Why did regulation fail?
Lessons from the financial crisis

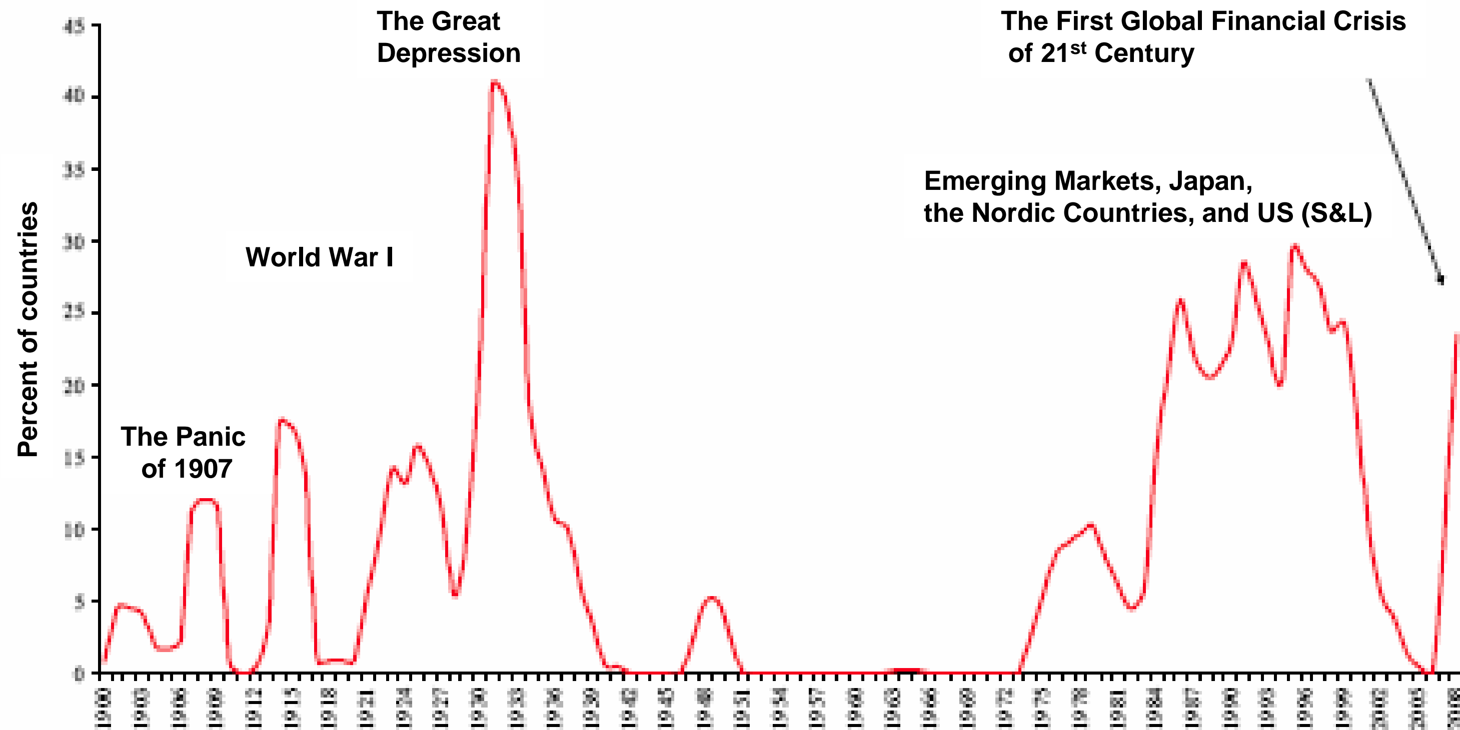
Xavier Vives
IESE Business School
June 2009

Why did regulation fail?

- What are the key market failures the current regulatory framework was meant to address and to what extent were these or other failures the ones underlying the subprime crisis?
- Is there a need for a radical rethinking of the role (and modalities) of regulation?
- What are the key issues and challenges regarding the scope, focus, and modalities of regulatory architecture looking forward?

Proportion of countries with banking crises: 1900-2008

Weighted by their share of world income



Source: Figure 1 in Reinhart & Rogoff (2008), “Banking Crises, An Equal Opportunity Menace”, NBER WP 14587.

de la Torre - Ize

- Great Depression, S&L crisis, Subprime crisis, ...
- Why do financial intermediaries do not learn?
- Paradigms:
  - Agency:
    - Incentive misaligment (moral hazard, risk-shifting)
  - Externalities
    - Lack of internalization of social risk
  - Mood swings/asset bubbles
    - Animal spirits, Knightian uncertainty, bounded rationality (emotions, excessive optimism or pessimism, ..)

