The financial crisis: Initial conditions, basic mechanisms, and appropriate policies.

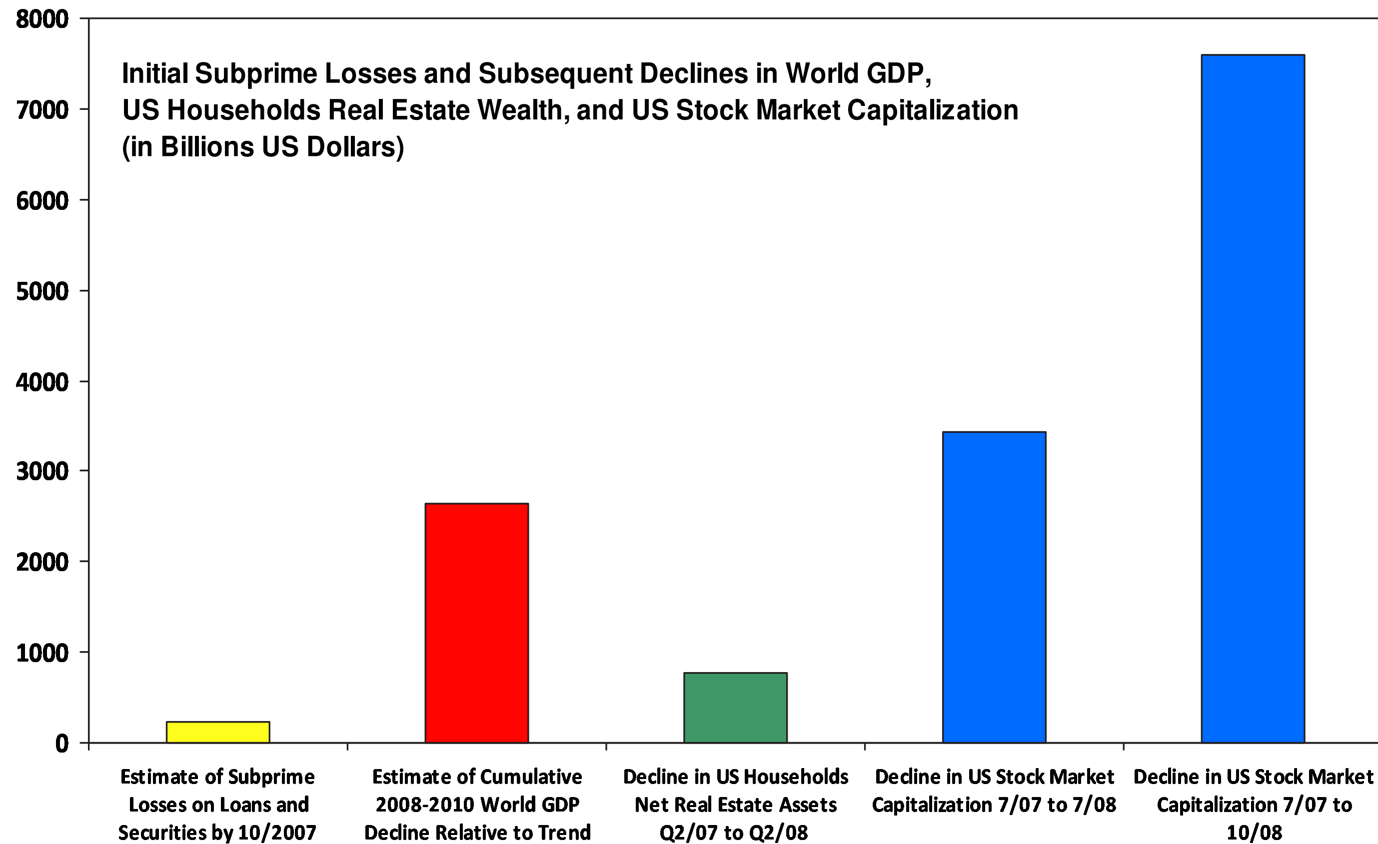
Olivier Blanchard

Munich lecture, November 2008

1. Introduction

- Much too early to give a definitive assessment.
- Not too early to think about the basic mechanisms, and whether/how we can prevent similar events in the future.
- A first pass, in the midst of the action. With thanks to the IMF team.

The basic question: How could such a small trigger have such enormous effects on world output?



Source: IMF Global Financial Stability Report; World Economic Outlook November update and estimates; Federal Reserve Flow of Funds Accounts; World Federation of Exchanges.

Organization

- Initial conditions
- Two amplification mechanisms
- Interconnections and dynamics
- Implications for policy now and in the future

Setting the stage: Initial conditions

- The trigger: The issuance of risky assets, with undervaluation of risk. Subprime mortgages.

  Causes? Large world demand for safe assets, and bad regulation.

- The determinants of amplification.

