

FINANCIAL ECONOMICS

Spring 2025

Master in Economics

Washington University in St. Louis

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Course description: This course provides an introduction to financial economics. We start with the basic macro-finance frameworks and follow up with special topics such as bank runs, financial crisis, and liquidity.

Materials: A textbook reference is Recursive Macroeconomic Theory by Ljungqvist and Sargent (chapter numbers refer to the 4th edition). We will also use additional papers or lecture notes for the second part of the course. Course announcements will be posted on Canvas. All course materials will be posted on Canvas. Additional reading materials (aside from the textbook) are listed below and are accessible at the library.

Grading: The course evaluation has four components:

1. 10% of the grade consist on class participation. Hence, attendance and participation is encouraged. Attending a class without participating won't give full credit.
2. 30% of the grade consist on the problem sets.
3. 60% of the grade consist of the first and second mid-term exams (30% each one).

If you miss a mid-term exam you cannot retake it, and you do need to provide an approved excuse. In this case your mid-term exam grades will be based on your other mid-term grade. If you miss both mid-terms you get 0 points for the midterms portion.

Problem sets: The problem sets are designed to help you prepare for the mid-term exams. You will complete these assignments in groups. During the first week of class, we will form the groups that you will work with throughout the course. Each group can have up to three students.

Schedule:

- **January 13.** Introduction to Macro-Finance. Macro-Finance trends, the global financial crisis, and the COVID crisis.
 - References: [Farhi and Gourio \(2018\)](#); [Ebsim, Faria-e Castro, and Kozlowski \(2022\)](#).
 - **Problem set #1 (Macro-Finance data).**
- **January 27.** Competitive equilibrium.
 - References: LS Ch. 7.
 - **Problem set #2 (competitive equilibrium).**
- **February 3.** Complete Markets.
 - References: LS Ch. 8.
 - **Problem set #3 (complete markets).**
- **February 10.** Incomplete Markets.
 - References: LS Ch. 18.
 - **Problem set #4 (incomplete markets).**
- **February 17.** Asset pricing.
 - References: LS Ch 13, 14.
- **February 24.** Asset pricing and mid-term review.
 - References: LS Ch 13, 14.
 - **Problem set #5 (asset pricing).**
- **March 3.** **First mid-term exam.**
- **March 10:** No classes, spring break.
- **March 17.** Mid-term overview and Compustat.
 - Overview of mid-term exam solution.
 - Practice class: An introduction to Compustat (by Marcos)
 - **Problem set #6 (Compustat).**
- **March 24.** CAPM model and bank runs.
 - References: [Diamond and Dybvig \(1983\)](#), [Kurlat's notes](#).
- **March 31.** Credit market frictions.
 - Modigliani-Miller
 - Costly state verification, [Townsend \(1979\)](#)

- Supply of liquidity, [Holmström and Tirole \(1998\)](#)
- **Problem set #7 (credit market frictions).**
- References: [Townsend \(1979\)](#); [Holmström and Tirole \(1998\)](#) and [Kurlat's notes](#).
- **April 7.** Information in Macroeconomics and Finance.
 - The market for lemons, [Akerlof \(1970\)](#)
 - Bayesian updating
 - Learning from prices, [Grossman and Stiglitz \(1980\)](#)
 - **Problem set #8 (information in macroeconomics and finance).**
 - References: [Veldkamp \(2011\)](#) and [Kurlat's notes](#).
- **April 14.** Search in financial markets, and liquidity in macroeconomics and finance. Mid-term review.
 - References: [Duffie, Gârleanu, and Pedersen \(2005\)](#); [Kozłowski \(2021\)](#); [Ebsim, Faria-e Castro, and Kozłowski \(2022\)](#); [Caramp, Kozłowski, and Teeple \(2022\)](#).
- **April 21.** **Second mid-term exam.**

