FINANCIAL AND ECONOMIC CRISES OF THE 21st CENTURY
SPRING 2024

This course will explore the dramatic financial and macroeconomic developments that the United States has experienced over the last two decades. We will look at research on what factors precipitated the boom and bust in the housing market in the early 2000s and how the resulting mortgage crisis rippled through the global financial system and ultimately generated the most severe economic downturn since the Great Depression. We will analyze the policies put in place to stabilize the financial system, limit the economic fallout, and reduce the likelihood of future financial crises. The course will then turn to more recent disruptions to the economy and the financial system. We will explore the near-financial crisis of March 2020, the economic fallout from the pandemic, and the largely unexpected post-pandemic burst of inflation. We will consider the role that monetary, fiscal, and financial policy has played in recent years, including what lessons to take for the future.

Instructor: Professor Karen Dynan
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https://scholar.harvard.edu/kdynan

Office hours: Wednesdays after class in my Economics Department office
To see the available appointments and sign up, go to this link

Teaching fellows: Sohaib Nasim (head TF)

Raphael Raux

Beatrice Ferrario

Course assistants: Dylan Crandall

Helena Mello Franco

Meredith Kent

Zach Mecca

Staff assistant: Kat Strzempek, Harvard Kennedy School
kathleen_strzempek@hks.harvard.edu

Course schedule: Monday and Wednesday, 1:30pm to 2:45pm in Boylston 110

Review sessions: Raphael Raux (1): Tuesdays 1:30pm-2:30pm, Boylston 105

Raphael Raux (2): Tuesdays 3:00pm-4:00pm, Sever 306

Beatrice Ferrario (1): Thursdays 12:00pm-1:00pm, Harvard 202

Beatrice Ferrario (2): Thursdays 1:30pm-2:30pm, Sever 205

Sohaib Nasim (1): Fridays 10:30am-11:30am, Sever 102

Course website: https://canvas.harvard.edu/courses/129977

PREREQUISITES. Intermediate macroeconomics (Ec 1011B or Ec 1010B) or by permission of the instructor. Students should have some familiarity with businesses cycles and the models that economists use to think about them (such as the ***IS-LM*** model). Students should also be comfortable reading non-technical research papers by economists.

LEARNING OBJECTIVES. The aim of this course is for you to understand and be able to engage in informed discussions about:

- The social and economic forces and policy changes that laid the groundwork for the global financial crisis of 2007-2008.
- The developments in mortgage markets that precipitated the financial crisis—the home price bubble, the factors that drove the increases in mortgage debt, and the debate over why people default on mortgages.
- How the mortgage crisis turned into a full-blown global financial crisis, including the roles of leverage, financial engineering, the shadow banking system, and financial regulation.
- How policymakers ultimately arrested the financial crisis and what factors complicated their decisions.
- The recessions that follow financial crises—channels of transmission and why they tend to be associated with long recoveries.
- Policies used to respond to recessions, including federal credit policy such as expanding student loans.
- The European debt crisis.
- Changes in financial regulation aimed at reducing the likelihood of another crisis and the debate over whether these changes have been effective.
- More recent financial system disruptions and the policy response—including the March 2020 "dash for cash" and the March 2023 banking crisis.
- Policies used to mitigate the economic fallout from the COVID pandemic.
- What drove the unexpected post-pandemic surge in global inflation and how central banks have responded.

LECTURES AND SECTIONS. There will be two lectures each week. Attending the weekly review section is recommended but not mandatory.

READINGS. There will be a Canvas page for each lecture. You should consult these pages well in advance of each class as they will describe the required preparation. Depending on the session, preparation may involve readings, going through slides, watching videos, listening to podcasts, or other tasks. In addition to the required readings, I will list key academic pieces that I draw from for the class lectures. These academic pieces will be useful for students who want to do a deeper dive on the topics. Some of the required reading will be on news websites that have paywalls, but Harvard students should be able to access them all by following the instructions here.

ASSIGNMENTS. There will be five assignments. The exercises will include interpreting relevant data, reviewing analysis used to make past policy decisions, and applying results from academic literature. You may confer with others as you prepare assignments, but your thoughts must be written up independently. You must complete all assignments to pass the course.

Provisional assignment due dates:

Assignment 1: Monday February 12
Assignment 2: Monday February 26
Assignment 3: Monday March 25
Assignment 4: Wednesday April 10
Assignment 5: Wednesday April 24

USE OF GENERATIVE ARTIFICIAL INTELLIGENCE (AI). It is generally acceptable to use generative AI for finding information and for solidifying your knowledge of the course content. For instance, it is fine to use AI-powered web search and to have "conversations" with tools like ChatGPT to help you explore ideas, refine your thinking, identify examples, and better understand the course material. However, unless otherwise specified, you may not respond to assignments with text produced predominantly by generative AI—similar to copying from a book or article. If you have any doubt about whether a specific use of generative AI is permitted for an assignment, you should discuss it with a member of the teaching team prior to using it.

