

TAMING FINANCIAL MARKETS

Brandeis International Business School, Fall 2012
Thursdays, 6:30 pm – 9:10 pm
John Balder

Office: Lemberg 269

Telephone:

Office Hours: 5:00 pm to 6:30 pm, Thursdays

e-mail: jbalder@brandeis.edu

BACKGROUND: The global financial system grew at an explosive pace from 1980 until 2007, in part due to global financial market liberalization, rapid growth in leverage and increased risk tolerance. In country after country this brought surging debt, soaring asset prices, and economic prosperity, with each financial binge followed by a nasty hangover. The financial roller-coaster ride included a number of gut-wrenching crises: LDC debt (1982), US thrift institutions (late 1980s), Mexico (1994), Asia (1997), Russia/Long-Term Capital Management (1998), tech and telecoms (2000), and most recently the financial meltdown that began in 2007. The massive intervention required to stabilize markets in the current crisis underscores the need for a significant rethink about the role of regulation, supervision and monetary policy.

These crises have taught us how important financial stability is to society... and how little we understand about the role of sophisticated financial markets. Among the confusion that contributed to these disasters, few appreciated the dangers of rising leverage or liquidity risk, while many thought financial markets fully capable of self-regulation. Events since 2008 leave little room for comfort, with current headlines focused on the European crisis, the \$5 billion loss at J.P. Morgan, manipulation of LIBOR by various financial institutions, the failure of MF Global, Peregrine, etc.

Policy makers and market participants alike are being pressured to take a very serious look at how to more effectively manage risk in global financial markets. Central bankers now actively monitor financial stability and are debating whether to deal more aggressively with potential asset bubbles. And risk managers are shifting away from excessive reliance on quantitative models towards stress testing and greater appreciation of potential systemic risks. Still, more needs to be done. There is relatively little understanding of the potentially destabilizing role of the credit cycle and it remains very difficult for policy makers to “remove the punch bowl just as the party gets going.”

We will examine these issues and others in this course, stepping back and asking what it is financial markets do and what it is that they should be doing. These are all very important questions, given the essential need for financial markets to contribute in a constructive manner to real economic activity.

OVERVIEW: This course first considers why financial markets are susceptible to crises and how those crises affect all of us. Next, we examine how the risk of financial crises

can be mitigated by more effective risk management, proper supervision & regulation, including macro-prudential policies, and the proper role of monetary policy. We then will step back and assess the causes and consequences of asset bubbles and assess what it is financial markets do and what it is they should do. Finally, we will examine the role of harmonization and coordination of global policies, while highlighting both the challenges and importance of international regulatory coordination.

Here are some specific questions that will be addressed in this course:

(1) Increased Frequency of Financial Market Crises

- Why has the frequency of crises increased over the past quarter century? Why are some crises worse than others? What are the social, economic and psychological consequences of financial crises?
- Can regulation help us achieve a better balance between the needs of society at large – strong long-run growth with low risk – and the needs of financial institutions? Will the recently concluded round of regulatory reforms be sufficient or will more be needed?
- Securitization and derivatives have increased in recent years as market liquidity was taken for granted. What implications do these developments hold for the future of the financial markets?
- What are the key lessons from the crisis in 2007-2009?

(2) Policy Measures

- Did monetary policy contribute to the crisis? Should credit growth or asset prices be considered in the conduct of monetary policy? Why/why not?
- Why is regulation and supervision of banks important? What does it mean to say that a financial firm is too big or too interconnected to fail? Can society afford such firms? If not, what should be done to mitigate these risks.
- What are macro-prudential policies? Why are they important to managing systemic risks? How are these policies best balanced with monetary policy in preserving financial stability?
- Often neglected but still important, what is the proper role of supervision? Is it possible to develop supervisory techniques that can anticipate crises before they reach epidemic proportions?

(3) Regulatory Reform: Present and Future

- Dodd-Frank passed in 2010. Are these steps likely to be sufficient? If not, what remains to be done? What should we make of the political challenges associated

with implementation of these changes? What is the proper balance between government and free markets? What lessons do these events offer?

- Are global regulatory reforms possible today? If so, how do we best ensure proper harmonization of these efforts? How do we best ensure that regulatory arbitrage does not unduly distort global competition in financial services? How best to get from here to there?
- How important is capital? Is it alone sufficient? Why or why not? Will adoption of Basel III make a difference? How do we define the appropriate level of capital?

