

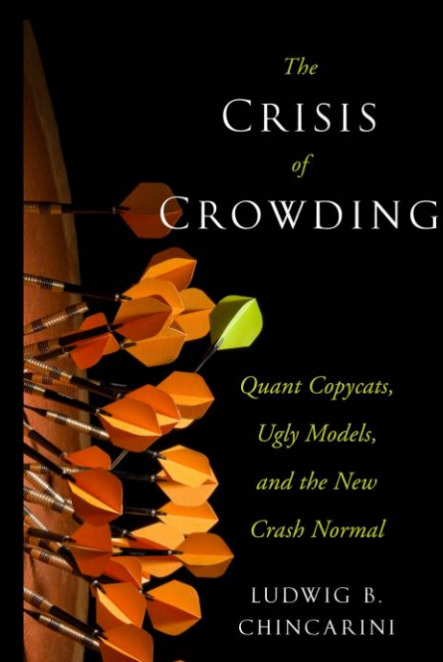
The
CRISIS
of
CROWDING

*Quant Copycats,
Ugly Models,
and the New
Crash Normal*

LUDWIG B.
CHINCARINI

Rehashing Fannie and Freddie

from the book
The Crisis of Crowding



The
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*Quant Copycats,
Ugly Models,
and the New
Crash Normal*

LUDWIG B.
CHINCARINI

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**GARP'S 15TH ANNUAL RISK
MANAGEMENT CONVENTION**

MARCH 4, 2014

What is the book about?

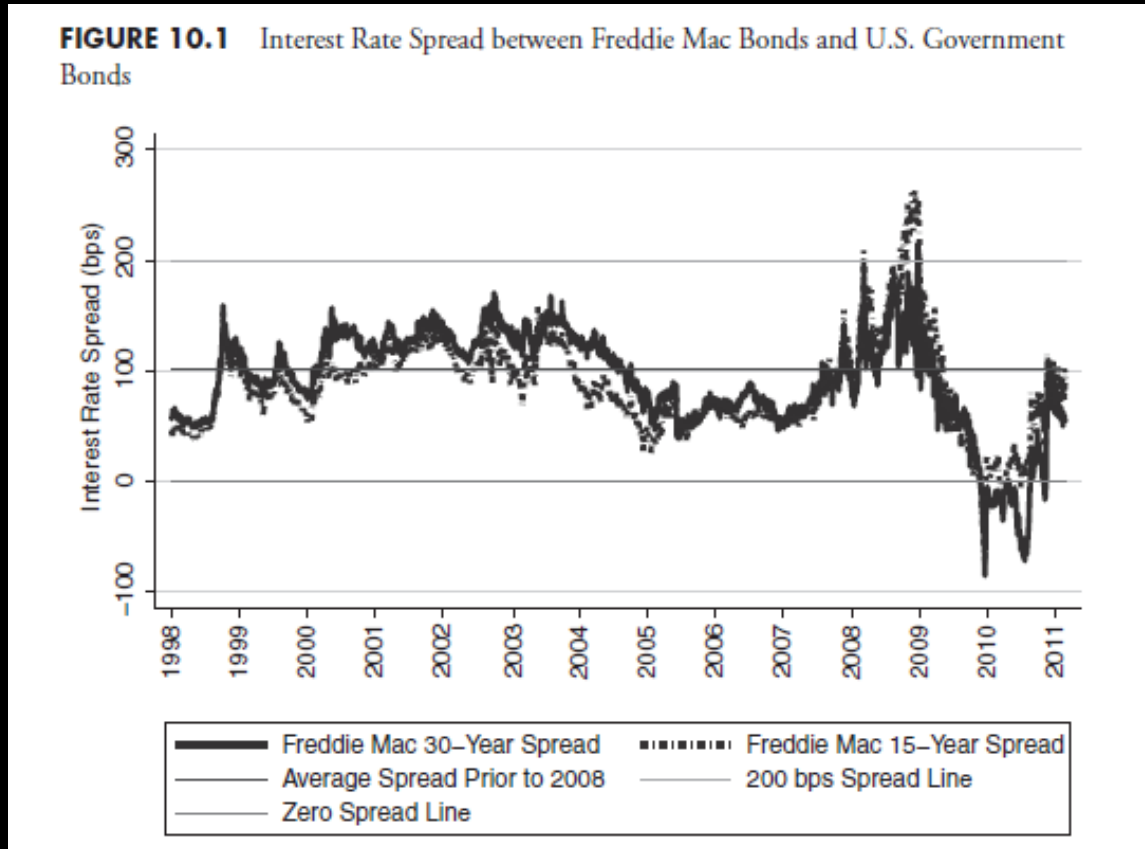
- The book tells the real stories of the financial crisis of 2008 and beyond how they are all connected by **elements of crowding**.
- The book is easy to read and informative with lots of interviews with insiders, including Goldman Sachs executives, Jimmy Cayne, Myron Scholes, John Meriwether, Vice Chairman of Citibank, government regulators, and others.

