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Financial Crises and Regulatory Responses

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Fall 2019: Tuesday, Thursday, 4:20-6:10, Jerome Greene Hall 102a

More than 10 years have passed since the full onset of the Global Financial Crisis of 2008-09, whose aftershocks still ripple throughout the global financial, economic and political environment.

There have been more than a dozen financial crises in the world since 1980, including two in the United States alone. What are the common elements among these crises, what are the differences? In some instances, crises have brought about significant regulatory reform. Yet how is it that financial crises seem to recur with such frequency? And recur despite regulatory efforts to avoid them.

Over the past eight years that we have given our course, each time the class has faced a major crisis or regulatory development unfolding in real time, making our course particularly lively and relevant. One year our course was confronted with the developing Eurozone crisis. Four years ago the boom in fintech and troubles in peer-to-peer lending drew attention. During the last couple of years dynamics abruptly shifted towards deregulation and increasingly forceful initiatives to repeal the Dodd-Frank Act of 2010 and to dial back its constraints. This year, we can expect more reversals in the post-crisis regulatory framework, notwithstanding a credit boom among US households and many US corporations. As we begin this year, financial crises in Turkey and Argentina seem on the horizon and a potential global trade war will result in further financial instability. In short a special quality of this course is the application of the material and general principles to crisis-related problems and regulatory developments unfolding in real time.

Using a mix of economic history, finance, and law-related materials we plan to address the following themes:

1) Are financial crises foreseeable or unforeseeable? Do they arise from processes internal to the financial sector (such as the “leverage cycle”) or from external events, such as changes in the political landscape that change the terms of financial globalization?

- 2) Are there more or less stable structures for the financial system? The financial system aims to match suppliers of capital (savers) and users of capital (business users and consumers). From a stability point of view, is such financial intermediation better done through financial institutions or through markets?
- 3) Is there an optimum size for financial institutions? Should certain financial market activities be combined (for efficiency and diversification) or separated?
- 4) Are we better off with rigorous schemes of crisis avoidance or efficient resolution mechanisms, if long periods of financial stability inevitably lead to increased leverage, asset price inflation and a resulting steeper crash? Perhaps we are better off by focusing attention on mopping up smaller, more frequent crashes?
- 5) Do recurrent crises flow from the political constraints on optimum regulation? There are two facets to this question. First is the desire of incumbent political leaders to promote reelection chances by producing economic growth or greater home ownership, which favors expansionary credit policies. Second is the firm-level competition within the financial sector to protect and expand rents. Both of these elements bear on regulatory outcomes.
- 6) The financial environment is driven by the interplay of legislation, regulation, governance and monetary policy. To what extent can independent central bank intervention through monetary policy correct for legislative or regulatory debility?
- 7) Do the goals of differently tasked regulators conflict in a way that may undermine systemic stability? How does the disclosure focus of securities regulators fit with the safety and soundness goals of financial regulators, as evidenced for example in Bank of America and Merrill merger or the crisis-era manipulation of Libor?
- 8) International coordination and its limits: do the concessions made to obtain sufficient national buy-in to achieve a widespread international regime (necessary to avoid free-riding) undermine the effectiveness of the international regulatory architecture? One example where this issue has arisen prominently in recent years is the zero risk-weighting on all OECD sovereign debt under the Basel accords.
- 9) Last but not least, what are the economic, social, and political costs of financial crises? Eleven years after the collapse of Lehman Brothers has the U.S. finally turned the corner?

Course Requirements: You will be asked to write a final take-home exam, which will count towards 80% of the final grade. The other 20% will be based on class participation. You are expected to have read the starred readings in advance.

What follows is a tentative syllabus that may be altered during the semester depending on events and the availability of guest speakers.