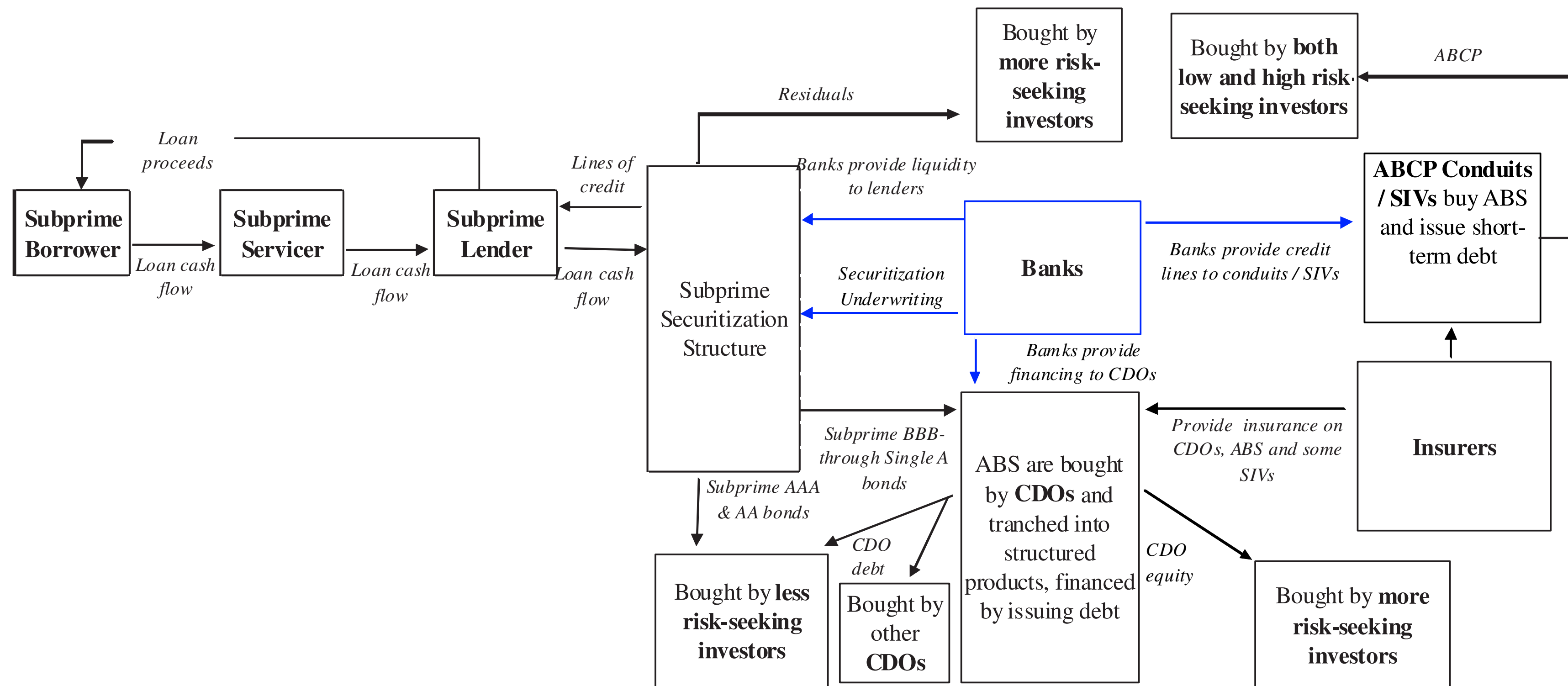
  - Complexity and opacity of assets on balance sheets of financial institutions, so low liquidity.

    Causes? Better risk allocation, and bad regulation.

  - Increased leverage (lower capital relative to assets).

    Causes? Bad, and sometimes perverse regulation.

A visual sense of the complexity. From mortgages to securities



Amplification mechanism 1. Runs

- Bad (or doubtful) assets on balance sheets
- Runs (not only by depositors, but by other investors)
- Need to sell assets.
- Not enough deep pocket investors to buy.
- Firesale prices. $P < ENPV$.
- Worse balance sheets. More incentives to run, etc

Amplification mechanism 2. Capital

- Bad (or doubtful) assets on balance sheets
- Decrease in capital ratio (Assets minus liabilities, over Assets)
- Need to sell assets (deleverage)
- Not enough deep pocket investors to buy.
- Firesale prices. $P < ENPV$.
- Lower capital ratio. More incentives to sell assets, etc