The Background

- Freddie, Fannie and Housing Bubble (real crowd)
- Why did the world like Freddie and Fannie?
Implicit government bailout.

The Background

- Freddie, Fannie and Housing Bubble (real crowd)



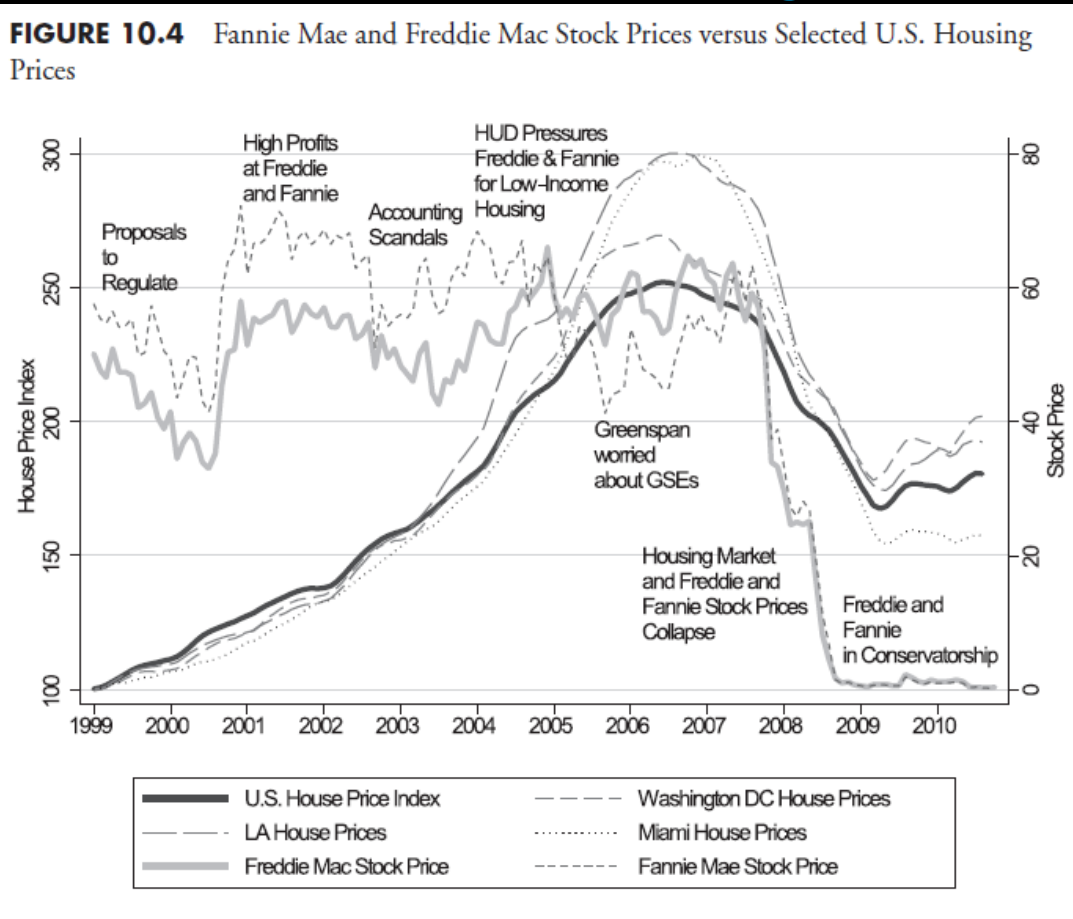
Source: Crisis of Crowding

The Background

- Freddie, Fannie and Housing Bubble (real crowd)
- They were the **gigantic hedge fund**, making Lehman's 33 to 1 leverage look like child's play...81 to 1.
- Huge profits, \$2 million per employee in 2002, versus Goldman and Citi of \$108K and \$60K
- Fannie and Freddie keep buying sub-prime, but why? In 2000, \$50B, in 2005, almost \$500B.