Required Textbook:

John Armour, Dan Awrey, Paul Davies, Luca Enriques, Jeffrey Gordon, Colin Mayer, and Jennifer Payne (2016), *PRINCIPLES OF FINANCIAL REGULATION (PFR)*, Oxford University Press

Additional Required Books:

Patrick Bolton, Stephen Cecchetti, Jean-Pierre Danthine and Xavier Vives (2019), *SOUND AT LAST? ASSESSING A DECADE OF FINANCIAL REGULATION*, CEPR London [will be made available on-line]

Ben S. Bernanke (2015), *THE COURAGE TO ACT: A MEMOIR OF A CRISIS AND ITS AFTERMATH*, Norton

Timothy F. Geithner (2014), *STRESS TEST: REFLECTIONS ON FINANCIAL CRISES*, Random House

Neil Irwin (2013), *THE ALCHEMISTS: THREE CENTRAL BANKERS AND A WORLD ON FIRE*, Penguin

Ben S. Bernanke, Timothy F. Geithner, Henry Paulson (2019) *FIREFIGHTING: THE FINANCIAL CRISIS AND ITS LESSONS*, Penguin

Recommended book:

Adam Tooze, (2018), *CRASHED: HOW A DECADE OF FINANCIAL CRISES CHANGED THE WORLD*, Allen Lane

Articles that are [*] are required reading. Other readings are recommended or for reference.

You should acquire books (available in paperback) from a bookstore or an on-line bookseller. Other Materials are web-posted

Week 1: Introduction

Financial crises are common throughout history including recent history. What accounts for their frequency? Do they arise from causes **internal** to the financial system, or do they result from **external** events, unexpected and not foreseeable? What are the social, economic and political consequences of financial crises?

Session 1.1:

a. The legacy of the Financial Crisis

[*] Jerome H. Powell, “Challenges for Monetary Policy”, Jackson Hole Speech, August 2019

[*] San Francisco Fed, “The Financial Crisis at 10: Will We Ever Recover?”

[*] Mario Draghi, “Twenty years of the ECB’s monetary policy,” Sintra Speech, June 2019

b. The Inevitability of Crises? Two types of Crises

[*] Carmen Reinhart and Kenneth Rogoff (2009) This Time Is Different: Eight Centuries of Financial Folly, available on SSRN

Session 1.2: The Inevitability of Crises? Structural Forces

[*] Jeffrey N. Gordon & Christopher Muller, Confronting Financial Crisis: Dodd-Frank’s Dangers and the Case for a Systemic Emergency Insurance Fund, Yale J. Reg, 2011, pp. 155-177

[*] Ben S. Bernanke et al., International Capital Flows and the Returns to Safe Assets in the United States, 2003-2007

Minsky, H.P. (1992), The financial instability hypothesis, Working Paper 74, Jerome Levy Economics Institute, Annandale on Hudson, NY

Chapter 2 of Kindleberger, C. and Aliber, R. (2005), MANIAS, PANICS, AND CRASHES: A HISTORY OF FINANCIAL CRISES, 5th Edition, Wiley Investment Classics.

Weeks 2 and 3: Primer on the Financial Crisis of 2007-09

Is the crisis of 2007-08 an out-of-the-blue, once-in-a-century episode, or is it just a larger scale manifestation of common causes underlying episodic financial crises? Has the crisis been made worse because of novel organizational structures of modern financial institutions and global markets?

Session 2.1: Setting the Stage: The U.S. Savings and Loans Crisis

At least 3 separate factors were at work in the S&L crisis: (i) an exogenous shock (here: high inflation (attributable at least in part to oil price shocks) and high short term interest rates); (ii) regulation and regulatory distortion that made the financial system vulnerable to the particular shock; and (iii) the politics of forbearance that exacerbated the crisis. Are these elements common to all crises?

[*] David H. Pyle, *The U.S. Savings and Loan Crisis* (1993), Research Program in Finance Working Papers from University of California at Berkeley No RPF-227.

[*] Thomas Romer and Barry R. Weingast, "Political Foundations of the Thrift Debacle," in Alberto Alesina & Geoffrey Carliner, eds., *Politics and Economics in the 1980s* (1991).