(4) *Finance in Emerging Markets: Lessons Learned*

- What lessons should emerging markets learn from the current crisis?
- How should liberalization best be structured? How do regulation, supervision and monetary policy most effectively fit into this mix? What about the exchange rate regime?
- What are the costs and benefits of liberalization in countries with emerging markets? How best to protect the benefits while helping to ensure that they are not overwhelmed by systemic risks?

Pre-requisites: FIN 201, Financial Theory. FIN 202, Corporate Finance

EVALUATION: Three dimensions of performance will be evaluated:

1. **Class Participation:** Class participation will include special topics to be presented by various groups of students (e.g., last year, the situation in Europe) and general discussions. The special topics will be chosen based on current events and each class will begin with a 30-minute discussion of the previous week's readings. Please keep in mind that his class is intended to be inter-active and class participation is a very important part of the overall grade.
2. **Class Debates:** To help structure class discussion, debates will be organized around various current topics, which may include too big to fail, risk management, the role of capital, "financialization," the role of monetary policy, global harmonization, the path of financial liberalization in emerging markets, etc. Each of these topics will be debated using presentation materials and students will be assigned to each topic during the first two weeks of class. A 2-3 page paper summarizing the readings will be submitted by each group on November 6.

3. **Final Exam:** The final (take-home) essay exam will cover material, including the readings, from the entire semester.

Grading: In calculating the final grade, the three performance dimensions are weighted as follows:

Class Participation	35%
Class Debates	30%
Final Exam	35%

DISABILITIES: If you are a student with a documented disability on record at Brandeis and wish to have a reasonable accommodation made for you in this class, please see me immediately.

ACADEMIC INTEGRITY: You are expected to be honest in all of your academic work. You should be familiar with and follow the University's policies on academic integrity (see <http://www.brandeis.edu/studentlife/sdje/ai/>). Instances of alleged dishonesty will be forwarded to the Office of Campus Life for possible referral to the Student Judicial System. Potential sanctions include failure in the course and suspension from the University.

It is academically dishonest to:

- Talk during exams (or communicate in any way) with anyone other than the professor or proctors
- Copy anyone else's work on practice problems and exams
- Let someone copy your work on practice problems and exams
- Use anyone else's words on the project without giving credit.

Academic integrity is a very serious matter at IBS.

COURSE OUTLINE AND READING LIST

NOTES:

- It will take between one and two weeks to cover each topic.
- Nearly all reading materials are available on-line or in paperback.

I. INTRODUCTION TO FINANCIAL MARKETS (August 30)

The course begins with a brief review of the role of structural changes in financial markets and an examination of a bank balance sheet. The balance sheet includes assets, liabilities, capital and the role of deposit insurance. For more than twenty years following the Second World War, banks were utility-like, conservatively run, with highly liquid balance sheets and extensive holdings of government securities. As regulations were lifted and market conditions were liberalized, credit expanded relative to income across global financial sectors and volatility accelerated. Banks were forced to compete with each other and with non-banking institutions. This represented a significant shift in the financial landscape. One consequence has been greater exposure to financial crises.

Today, bank operations have far greater exposure to a broad range of risks and they compete head-to-head with other firms (e.g., hedge funds, investment banks, money market funds, etc.) that often operate under less rigorous regulatory regimes. The role of the so-called “shadow banking system” and its contribution to the recent crisis will be discussed, as will the role of securitization and derivative instruments. In addition to the discussion of bank balance sheets, we also will explore various recent crises (Iceland, Europe, US and various emerging markets) which will help us identify the importance of regulation and supervision in the financial markets.

Assigned readings may include the following sources:

“Neo-Voodoo Economics: America Needs Bold New Thinking About Growth and Markets.”, National Journal, May 21, 2011.

<http://www.nationaljournal.com/magazine/neo-voodoo-economics-why-can-t-washington-get-its-act-together--20110519>

“Economics: Rituals of Rigour,” John Kay, Financial Times, August 25, 2011

<http://www.ft.com/intl/cms/s/0/faba8834-cf09-11e0-86c5-00144feabdc0.html#axzz20RQISKzF>

Kaufman, Henry. “Structural Changes in the Financial Markets: Economic and Policy Significance,” Speech delivered to the Board of Directors, Federal Reserve Bank of Kansas City, March 9, 1994.

https://moodle.brandeis.edu/file.php/11697/Kaufman_Structural_Changes.pdf

Wagner, Hans. “Analyzing a Bank’s Financial Statements,”

<http://www.investopedia.com/articles/stocks/07/bankfinancials.asp>

Reinhart, Carmen M. “The Economic and Fiscal Consequences of Financial Crises,” January 27, 2009, http://mpira.ub.uni-muenchen.de/13025/1/MPRA_paper_13025.pdf.

