I am speaking today as a researcher and a concerned citizen and not as a representative of the FRB Boston or the Federal Reserve System.
The question

- Brochures not enough...
- The question:
  - Why did so many people make such bad decisions?
  - Why did borrowers take out loans they couldn’t repay?
  - Why did the lenders lend them the money?

Why did so many people make bad decisions?

- Insiders have private information.
- Deceive investors and borrowers.
- Brokers push “exploding” mortgages.
- Bankers create “toxic” securities and hide problems.
Why did so many people make bad decisions?

- Will show that most evidence contradicts story
- Exploding mortgages not a problem
- Banks did not hide what was going on.
- Investors could and did figure it out

So what was the problem?

- Bubble Fever: Borrowers and lenders were trying to cash in on the biggest real estate boom in American history
- It is hard to stop consenting adults.
At the end of 2006, the city of Chicago passed a law requiring counseling for at-risk borrowers – targeting subprime loans. Amromin et al. (2009) show that the program was quite effective:

- Targeted lending types declined by 73%
- Loans that were made performed much better.
- Many foreclosures were prevented.

Borrowers and would-be borrowers must have been very grateful...

- Residents in the target areas passionately hated the program.
- It was suspended after only 4 months.
Were new products really new?


Option ARMs

- Invented in 1980
- Approved by FHLBB and OCC in 1981
- Accounted for about half of all ARMs in CA in 1996.
From the top:

...by breaking the direct link between borrowers and lenders, securitization led to an erosion of lending standards, resulting in a market failure that fed the housing boom and deepened the housing bust. (Geithner and Summers, 6/15/2009)

Pseudo-technical term: “Originate-to-Distribute” or OTD model.

My view is that lenders basically understood what they were buying.
- Link was broken long ago
- Investors seem to have understood the risks.

“OTD” is not new. Link between borrower and lender broken long ago.

“Mortgage Companies”: stand-alone companies that originate but don’t hold mortgages.
- The Mortgage Bankers Association was founded in 1909.
- As far back as the 1950s, MCs accounted for 25 percent of new originations
- By the mid-1980s, they were more than half of all originations

But what about savings and loans?
In the 1980s, S&L's became mortgage companies.
When did the link break?

- Only the phrase “Originate-to-Distribute” is new.
- The investor changed over time:
  - 1950: Life Insurance Company
  - 1970: GNMA
  - 1985: FNMA and FHLMC
  - 2000: Private Label Security
- But the link had been broken long before the crisis.
- If you want to make the case that “Private Label Securitization” was the problem
  - You need a much more subtle argument then that the originator didn’t take on any credit risk.

Did the “insiders” hide information?

- You might think so:

  "The SEC also is proposing that issuers provide computer-readable loan-level data to investors at the time of securitization and on an ongoing basis.” (National Mortgage News, April 12, 2010)

  In fact, issuers have always provided precisely this information.
### List of Securities in Abacus Deal

#### Reference Portfolio

<table>
<thead>
<tr>
<th>Borrowers</th>
<th>Reference Portfolio</th>
<th>Investors</th>
<th>Policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goldman Sachs</td>
<td><a href="#">List of Securities in Abacus Deal</a></td>
<td><a href="#">List of Securities in Abacus Deal</a></td>
<td><a href="#">List of Securities in Abacus Deal</a></td>
</tr>
</tbody>
</table>

#### Note

- Reference Obligations are designated as “Midprime” herein if the weighted average FICO score of the underlying collateral that secures such Reference Obligation is greater than 625. All other Reference Obligations are designated as “Subprime” herein.

---

**Willen (Boston Fed)**  
**On the origins of the crisis**  
**May 5, 2010**  
**Page 17 / 26**
What did investors know?

- A lot.
- At origination:
  - http://www.sec.gov/Archives/edgar/data/1375560/000119312506194735/dfwp.htm
- After origination http://www.ctslink.com/

### Eager Investors: Lehman Brothers

- “HEL Bond Profile Across HPA Scenarios”

<table>
<thead>
<tr>
<th>#</th>
<th>Name</th>
<th>Scenario</th>
<th>Loss</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Aggressive</td>
<td>11% HPA over the life of the pool</td>
<td>1.4%</td>
<td>15%</td>
</tr>
<tr>
<td>(2)</td>
<td></td>
<td>8% HPA for life</td>
<td>3.2%</td>
<td>15%</td>
</tr>
<tr>
<td>(3)</td>
<td>Base</td>
<td>HPA slows to 5% by end-2005</td>
<td>5.6%</td>
<td>50%</td>
</tr>
<tr>
<td>(4)</td>
<td>Pessimistic</td>
<td>0% HPA for the next 3 years 5% thereafter</td>
<td>11.1%</td>
<td>15%</td>
</tr>
<tr>
<td>(5)</td>
<td>Meltdown</td>
<td>-5% for the next 3 years, 5% thereafter</td>
<td>17.1%</td>
<td>5%</td>
</tr>
</tbody>
</table>

- Actual HPA: -10% annualized from Q4, 2005 to Q4, 2008
- Forecast losses as of 2/2009 in 2006-1 ABX from JPM: 23.44% (assuming -30% HPA in 2009!)
Goldman Sachs arranged a deal:
Bet on whether a collection of subprime backed securities would default.
Who was long on such securities?: Insiders
  - Bear Stearns
  - Merrill Lynch
  - Lehman Brothers
  - Citigroup
  - AIG
Who was short?
  - Paulson and Company

Was Paulson & Co. an insider?

No.
Paulson had no experience in real estate

"Paulson was a merger-arb guy and suddenly he has strong views on housing and subprime," [a potential investor] recalls. "The largest mortgage guys, including Vranos at Ellington, one of the gods of the market, were far more positive on subprime." (Zuckerman loc. 2281)
What was Paulson’s strategy?

- Not based on “inside information” about the deals
- Believed that the key to mortgage defaults was house prices:

  **Paulson and Pellegrini concluded that the only way their trades would work was if the U.S. real estate market had reached unsustainable levels and began to fall...**

- Big insight – “Eureka” moment.

  **Housing prices had climbed a puny 1.4 percent annually between 1975 and 2000, after inflation was taken into consideration. But they had soared over 7 percent in the following five years, until 2005. The upshot: U.S. home prices would have to drop by almost 40 percent to return to their historic trend line. (Zuckerman, loc 1936).**

  **The chart [showing that house prices would fall 40 percent] was Paulson’s Rosetta stone, the key to making sense of the entire housing market.**

---

Bubbles and policy

- Bubbles are like earthquakes
  - We cannot predict when they will happen.
  - We cannot stop them once they’ve started.
  - Large movements in asset prices occur far more frequently than theory predicts.
- But that doesn’t mean we can’t protect people
  
  “The 1989 earthquake near San Francisco in California was of similar magnitude to Haiti’s but killed just 63 people, mainly because the buildings there are designed to withstand the shock.” (The Economist Feb. 20, 2010.)

  **“Structures” can withstand an economic earthquake.**
  - Can this homeownership survive a 30% fall in house prices?
  - Can this bank survive a 30% fall in house prices?
- Well understood in 2005 that a big fall in prices would lead to massive defaults by subprime borrowers
  - An acceptable risk for a lender?
Disaster and policy

- Many people died because of shortage of lifeboats.
- Proposal: Steamship Company must disclose number of lifeboats.
- But the ship was “Unsinkable.”
- Solution: Require ship to have enough lifeboats for everyone.

The slide you’ve all been waiting for...

- The end.