Lectures on

Models with default risk and their applications in finance and international macroeconomics

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Objective. Familiarize advanced doctoral students with recent research on models where contracts are subject to default risk and where enforcement is limited.

Overview. The standard Arrow-Debreu model, and most related models, assume perfect enforcement of all contracts. Recent research has focused on relaxing this assumption. Following the work by Kehoe and Levine (1993), economic agents are given the option to default and to walk away from their debts. If they default, they face penalties such as the exclusion from future trading and the confiscation of certain assets. This gives rise to endogenous restrictions on the set of contracts that are available; for instance, in the form of borrowing constraints. Equilibrium outcomes are no longer Pareto efficient and heterogeneity across agents becomes crucial. Several recent studies have shown promising applications of these ideas in various areas such as asset pricing, international lending, corporate finance and individual consumption behavior.

Topics covered

- The Arrow-Debreu model
  Efficient allocations and competitive equilibrium
  Empirical problems (e.g. Equity premium puzzle, international consumption correlations)

- Baseline model with default risk and limited enforcement
  Consumption allocations and equilibrium with endogenous borrowing constraints

- Applications in asset pricing
  Equity premium and risk free rate puzzles

- Applications in corporate finance
  Optimal lending contracts, firm dynamics and aggregate effects

- Applications in international macroeconomics
  International business cycle comovements
Reading list:

Paper that presents basic model

Early small open economy model with default risk

Characterizations of efficient allocations

Alvarez Fernando, and Jermann Urban, 2000, Efficiency, equilibrium and asset pricing with risk of default, Econometrica, vol. 68, 775-798
Decentralization with endogenous borrowing constraints

The equity premium with default risk

Hanno Lustig, 2001, The Market Price of Risk and the Aggregate Wealth Distribution, manuscript
Asset pricing with continuum of agents

Albuquerque Rui and Hugo Hopenhayn, 2001, Optimal Lending Contracts and Firm Dynamics, manuscript

Thomas Cooley, Ramon Marimon and Vincenzo Quadrini, 2001, Aggregate Consequences of Limited Contract Enforceability, manuscript

Kehoe Patrick and Perri Fabrizzio, 2000, International Business Cycles with endogenous incomplete markets, manuscript
Shows how to solve some of the problems of open economy real business cycle models

Other applications

Karsten Jeske, 2001, Private International Debt with Risk of Repudiation, manuscript


Azeriadis Costas, Lambertini Luisa, 2000, Endogenous Debt Constraints in Life-Cycle Economies, manuscript
Lambertini Luisa, 1999, Social Security with Endogenous Debt Limits, manuscript

Seppala Juha, 2000, The Term Structure of Real Interest Rates: Theory and Evidence from UK Index-Linked Bonds, manuscript

Seppala Juha, 1999, Asset Prices and Business Cycles under Limited Commitment, manuscript

Kehoe and Levine 2001, Liquidity constrained markets versus debt constrained markets, manuscript

Krueger, Dirk, 2000, Risk Sharing in Economies with Incomplete Markets, manuscript

Wright, Mark, 2001, Investment and Growth with Limited Commitment”, manuscript

Useful Books