PARTICIPATION. Participation and engagement can take many forms. You can ask questions during class, you can chat with me before or after class, you can come to office hours, and you can post or react to articles on the EC 1746 Canvas Discussion Board.

EXAMS. The class will have a midterm exam and a final exam:

- The midterm exam will be held on Wednesday March 6 in class.
- The final exam will be a three-hour in-person exam at 2pm on Friday May 3.

Students requiring accessibility accommodation should submit the appropriate documentation via email to kathleen_strzempek@hks.harvard.edu, by February 26. Always include "EC 1746" in the subject of your email.

EXAM MAKEUP POLICY. No makeup exams will be given. Students requiring alternative accommodation due to an emergency should email kathleen_strzempek@hks.harvard.edu. Always include "EC 1746" in the subject of your email. If you have to miss the midterm for any reason, the weight normally assigned to the midterm exam grade will be applied to the final exam grade in calculating your grade for the semester.

GRADES. Course grades will be determined from a weighted sum of the assignments (25%), the midterm (30%), and the final exam (45%). I encourage participation and will adjust grades upwards for those who contribute to constructive discussions, including at section and through use of the Canvas Discussion Board.

COMMUNICATION. You should regularly check the Canvas class pages for information about required preparation for each class (and for slides, recordings, and other follow-ups after each class). We will also be sending out announcements via email with news about the class.

I will aim to arrive a few minutes early for informal discussion. I will also regularly stay after class for questions about the material, current events, or other topics you would like to discuss.

I will hold regular office hours every week starting at the end of January. The schedule will be finalized by the time that classes start; at that point, you will be able to see the available appointments and schedule a time at this website. I am planning to hold my office hours in person, but if that does not work for you, email my assistant Kat Strzempek to change the appointment to Zoom.

Feel free to contact me by email with concerns and questions. When you do so, please include "EC 1746" as part of your subject line. I will make every effort to get back to you in a timely fashion, but if you do not hear back within 48 hours, please write again to make sure that I did not lose track of your email.

CODE OF CONDUCT. Please be on time for the lectures. All course activities—including class meetings, homework assignments, and exams—are subject to the Academic Integrity portion of the Harvard College Handbook for Students. Academic misconduct of any sort will not be tolerated.

TECHNICAL SUPPORT. If you have any issues related to class recordings or the Canvas page, contact Harvard University Information Technology at ithelp@harvard.edu or 617-495-7777.

CLASS SCHEDULE

Mon. January 22	Class 1	Course Introduction and Overview
Wed. January 24	Class 2	Historical Perspective on Financial and Economic Crises
Mon. January 29	Class 3	The Economic and Financial Environment of the Early 2000s
Wed. January 31	Class 4	The Drive for Homeownership in the United States
Mon. February 5	Class 5	The Basics of the Mortgage Boom and Bust
Wed. February 7	Class 6	Was the Mortgage Crisis a “Subprime Crisis”?
Mon. February 12	Class 7	From the Mortgage Crisis to the Broader Financial Crisis: Part 1
Wed. February 14	Class 8	From the Mortgage Crisis to the Broader Financial Crisis: Part 2
Mon. February 19		NO CLASS: PRESIDENTS’ DAY
Wed. February 21	Class 9	Escalating Financial Market Stress and the Policy Response
Mon. February 26	Class 10	The 2008 Meltdown and the Policy Response
Wed. February 28	Class 11	Policies to Help Insolvent Banks and Struggling Homeowners
Mon. March 4	Class 12	Where Does the Blame Lie?
Wed. March 6	Class 13	MIDTERM EXAM
Mon. March 11		NO CLASS: SPRING BREAK
Wed. March 13		NO CLASS: SPRING BREAK
Mon. March 18	Class 14	The Euro’s Three Crises
Wed. March 20	Class 15	Recessions and their Costs
Mon. March 25	Class 16	Policy Lessons from the Great Recession
Wed. March 27	Class 17	More Policy Lessons from the Great Recession
Mon. April 1	Class 18	The Runup in Student Debt
Wed. April 3	Class 19	Financial Reform, Part 1
Mon. April 8	Class 20	Financial Reform, Part 2
Wed. April 10	Class 21	Financial Reform, Part 3
Mon. April 15	Class 22	Liquidity Regulation (Guest Lecture by Jeremy Stein)
Wed. April 17	Class 23	The Great Lockdown
Mon. April 22	Class 24	The Post-COVID Surge in Inflation
Wed. April 24	Class 25	Challenges Ahead for Monetary and Fiscal Policy

READINGS

The readings marked with ** are required. The other readings contain material that I will draw off for the class lectures and will be useful for students who want to do a deeper dive on these topics.