Session 2.2: Securitization and the Shadow Banking Sector

[*] PFR, Ch. 20.3.1, pp. 439-440; Ch. 21.3, 460-466; Ch. 20.4, pp. 442-444

[*] Joshua Coval, Jakub Jurek & Erik Stafford, *The Economics of Structured Finance*, 23 J. Econ. Persp. 3 (2009)

Adrian, T., A. Ashcraft, H. Boesky and Z. Pozsar, *Shadow Banking*, *Revue d' Economie Financiere* 105 (2012)

Keys, B., T. Mukherjee, A. Seru and V. Vig, *Did Securitization Lead to Lax Screening? Evidence from Subprime Loans*, *Quarterly Journal of Economics* (2010)

Mian, A., K. Rao, and A. Sufi, *Household Balance Sheets, Consumption, and the Economic Slump*, *Quarterly Journal of Economics* (2013)

Session 3.1: The Subprime Panic

[*] Gary Gorton, (2008) "The Subprime Panic", NBER Discussion Paper 14398, <http://www.nber.org/papers/w14398>

[*] PFR, Ch. 21.2, 452-460

Gary Gorton & Andrew Metrick, "Securitized Banking and the Run on Rep," *Journal of Financial Economics* (2012)

Markus Brunnermeier, (2009) “Deciphering the Liquidity and Credit Crunch 2007-08”, *Journal of Economic Perspectives*, 23(1), 77-100.

Krishnamurthy, A., S. Nagel and D. Orlov, Sizing up Repo, *Journal of Finance* (2013)

Weeks 3-4: The First Responses to the Financial Crisis of 2007-09

How did policymakers respond to the crisis? What were their immediate concerns and how were their interventions restricted by the existing regulatory framework?

[*] Timothy F. Geithner (2014), *STRESS TEST: REFLECTIONS ON FINANCIAL CRISES* [chapters 4, 5, 6]

[*] Ben S. Bernanke (2015), *THE COURAGE TO ACT: A MEMOIR OF A CRISIS AND ITS AFTERMATH*, Norton [chapters 10, 11, 12, 13]

[*] Bernanke, Geithner & Paulson, (2019) *FIREFIGHTING: THE FINANCIAL CRISIS AND ITS LESSONS* [32-83]

Session 3.2: The Bear Stearns Rescue and section 13(3) of the Federal Reserve Act

[*] Jeffrey N. Gordon & Christopher Muller (2010), “Avoiding Eight-Alarm Fires in the Political Economy of Systemic Risk Management”, pp. 27-42

Session 4.1: The Lehman Brothers Collapse, AIG, the run on Money Market Mutual Funds, TARP, Fed Swap Lines

[*] Gordon & Muller, Avoiding Eight Alarm Fires, 41-48

[*] Jeffrey N. Gordon & Christopher M. Gandia, Money Market Funds Run Risk: Will Floating NAV Fix the Problem?, 2014 CBLR 313, 314-316

[*] Klein, How the U.S. Saved the World from Financial Ruin, *Barron's*, Aug. 2018

[*] Bernanke, Geithner, Paulson, pp. 42-43, 196

Session 4.2: Lehman Brothers: the Debate

Week 5 : Liquidity Transformation and Crises

Are financial markets and financial intermediaries fundamentally unstable? Is greater financial stability achieved by matching investments and investors through financial institutions or

through markets? (The readings below are more technical than other readings on the syllabus. Students are not expected to master all the details of the analysis in these papers. Reading the introductions of these articles should be sufficient. A key article is Diamond & Dybvig.

[*] Douglas Diamond and Philip Dybvig (1983) “Bank Runs, Deposit Insurance, and Liquidity” *Journal of Political Economy*, vol. 91 no. 3, 401-419.

[*] Patrick Bolton, Tano Santos and José Scheinkman, (2011) “Outside and Inside Liquidity”, *Quarterly Journal of Economics*

Sudipto Bhattacharya and Anjan Thakor, (1993) “Contemporary Banking Theory”, *Journal of Financial Intermediation*, 3 (1), 2-50.

Weeks 6-7: The Political Economy of Financial Crisis

The focus of the next 2 ½ weeks will be the interaction of political economy and regulation in financial regulation. Political economy plays a critical role in four respects: first, as shaping government behavior that creates the pre-conditions for a financial crisis; second, in limiting enforcement under existing laws that could constrain excesses of market actors; third, in shaping the reform proposals in the legislative phase; fourth, in shaping the implementation of the proposals in subsequent regulation. We will consider this interaction generally and then turn to two specific depression era reforms, deposit insurance and Glass-Steagall. Along the way we will also consider the “fitness” of the adopted reforms for their intended purpose.