II. MANAGING RISKS FROM INSIDE A FINANCIAL FIRM (September 6 and 13)

In the years leading up to the crisis in 2007, federally insured banks and other financial institutions participated in increasingly risky investment strategies that made extensive use of leverage, proprietary trading, illiquid loans and out-of-the-money options. Many financial firms chose to fund illiquid, long-term asset holdings with short-term (often overnight) liabilities. These strategies appeared highly profitable for awhile, yet each embedded risks that only became apparent when market conditions collapsed in 2007-2009. Privatization of profits, in combination with socialization of losses came at an enormous cost to taxpayers raising serious issues for policy makers. In this section, we will examine these strategies. We also will draw upon specific examples of how leverage and short-term debt can be used to magnify risk in the financial sector.

Assigned readings may include the following sources:

“Deciphering the Liquidity and Credit Crunch: 2007-2009, Markus K. Brunnermeier, *Journal of Economic Perspectives*, Volume 23, Number 1, Winter 2009, pages 77-100, http://www.princeton.edu/~markus/research/papers/liquidity_credit_crunch.pdf

“Banking on the State”, Andrew G. Haldane, Executive Director, Bank of England, September 25, 2009, <http://www.bis.org/review/r091111e.pdf>

“What is the Contribution of the Financial Sector: Miracle or Mirage”, Andrew Haldane, Executive Director, Financial Stability, Bank of England, Speech at the Future of Finance Conference, London, July 14, 2010. <http://www.bis.org/review/r100716g.pdf?frames=0>

III. ROLE OF TRADITIONAL REGULATION AND SUPERVISION (September 27, October 4 and 11)

Why is regulation and supervision important in financial markets? There are unique features to these markets, in part the creation of credit, that necessitate “adult supervision.” We begin with the role of micro-prudential regulation and supervision. Banks and financial firms in general manage multiple dimensions of risk, including credit, counterparty, liquidity, operational and leverage. The recent crisis demonstrates the increased importance of liquidity and leverage risk. In this section, we explore these themes and the role of bank capital, regulation and supervision.

The Basel Committee on Banking Supervision introduced Basel III in 2010 incorporating new, tougher capital standards to protect financial firms against additional risks. The proposed standards include capital to be set aside against liquidity, leverage and counterparty risk. Basel III has been adopted by the Basel Committee on Banking Supervision and is being implemented by various member countries. Regulation has expanded from its traditional micro-prudential focus to incorporate much greater

attention to the buildup in systemic risk. This is an important step that will be covered later in this course.

We will review several recent systemic crises, including Iceland, Europe, the U.S. and various emerging markets, to better understand the factors that differentiate idiosyncratic (micro-prudential) risk from systemic risk (macro-prudential).

Assigned readings may include the following sources:

Douglas J. Elliott, "A Primer on Bank Capital," Brookings Institution, January 28, 2010.
https://moodle.brandeis.edu/file.php/11697/Brookings_Primer_on_Bank_Capital.pdf

Douglas J. Elliott, "Basel III, the Banks and the Economy," The Brookings Institution, July 23, 2010.
https://moodle.brandeis.edu/file.php/11697/Brookings_Basel_III.pdf

Basel Committee on Banking Supervision, "Strengthening the Resilience of the Banking Sector," December 17, 2009, <http://www.bis.org/publ/bcbs164.pdf?noframes=1>.