Module 1 Overview

In this introductory module, we will set the stage for the discussion to come. We will talk about why it is important to take lessons from the dramatic financial and macroeconomic developments of the past two decades and what students can expect to get out of this course. The next lecture will cover historical perspective on financial and economic crises. Then we will have two lectures covering the economic and financial environment of the early 2000s, with particular focus on the social, economic, and policy developments that laid the groundwork for the global financial crisis of 2007-2008.

Class 1— Course Introduction and Overview

The goal of this class is for you to come out with a good sense of what you will get out of the course and some idea about how the material we will be covering in each individual class fits in with the "big picture."

**Stiglitz, Joseph. Capitalist Fools. *Vanity Fair*, December 9, 2008.

**Davies, Howard. Bernanke, Paulson, and Geithner: Revisiting the 2008 Financial Crisis. *The Guardian*. May 29, 2019.

Class 2—Historical Perspective on Financial and Economic Crises

The goal of this class is for you to learn some key stylized facts about financial crises and to offer some background on some important historical crises.

**Ben Bernanke and the Magic of Banking. More or Less: Behind the Stats Podcast. October 15, 2022.

**Bernanke, Ben. On Milton Friedman's 90th Birthday. Speech. November 8, 2002.

Frydman, Carola and Chenzi Xu. Banking Crises in Historical Perspective. NBER Working Paper. June 2023.

Jordà, Òscar, Moritz Schularick, and Alan M. Taylor. Macrofinancial History and the New Business Cycle Facts. NBER Macro Annual 2016.

Reinhart, Carmen M. and Kenneth S. Rogoff. Recovery from Financial Crises: Evidence from 100 Episodes. *American Economic Review Papers and Proceedings* 2014.

Romer, Christina. The Nation in Depression. *Journal of Economic Perspectives*. Spring 1993.

Sufi, Amir, and Alan Taylor. Financial Crises: A Survey. *Handbook of International Economics*. 2022.

Class 3—The Economic and Financial Environment of the Early 2000s

The goal of this class is to familiarize you with key background factors that will come up repeatedly as we discuss how the financial crisis unfolded in coming classes.

**Greenspan, Alan. Consumer Finance. April 8, 2005.

Congressional Budget Office. The Distribution of Household Income. August 4, 2021. (There are a lot of sources on trends in inequality over the decades but if you are interested in what's happened at the household level over the last couple of decades, I think that CBO's numbers are the best.)

Congressional Budget Office. CBO's Projections of Demographic and Economic Trends. (pages 60-63 on interest rates). June 25, 2019.

Blanchard, Olivier and John Simon. The Long and Large Decline in U.S. Output Volatility. *Brookings Papers on Economic Activity*. Spring 2001.

Rajan, Raghuram G. The Greenspan Era: Lessons for the Future. August 27, 2005.

Class 4—The Drive for Homeownership in the United States

The goal of this class is to offer background that will help you think about the role that the drive for homeownership in the United States played as you learn more about the financial crisis in coming classes.

**The Horrible Housing Blunder. *The Economist*. January 18, 2020

**Lieber, Ron. In Defense of Homeownership. *The New York Times*. August 27, 2010.

Congressional Budget Office. An Overview of Federal Support for Housing. November 3, 2009.

Frame, W. Scott and Lawrence J. White. Fussing and Fuming over Fannie and Freddie: How Much Smoke, How Much Fire? *Journal of Economic Perspectives* 19(2): 159-184. Spring 2005.

Glaeser, Edward L. Rethinking the Federal Bias Toward Homeownership. *Cityscape: A Journal of Policy Development and Research* 13(2): 5-37. 2011.

Goodman, Laurie S., and Christopher Mayer. 2018. Homeownership and the American Dream *Journal of Economic Perspectives*, 32 (1): 31-58. Winter 2018.

Module 2 Overview

The first part of this module will focus on the mortgage boom and bust of the early 2000s. We will discuss the developments in mortgage markets that precipitated the broader financial crisis—the home price bubble, who took on all that mortgage debt, and the debate over why people default on mortgages. We will then turn to how the mortgage crisis turned into a full-blown global financial crisis, including the roles of leverage, financial engineering, the shadow banking system, and financial regulation.

Class 5—The Basics of the Mortgage Boom and Bust

The goal of this class is for you to understand the defining traits of the mortgage boom and bust as well as some key developments in mortgage finance that played a role.