Session 6.1: The Political Economy of Crisis Creation

[*] Gerding, “The Next Epidemic: Bubbles and the Growth and Decay of Securities Regulation” (2006)

[*] Coffee, “The Political Economy of Dodd-Frank: Why Financial Reform Tends to be Frustrated and Systemic Risk Perpetuated.” 97 *Cornell L. Rev.* 1019 (2012)

[*] Roberta Romano (2012) “Regulating in the Dark” in **REGULATORY BREAKDOWN: THE CRISIS OF CONFIDENCE IN U.S. REGULATION** (Cary Coglianese, ed. 2012)

[*] Viral Acharya, Governments as Shadow Banks: The Looming Threat to Financial Stability, 90 *Tex. L. Rev.* 1745 (2012) (omitting the formal model on pp. 1751-58)

**Session 6.2: Ex Post Intervention and the Political Economy of Crisis Resolution:
The Case of Mortgage Foreclosure Relief for the Crisis of 2007-09**

[*] Randall Kroszner, (2003) “Is it better to forgive than to receive? Repudiation of the gold indexation clause in long-term debt during the Great Depression”, Discussion Paper University of Chicago

Patrick Bolton and Howard Rosenthal, (2002) “Political Intervention in Debt Contracts”, *Journal of Political Economy*

Atif Mian, Amir Sufi, and Francesco Trebbi, (2010) “The Political Economy of the U.S. Mortgage Default Crisis”, *American Economic Review*

Sumit Agarwal, Gene Amromin, Souphala Chomsisengphet, Tomasz Piskorski
Amit Seru, and Vincent Yao (2015) “Mortgage Refinancing, Consumer Spending, and Competition: Evidence from HARP,” available on SSRN

**Session 7.1: Ex Ante Regulation and the Political Economy of Shaping Legislation:
The Examples of Deposit Insurance and Glass-Steagall separation of commercial and investment banking**

[*] Calomiris and White, “The Origins of Federal Deposit Insurance” in *The Regulated Economy: A Historical Approach to Political Economy* Goldin and Libecap (eds), University of Chicago Press (1994)

[*] Glass-Steagall, §§ 16, 20, 21, 32

[*] Glass-Steagall Act chronology

Session 7.2: The Political Economy of Implementation: Glass-Steagall; its loopholes and its unravelling

[*] Donald Langevoort, “Statutory Obsolescence and the Judicial process: The Revisionist Role of the Court in Federal Banking Regulation”, 85 Mich. L. Rev. 672 (1987)

[*] McCoy, §§7.01, 7.02[1]; 7.04[2]

[*] ICI v. Camp, 401 U.S.617 (1971)

Loretta Mester, “Repealing Glass-Steagall: The Past points the way to the Future” (1996)

Weeks 8-10: The Regulatory Response to the Financial Crisis of 2007-09

The three weeks devoted to the regulatory responses to the financial crisis of 2007-09 will discuss the main goals of policy makers and assess the main changes in the financial regulatory landscape. What are the new tools available to regulators? How do the new regulations resolve the main weaknesses in the financial system before the crisis? Have the new regulations overreached and excessively stifled the financial industry? Where are the remaining loopholes and areas of vulnerability?

Session 8.1: Dodd-Frank, Title 1: Ensuring the Stability of the Financial System as a whole

[*] Dodd-Frank §§ 101-123, 151-156, 165-176; as codified at 12 USC 5321-33; 5341-45; 5363-5374.

[*] Dan Tarullo, Macroprudential Regulation (Sept. 2013)

[*] PFR, Ch. 19, pp. 409-430

Lars Peter Hansen (2014) “Challenges in Identifying and Measuring Systemic Risk” in *Risk Topography: Systemic Risk and Macro Modeling* Markus Brunnermeier and Arvind Krishnamurthy (editors), University of Chicago Press

Tobias Adrian, Patrick de Fontnouvelle, Emily Yang, and Andrei Zlate (2016) “Macroprudential Policy: A Case Study from a Tabletop Exercise” FRBNY Economic Policy Review

Session 8.2: Dodd-Frank: Systemic Stability through Regulation of Large Banks and other Systemic Financial Institutions

[*] Dodd-Frank § 165, 12 USC sec. 5365.