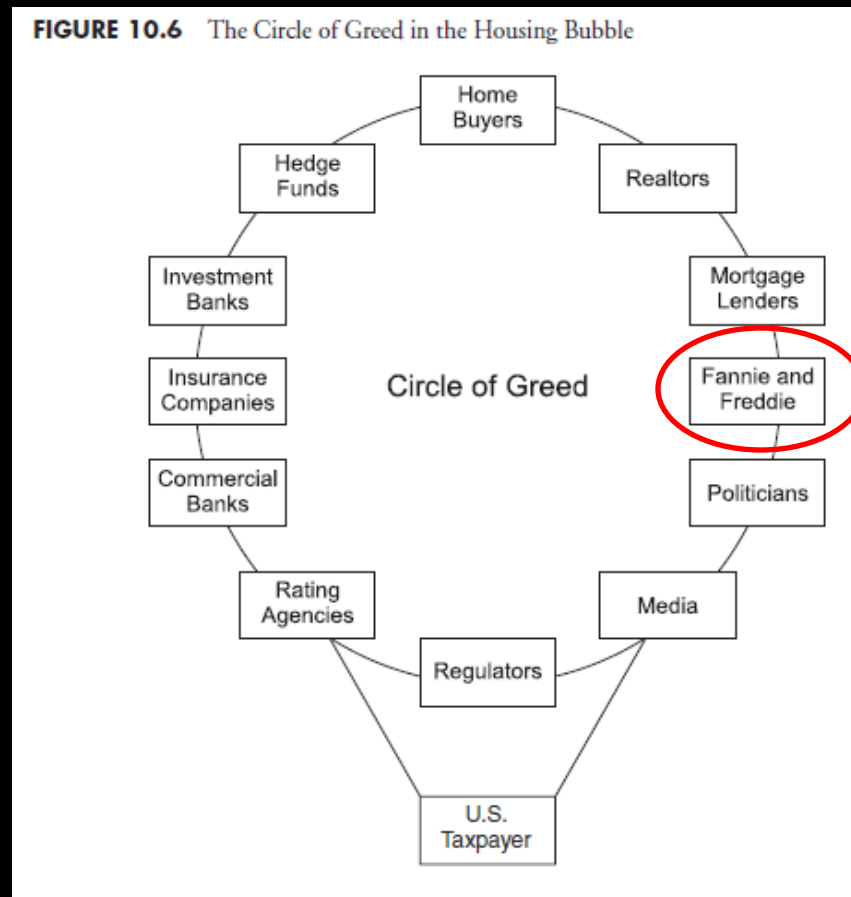
The Background

■ Freddie, Fannie and the Housing Bubble



The Background

■ Freddie, Fannie and the Housing Bubble



The Background

- Freddie, Fannie and the Housing Bubble
 - **Home Buyers:** Second mortgages, buying homes they could not afford, home equity loans to consume – 2005, of \$750billion in HE, **2/3 used for personal consumption**, home improvements, credit card debt. Zero down with zero responsibility. 2005, 30% home equity used to buy 2nd place.
 - Some ignorance, but usually greed w/ free option.