Thesis of de la Torre - Ize

- Failure of regulation largely resulted from a piecemeal approach to reform that looked at one paradigm at a time
- In trying to address the central problem under one paradigm, they made the problems under the others worse.
  - Glass-Steagall enacted to solve agency problem (shifting risk from banks to capital markets) but exacerbated externalities problem (systemic risk outside commercial banking)
  - Repeal of GS welcomed by commercial and investment banks (then systemic risk increases also for commercial banks)
  - Asset bubbles missed

Regulatory implications

1. Agency:
   - Mitigate P-A problem with market discipline (information disclosure, “skin in the game” – charter value)
2. Externalities:
   - Regulation to internalize social costs
   - Supervisor controls ex ante and helps ex post
3. Mood swings
   - Markets can not be relied upon
   - Increased role of supervisor (slow down the system, ..)

- E.g. Prudential and monetary authorities should coordinate, safety net and macro-prudential dynamic norms needed under 2 and 3 (not under 1)

Challenge of regulation

- To take into account the three paradigms
- Adequate balance between financial stability and financial development and innovation
- Objectives
  - P-A issues (governance, compensation, stakes)
  - Regulatory neutrality
  - Internalization of systemic liquidity risk
  - Improve safety net
  - Regulator to authorize innovations (FDA toxic analogy)
  - Supervisor as moderator (market not to be trusted)

Market failures

- Externalities:
  - Lack of internalization of social cost of failure
  - Coordination failures
- Asymmetric information:
  - Agency problem leading to excessive risk taking (moral hazard, risk-shifting)
  - Adverse selection in credit and financial markets
  - Small investor unprotected
- Bounded rationality
  - Behavioral biases and fads
  - Lack of understanding
  - Management overconfidence

Bounded rationality?

- "When the music stops, in terms of liquidity, things will be complicated. But as long as the music is playing, you've got to get up and dance. We're still dancing,"

  Chuck Prince, CEO Citigroup, July 2007

Two views on markets: informational efficiency or herding?

- Do prices in the stock market reflect all available information in the hands of traders and fundamental values … (Hayek) or

  prices are in the hands of short-term speculators, insiders, manipulators, gurus and subject to fads, herding behavior, and bubbles? (Keynes)

Questions

- Are the two views compatible?
- Are “mood swings”, crises and bubbles in markets consistent with rational behavior by investors ... or we need irrational traders with behavioral biases and making persistent mistakes to explain them?

“Excess volatility”

- Normal with risk averse market making
- Aggravated with more asymmetric information
  - E.g. new product like securitized subprime mortgages and complex derivatives
  - More market instability