[*] Jeffrey Gordon, “Dynamic Precaution in Maintaining Stability” (2018)

[*] *MetLife v. FOSC*, 177 F.Supp.3d 219 (D.D.C 2016), appeal dismissed, 2018.

[*] Tarullo, “Next Steps in the Evolution of Stress Test” (Sept. 2016)

Ronald W. Anderson (2016) “Stress Testing and Macroprudential Regulation: A Transatlantic Assessment”, CEPR Press

Session 9.1: Dodd-Frank, Title II: Resolution Option and the end of bailouts?

[*] Dodd-Frank, Title II, §§ 204, 206; 203(a),(b), (c)(4); 202 (a), (d); 210 (a)(1)(A)-(N); 210(a)(2)(A),(B); 210(a)(3)(A)(i),(D); 210(a)(11),(12); 210(b)(1),(2)(4),(5); 210(c)(8)(A),(C),(D)(i),(F),(G); 210(c)(9); 210(c)(11); 210(c)(3)(C); 210(c)(12),(13),(16); 210(f); 210(g); 210(n); 210(o); 210(s).

[*] Cutbacks in pre-existing rescue authorities outside of OLA: Federal Reserve Act §13(3); FDIC guarantee authority.

[*] Jeffrey N. Gordon & Christopher Muller (2011), “Confronting Financial Crisis”, pp.. 180-196

Randall D. Guynn (2012), “Are Bailouts Inevitable?” 29 Yale J. Reg. 121 (2012)

Session 9.2: Bank Resolution, Bail-outs, and Bail-ins

[*] PFR, Ch. 16, pp. 340-369

[*] Paul Tucker (2014), “The Resolution of Financial Institutions without Taxpayer solvency support: seven retrospective clarifications and elaborations”

Jeffrey Gordon and Georg Ringe (2014), Bank Resolution in the European Banking Union: A Transatlantic Perspective on What It Would Take

Patrick Bolton and Martin Oehmke (2015), “Should Derivatives be privileged in Bankruptcy?” *Journal of Finance*

Patrick Bolton and Martin Oehmke (2016), “Bank Resolution and the Structure of Global Banks”

Session 10.1: Bank Regulation: Regulating the Asset Side – the Volcker Rule and TBTF

[*] Dodd-Frank, § 619, Volcker Rule

[*] PFR, Ch. 15, pp. 316-332 [Liquidity]

[*] William Dudley (2012), “Solving the Too Big to Fail Problem”

Dan Tarullo (2012), “Financial Stability Regulation”

Charles K. Whitehead (2011), “The Volcker Rule and Evolving Financial Markets”

Jeff Merkley and Carl Levin (2010), “Making the Dodd-Frank Act Restrictions on Proprietary Trading and Conflicts of Interest Work”

Session 10.2: Bank Regulation: The Right Hand Side of the Balance Sheet

[*] PFR, Ch. 14, pp. 290-315 [Capital Regulation]

Douglas J. Elliott (2010), “A Primer on Bank Capital”

[*] Admati, Demarzo, Hellwig and Pfleiderer (2011), “Fallacies, Irrelevant Facts, and Myths in the Discussion of Capital Regulation: Why Bank Equity is Not Expensive”

[*] DeAngelo & Stulz, “Why High Leverage is Optimal for Banks,” *Journal of Financial Economics* (2014)

Admati, DeMarzo, Hellwig, and Pfleiderer, Paul C., “Debt Overhang and Capital Regulation” (2013)

Bolton and Samama (2012), “Capital Access Bonds: Contingent Capital with an Option to Convert” *Economic Policy*

Stefan Avdjiev, Patrick Bolton, Wei Jiang, Anastasia Kartasheva and Bilyana Bogdanova (2016) “CoCo Bond Issuance and Bank Funding Costs”