Martin Hellwig, "Capital Regulation After the Crisis: Business as Usual?," Max Planck Institute for Research on Collective Goods, July 2010.
https://www.coll.mpg.de/pdf_dat/2010_31online.pdf

"The Banks Battle Back: A Behind-the-Scenes Brawl Over New Capital and Liquidity Rules," *The Economist*, May 27, 2010.
<http://www.economist.com/node/16231434>

"Shadow Banking: Federal Reserve Bank of New York Staff Reports No. 458," July 2010.
https://moodle.brandeis.edu/file.php/11697/Shadow_Banks_Federal_Reserve_Bank_of_New_York.pdf

Iceland: Special Investigation Commission Report, April 12, 2010.
<http://sic.althingi.is/>

"Shadow Banking and Financial Instability," Adair Turner, Financial Supervisory Authority, Speech delivered at the Cass Business School, March 14, 2012.
<http://www.fsa.gov.uk/static/pubs/speeches/0314-at.pdf>

"Basel on Wrong Path to Tackle Systemic Risk," Charles Goodhart, Financial Times, July 6, 2011.
<http://www.ft.com/intl/cms/s/0/d063596c-a268-11e0-9760-00144feabdc0.html#axzz20RQISKzF>

Additional Optional Reading

“Optimal Bank Capital,” David Miles, Jing Yang and Gilberto Marcheggiano, External MPC Unit, Discussion Paper # 31, Revised and Expanded, April 2011.

<http://www.bankofengland.co.uk/publications/Documents/externalmpcpapers/extmpcpaper0031.pdf>

The BIS Annual Reports (released in June) and the semi-annual IMF Global Financial Stability Report (GFSR) are highly recommended.

IV. ROLE OF MONETARY POLICY (October 18)

Monetary policy has been conducted against a rather narrow definition of inflation in recent years that does not include credit ratios or asset valuations. Decisions to lower rates in response to the threat of a recession or crisis may have accelerated risk-taking in financial markets. For example, the Fed’s decision to reduce short-term interest rates in response to growing concerns about deflationary pressures in 2001-2004 fueled asset price bubbles (as investors borrowed at very low short-term rates to invest in longer-term assets, especially real estate).

The financial sector arguably was the unintended beneficiary of an economic policy directed at the real economy following the collapse of the tech bubble. Experience over the past several years (since late-2008) appears to offer a similar pattern (namely monetary policies designed to promote growth have instead contributed to bubbles in financial assets). Why is this and what, if anything, should be done to address it?

The Fed’s decision to allow markets to appreciate while intervening to lower rates as conditions threaten to deteriorate, has contributed to moral hazard, fostering successive asset price bubbles at a cost of growing imbalances (excessive credit creation and overvalued assets). The severe de-leveraging that ensued in 2007 and that persists today has led to greater scrutiny of this approach. We will examine this ongoing debate and pose the following questions. What is the proper role of the Fed, namely with regard to monetary policy, supervision, regulation and as the lender of last resort? The central bank’s role has been greatly enhanced as a result of financial regulatory reform – is this a positive step? Does this interfere with the conduct of monetary policy?

Given the role of liquidity risk in the recent crisis, we will examine whether a liquidity provider or market maker of last resort is inevitable in today’s highly dynamic financial markets. This topic will be addressed as well in the macro-prudential section of the course.

Assigned readings may include the following sources:

Borio, Claudio. “Monetary and Prudential Policies at a Crossroads: New Challenges in the New Century,” Bank for International Settlements, BIS Working Paper Number 216, September 2006, <http://www.bis.org/publ/work216.pdf?noframes=1>

Schularick, Moritz and Alan M. Taylor. "Credit Booms Gone Bust: Monetary Policy, Leverage Cycles and Financial Crises, 1870-2008," NBER Working Paper 15512, November 2009.
https://moodle.brandeis.edu/file.php/11697/Schularick_and_Taylor_Credit_Booms_Busts.pdf

Michael Hume and Andrew Sentence. "The Global Credit Boom: Challenges for Macroeconomics and Policy," Bank of England External MPC Unit, Discussion Paper No. 27, June 2009.
https://moodle.brandeis.edu/file.php/11697/Michael_Hume_and_Andrew_Sentance_Global_Credit_Boom.pdf

Borio, Claudio. "Central Banking Post-Crisis: What Compass for Uncharted Waters?," BIS working Paper Number 353, September 2011.
<http://www.bis.org/publ/work353.pdf>

Economics Focus: Easy-Money Riders: An Early Warning About the Dangers of Keeping Interest Rates Low, *The Economist*, July 17, 2010.
<http://www.economist.com/node/16590877>

V. ROLE OF MACROPRUDENTIAL POLICY (October 25 and November 1)

The expansion of credit came to a sudden halt in 2007 and 2008, as financial firms deleveraged, Bear Stearns was acquired under duress by J.P. Morgan Chase, and Lehman Brothers declared bankruptcy. Money market funds, repo markets and other sources of short-term credit ceased functioning in a full-fledged panic as the Federal Reserve effectively became the surrogate banking system. One author labeled this the end of money market capitalism. The Troubled Asset Relief Program (TARP) was approved by Congress in October 2008 and signed into law by then-President Bush. This shift from what was sometimes called the "Great Moderation" to the worst crisis since the Great Depression was quick, dramatic and devastating. And prospects for recovery four years later remain highly uncertain.