The Background

- Freddie, Fannie and the Housing Bubble
 - Real Estate Agents & Mortgage Brokers: “Real estate prices are always steady in this area”.
 - Tell story of Long & Foster
 - “Remember me, your buyer’s agent with Long & Foster? How’s California? Just came across an old email and wanted to give you the credit for predicting the market `shedding’. A total shed...”
May 12, 2010.
 - Realtors get 6% on house prices and had incentives to inflate. *Pro-cyclical valuation* methods (comparable sales).

The Background

- Freddie, Fannie and the Housing Bubble
 - Real Estate Agents & Mortgage Brokers:
 - Also peripheral players associated with them. In 2003, 55% of appraisers felt pressed to inflate the values of homes. By 2006, it rose to 90%. Who's side are they on anyway? New rules?
 - Mortgage Brokers designed clever schemes to make housing "appear" affordable. GPM, ARMS, etc. Mortgage of \$3500 to \$500 with the sign of paper.

The Background

- Freddie, Fannie and the Housing Bubble

- Politicians:

- Pushed low-income housing – why? To get votes, to *appear compassionate*. Clinton and Bush. And even used “BS” justifications: “those who argue that housing prices are now at the point of a bubble seem to be missing a very important point. Unlike previous examples, where substantial excessive inflation of prices later caused some problems, we are talking here about an entity, home ownership, homes, where there is not the degree of leverage that we have seen elsewhere. This is not the dot-com situation. **Barney Frank**, June 27, 2005

The Background

- Freddie, Fannie and the Housing Bubble

- Rating Agencies:

- Conflicts of interest, 1970s. Issuer-pays model. Complex and complicated CDOs. Moody's revenue grew from \$199 million (2000) to \$887 million in 2006 from CDO ratings.
- "When I joined Moody's in late 1997, an analyst's worst fear was that he would...[give an incorrect rating and ruin Moody's reputation]...When I left in 2007, an analyst's worst fear was that he would do something to impairing Moody's profits by damaging relationships and get fired...**Mark Froeba**, SVP of Moodys

The Background

- Freddie, Fannie and the Housing Bubble

MARKETS | Updated February 5, 2013, 12:37 a.m. ET

U.S. Sues S&P Over Ratings

Justice Department Says Endorsements of Risky Mortgage Bonds Fueled Crisis

By JEAN EAGLESHAM, JEANNETTE NEUMANN and EVAN PEREZ

The Justice Department sued Standard & Poor's Ratings Services late Monday, alleging the firm ignored its own standards to rate mortgage bonds that imploded in the financial crisis and cost investors billions.

The Background

- Freddie, Fannie and the Housing Bubble
 - Banks, Investment Banks:
 - Leverage, more home mortgages, securitization, and short-term financing.
 - **Crowds Exited** – suddenly as house market halted and defaults rose, everyone dumped it and ran for the exits. Freddie and Fannie were bailed out by US government and owe the US taxpayer **\$2.33 Billion** (Freddie-0.027, Fannie-2.31) as of February 12, 2014, all investment banks have paid with interest. *Down from \$151 in August 2012.*
Source: <http://projects.propublica.org/bailout/list>

State of Affairs from 2008 - 2014

▪ Freddie Mac

1. Drew \$71.3B from Treasury, through March 2014 paid \$81.8B for a net of \$10.5B.
2. Most of this (\$47.6B) paid in 2013. Big part tax loss credits.
3. 2009 – 2014 involved in 11.33M home owners for a total of \$2.2 trillion (7.7 refinance, 2.03 purchase, 1.6 multi-family)
4. About 20-25% of those loans related to HARP.

