Policy Lessons: Firm Debt and Macroeconomic Policy

Spring Term - 3 ECTS

Prof. Joachim Jungherr

Overview and Objectives

This course is an introduction to the role of firm debt for macroeconomic policy. It provides an empirical and theoretical view on the role of debt issued by non-financial firms and financial intermediaries for macroeconomic outcomes. An analysis of influential models of debt provides a formal framework to assess the effects of various government policies, e.g. macroprudential regulation and monetary policy.

First, we establish a set of stylized empirical facts about debt in the U.S. and in Europe (covering the balance sheets of households, businesses, banks, shadow banks, and the government). We proceed with a look at the empirical behavior of debt and different interest rates along the business cycle. These facts are useful to assess the strengths and weaknesses of alternative theoretical models.

After this first empirical overview, we confront the Modigliani–Miller irrelevance theorem. This result identifies necessary conditions for models in which firm debt matters for macroeconomic outcomes.

We revisit the empirical literature and ask: Does finance matter? Here we review empirical studies on the relationship between firm debt and macroeconomic variables with a focus on recent work carried out after the Financial Crisis of 2007-2008.

These empirical results provide the background for an analysis of two influential theoretical approaches which have been used to model the role of firm debt for macroeconomic policy: (1) asymmetric information (as in Bernanke and Gertler, 1989), and (2) limited enforcement (as in Kiyotaki and Moore, 1997).

We discuss the qualitative and quantitative implications of these approaches which are used to model credit booms and busts, financial fragility, and financial shocks. These models allow us to study systemic risk and macroprudential policy in a well-defined sense. We also discuss how these models help us to think about monetary policy.

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Preliminary Course Outline and Readings

0. **General Reading / Survey Articles**

   Markus K. Brunnermeier, Thomas M. Eisenbach, Yuliy Sannikov (2012): "Macroeconomics with financial frictions: A survey"

   Stijn Claessens and M. Ayhan Kose (2017): "Macroeconomic implications of financial imperfections: A survey"

   Mark Gertler (1988): "Financial structure and aggregate economic activity: An overview"

   Vincenzo Quadrini (2011): "Financial frictions in macroeconomic fluctuations"

1. **Chapter 1: What is Debt and Who Owes it?**

   Federal Reserve Bank of Chicago (1990): "Two faces of debt"

2. **Chapter 2: Debt and the Business Cycle**

   Simon Gilchrist, Egon Zakrajsek (2012): "Credit spreads and business cycle fluctuations"

   Tobias Adrian, Paolo Colla, Hyun Song Shin (2013): "Which financial frictions? Parsing the evidence from the financial crisis of 2007 to 2009"

3. **Chapter 3: So What?**

   Franco Modigliani, Merton H. Miller (1958): "The cost of capital, corporation finance and the theory of investment"

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4. **Chapter 4: Does Finance Matter?**

   Irving Fisher (1933): “The debt-deflation theory of great depressions”

   Ben S. Bernanke (1983): “Non-monetary effects of the financial crisis in the propagation of the Great Depression”

   Mark Gertler, Simon Gilchrist (2018): “What happened: Financial factors in the Great Recession”

   Arvind Krishnamurthy (2010): “How debt markets have malfunctioned in the crisis”

   Stijn Claessens, M. Ayhan Kose, Marco E. Terrones (2012): “How do business and financial cycles interact?”

   Enrique G. Mendoza, Marco E. Terrones (2012): “An anatomy of credit booms and their demise”

   Moritz Schularick, Alan M. Taylor (2012): “Credit booms gone bust: Monetary policy, leverage cycles, and financial crises, 1870-2008”

   Òscar Jordà, Moritz Schularick, Alan M. Taylor (2017): “Macrofinancial history and the new business cycle facts”

   Xavier Giroud, Holger M. Mueller (2017): “Firm leverage, consumer demand, and employment losses during the Great Recession”

   Gabriel Jiménez, Steven Ongena, José-Luis Peydró, Jesús Saurina (2012): “Credit supply and monetary policy: Identifying the bank balance-sheet channel with loan applications”

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5. **Chapter 5: Financial Frictions – Asymmetric Information**

   Robert M. Townsend (1979): “Optimal contracts and competitive markets with costly state verification”

   Douglas Gale, Martin Hellwig (1985): “Incentive-compatible debt contracts: The one-period problem”

   Ben S. Bernanke, Mark Gertler (1989): “Agency costs, net worth, and business fluctuations”

   Charles T. Carlstrom, Timothy S. Fuerst (1997): “Agency costs, net worth, and business fluctuations: A computable general equilibrium analysis”

   Ben S. Bernanke, Mark Gertler, Simon Gilchrist (1999): “The Financial Accelerator in a quantitative business cycle framework”

6. **Chapter 6: Financial Frictions – Limited Enforcement**

   Oliver Hart, John Moore (1994): “A theory of debt based on the inalienability of human capital”

   Nobuhiro Kiyotaki, John Moore (1997): “Credit cycles”

   Urban Jermann, Vincenzo Quadrini (2012): “Macroeconomic effects of financial shocks”

   Roc Armenter, Viktoria Hnatkovska (2017): “Taxes and capital structure: Understanding firms’ savings”

   Ariel Zetlin-Jones, Ali Shourideh (2017): “External financing and the role of financial frictions over the business cycle: Measurement and theory”

   Mark Gertler, Nobuhiro Kiyotaki (2011): “Financial intermediation and credit policy in business cycle analysis”

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7. **Chapter 7: Macroprudential Policy**

   Jeremy C. Stein (2013): “The fire-sales problem and securities financing transactions”

   Andrei Shleifer, Robert Vishny (2011): “Fire sales in finance and macroeconomics”

   Guido Lorenzoni (2008): “Inefficient credit booms”

   Eduardo Dávila, Anton Korinek (2018): “Pecuniary externalities in economies with financial frictions”

   Javier Bianchi, Enrique G. Mendoza (2018): “Optimal time-consistent macroprudential policy”

8. **Chapter 8: Firm Debt and Monetary Policy**

   Joao Gomes, Urban Jermann, Lukas Schmid (2016): “Sticky leverage”

   Mark Gertler, Peter Karadi (2011): “A model of unconventional monetary policy”