

# ECONOMICS 272: Intertemporal Asset Pricing Theory

Fall 2017

## Basic information

Lectures	Friday 9:00-11:50, Rm 200
Instructor	Prof. Alexis Akira Toda
Office hours	Tu/Th 11:00-11:50 or by appointment, ECON 211
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## Course description

The goal of Econ 272 is to familiarize students to theoretical topics in the intersection of mathematical economics (general equilibrium theory) and finance and to help students develop research skills in applied theory. I will put particular emphasis on how to apply general equilibrium theory to diverse topics such as finance, international economics, macroeconomics, and public economics.

## Preliminary course outline

1. Risk aversion: Pratt (1964), Arrow (1965).
2. Optimal consumption-portfolio and income fluctuation problems: Samuelson (1969), Merton (1971), Wang (2003), Toda (2017)
3. No-arbitrage asset pricing: Harrison and Kreps (1979), Cox et al. (1979), Black and Scholes (1973)
4. Consumption-based asset pricing: Lucas (1978), Mehra and Prescott (1985), Bansal and Yaron (2004), Barro (2006).
5. Recursive utility: Kreps and Porteus (1978), Epstein and Zin (1989), Ozaki and Streufert (1996), Toda (2014).
6. Numerical methods: Tauchen and Hussey (1991), Judd (1992), Farmer and Toda (2017), Pohl et al. (2015).
7. General equilibrium with incomplete markets (GEI): Geanakoplos (1990).

8. Dynamic general equilibrium models with heterogeneous agents: Constantinides and Duffie (1996), Saito (1998), Calvet (2001), Krebs (2003a,b, 2006, 2007), Angeletos and Calvet (2005, 2006), Angeletos (2007), Wang (2007), Angeletos and Panousi (2011), Toda (2014, 2015).
9. Power law: Gabaix (1999, 2009), Reed (2001, 2003), Benhabib et al. (2011, 2016), Toda (2012, 2014), Toda and Walsh (2015), Gabaix et al. (2016).
10. Default and punishment: Dubey et al. (2005), Zame (1993), Walsh (2014).
11. Collateral: Geanakoplos and Zame (2014), Geanakoplos (1997, 2003, 2010), Fostel and Geanakoplos (2008, 2012a,b), Simsek (2013), Geerolf (2014).
12. Non-representative agent asset pricing: Gollier (2001), Gârleanu and Panageas (2015), Toda and Walsh (2014).
13. Financial crisis: Brunnermeier and Sannikov (2014) and others.

## Evaluation

You will be evaluated by midterm and final exams. Both are take-home exams, and you will have 72 hours to submit the solution.

## Textbooks

There are no required textbooks for this course. However, textbooks that might be useful are Black (1995) (ideal for bedtime reading), Duffie (2001) (standard graduate text in theoretical finance), Villanacci et al. (2002) (for those of you interested in proving theorems in GEI models), Chang (2004) (handy reference for stochastic control), Shreve (2004), and Cochrane (2005) (standard graduate text in empirical finance).

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