**Minsky's Moment. *The Economist*. July 30, 2016.

Shefrin, Hersh. Crypto Minsky Moment Now Happening. *Forbes.* July 1, 2022.

Staff of the Financial Crisis Inquiry Committee. Securitization and the Mortgage Crisis. April 2010.

Staff of the Financial Crisis Inquiry Committee. The Mortgage Crisis. April 2010.

Class 6—Was the Mortgage Crisis "a Subprime Crisis"?

The goal of this class is for you to understand one of the most important debates around the mortgage boom and bust of the early 2000s.

**Conklin, James, et al. Did Subprime Borrowers Drive the Housing Boom. February 26, 2020.

Adelino, Manuel, Antoinette Schoar, and Felipe Severino. Loan Originations and Defaults in the Mortgage Crisis: The Role of the Middle Class. *The Review of Financial Studies*. July 2016.

Bhutta, Neil. The Ins and Outs of Mortgage Debt: An Update. *FEDS Notes*. December 7, 2015.

Bhutta, Neil, Jane Dokko, and Hui Shan. Consumer Ruthlessness and Mortgage Default during the 2007 to 2009 Housing Bust. *Journal of Finance* 72(6): 2433-2466. December 2017.

Ferreira, Fernando and Joseph Gyourko. A New Look at the US Foreclosure Crisis. NBER Working Paper 21261. June 2015.

Foote, Christopher L., Lara Loewenstein, and Paul Willen. Cross-Sectional Patterns of Mortgage Debt during the Housing Boom: Evidence and Implications. Federal Reserve Bank of Boston Research Department Working Paper 16-12. January 2020.

Foote, Christopher L. and Paul Willen. Mortgage-Default Research and the Recent Foreclosure Crisis. Federal Reserve Bank of Boston Working Paper No. 17-13. October 2017.

Mayer, Christopher, Karen Pence, and Shane M. Sherlund. 2009. The Rise in Mortgage Defaults. *Journal of Economic Perspectives*, 23 (1): 27-50.

Class 7— From the Mortgage Crisis to the Broader Financial Crisis 1

The goal of this class is for you to understand some of key features of the shadow banking system; we will build on this material in the next class when we discuss why the pre-crisis shadow banking system was vulnerable to runs.

** To understand the parallels between the traditional banking system and the shadow banking system, you will need to understand two key sources of short-term funding in the shadow banking system—repurchase agreements ("repos") and asset-backed commercial paper ("ABCP"). **If you**

have not heard these terms before, you will find it very useful to do some background work before class. For repos, the very brief video on Investopedia is good, and this slightly longer *Wall Street Journal* video describes repos generally and talks about why they became big news again in 2019. For ABCP, this Investopedia article explains what it is and how it compares to regular commercial paper.

Baily, Martin Neil, Matthew S. Johnson, and Robert E. Litan. The Origins of the Financial Crisis. *Brookings Report.* November 2008.

Pozsar, Zoltan. The Rise and Fall of the Shadow Banking System. Moody's Economy.com. July 2008.

Staff of the Financial Crisis Inquiry Commission. The Shadow Banking System. May 2010.

Class 8— From the Mortgage Crisis to the Broader Financial Crisis 2

The goal of this class is for you to understand some key ways in which the financial system was exposed to losses and dysfunction in the period leading up to the financial crisis.

** In the last class, we talked about banking and shadow banking concepts that are highly relevant to the mortgage and financial crises. In this class and the classes to come, we will be referencing these various institutions and instruments. Look at this list of key banking and shadow banking concepts [available to those with access to the Canvas site], and, if you are unclear on any of them, this would be a good time to go back and check your notes.

Adrian, Tobias and Hyun Song Shin. The Changing Nature of Financial Intermediation and the Financial Crisis of 2007-09. Federal Reserve Bank of New York Staff Report no. 439. April 2010.

Brunnermeier, Markus K. Deciphering the Liquidity and Credit Crunch 2007-2008. *Journal of Economic Perspectives*, 23 (1): 77-100. Winter 2009.

Duffie, Darrell. Prone to Fail: The Pre-crisis Financial System. *Journal of Economic Perspectives,* 33 (1): 81-106. Winter 2019.

Module 3 Overview

In this module, we will consider policymakers' efforts to arrest the financial crisis and also to mitigate its harms. We will discuss the economic logic behind the various steps taken as well as the factors that complicated or delayed these actions—including the roles of uncertainty, technical obstacles and worries about moral hazard. We will also explore what subsequent research says about the effectiveness of these policy actions.

Class 9—Escalating Financial Market Stress and the Policy Response

The goal of this class is for you to understand the early stages of the financial crisis—why stresses began to mount, what policymakers did in response, and why things continued to escalate.