References

- Akerlof, G. A. (1970, 08). The Market for “Lemons”: Quality Uncertainty and the Market Mechanism*. *The Quarterly Journal of Economics* 84(3), 488–500.
- Arrow, K. J. (1964, 04). The Role of Securities in the Optimal Allocation of Risk-bearing1. *The Review of Economic Studies* 31(2), 91–96.
- Bernanke, B. and M. Gertler (1990). Financial fragility and economic performance. *The quarterly journal of economics* 105(1), 87–114.
- Bernanke, B. S., M. Gertler, and S. Gilchrist (1999). The financial accelerator in a quantitative business cycle framework. *Handbook of macroeconomics* 1, 1341–1393.
- Blume, L. and D. Easley (2006). If you’re so smart, why aren’t you rich? belief selection in complete and incomplete markets. *Econometrica* 74(4), 929–966.
- Brunnermeier, M. (2009). Bubbles, entry in the new palgrave dictionary of economics, edited by steven durlauf and lawrence blume.
- Buera, F. and J. P. Nicolini (2004). Optimal maturity of government debt without state contingent bonds. *Journal of Monetary Economics* 51(3), 531–554.
- Caramp, N., J. Kozlowski, and K. Teeple (2022). Liquidity and investment in general equilibrium. Technical report, working paper FRB of St. Louis.
- Cochrane, J. H. (1991). A simple test of consumption insurance. *Journal of Political Economy* 99(5), 957–976.
- Constantinides, G. M. and D. Duffie (1996). Asset pricing with heterogeneous consumers. *Journal of Political Economy* 104(2), 219–240.
- Dávila, E. and I. Goldstein (2021). Optimal deposit insurance. Technical report, National Bureau of Economic Research.
- Diamond, D. W. and P. H. Dybvig (1983). Bank runs, deposit insurance, and liquidity. *Journal of political economy* 91(3), 401–419.
- Duffie, D., N. Gârleanu, and L. H. Pedersen (2005). Over-the-counter markets. *Econometrica* 73(6), 1815–1847.
- Ebsim, M., M. Faria-e Castro, and J. Kozlowski (2022). Credit and liquidity policies during large crises. Technical report, working paper FRB of St. Louis.
- Ennis, H. M. and T. Keister (2009). Bank runs and institutions: The perils of intervention. *American Economic Review* 99(4), 1588–1607.
- Fama, E. F. and K. R. French (1992). The cross-section of expected stock returns. *the Journal of Finance* 47(2), 427–465.

- Fama, E. F. and K. R. French (2004, September). The capital asset pricing model: Theory and evidence. *Journal of Economic Perspectives* 18(3), 25–46.
- Farhi, E. and F. Gourio (2018). Accounting for macro-finance trends: Market power, intangibles, and risk premia. *Brookings Papers on Economic Activity*, 147–223.
- Gabaix, X. (2012, 03). Variable Rare Disasters: An Exactly Solved Framework for Ten Puzzles in Macro-Finance *. *The Quarterly Journal of Economics* 127(2), 645–700.
- Goldstein, I. and A. Pauzner (2005). Demand–deposit contracts and the probability of bank runs. *The Journal of Finance* 60(3), 1293–1327.
- Gomme, P., B. Ravikumar, and P. Rupert (2011). The return to capital and the business cycle. *Review of Economic Dynamics* 14(2), 262–278.
- Grossman, S. J. and J. E. Stiglitz (1980). On the impossibility of informationally efficient markets. *The American Economic Review* 70(3), 393–408.
- Hansen, L. P. and R. Jagannathan (1991). Implications of security market data for models of dynamic economies. *Journal of political economy* 99(2), 225–262.
- Heathcote, J., F. Perri, and G. L. Violante (2010). Unequal we stand: An empirical analysis of economic inequality in the united states, 1967–2006. *Review of Economic dynamics* 13(1), 15–51.
- Heathcote, J., K. Storesletten, and G. L. Violante (2010). The macroeconomic implications of rising wage inequality in the united states. *Journal of Political Economy* 118(4), 681–722.
- Holmström, B. and J. Tirole (1998). Private and public supply of liquidity. *Journal of political Economy* 106(1), 1–40.
- Kaplan, G. and G. L. Violante (2010). How much consumption insurance beyond self-insurance? *American Economic Journal: Macroeconomics* 2(4), 53–87.
- Karabarbounis, L. and B. Neiman (2014). The global decline of the labor share. *The Quarterly journal of economics* 129(1), 61–103.
- Kiyotaki, N. and J. Moore (1997). Credit cycles. *Journal of Political Economy* 105(2), 211–248.
- Kozlowski, J. (2021). Long-term finance and investment with frictional asset markets. *American Economic Journal: Macroeconomics* 13(4), 411–448.
- Kozlowski, J., L. Veldkamp, and V. Venkateswaran (2020). The tail that wags the economy: Beliefs and persistent stagnation. *Journal of Political Economy* 128(8), 2839–2879.
- Krueger, D., F. Perri, L. Pistaferri, and G. L. Violante (2010). Cross-sectional facts for macroeconomists. *Review of Economic dynamics* 13(1), 1–14.
- Krusell, P. and A. A. Smith, Jr (1998). Income and wealth heterogeneity in the macroeconomy. *Journal of political Economy* 106(5), 867–896.