The two mechanisms: Conceptually separate but strongly interacting

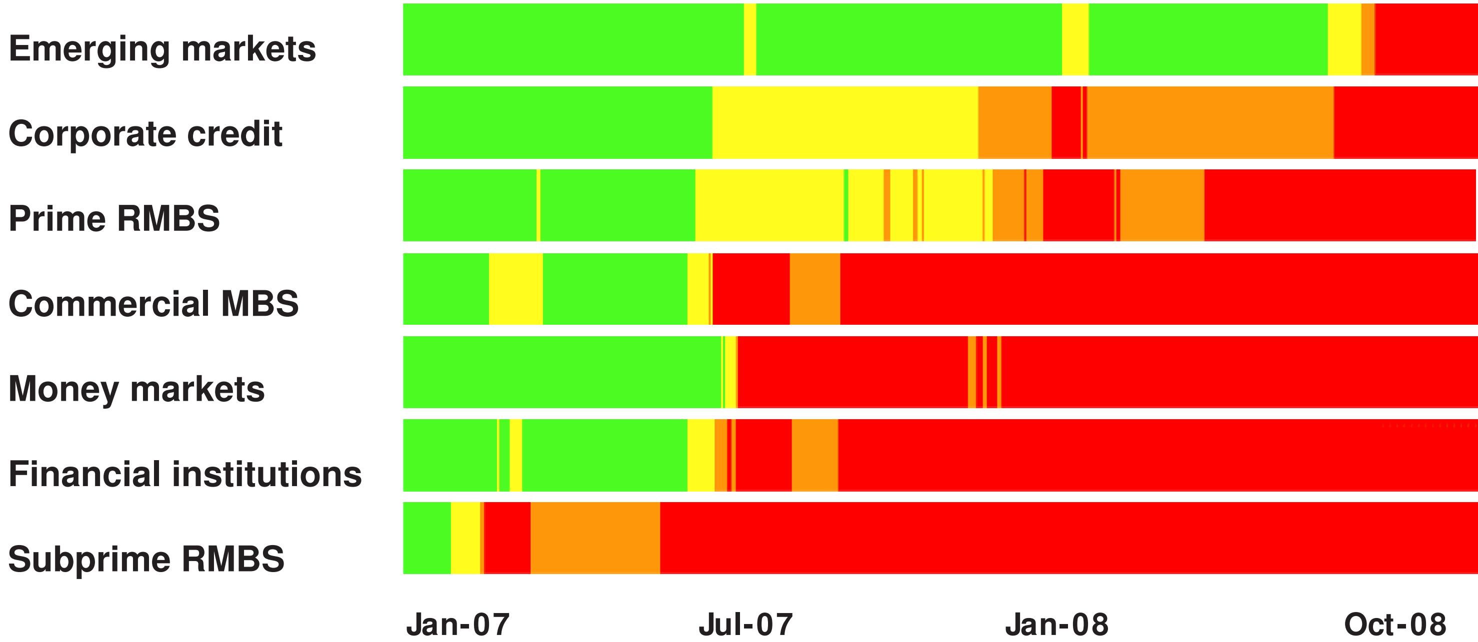
- Run on financial institution 1
- Cut credit to financial institution 2
  - Sale of assets at depressed prices
    Low capital, so further sales
  - Or cut credit to financial institution 3

Examples. From US banks to Hungary. From subprimes to other assets.