**This American Life*.* The Day the Market Died. October 3, 2008.

Bernanke, Ben. Fed Emergency Lending. December 3, 2015.

English, Bill and Trish Mosser. The Use and Effectiveness of Conventional Liquidity Tools Early in the Financial Crisis. September 2018.

Logan, Lorie, William Nelson, and Patrick Parkinson. Novel Lender of Last Resort Program. September 2018.

Swagel, Phillip. Legal, Political, and Institutional Constraints on the Financial Crisis Policy Response. *Journal of Economic Perspectives*, 29 (2): 107-22. Spring 2015.

Class 10—The 2008 Meltdown and the Policy Response

The goal of this class is for you to understand the specific events that drove the most intense phase of the financial crisis, the trade-offs that policymakers were weighing as they took various steps to rescue the financial system, and the consequences of these policy actions.

**Mankiw, Greg. Learning the Right Lessons from the Financial Crisis. *New York Times*. July 27, 2018.

**Geithner, Timothy and Andrew Metrick. Ten Years Later: A Conversation with Timothy Geithner: 7-11. October 18, 2018

Bernanke, Ben S. Reflections on a Year of Crisis, Speech at the Federal Reserve Bank of Kansas City's Annual Economic Symposium, Jackson Hole, Wyoming. August 21, 2009.

Jester, Dan, Matthew Kabaker, Jeremiah Norton, Lee Sachs. Rescuing the Mortgage Giants. September 2018.

Liang, Nellie, Margaret M. McConnell, and Phillip Swagel. Evidence on Outcomes. November 2018.

Swagel, Phillip. The Financial Crisis: An Inside View. *Brookings Papers on Economic Activity*. Spring 2009.

Class 11—Policies to Help Struggling Banks and Insolvent Homeowners

The goal of this class is to finish off our discussion of the key ways in which the government mitigated the financial crisis; after doing so (either in this class or the next class) we will circle back to review the broad lessons we have learned.

**US Treasury Department. TARP Programs Website.

Abel, Joshua and Andreas Fuster. How Do Mortgage Refinances Affect Debt, Default, and Spending? Evidence from HARP. Federal Reserve Bank of New York Staff Report No. 841. February 2018.

Agarwal, Sumit, Gene Amromin, Itzhak Ben-David, Souphala Chomsisengphet, Tomasz Piskorski and Amit Seru. Policy Intervention in Debt Renegotiation: Evidence from the Home Affordable Modification Program. *Journal of Political Economy*, Vol. 125, 3. June 2017.

Clark, Tim, Matt Kabaker, and Lee Sachs. The Banks: Reviving the System. September 2018.

Dokko, Jane and Karen Dynan. Ten Years Since the Financial Crisis: Some Lessons for Reducing Risks to Households. November 2018.

Jester, Dan, David Nason, and Jeremiah Norton. Recapitalizing the Banking System. September 2018.

Liang, Nellie, Margaret M. McConnell, and Phillip Swagel. Evidence on Outcomes.. November 2018.

Piskorski, Tomasz and Amit Seru. Debt Relief and Slow Recovery: A Decade after Lehman. December 1, 2018.

Canner, Glenn and Neil Bhutta. Did the CRA Cause the Mortgage Market Meltdown? March 2009.

Duffie, Darrell. Prone to Fail: The Pre-crisis Financial System. *Journal of Economic Perspectives*. Winter 2019.

Class 12—Where Does the Blame Lie?

The goal of this class is to pull together what we have learned about various potential contributing factors to help you form your own opinions about where the blame lies for the financial crisis.

**FCIC report official conclusions.
No need to read all 14 pages—just skim the bolded headlines

**Dissent by Hennessey, Holz-Eakin, and Thomas. *Pages 414-417*

**Dissent by Wallison. *Pages 444-447.*

Canner, Glenn and Neil Bhutta. Did the CRA Cause the Mortgage Market Meltdown?. March 2009.

Duffie, Darrell. Prone to Fail: The Pre-crisis Financial System. *Journal of Economic Perspectives*. Winter 2019.

Foote, Christopher L., Kristopher S. Gerardi, and Paul Willen. Why Did So Many People Make So Many Ex Post Bad Decisions? The Causes of the Foreclosure Crisis. Federal Reserve Bank of Boston Public Policy Discussion Paper No. 12-2. July 2012.

Financial Crisis Inquiry Commission. The Financial Crisis Inquiry Report. January 2011.

Class 13—Midterm Exam

Class 14—The Euro's Three Crises

The goal of this class is for you to understand the Euro crisis and gain some insight into sovereign debt crises more generally.

