## How the Global Economy Became a House of Cards and What Lies Ahead

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#### Outline

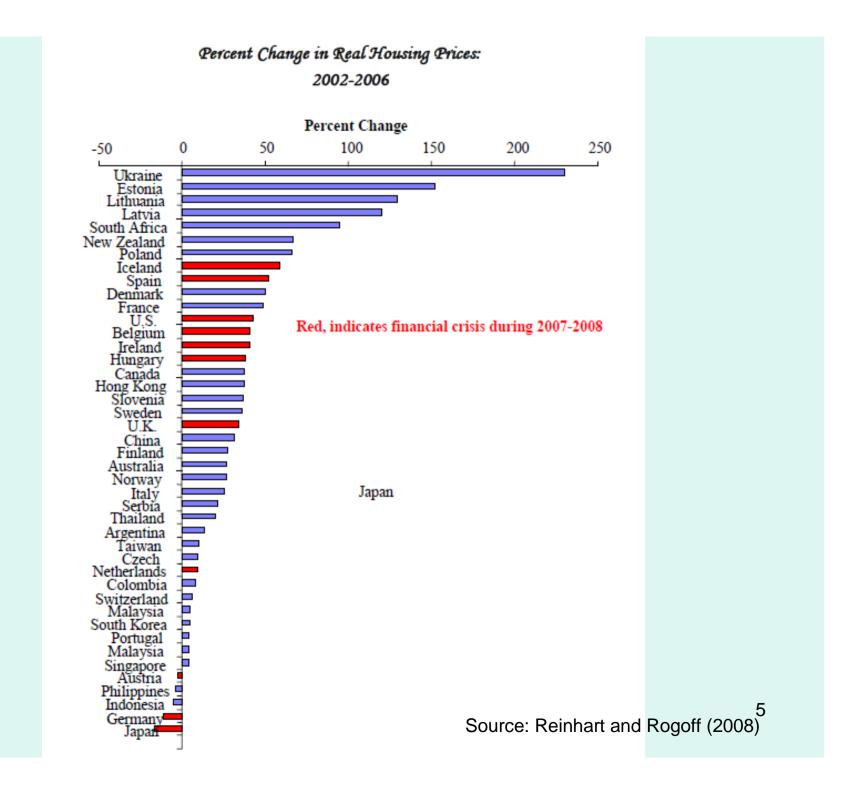
- Evolution of the crisis
  - >the house price bubble
  - >financial engineering
  - ➤ lax regulation
  - >money in politics
  - >how the drama unfolded
- US policy response
- What lies ahead

### Key Contributing Factors

- unregulated mortgage lending practices
- financial sector regulatory structure with many holes
- lack (or shortage) of careful analysis—by rating agencies, regulators, and economists more generally of the systemic risks that were building and how the financial system and economy would be affected by a downturn in house prices; and
- system of U.S. political campaign financing that generated incentives to do little to curtail subprime mortgage lending or dangerous financial engineering.

#### The House Price Bubble

- U.S. house prices, adjusted for inflation, began to rise sharply in the late 1990s
  - the widely-used S&P/Case-Shiller index for urban areas (10 cities) rose 125% between mid-1996 and the peak in mid-2006.
- Real house prices also rose sharply in many other countries.



#### Mortgage-Backed Securities

- During the boom in house prices, financial engineers flooded the world with mortgage-backed securities (MBSs)—i.e., securities that pay interest generated from the payments collected on a bundle of underlying mortgages.
- MBSs can provide substantial benefits for all involved: investors can invest in mortgages without having to originate them; originators can raise funds and earn the fees involved in marketing MBSs and originating more mortgages; and more families can purchase or renovate homes.
- MBSs are sold in tranches, with investors in the different tranches paid in a specific order. A typical MBS might have 5 tranches.

### Mortgage-Backed Securities

- A key problem with MBSs is that neither the originators nor the holders of the securities have much to lose from a default on any single mortgage.
- So originators had incentives to maximize the number of mortgages they sold and began to push mortgages to "subprime" borrowers.
- Some originators offered "teaser" rates that were extremely low for an initial period (typically 2 years) and would then be quickly adjusted upward.

### Risk Ratings for MBSs

- Most MBSs were given AAA ratings by the securities ratings agencies. (The most senior tranches typically accounted for about 80% of face value.)
- The mathematical models and simulations used by the ratings agencies were far from adequate.
- The ratings agencies were paid by the firms whose securities they rated, which may have distorted their incentives.
- There was little or no careful analysis within the economics profession of the systemic risks associated with a prospective downturn in house prices.