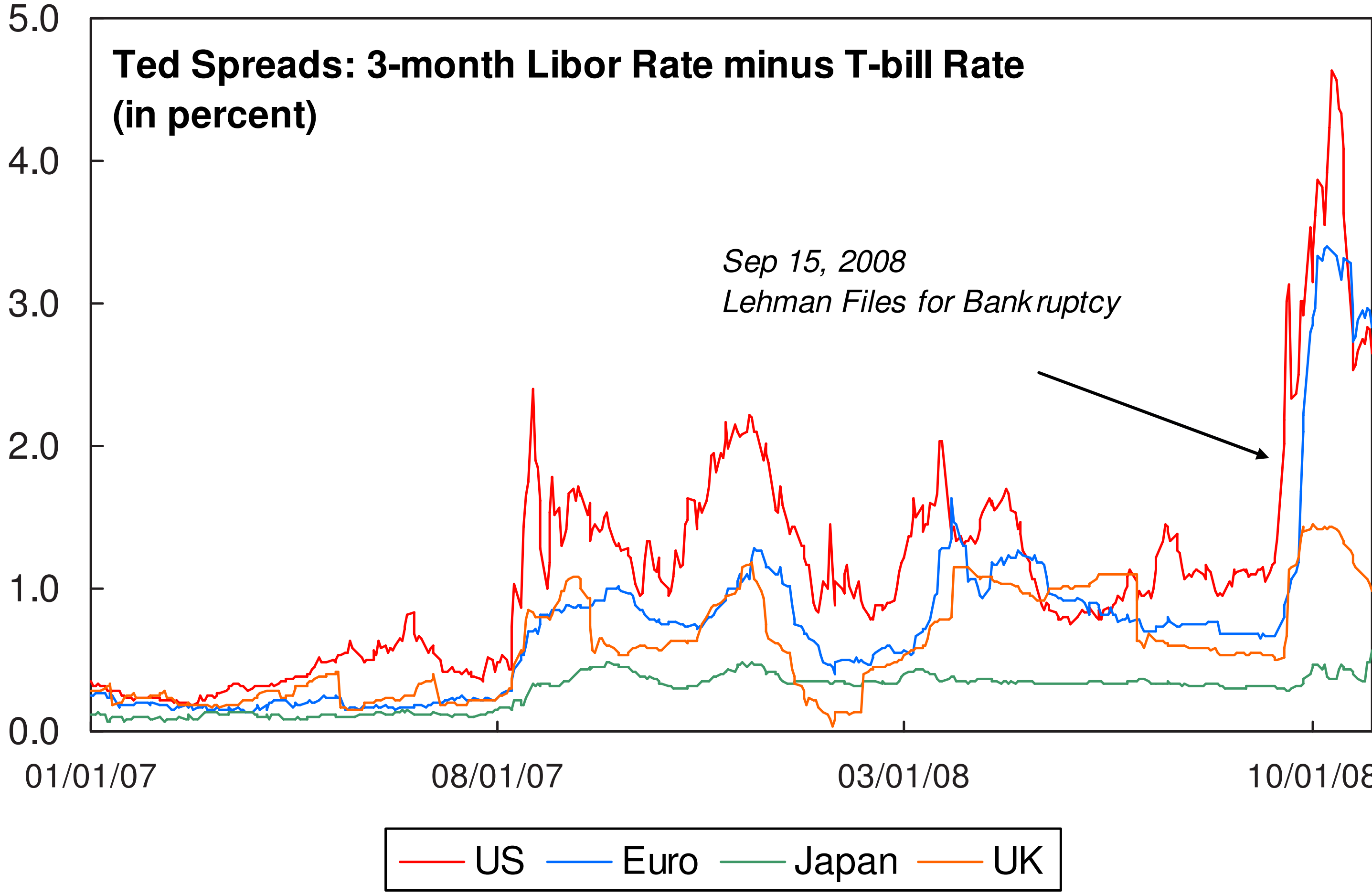
The dynamics in real time

- Increase in probability of insolvency.
- Increase in counterparty risk.
- Decrease in volume and maturity of interbank lending.
- Contagion across institutions. From direct exposure to subprime onwards.
- Contagion across countries. From the US to Europe, to emerging market countries.
- Increasing effects on the ultimate borrowers: households and firms.

Contagion across institutions, assets, and countries

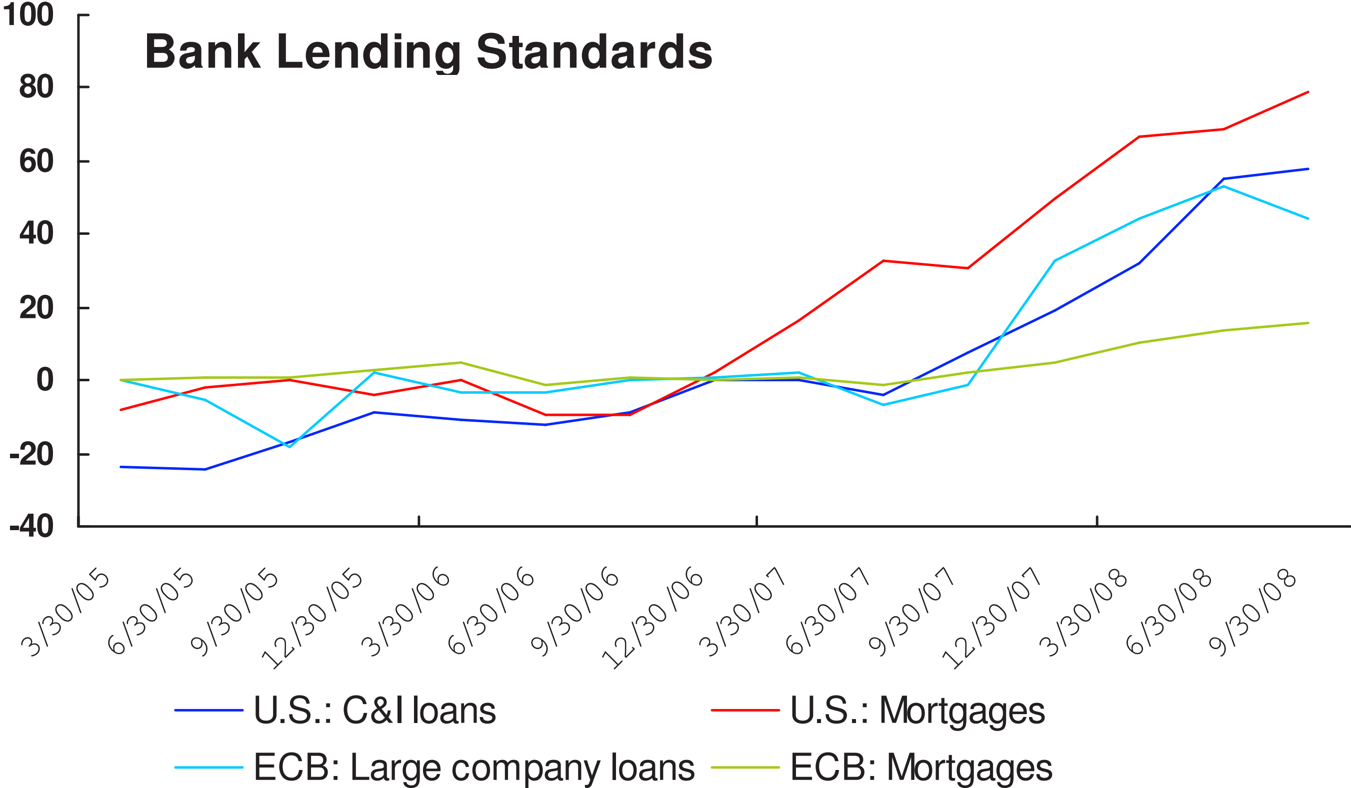


Counterparty risk: Difference between the lending rate between banks and the riskless rate



Emerging market spreads

Bank lending standards



Change in the Balance of Respondents Between “Tightened Considerably-Tightened Somewhat” and “Eased Somewhat-Eased Considerably” in Percent of Respondents. Source: Haver Analytics.

Financial policies for the short run

Need to dampen/eliminate the two amplification mechanisms.

- Runs: Provide liquidity to a broader set of institutions.

  Done. Still problem with institutions, countries without access to lender of last resort (Iceland).

- Capital.