**El-Erian, Mohamed Who is to Blame for Greece's Crisis?. *The Guardian.* May 18, 2012

Feldstein, Martin. The Political Economy of the European Economic and Monetary Union: Political Sources of an Economic Liability. *Journal of Economic Perspectives*. Fall 1997.

Frankel, Jeffrey. The Euro's First 20 Years. January 2019.

Lane, Philip. "The European Sovereign Debt Crisis." *Journal of Economic Perspectives*. Summer 2012.

Shambaugh, Jay. The Euro's Three Crises. *Brookings Papers on Economic Activity*. Spring 2012.

Module 4 Overview

With this module, we are moving on to the "Great Recession" of 2007-2009. This recession was the most severe economic downturn experienced by the US economy in more than a quarter century. Indeed, it took nearly a decade for the unemployment rate to return to its pre-recession level. We will explore the costs of recessions—not just the macroeconomic costs that get emphasized in macroeconomic textbooks but also the very real human costs of severe economic downturns. Understanding these costs will set up our discussions of the fiscal and monetary policies put in place to fight the recession (including the need for central banks to turn to unconventional tools to support the economy). Finally, we will consider the opportunities and risks associated with using "credit policy"—such as expansion of government-backed mortgages and student loans—to shorten recessions and hasten economic recovery.

Class 15—Recessions and their Costs

The goal of this class is for you to understand the costs of recessions so that you can fully appreciate what was at stake in developing policies to fight the Great Recession.

**Kahn, Lisa and Jesse Rothstein. The Lasting Scars From Graduating in a Recession. *EconoFact.* December 12, 2020

Congressional Budget Office. Understanding and Responding to Persistently High Unemployment. February 16, 2012.

Davis, Steven J. and Till Von Wachter. Recessions and the Costs of Job Loss. *Brookings Papers on Economic Activity*. Fall 2011.

Finkelstein, Amy and Matthew Notowidigdo, Frank Schilbach, and Jonathan Zhang, Jonathan. Lives vs. Livelihoods: The Impact of the Great Recession on Mortality and Welfare. National Bureau of Economic Research Working Paper No. 17951. February 2024.

Hoynes, Hilary W., Douglas L. Miller, and Jessamyn Schaller. Who Suffers During Recessions? National Bureau of Economic Research Working Paper No. 17951. March 2012.

Kahn, Lisa B. The Long-term Labor Market Consequences of Graduating from College in a Bad Economy. *Labour Economics*. 17(2): 303-16. April 2010.

Lamba, Sneha and Robert Moffitt. The Rise in American Pain: The Importance of the Great Recession. National Bureau of Economic Research Working Paper No. 31455. July 2023.

Parker, Jonathan A. and Annette Vissing-Jorgensen. The Increase in Income Cyclicality of High-Income Households and Its Relation to the Rise in Top Income Shares. *Brookings Papers on Economic Activity*. Fall 2010.

Rothstein, Jesse. The Lost Generation? Labor Market Outcomes for Post Great Recession Entrants.. NBER Working Paper No. 27516. July 2020.

Yagan, Danny. Employment Hysteresis from the Great Recession. *Journal of Political Economy*. September 2019.

Class 16—Policy Lessons from the Great Recession

The goal of this class is for you to understand the policies that the government used to fight the Great Recession and what lessons we can take from this experience.

**The Rise of the Anti-Keynesians. *The Economist.* April 16, 2011.

Congressional Budget Office. Policies for Increasing Economic Growth and Employment in 2010 and 2011. January 2010.

Furman, Jason. The Fiscal Response to the Great Recession: Steps Taken, Paths Rejected, and Lessons from Last Time. September 2018.

Gagnon, Joseph E. and Brian Sack. QE: A User's Guide. Peterson Institute for International Economics Policy Brief 18-19. October 2018.

Class 17—More Policy Lessons from the Great Recession

The goal of this class is for you to understand more about the policies that the government used to fight the Great Recession and what lessons we can take from this experience.

**An Open Letter to Ben Bernanke. E21 Staff. November 15, 2010.

** Wolf, Martin. "Helicopter Ben" Confronts the Challenge of a Lifetime. *The Financial Times.* December 16, 2008

Forbes, Kristin. Policy Implications of a Low Interest Rate Environment: The UK Experience. presentation at the 62nd Annual Federal Reserve Bank of Boston Economic Conference. September 2018.

Gagnon, Joseph E. and Brian Sack. QE: A User's Guide. Peterson Institute for International Economics Policy Brief 18-19. October 2018.

Kuttner, Kenneth N. Outside the Box: Unconventional Monetary Policy in the Great Recession and Beyond. *Journal of Economic Perspectives* 32(4). Fall 2018.

Lucas, Deborah. Credit Policy as Fiscal Policy. *Brookings Papers on Economic Activity*. Spring 2016.