### Credit Default Swaps

- Many investors in MBSs bought "insurance" by also purchasing credit default swaps (CDSs).
- A CDS on an MBS or any other asset is a contract under which the purchaser pays the issuer for the promise of a payoff if the underlying asset defaults.

### Lax Financial Regulation

- Despite very rapid growth, markets for financial derivatives (e.g., MBSs and CDSs) were left unregulated.
  - ➤ a strong push by the Commodities Futures Trading Commission in the late 1990s met stiff resistance from Greenspan, Rubin, and Summers
- Moreover, in 2004 the Securities and Exchange Commission authorized investment banks (including Bear-Stearns, Lehman Brothers, Merrill Lynch) to raise their leverage (debt/equity) ratios from 12:1 to as high as 30:1, which enabled them to invest huge amounts of borrowed funds in MBSs and other assets

### Lax Regulation of Mortgage Lending Practices

- The Federal Reserve, which has the authority (under US consumer protection legislation) to set mortgage lending standards, did nothing to stop the surge in subprime mortgage lending.
  - ➤ warnings by Fed Governor Gramley as early as 2000 were dismissed by Greenspan
- Efforts to legislate against predatory lending practices during the Bush administration were blocked by the Congressional leadership.

### Money in Politics

- Political campaigns in the United States are heavily financed with private funds.
  - ➤ The U.S. financial services industry, which made huge profits from writing derivatives contracts, has contributed heavily to the coffers of the Congressional leadership.
  - ➤ So has the Mortgage Bankers Association, which organized itself in 2001 to develop a "unified battle plan."

#### The Bear-Stearns Rescue

- major broker in the MBS market, with large exposure on its balance sheet.
- suffered from growing mortgage defaults and declines in the value of MBSs
- hit by bank run (difficulties rolling over short-term credits) during March 2008
- taken over by JP Morgan in deal engineered by the Fed and US Treasury

#### Fannie Mae and Freddie Mac

- two giant players in market for US residential mortgages
- originally government agencies but converted into private corporations in 1968
- awarded tax incentives in exchange for promoting the expansion of homeownership to low-income families
- placed into conservatorship (i.e., effectively nationalized) on September 7, 2008

#### Lehman Brothers

- declared bankruptcy on September 15, 2008
- like Bear, Lehman had been a major dealer in the MBS market, with heavy exposure
- unlike Bear, no success in finding a private purchaser
- this partly reflected concerns of US officials (and their critics following the Bear-Stearns bailout) about moral hazard; Paulson was unwilling to offer sweeteners to potential private purchasers
- many economists and editorial writers initially praised the decision to refrain from rescuing Lehman Brothers

#### American International Group (AIG)

- widely-diversified multinational conglomerate
  - > operations in more than 130 countries as of September 2008
  - > one of largest insurance companies in the world
  - ➤ largest life and health insurer in US; second-largest property and casualty insurer
  - > provider of commercial insurance to nearly 200,000 small businesses and other corporate entities in US
  - major provider of protection to municipalities, pension funds, and other entities through guaranteed investment contracts and products that protect participants in retirement plans

#### American International Group

- Financial Products unit escaped oversight under existing supervisory framework and was able to take on substantial risk using the AAA rating that AIG received as a consequence of its strong regulated insurance subsidiaries
  - > dealt in unregulated financial derivatives
  - large issuer of CDSs on MBSs, including CDSs with collateral triggers
  - ➤ also sold options that allowed money market funds to invest in risky securities under the "promise" that they would receive payoffs from AIG if the securities ever defaulted
  - unlike supervised insurance companies, which are required to hold reserves of liquid assets to cover potential payments, nobody required Financial Products to do so, and they didn't

#### American International Group

- hit hard by market reaction to Lehman bankruptcy
- US authorities announced bailout on Sept 16, the day after the Lehman failure
- too big to fail
  - ➤ tens of thousands of banks, pension funds, and other businesses worldwide—with hundreds of millions of employees—were holding either standard insurance policies issued by AIG, or MBSs and other assets "insured" with CDSs that AIG had issued, or claims on financial institutions and other parties that held CDSs issued by AIG
- widespread recognition that the global economy had become a "house of cards"

# Emergency Financial Sector Bailout Legislation

- Two days after the Lehman failure, with credit markets frozen and prospects that U.S. and global economic activity would collapse, Paulson and Bernanke pressed Congress for unprecedented funding to restart the flow of credit to the economy.
- Congress debated, initially voted "no" on bailout legislation, triggered a plunge in the stock market, and subsequently authorized a \$700 billion Troubled Asset Relief Program (TARP).