  - Buy bad assets. For two reasons: Clarify price. Move price closer to EPDV.
  - Increase capital.

    Many institutions may still need recapitalization. So need to add capital (buy shares).

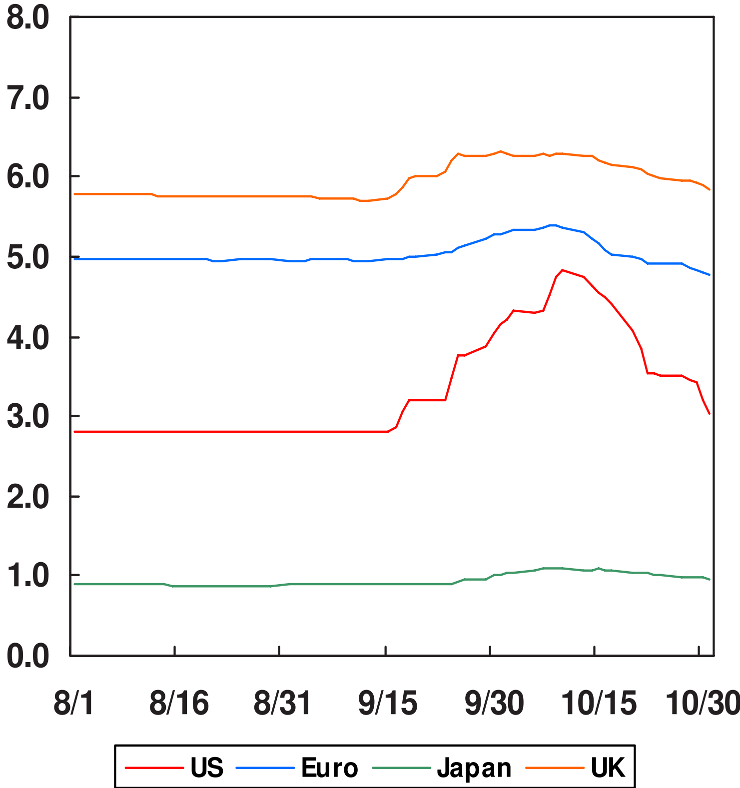
- Second leg takes time to implement. May need guarantees for depositors, and for interbank claims. To start interbank lending.

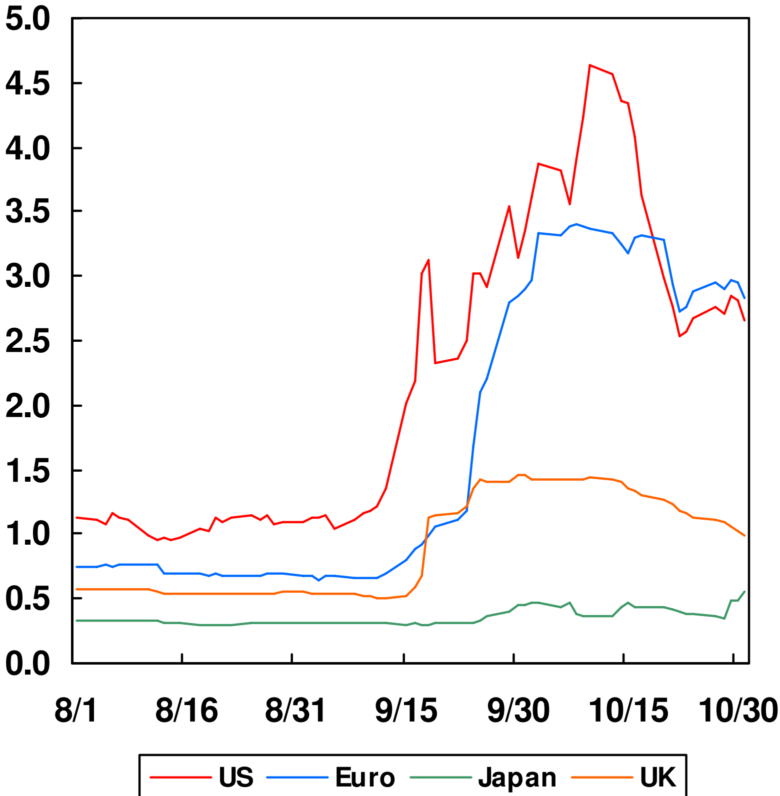
Basic financial architecture in place in advanced countries

- A crucial weekend in October, but:
- Problems with speed/scope of recapitalization
- Coherence across countries
- Still hidden land mines. for example: CDS positions.
- Problems in emerging market countries.

