochastic setting)

Week 11: The life-cycle consumption-savings model (II)

- Session 1: Two-period model with borrowing constraint
- Session 2: Review of Problem Set 5

Week 12: Asset pricing (I): The Lucas tree model

- Session 1: Complete markets, Arrow securities, and no-arbitrage conditions.
- Session 2: The stochastic discount factor and the equity-premium puzzle

Week 13: Asset pricing (II) and unemployment

- Session 1: Government debt
- Session 2: Unemployment in a search-and-matching model

Week 14: Review

- Session 1: Review session
- Session 2: Review of Problem Set 6

Week 15: FINAL EXAM