# U.S. Policies During Final Months of the Bush Presidency

- About half of the TARP money was allocated during the Bush presidency.
  - Nearly \$250 billion as capital injections into banks
  - Some \$40 billion to purchase preferred stock in AIG
  - About \$20 billion to help stabilize the auto industry
  - And \$20 billion in support of a new Federal Reserve facility to address the credit needs of households and small businesses
- The Fed and FDIC also took a number of actions to stabilize banks and address credit market conditions
  - The FDIC expanded limits on deposit insurance
  - The Fed lowered its policy interest rate, continued to make funds available to depository institutions through regular auctions, created various new facilities to make credit more available to other parts of the economy, and provided collateralized loans to backstop the government's efforts to rescue AIG, Citigroup, and Bank of America
  - By mid-January 2009 the size of the Fed's balance sheet was roughly twice its August 2008 level—an increase of about \$1 trillion.
- Notably, the Bush administration resisted calls for a fiscal stimulus program and did little to develop an effective mortgage modification program or to otherwise mitigate avoidable home foreclosures.

# U.S. Policies Under the Obama Presidency

- fiscal stimulus package of \$787 billion spread over 2 years—equivalent to about 2¾ % of GDP
- stress tests for the 19 largest banks (10 banks were subsequently told to raise more capital)
- creation of a Public-Private Investment Fund (slow to get off the ground) to catalyze the removal of toxic assets from the balance sheets of financial institutions
- additional injections of credit to the economy
- allocation of \$75 billion in support of new programs for restructuring mortgages for homeowners at risk of foreclosure and for refinancing mortgages for other homeowners
- actions to restructure auto industry (including another \$65 billion of financing)
- steps toward strengthening the financial sector regulatory system
- outlines of a ten-year budget plan aimed at stabilizing the ratio of US debt to GDP
- efforts to reduce the growth of outlays under entitlement programs (Medicare, Medicaid, Social Security)—a key factor underlying the upward trend in the debt/GDP ratio

#### What Lies Ahead

- Macroeconomic prospects
- Initiatives to strengthen the financial sector and the prudential framework
- Prospects for stabilizing debt/GDP ratios

### Macroeconomic Prospects

- sharp rebounds in economic activity generally take place only when there is strong pent-up demand, which is not currently the case
- without ongoing fiscal stimulus, growth is likely to be sluggish (politically unacceptable?) for some time

## Financial Sector and Prudential Framework Reform

- Key Challenges
  - addressing gaps and weaknesses in regulation and supervision
  - improving cross-border and cross-functional regulation, with global coordination
  - making financial products and markets more transparent and market infrastructure more resistant to failures of even large institutions

## Financial Sector and Prudential Framework Reform

- Key Challenges
  - >reforming compensation practices
  - restablishing coherent policies for firms that are too big to fail
  - ➤ addressing moral hazard; making sure that Boards/Management have "skin in the game" and suffer when their firms are rescued
  - strengthening the tools and analysis of rating agencies

## Financial Sector and Prudential Framework Reform

- The September G20 summit produced an ambitious plan
  - Building capital, discouraging excess leverage, and mitigating procyclicality
  - > Reforming compensation practices
  - ➤ Requiring the trading of standardized derivatives to be conducted on organized markets, cleared though centralized counterparties, and reported
  - ➤ Establishing cross-border resolution frameworks and addressing prudential standards for systemically important financial institutions

## Prospects for Stabilizing Debt/GDP Ratios

- health-care reform—needed to stabilize the US debt/GDP ratio—faces formidable political hurdles
- one scenario is that investors lose confidence, the stock market plunges again, and the plunge triggers a reversal of political sentiment toward health care reform and credible actions to stabilize the debt/GDP ratio

#### **Bottom Lines**

- Unless additional/continuing fiscal stimulus is forthcoming, the recovery may well be sluggish.
- Financial institutions and the prudential framework have many weaknesses. The G20 and national authorities have been spelling out ambitious agendas for reform, but they are still in the planning stage.
- Implementing policies that will credibly stabilize or reduce debt/GDP ratios over the medium run is crucial for macroeconomic stability and growth, but the political obstacles are formidable.