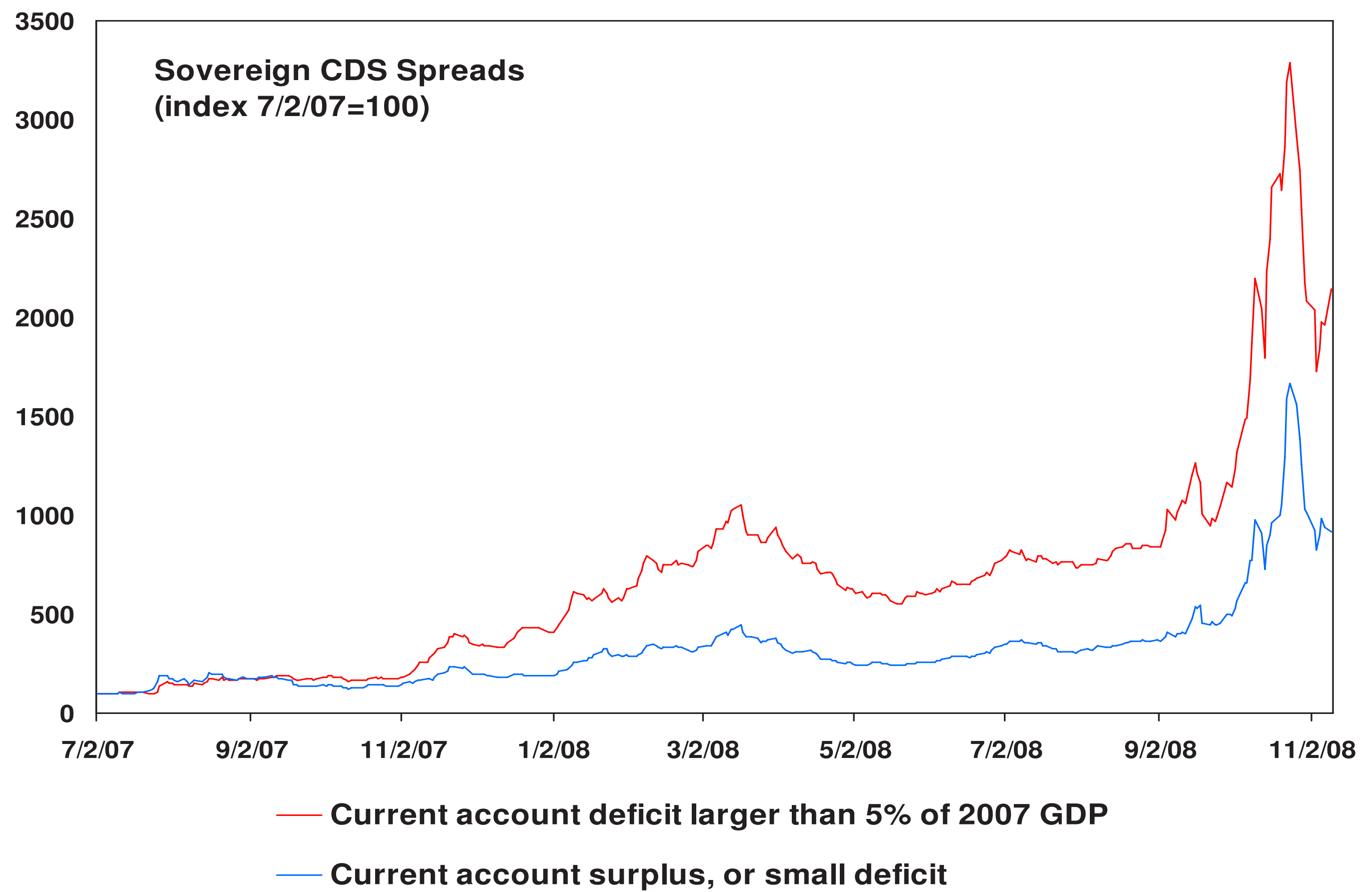
  Sudden stops. Need access to international liquidity provision.

Counterparty risk since September





Sovereign spreads since September



From the financial crisis to the economic crisis

- Not a side show.

  Direct effects: Credit growth, stock prices, exchange rates

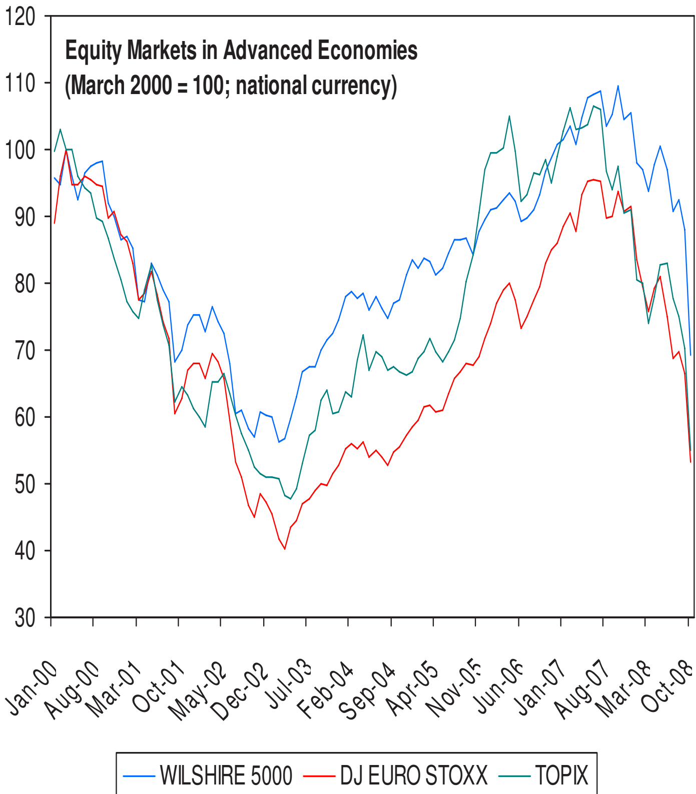
  Indirect effects, through confidence, and wait and see