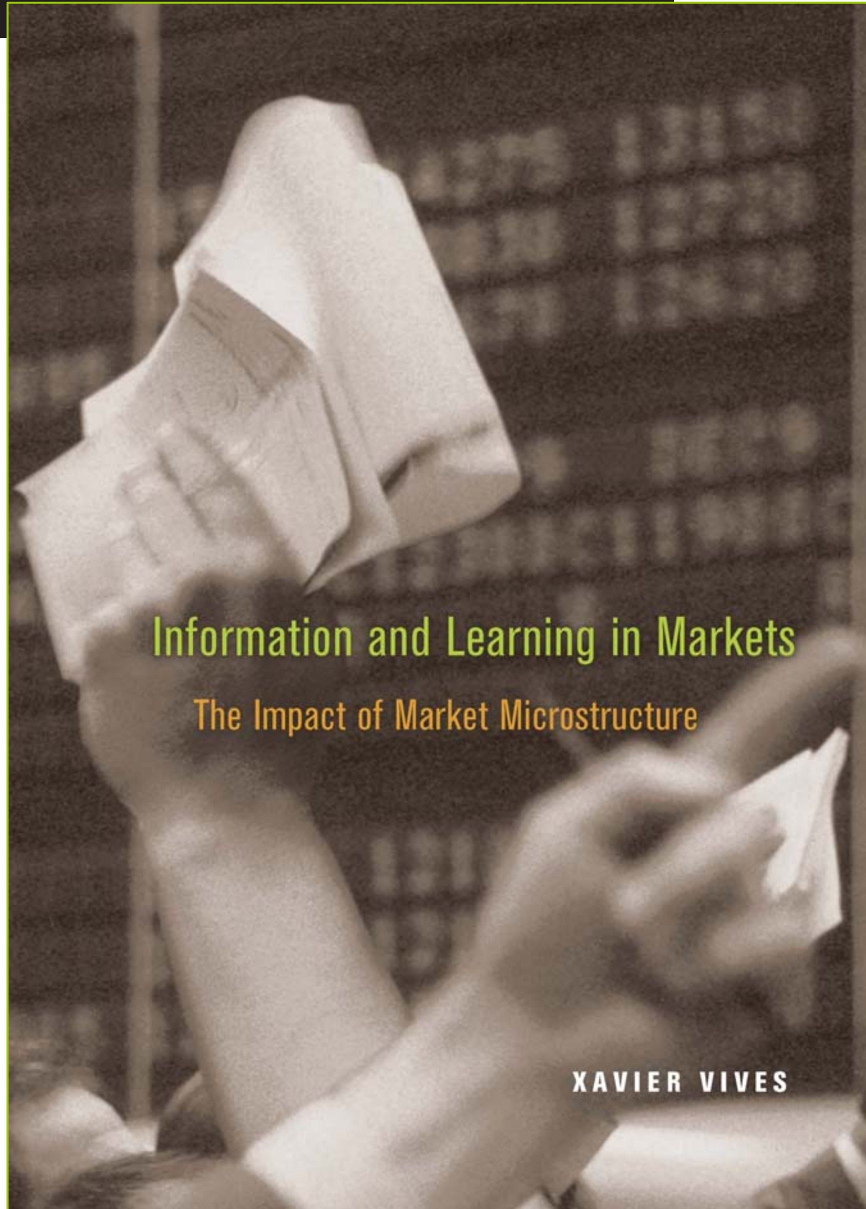
Keynes vs. Hayek

- Financial markets may overreact to noisy public news because they help forecast one another's actions, and lead to excess volatility (Morris and Shin)
- The level of persistence in noise trading and the amount of residual uncertainty in the liquidation value (Cespa and Vives (2008)) explain
  - how close or far away are prices from fundamental values (i.e. how biased) in relation to the average expectations of investors in the market and
  - the degree of reliance on public information.

Conclusion (Vives (2008)

- Apparently contending theories (market informational efficiency and herding) build in fact on the same principles of Bayesian decision making.
- We do not need "irrational" agents to explain herding behavior, crises, and crashes:
  - People may be rational but face uncertainty and asymmetric information:
    - learn slowly or even in some occasions disregard private information and end up making persistent errors when acting; or
    - be trapped in a coordination failure.
  - Departures of prices from fundamentals and excess volatility explained

PRINCETON UNIVERSITY PRESS



Pillars of regulation

- Prudential norms to align incentives ex-ante
- Supervision
- Market discipline
- Ex-post safety net (DI, LOLR, TBTF)
- “Line-in-the-sand” separating regulated from unregulated

Regulatory failure

- Lack of account of systemic effects
- Lack of uniformity in treatment of bank-like institutions
  - Both failures: Shadow banking system
- Excessive confidence on corporate governance controls and self-regulation:
  - regulation dictated by private and not public interest

Why did it happen?

- Combination of background factors (macro imbalances, housing policy, ..)
- Regulatory capture (political economy)
  - (Value added in growth phase captured by financial sector)
  - Reliance on self-regulation
  - Underfunded agencies
- Faulty models:
  - Composition fallacy for systemic risk
  - Mechanical risk assessment
  - CBs central monetary policy model has no role for financial intermediation and asset bubbles

Key reforms

- CB should have clear integrated mandate of financial stability
  - CB should look at balance sheet quantities of financial sector (not only interest rate)
- Institutions that do the functions of banks (maturity transformation, monitoring of opaque loans) have to be regulated and supervised, and need safety net because of systemic concern
- Financial regulation has to take a systems view (no piecemeal approach) evaluating trade-offs between responses to market failures
- Financial regulation has to go back to the public interest

Caveat on policy

- Rational herding/incentive view leads to
  – tax/subsidy schemes to internalize (payoff or informational) externalities
  – disclosure policy to alleviate asymmetric information, and
  – regulation of conflict of interest
- Behavioral herding/mood swings view leads to
  – paternalistic intervention (FDA)
  – propaganda to influence/control the mood?

Some background references
http://webprofesores.iese.edu/xvives/

- *"Competition for deposits, fragility, and insurance"*, (with C. Matutes), *Journal of Financial Intermediation*, 5, 1996, 184-216.
- "Imperfect Competition, Risk Taking, and Regulation in Banking" (with C. Matutes), *European Economic Review*, 44, 2000, 1-34.
- "Restructuring Financial Regulation in the European Monetary Union", *Journal of Financial Services Research*, 19, 1, 2001, 57-82.
- "Competition in the Changing World of Banking", *Oxford Review of Economic Policy*, 17, 4, 2001, 535-547.
- "Dollarization, Bailouts, and the Stability of the Banking System" (with D. Gale), *Quarterly Journal of Economics*, 117, 2, 2002, 467-502.
- Coordination Failures and the Lender of Last Resort: Was Bagehot Right After All?" (with J-Ch. Rochet), *Journal of the European Economic Association*, 2, 6, December 2004, 1116-1147.
- "Complementarities and Games: New Developments", *Journal of Economic Literature*, 43, 2005, 437-479.
- Banking and Regulation in Emerging Markets", *The World Bank Research Observer*, 21, 2, Fall 2006, 179-206.
- "Regulation and Competition Policy in Banking (with E. Carletti), in *Competition Policy in Europe Fifty Years after the Treaty*, Oxford University Press, forthcoming 2009.