State of Affairs from 2008 - 2014

▪ Fannie Mae

1. Drew \$116.1B from Treasury, through March 2014 paid \$121.1B for a net of \$5B.
2. Most of this (\$82.4B) paid in 2013. Big part tax loss credits.
3. 2009 – 2014 involved in 18.2M home owners for a total of \$4.1 trillion (12.3 refinance, 3.7 purchase, 2.2 multi-family)

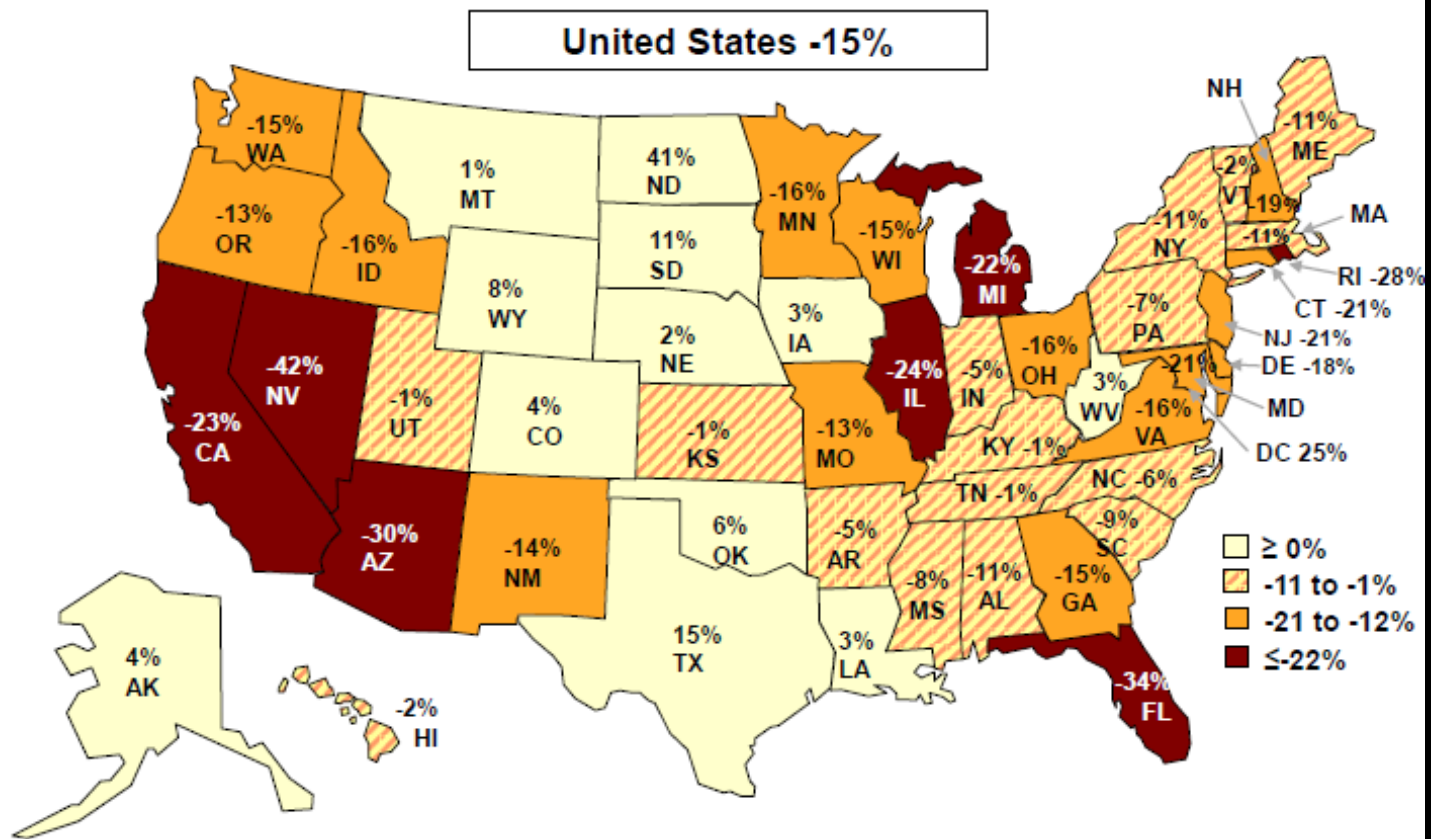
State of Affairs from 2008 - 2014

- **Both**

1. Neither company has withdrawn from Treasury since Q1:2012.
2. Lawsuits contributed a minor part. For example, Fannie had \$1.5B in 2012 and \$3.9B in 2013 from "Fees and other income".