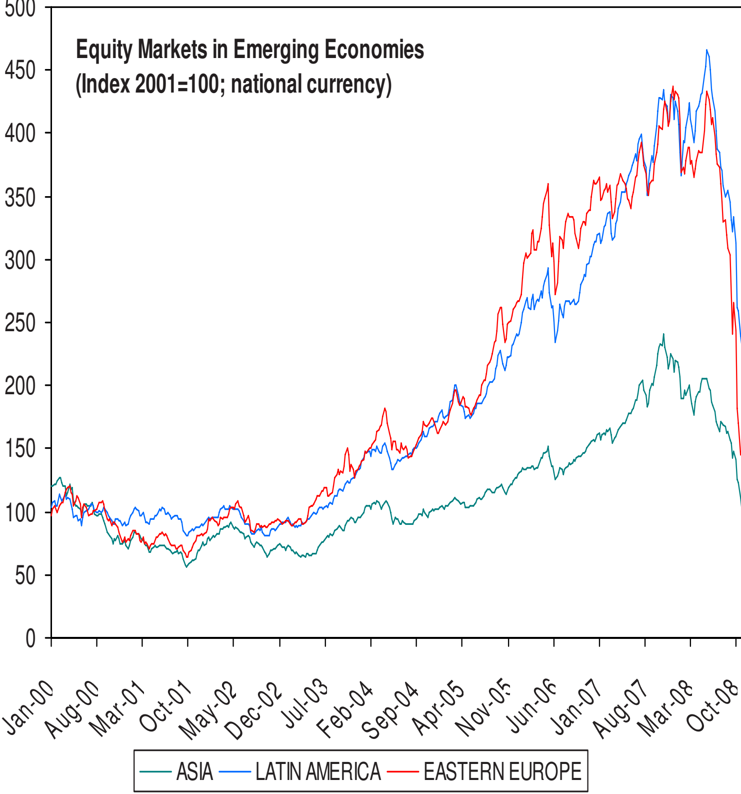
- A Keynesian recession

  Worsens the financial crisis

  Back to fiscal and monetary policy (in addition to financial policies)

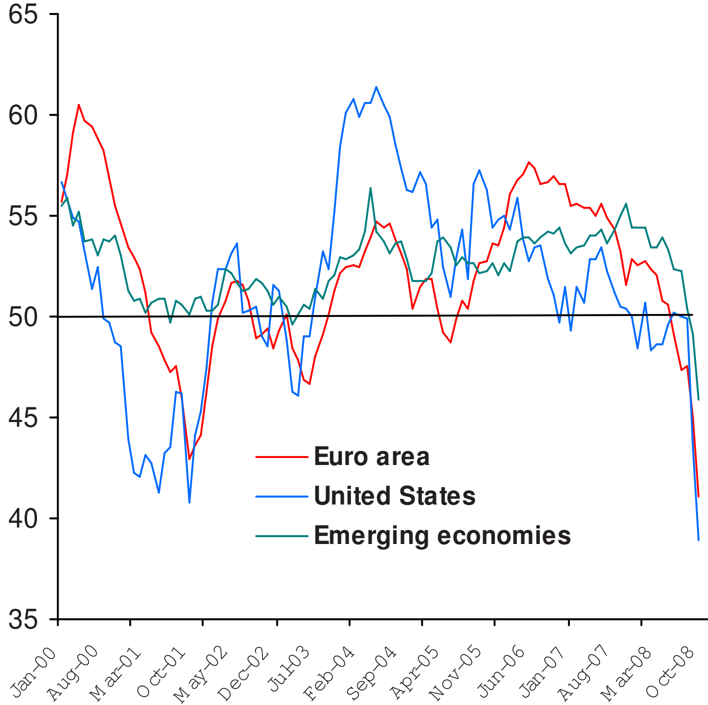
Decrease in stock prices



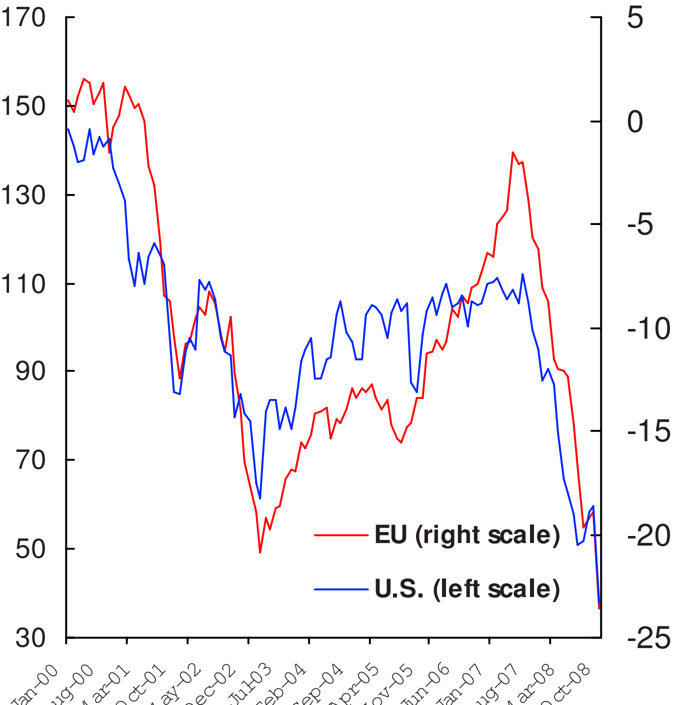


Source: Bloomberg and IMF staff estimates.