This crisis clarified the following point. Steps that make sense for an individual firm can, if emulated widely, impose ruinous, systemic consequences to the financial system. Diversification of risk does not always result in diversity especially when everyone is doing the same thing. The crisis clarified the need for regulatory reforms focused on mitigating systemic risk. Policy steps include additional capital charges assessed against the systemic risk externality and steps designed to limit loan-to-value ratios, minimum haircuts on repo transactions, etc. The use of rules versus discretion and the role of macro-prudential policies versus monetary policy will be discussed.

Assigned readings may include the following sources:

"Rethinking the Financial Network," Andrew G. Haldane, Executive Director, Financial Stability, Bank of England, April 2009.
<http://www.bankofengland.co.uk/publications/Documents/speeches/2009/speech386.pdf>

“The Third Arm: Macroprudential Policy,” Claire Jones, *Financial Times*, September 22, 2011.

<http://www.ft.com/intl/cms/s/0/80e498de-de03-11e0-a391-00144feabdc0.html#axzz20RQISKzF>

Borio, Claudio. “Monetary and Prudential Policies at a Crossroads: New Challenges in the New Century,” Bank for International Settlements, BIS Working Paper Number 216, September 2006.

<http://www.bis.org/publ/work216.pdf?noframes=1>

White, William R. “Making Macro-prudential Concerns Operational,” Speech at a Financial Stability Symposium organized by the Netherlands Bank, Amsterdam, October 25-26, 2004.

<http://www.bis.org/speeches/sp041026.htm>

Additional Background

Bank for International Settlements, Annual Report, Chapter VII, June 2009,

<http://www.bis.org/publ/arpdf/ar2010e7.pdf>

Bank for International Settlements, Annual Report, Chapter VII, June 2010,

<http://www.bis.org/publ/arpdf/ar2009e7.pdf>

Bank of England, “The Role of Macro-prudential Policy,” 2010,

<http://www.bankofengland.co.uk/publications/other/financialstability/roleofmacroprudentialpolicy091121.pdf>

VI. SOCIAL IMPLICATIONS OF FINANCIAL MARKET CRISES (November 8 and 15)

The current financial crisis has had a devastating impact on workers and taxpayers. In the U.S., eight million jobs vanished disappeared and the overall under employment rate remains at about 16% in the U.S. with many of these job losses likely to be permanent. Job growth going forward is likely to be well below levels in previous so-called “jobless” recoveries, in which it took two to three years for employment to recover previous levels. And in the US, the number of jobless who have been unemployed for more than six months currently is at a record high. Conditions are much worse in various European countries, especially Spain, Greece and Ireland.

Prior to the crisis, the financial sector appeared to be highly “profitable.” In retrospect, however, it is clear that risks were building even as firms recorded record short-term profits (“economic rents” or “fake alpha”). After being bailed out, the financial industry naturally wants to return to “business as usual.” What are financial firms doing and what should they be doing? Adair Turner, head of the UK Financial Services Authority, has referred to many financial products as “socially useless.”

Questions to be addressed include the following. Does financial speculation serve a social purpose? What, if anything, should be done to encourage financial firms to do more to support capital formation and productive enterprise? What does the term “financialization” mean? Is it good that finance operates in a sphere of its own? Should it be more closely linked with productive economic activity? Has finance contributed to the rising inequality of outcomes? Should financial services account for 40% of overall corporate profits (up from 10% in 1980)? How do we achieve a better balance between the financial services industry and other sectors of the economy? Should this be a priority? In the financial sector, how do we best achieve a proper balance between the role of “free markets” and regulatory policy? Is the proper balance likely to differ from other sectors of the economy? Why or why not?

