Time Matters:

Capital Markets

Peter Diamond

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THIS TIME IS DIFFERENT

Eight Centuries of Financial Folly

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"This is quite simply the best empirical investigation of financial crises ever published."
—NIALL FERGUSON, author of *The Ascent of Money: A Financial History of the World*

Bank Regulation

Old

- Monetary policy
  - Inflation, unemployment
- Safety and soundness of banks
  - Microprudential regulation
  - Deposit insurance
- Consumer protection
  - legal

Additional

- Monetary policy
  - Bubbles
- Financial stability
  - Financial institutions
  - Macroprudential regulation
  - Bank runs
- Consumer protection
  - behavioral

Bubbles

- Federal Reserve Chairman Ben Bernanke said on Tuesday that central banks may need to resort to monetary policy to combat asset bubbles, although regulation should be a first line of defense.
- "The possibility that monetary policy could be used directly to support financial stability goals, at least on the margin, should not be ruled out," he said at a conference at the Boston Federal Reserve Bank.

Reuters, Oct 18, 2011, http://www.reuters.com/article/2011/10/18/us-usa-fed-bernanke-idUSTRE79H5IR20111018

Elizabeth Warren, Champion of Consumer Financial Protection

Banks don't trust her. Republicans won't confirm her. Yet she's already won her battle to remake how America borrows.

Warren in her Washington office

Source: Bloomberg Businessweek, July 7, 2011.
Photo by Martin Schoeller.

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Financial stability reflects the ability of the financial system to consistently supply the credit intermediation and payment services that are needed in the real economy if it is to continue on its growth path.

Financial instability occurs when problems (or concerns about potential problems) within institutions, markets, payments systems, or the financial system in general significantly impair the supply of credit intermediation services – so as to substantially impact the expected path of real economic activity.

Eric S. Rosengren, Keynote Remarks at the Stanford Finance Forum, June 3, 2011, p. 2.

First of all, there was a general principle we (economists) all agree upon:
government intervention is justified only in the presence of a clear market failure
(often referred to as missing market).

Luigi Zingales, Economist Debate, 3/10-16/09

This house believes that we are all Keynesians now

There would be very large negative externalities associated with the disorderly failure of any SIFI [systemically important financial institution], distinct from the costs incurred by the firm and its stakeholders. The failure of a SIFI, especially in a period of stress, significantly increases the chances that other financial firms will fail, for two reasons. First, direct counterparty impacts can lead to a classic domino effect. Second, because losses in a tail event are much more likely to be correlated for firms deeply engaged in trading, structured products, and other capital market instruments, all such firms are vulnerable to accelerating losses as troubled firms sell their assets into a declining market.

Tarullo, Daniel K., “Regulating Systemically Important Financial Firms”, Board of Governors of the Federal Reserve System Speech, June 3, 2011, page 2.)

Externalities in Complete-Market Arrow-Debreu model

Restore first-best

- Pigouvian tax equal to value of externality
- Regulation to match choice with tax

No trade-offs

Second-best

- Simple tax when need complex
- Can’t measure source of externality, tax related behavior
- Prices vs. Quantities

Trade-off: distortion from imperfect correction, reduction in externality

Arrow-Debreu model

Complete markets

- Complete list of states of nature
- Market price for each good in each state of nature over all time
- Single budget constraint for households
- Single non-negative profit constraint for firms

Incomplete markets

- Surprises
  - Similar issue contracts
- Market price for today's goods, todays assets
  - Expectations of future prices
- Multiple budget constraints
  - Possible bankruptcy
- Plans involve possible bankruptcy

Externalities in Arrow-Debreu models

Complete markets

- Only non-pecuniary externalities

Incomplete markets

- Also some pecuniary externalities

The rationale underlying the expected impact approach is that the expected impact of failure of SIBs [Systemically Important Banks] and non-SIBs should be the same. Given that the failure of a SIB will have a greater economic impact than a non-SIB, the probability of failure of a SIB will need to be lower than a non-SIB in order for the expected impact to be equal across the two groups.

Basel Committee on Banking Supervision, Consultative Document, Global systemically important banks: Assessment methodology and the additional loss absorbency requirement, July 2011, page 23.

Arrow-Debreu example
Varying Risk Aversions

Based on an example in
Hyun Song Shin, Risk and Liquidity

Complete markets

- Risk premium depends on wealth of different agents
- Pareto optimal

Incomplete markets

- Risk premium varies over time with realized wealth
- Role for policy?

Arrow-Debreu example
Varying Subjective Probabilities

Based on an example by John Geanakoplos

Complete markets

- Risk premium depends on wealth of different agents
- Pareto optimal using subjective probabilities

Incomplete markets

- Risk premium varies over time with realized wealth
- Role for policy?

Credit intermediation

- Direct loans
- Securitization
- Tranching
- Derivatives
- Making markets (stocks, bonds)
- Creating markets
- Financial engineering

As bankers demanded that new regulation should not stifle innovation, a clearly irritated Mr. Volcker said that the biggest innovation in the industry over the past 20 years had been the cash machine. He went on to attack the rise of complex products such as credit default swaps (CDS).

Wake up, gentlemen', world's top bankers warned by former Fed chairman Volcker; *by* Patrick Hosking and Suzy Jagger, The Times, December 9, 2009.

the social costs of debt financing are significantly higher than the private costs.

Statement of Sheila C. Bair, Chairman, Federal Deposit Insurance Corporation on FDIC Oversight: Examining and Evaluating the Role of the Regulator during the Financial Crisis and Today before the House Subcommittee on Financial Institutions and Consumer Credit; May 26, 2011.

If trade is brisk all energies are strained to their utmost, overtime is worked, and then the limit to production is given by want of power rather than by want of will to go further or faster. But if trade is slack every producer has to make up his mind how near to prime cost it is worth his while to take fresh orders. And here there is no definite law, the chief operative force is the fear of spoiling the market; and that acts in different ways and with different strengths on different individuals and different industrial groups.

Marshall, 1948, p. 498.

Built-in stabilizers

- Income taxes
- Unemployment insurance
- Retirement pensions
- Disability pensions
- Safety net