Decrease in confidence

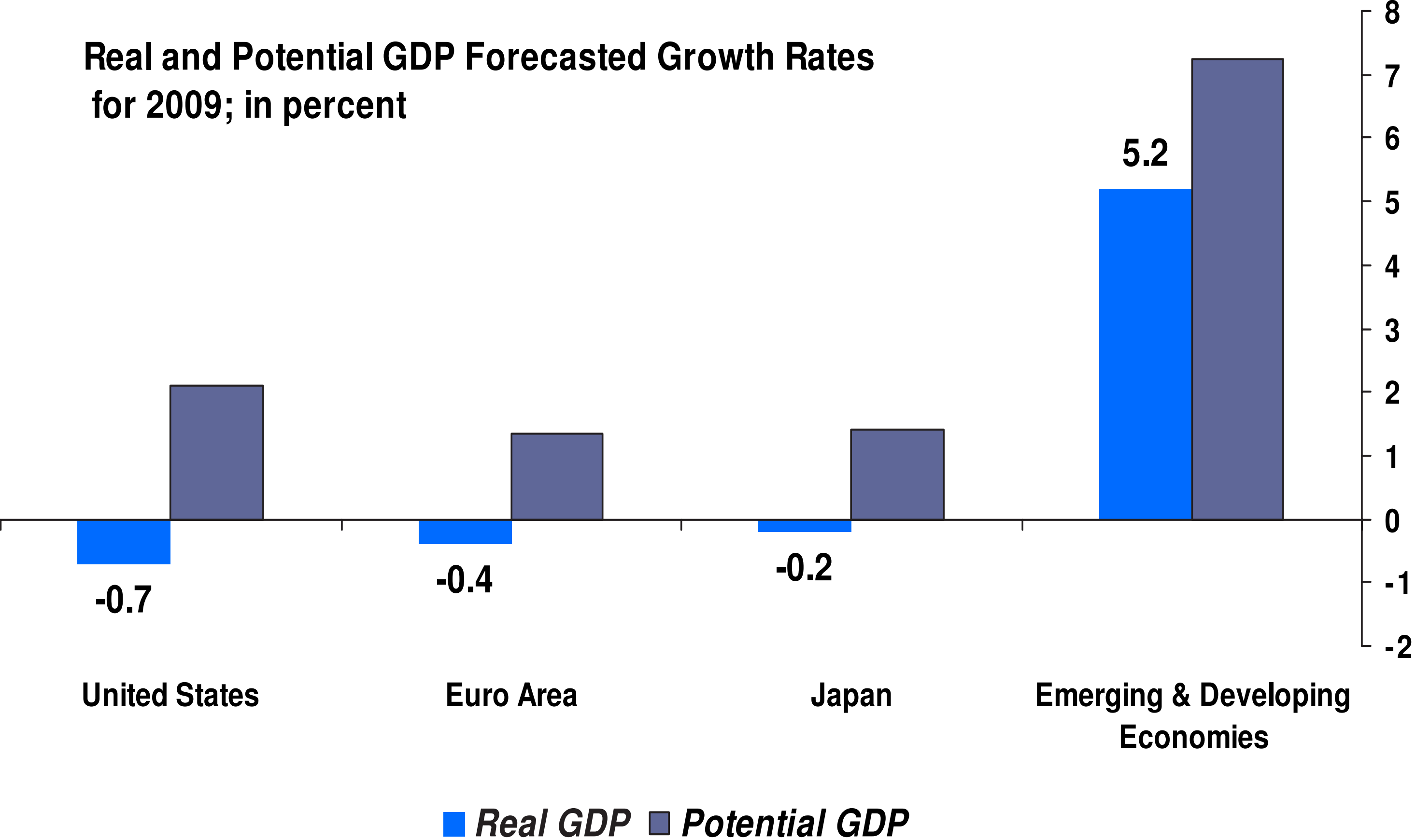


Manufacturing PMIs
(Values greater than 50 indicate expansion)



Consumer Confidence
(United States, 1985 = 100; Euro Area, percent balance)

Growth forecasts



Looking forward. How to avoid a repeat?

- Back to the trigger and the two mechanisms:
- To limit the build up of systemic risk.

  Broader regulation and monitoring systemic risk.

  Limit leverage.

  More transparent pricing and tracing of assets. Centralized trading rather than over the counter.
- For runs: Broader liquidity provision.

  Across institutions, in exchange for regulation,

  Across countries, for runs on claims in foreign currency.
- For capital: Procyclical capital ratios.

  A public fund to purchase illiquid assets at $ENPV - x$?

The international dimension

- Need to coordinate regulation, national policies. Ireland and unilateral guarantees.
- Need to monitor risk at a global level.

  Exposure of Austria and Belgium to Hungary, of France to Belgium.

  Exposure of emerging markets to sudden stops.
- Need to organize multilateral liquidity provision. Swaps, and the new IMF facility.
- Need for burden sharing rules if recapitalization. National approaches have large spillovers.