#### **AcF 304 Financial Markets**

Topic 2: Why Do Financial Financial Crises Occur and Why Are They So Damaging to the Economy?

Part 4 – 2008 Financial Crisis















#### The Global Financial Crisis of 2007–2009

(1 of 4) ......Case Study – FM& I – Chapter 8 – Pages 214-220

We begin our look at the 2007–2009 financial crisis by examining three central factors:

- 1. financial innovation in mortgage markets
- 2. agency problems in mortgage markets
- 3. the role of asymmetric information in the credit rating process











# Case: The Global Financial Crisis of 2007–2009 (2 of 4)

Financial innovation in mortgage markets developed along a few lines:

- Less-than-credit worthy borrowers found the ability to purchase homes through subprime lending, a practice almost nonexistent until the 2000s
- Financial engineering developed new financial products (MBS & CDOs) to further enhance and distribute risk to investors from mortgage lending

\*Subprime lending is the practice of lending to borrowers with low credit ratings.











# Case: The Global Financial Crisis of 2007–2009 (3 of 4)

Agency problems in mortgage markets also reached new levels:

- Mortgage originators did not hold the actual mortgage, but sold the note in the secondary market
- Mortgage originators earned fees from the volume of the loans produced, not the quality
- In the extreme, unqualified borrowers bought houses they could not afford through either creative mortgage products or outright fraud (such as inflated income)











# Case: The Global Financial Crisis of 2007–2009 (4 of 4)

Finally, the credit rating agencies didn't help:

- Agencies consulted with firms on structuring products to achieve the highest rating, creating a clear conflict
- Further, the rating system was hardly designed to address the complex nature of the structured debt designs
- The result was meaningless ratings that investors had relied on to assess the quality of their investments











## Case: The Global Financial Crisis of 2007-2009 (1 of 3)

Many suffered as a result of the 2007–2009 financial crisis. We will look at five areas:

- U.S. residential housing
- FIs balance sheets
- The "shadow" banking system
- Global financial markets
- The failure of major financial firms











## Case: The Global Financial Crisis of 2007-2009 (2 of 3)

- Initially, the housing boom was lauded by economists and politicians. The housing boom helped stimulate growth in the subprime market as well.
- However, underwriting standard fell. People were clearly buying houses they could not afford, except for the ability to sell the house for a higher price.











## Case: The Global Financial Crisis of 2007-2009 (3 of 3)

 Lending standards also allowed for near 100% financing, so owners had little to lose by defaulting when the housing bubble burst.

 The next slide shows the rise and fall of housing prices in the U.S. The number of defaults continues to plague the U.S. banking system.

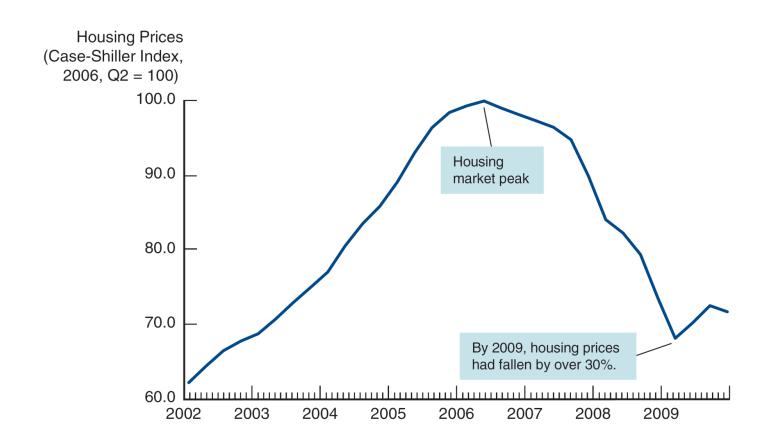








### **Figure 8.4** Housing Prices and the Financial Crisis of 2007–2009



Source: Case-Shiller 20-City Composite Home Price Index in Federal Reserve Bank of St. Louis, FRED database: https://fred.stiouisfed.org/series/SPCS20RSA.









### Was the Fed to Blame for the Housing Price Bubble? (1 of 2)

 Some argue that low interest rates from 2003 to 2006 fueled the housing bubble

 In early 2010, Mr. Bernanke rebutted this argument. He argued rates were appropriate









## Was the Fed to Blame for the Housing Price Bubble? (2 of 2)

 He also pointed to new mortgage products, relaxed lending standards, and capital inflows as more likely causes.

 Bernanke's speech was very controversial, and the debate over whether monetary policy was to blame for the housing price bubble continues to this day.











## Case: The Global Financial Crisis of 2007-2009 (1 to 10)

 As mortgage defaults rose, banks and other FIs saw the value of their assets fall. This was further complicated by the complexity of mortgages, CDOs, defaults swaps, and other difficult-to-value assets.

 Banks began the deleveraging process, selling assets and restricting credit, further depressing the struggling economy.









## Case: The Global Financial Crisis of 2007-2009 (2 of 10)

- The shadow banking system also experienced a run.
- These are the hedge funds, investment banks, and other liquidity providers in our financial system.
- When the short-term debt markets seized, so did the availability of credit to this system. This led to further "fire" sales of assets to meet higher credit standards.











## Case: The Global Financial Crisis of 2007-2009 (3 of 10)

 As seen on the next two slides, the fall in the stock market and the rise in credit spreads further weakened both firm and household balance sheets.