- Levhari, D. and L. J. Mirman (1980). The great fish war: an example using a dynamic cournot-nash solution. *The Bell Journal of Economics*, 322–334.
- Ljungqvist, L. and T. J. Sargent (2018). *Recursive macroeconomic theory*. MIT press.
- Lorenzoni, G. (2008). Inefficient credit booms. *The Review of Economic Studies* 75(3), 809–833.
- Lucas, R. E. (1978). Asset prices in an exchange economy. *Econometrica* 46(6), 1429–1445.
- Lucas, R. E. and E. C. Prescott (1971). Investment under uncertainty. *Econometrica* 39(5), 659–681.
- Marcet, A. and T. J. Sargent (1989). Convergence of least squares learning mechanisms in self-referential linear stochastic models. *Journal of Economic theory* 48(2), 337–368.
- Martin, A. and J. Ventura (2012). Economic growth with bubbles. *American Economic Review* 102(6), 3033–3058.
- Martin, A. and J. Ventura (2018). The macroeconomics of rational bubbles: A user’s guide. *Annual Review of Economics* 10(1), 505–539.
- Negishi, T. (1960). Welfare economics and existence of an equilibrium for a competitive economy. *Metroeconomica* 12(2-3), 92–97.
- Prescott, E. C. and R. Mehra (1980). Recursive competitive equilibrium: The case of homogeneous households. *Econometrica (pre-1986)* 48(6), 1365.
- Ryoo, J. and S. Rosen (2004). The engineering labor market. *Journal of Political Economy* 112(S1), S110–S140.
- Schaal, E. and M. Taschereau-Dumouchel (2022). Herding through booms and busts. Technical report.
- Shin, H. S. (2009). Reflections on northern rock: The bank run that heralded the global financial crisis. *Journal of economic perspectives* 23(1), 101–119.
- Tallarini Jr, T. D. (2000). Risk-sensitive real business cycles. *Journal of monetary Economics* 45(3), 507–532.
- Townsend, R. M. (1979). Optimal contracts and competitive markets with costly state verification. *Journal of Economic theory* 21(2), 265–293.
- Townsend, R. M. (1994). Risk and insurance in village india. *Econometrica* 62(3), 539–591.
- Veldkamp, L. L. (2011). *Information choice in macroeconomics and finance*. Princeton University Press.
- Wallace, N. et al. (1996). Narrow banking meets the diamond-dybvig model. *Federal Reserve Bank of Minneapolis Quarterly Review* 20(1), 3–13.
- Zvi Bodie, P., A. Kane, and P. Alan J. Marcus (2020). *Investments*. McGraw-Hill Education.