Week 11: Grappling with the “Shadow” Banking System: Credit Intermediation outside the Official Banking Sector

Session 11.1: Bank Regulation and Shadow Banking

a. Shadow Banking

[*] PFR, Ch. 20, pp. 433-448

[*] Pozsar (2011), “Institutional Cash Pools and the Triffin Dilemma of the U.S. Banking System”

[*] Tobias Adrian, “Shadow Banking and Market-Based Finance” IMF, 2017

Financial Stability Board, Global Shadow Banking Monitoring Report (2017)

Copeland, Duffie, Martin, and McLaughlin (2012), “Key Mechanics of Tri-Party Repo”

Ed Morrison & Mark Roe (2014), “Rolling Back the Bankruptcy Safe Harbors”

Douglas J. Elliott (2014), “Systemic Risk and the Asset Management Industry”, Brookings Economics Studies

b. Money Market Fund “Reform”

[*] Jeffrey Gordon & Chris Gandia (2104), “Money Market Funds Run Risk: Will Floating NAV Fix the Problem?” pp. 312-332, 358-368

SEC Money Market Fund Reform Summary (2014)

Week 12: Corporate Governance and Executive Compensation at Financial Institutions

Session 12.1

a. Corporate Governance of Financial Institutions

Rather than impose rigid structural constraints on bank balance sheets and banking activities could the regulation of bank governance and bankers’ incentives not be equally effective and less intrusive? Does bank governance require a different approach to the governance of non-financial institutions? Should financial incentive schemes of bankers be regulated?

[*] PFR, Ch. 17, pp. 370-390

Becht, Bolton and Roell (2011), “Why Bank Governance Is Different”

John Armour & Jeffrey Gordon (2014), “Systemic Harms and Shareholder Value”

[*] Board of Governors, Federal Reserve, Enhanced Prudential Standards for Bank Holding Cos. and Foreign Banking Organizations (Summary and Introduction) (Review Material on Risk Management Committees)

Mark Roe (2014), “Structural Corporate Degradation Due to Too-Big-To-Fail Finance,” 162 U. Penn. L. Rev. 1419 (20124).

b. Regulating Compensation, Regulating Culture

[*] Dodd-Frank, § 956, codified at 12 USC § 5641

[*] Lucian Bebchuk and Holger Spamman (2010), “Regulating Bankers’ Pay”

[*]William Dudley, FRBNY (2014), “Enhancing Financial Stability by Improving Culture in the Financial Services Industry”

Adam C. Kolasinski & Nan Yang, “Managerial Myopia and the Mortgage Meltdown” (2018)

Kevin Murphy (2013), “Regulating Banking Bonuses in the European Union: A Case Study in Unintended Consequences”

Week 12: How to Regulate: Cost Benefit Analysis or Not?

Session 12.2: Cost Benefit Analysis in Financial Regulation

[*] Jeffrey Gordon, The Empty Call for Cost-Benefit Analysis in Financial Regulation

[*] Jeffrey Gordon, “Dynamic Precaution in Maintaining Stability” (2018)

[*] John Coates, Towards Better Cost-Benefit Analysis

John Cochrane, Challenges for Cost-Benefit Analysis of Financial Regulation

Week 13: Financial Stability and Monetary Policy

The Federal Reserve and other central banks have played a key role in the early phase of the crisis of 2007-09 by providing a liquidity backstop to financial institutions and thus avoid a generalized panic. Monetary authorities have also responded to the crisis by sharply lowering interest rates and maintaining a lax monetary stance of a prolonged period. Is monetary policy an essential complement to financial regulation to maintain financial stability? Or does the liquidity backstop of central banks play a destabilizing role by facilitating the appearance of new bubbles?

13.1 Monetary Policy as a Complement or Substitute for Financial Regulation

[*] Neil Irwin (2013), THE ALCHEMISTS: THREE CENTRAL BANKERS AND A WORLD ON FIRE

13.2 Summing up the main themes

In the final session of the course we will attempt to piece all the main facets of the current financial regulatory architecture together and evaluate where the major areas of regulatory redundancy are and what remaining gaps could bring about the next episode of financial distress.