 Both consumption and real investment fell, causing a sharp contraction in the economy.



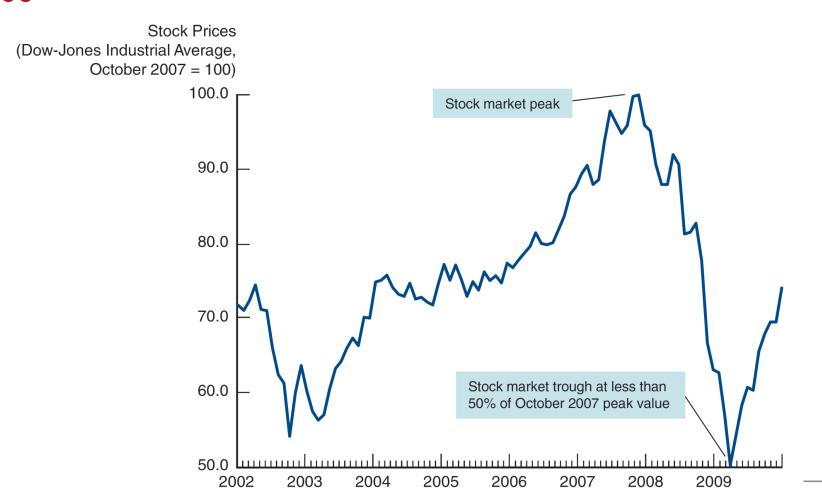








### **Figure 8.5** Stock Prices and the Financial Crisis of 2007–2009

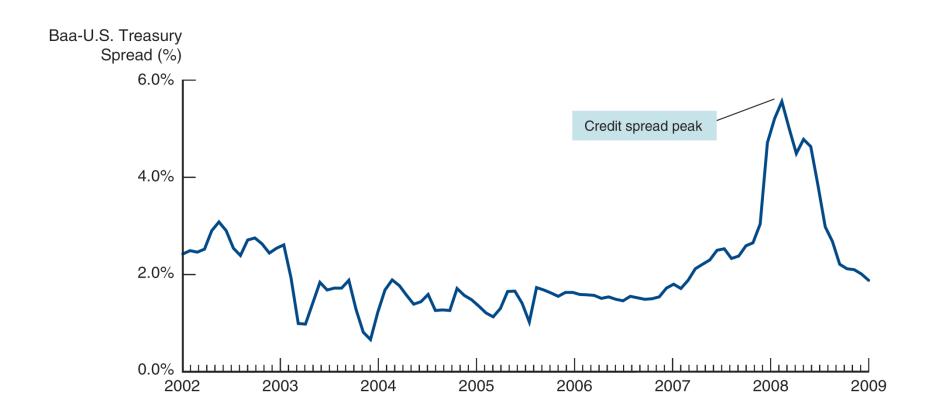


Source: Federal Reserve Bank of St. Louis, FRED database, <a href="https://fred.stlouisfed.org/serights/">https://fred.stlouisfed.org/serights/<a> Lancaster University</a>

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### **Figure 8.6** Credit Spreads and the 2007–2009 Financial Crisis



Source: Federal Reserve Bank of St. Louis, FRED database, https://fred.stlouisfed.org/series/BAA10Y.











### Case: The Global Financial Crisis of 2007-2009 (4 of 10)

• Europe was actually first to raise the alarm in the crisis. With the downgrade of \$10 billion in mortgage related products, short term money markets froze, and in August 2007, a French investment house suspended redemption of some of its money market funds.

Banks and firms began to hoard cash.









## Case: The Global Financial Crisis of 2007-2009 (5 of 10)

The end of credit led to several bank failures.

- Northern Rock was one of the first, relying on short—term credit markets for funding. Others soon followed.
- By most standards, Europe experienced a more severe downturn than the U.S.











## Case: The Global Financial Crisis of 2007-2009 (6 of 10)

Finally, the collapse of several high-profile U.S. investment firms only further deteriorated confidence in the U.S.

- March 2008: Bear Sterns fails and is sold to JP Morgan for 5% of its value only
- September 2008: both Freddie Mac and Fannie Mae put into conservatorship after heaving subprime losses.









# Case: The Global Financial Crisis of 2007-2009 (7 of 10)

Finally, the collapse of several high—profile U.S. investment firms only further deteriorated confidence in the U.S.

September 2008: Lehman Brothers files for bankruptcy.
 Merrill Lynch sold to Bank of America at "fire" sale prices.
 AIG also experiences a liquidity crisis.











### Case: The Global Financial Crisis of 2007-2009 - Lehman















### Case: The Global Financial Crisis of 2007-2009 - Lehman











### Case: The Global Financial Crisis of 2007-2009 – Lehman













### Case: The Global Financial Crisis of 2007-2009 (8 of 10)

The crisis and impaired credit markets caused the worst economic contraction since World War II.

- The crisis peaked in September of 2008.
- Congress passed a bailout package, but the stock market continued to decline, and credit spreads reached over 500 bps.











## Case: The Global Financial Crisis of 2007–2009 (9 of 10)

 The fall in real GDP and increase in unemployment to over 10% in 2009 impacted almost everyone.

 The recession that started in December 2007 became the worst economic contraction in the United States since World War II, and is now called the "Great Recession."







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Part 5 – The European Sovereign Debt Crisis