Assigned readings may include the following sources:

Bezemer, Dirk. “Lending Must Support the Real Economy,” *Financial Times*, November 4, 2009, <http://www.ft.com/cms/s/0/c225c5d4-c9ab-11de-a071-00144feabdc0.html>

John Cassidy. “What Good is Wall Street?” *The New Yorker*, November 29, 2010. http://www.newyorker.com/reporting/2010/11/29/101129fa_fact_cassidy

Peck, Don. “How a Jobless Era Will Transform America,” *The Atlantic*, March 2010, <http://www.theatlantic.com/magazine/print/2010/03/how-a-new-jobless-era-will-transform-america/7919/>

John Bellamy Foster and Fred Magdoff. “Back to the Real Economy,” (aka “Financial Implosion and Stagnation”), December 2008. <http://monthlyreview.org/2008/12/01/financial-implosion-and-stagnation>

“The big questions raised by the anti-capitalist protests,” Martin Wolf, *Financial Times*, October 28, 2011. <http://www.ft.com/intl/cms/s/0/86d8634a-ff34-11e0-9769-00144feabdc0.html#axzz20RQISKzF>

VII. GLOBAL REGULATORY REFORM (November 29)

In response to the 2007 crisis, regulatory reforms have been initiated in the U.S. and elsewhere across the globe with at best mixed results. Resistance from the industry has made implementation of these reforms difficult. Various multilateral organizations, including the G20, the Financial Stability Board, IMF, and standard-setting bodies, such as the Basel Committee on Banking Supervision, the IOSCO and IAIS are all actively establishing stronger capital standards and taking other steps (e.g., cross border resolution, harmonization of accounting, living wills, governance reforms, etc.) intended to facilitate greater global harmonization. Recent events have underscored that there is no easy path, given the incentive each country has to act in its own self-interest. Some have criticized the “Volcker Rule” in the U.S. as a unilateral step, while Germany and other countries have banned use of naked credit default swaps.

Differences between financial systems, some bank-based and others markets-based, as well as varying approaches to accounting treatments, further complicate this task. Yet, a decision to ignore harmonization will increase regulatory arbitrage, which might favor countries with the weakest regulatory standards. The course will assess prospects for success in these initiatives.

Assigned readings may include the following sources:

Acharya, Viral V. and Matthew Richardson. Restoring Financial Stability: How to Repair a Failed System, Chapter 1, John Wiley & Sons, 2009.

<http://www.cepr.org/meets/wkcn/1/1716/papers/prol.pdf>

Acharya, Viral V, Thomas Cooley, Matthew Richardson and Ingo Walter. “Real Time Solutions for Financial Reform,” New York University, Stern School of Business, December 2009.

http://govtpolicyrecs.stern.nyu.edu/docs/whitepapers_ebook_full.pdf

See the following websites for additional details about multilateral initiatives:

- Group of 20 (G20) Communiqués: http://www.g20.org/pub_communiqués.aspx
- The Financial Stability Board (FSB): <http://www.financialstabilityboard.org>
- Bank for International Settlements: <http://www.bis.org>
- Basel Committee on Banking Supervision: <http://www.bis.org/bcbs/index.htm>
- International Monetary Fund (IMF): www.imf.org

VIII. SYNTHESIS (December 6)

What lessons have we learned from recent crises? What are the respective roles of regulation, supervision and risk management? Monetary policy? Macro-prudential policy? How do we best achieve a proper balance between existing and new tools, including regulatory reforms? How can regulators and supervisors be empowered to become more pro-active in spotting systemic risks? Do the incentive structures need to change? Decisive action by regulators and supervisors will, from time to time, get things wrong, (they too are human), but perhaps it is better to endure periodic “false positives” than have imbalances build up and then collapse as they did in 2007-08.

Assigned readings may include the following sources:

Adair Turner, “Reforming Finance: Are We Being Radical Enough?”, Financial Services Authority, 2011 Clare Distinguished Lecture in Economics and Public Policy, February 18, 2011.

http://www.fsa.gov.uk/pubs/speeches/0218_at_clare_college.pdf

Giovannini, Alberto. "Financial System Reform Proposals from First Principles," Centre for Economic Policy Research Policy Insight No. 45, January 2010, <http://www.cepr.org/pubs/PolicyInsights/PolicyInsight45.pdf>

Henry Kaufman. "Who is Primarily Responsible for the Credit Crisis?", Henry Kaufman & company, 19th Annual Hyman P. Minsky Conference, Levy Institute at Bard College, April 2009, see pages 64-70. http://www.levyinstitute.org/pubs/pro_Apr_09.pdf

Reinhart, Carmen M. "Eight Hundred Years of Financial Folly," May 5, 2010, <http://www.voxeu.org/index.php?q=node/1067>.