Passmore, S. Wayne and Shane M. Sherlund. The FHA and the GSEs as Countercyclical Tools in the Mortgage Markets. *Economic Policy Review*. December 2018.

Rudebusch, Glenn. A Review of the Fed's Unconventional Monetary Policy. Federal Reserve Bank of San Francisco *Economics Letters*. December 3, 2018.

Module 5 Overview

In this module, we will cover some of the important developments of the 2010s.

First, we will have a class on the runup in student debt. Between the early 2000s and the early 2010s, there was a relaxation of standards around government student loans—while the idea may have been rooted in good intentions (particularly given the number of people who found themselves idle after losing their jobs in the Great Recession), there were some very negative unintended consequences.

Then we have two classes on the measures put in place after the financial crisis to reduce the likelihood of another such crisis. We will discuss the strengthening of traditional financial regulation and also the development of the new tool of "macroprudential" regulation, which aims to reduce risks to the system as a whole. We will also explore what research says about whether the degree to which these steps have reduced risk in the financial system to set up the discussion of unfinished policy business that we will be having at the end of the semester.

Class 18—The Runup in Student Debt

The goal of this class is to enable you to engage in informed discussions about the federal student loan program, including its shortcomings and potential changes for the future.

**CNBC. Biden's Student Loan Forgiveness Plan 'Much Worse' than Expected, Says Former Obama AdvisorLinks to an external site. August 26, 2022.

**Dynarski, Susan. Why I Changed My Mind on Student Debt Forgiveness. New York Times. August 20, 2022.

Catherine, Sylvain and Constantine Yannelis. The Distributional Effects of Student Loan Forgiveness. NBER Working Paper 28175. April 2021.

Dynan, Karen. What's Wrong with Student Loans (and How to Fix It). October 2019.

Looney, Adam. Testimony for Hearing "Breaking the System: Examining the Implications of Biden's Student Loan Policies for Students and Taxpayers." March 2023.

Looney, Adam, and Constantine Yannelis. A Crisis in Student Loans? How Changes in the Characteristics of Borrowers and in the Institutions They Attended Contributed to Rising Loan Defaults. *Brookings Papers on Economic Activity*. Fall 2015.

Looney, Adam. Reauthorizing the Higher Education Act: Strengthening Accountability to Protect Students and Taxpayers. Testimony Submitted to the U.S. Senate Committee on Health, Education, Labor and Pensions. April 2019.

Class 19—Financial Reform, Part 1

The goal of this class is for you to learn the major ways in which US financial regulation was changed after the financial crisis.

**Rover the Regulator. *The Economist.* September 8, 2012

Aikman, David, Jonathan Bridges, Anil Kashyap, and Caspar Siegert. Would Macroprudential Regulation Have Prevented the Last Crisis? Mimeo, July 2018.

Bernanke, Ben. S. Ending "Too Big to Fail: What's the Right Approach? Brookings Blog. May 13, 2016.

Elliott, Douglas J., Greg Feldberg, and Andreas Lehnert. The History of Cyclical Macroprudential Policy in the United States. Office of Financial Research Working Paper #0008. May 2013.

Tarullo, Dan. Stress Testing after Five Years. June 2014.

Tarullo, Dan. Financial Regulation Since the Crisis. December 2016.

Tarullo, Dan. Financial Regulation: Still Unsettled a Decade after the Crisis. *Journal of Economic Perspectives*. Winter 2019.

Class 20—Financial Reform, Part 2

The goal of this class is for you to understand key questions and unaddressed issues related to financial reform.

Aikman, David, Jonathan Bridges, Anil Kashyap, and Caspar Siegert. Would Macroprudential Regulation Have Prevented the Last Crisis? Mimeo, July 2018.

Bernanke, Ben. S. Ending "Too Big to Fail: What's the Right Approach? Brookings Blog. May 13, 2016.

Sarin, Natasha and Lawrence H. Summers. Understanding Bank Risk through Market Measures. Brookings Papers on Economic Activity. Fall 2016.

Sharfstein, David and Phillip Swagel. Legislative Approaches to Housing Finance Reform. Milken Institute Viewpoints. October 2016.

Tarullo, Dan. Financial Regulation: Still Unsettled a Decade after the Crisis. *Journal of Economic Perspectives*. Winter 2019.

Class 21—Financial Reform, Part 3

The goal of this class is for you to understand more key questions and unaddressed issues related to financial reform.

** Sarin, Natasha. Regulators Missed Silicon Valley Bank's Problems for Months. Here's Why. The Washington Post. April 3, 2023.

Bernanke, Ben. S. Ending “Too Big to Fail: What’s the Right Approach? Brookings Blog. May 13, 2016.Federal Reserve. Review of the Federal Reserve’s Supervision and Regulation of Silicon Valley Bank. April 2023.

Parker, Jonathan. Silicon Valley Bank and the Changing Structure of Banking. *TechReg Chronicle*. August 2023.

Sharfstein, David and Phillip Swagel. Legislative Approaches to Housing Finance Reform. *Milken Institute Viewpoints*. October 2016.

Class 22—Liquidity Regulation (Guest Lecture by Jeremy Stein)

The goal of this class is to help you understand one of the important shortcomings of current financial regulation (even after the reforms of the 2010s).

Hanson, Samuel, Victoria Ivashina, Laura Nicolae, Jeremy Stein, Adi Sunderam, and Daniel Tarullo. “The Evolution of Banking in the 21st Century: Evidence and Regulatory Implications.” BPEA Conference Draft, Spring 2024.

Module 6 Overview

This module will focus on the financial and macroeconomic challenges of recent years.

We will begin with the COVID recession—the economic fallout from the "Great Lockdown" and the policies used to mitigate the consequences. We will discuss how how financial markets started to seize up in the spring of 2020 and how central banks took lessons from the 2007-2009 experience to avoid another financial crisis.

The final three classes will deal with some big open policy questions. We will discuss how monetary policy has dealt with high inflation, government debt, and other risks ahead. What might be the next "Black Swan" event of the 21st century?

Class 23—The Great Lockdown

The goal of this class is to give you an introduction to the pandemic recession and the financial and fiscal policy responses.

**Smialek, Jeanna. The Financial Crisis the World Forgot. *New York Times.* March 16, 2021.

Cheng, Jeffrey, Tyler Powell, Dave Skidmore, and David Wessel. What is the Fed Doing in Response to the COVID-19 Crisis? What More Could It Be Doing? March 2021.

Chetty, Raj, John N. Friedman, Nathaniel Hendren, Michael Stepner, and the Opportunity Insights Team. The Economic Impacts of COVID-19: Evidence from a New Public Database Built Using Private Sector Data. November 2020.

Ganong, Peter, Pascal Noel and Joseph Vavra, 2020. US Unemployment Insurance Replacement Rates During the Pandemic. August 2020.

Hubbard, Glenn, and Michael R. Strain. Has the Paycheck Protection Program Succeeded? September 2020.

Lewis, Daniel, Karel Mertens, and James Stock. Tracking the COVID-19 Economy with the Weekly Economic Index (WEI). August 2020.

Romer, Christina D. The Fiscal Policy Response to the Pandemic. March 2021.

Ruffini, Krista, and Abigail Wozniak. Supporting Workers and Families in the Pandemic Recession: Results in 2020 and Suggestions for 2021. March 2021.

Vissing-Jorgensen, Annette. The Treasury Market in Spring 2020 and the Response of the Federal Reserve. April 2021.

Class 24—The Post-COVID Surge in Inflation

The goal of this class is for you to be able to engage in informed discussion about the post-COVID surge in inflation and the implications for monetary policy.

Stephanie Stancheva. Why Do We Dislike Inflation? The Brookings Papers on Economic Activity Conference Draft. March 27, 2024.

Dynan, Karen. What is Needed to Tame US Inflation? *Peterson Institute for International Economics Realtime Economic Issues Watch*, March 10, 2022.

Reifschneider, David and David Wilcox. The Case for a Cautiously Optimistic Outlook for US Inflation. *Peterson Institute for International Economics Policy Brief 22-3.* March 2022.

Hazell, Jonathon, Juan Herreno, Emi Nakamura, and Jón Steinsson. 2022. The Slope of the Phillips Curve: Evidence from US States. *Quarterly Journal of Economics.*

Kiley, Michael. Anchored or Not: A Short Summary of a Bayesian Approach to the Persistence of Inflation . FEDS Notes, April 2022.

Class 25—Challenges Ahead for Monetary and Fiscal Policy

The goal of this class is wrap up our EC 1746 semester by talking about important challenges for policy ahead!

Arslanalp, Serkan and Barry Eichengreen. 2023. Living with High Public Debt. Federal Reserve Bank of Kansas City.

Dynan, Karen. 2023. High and Rising US Federal Debt: Causes and Implications. Aspen Institute.

Janice C. Eberly, James H. Stock, and Jonathan H. Wright. 2020. "The Federal Reserve's Current Framework for Monetary Policy: A Review and Assessment," *International Journal of Central Banking*.

Eggertsson, Gauti and Don Kohn. 2023. The Inflation Surge of the 2020s: The Role of Monetary Policy. Brookings.

Stancheva, Stefanie. 2024. Why Do We Dislike Inflation? Brookings Papers on Economic Activity.