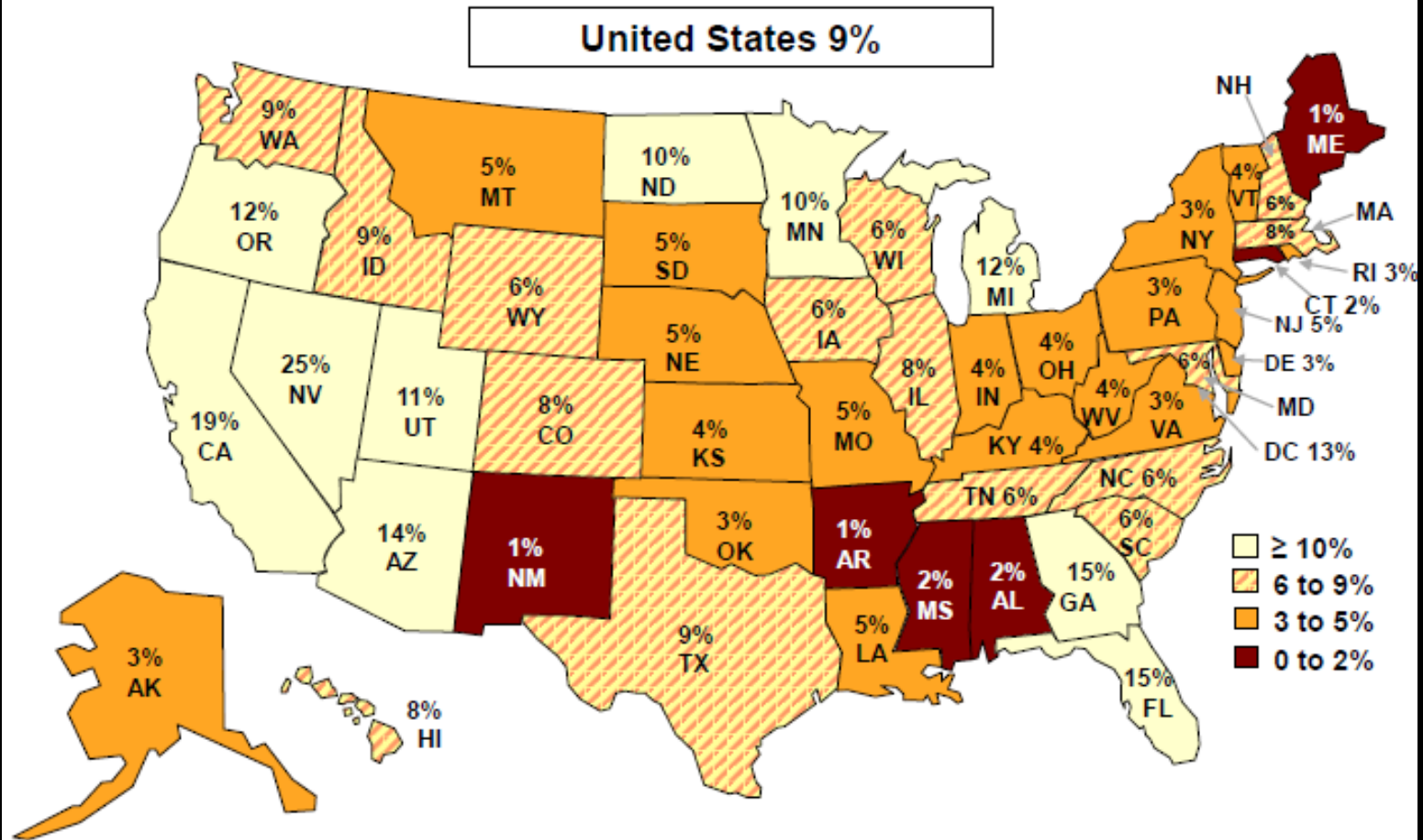
State of Affairs from 2008 - 2014

Home price performance by state
June 2006 to December 2013¹



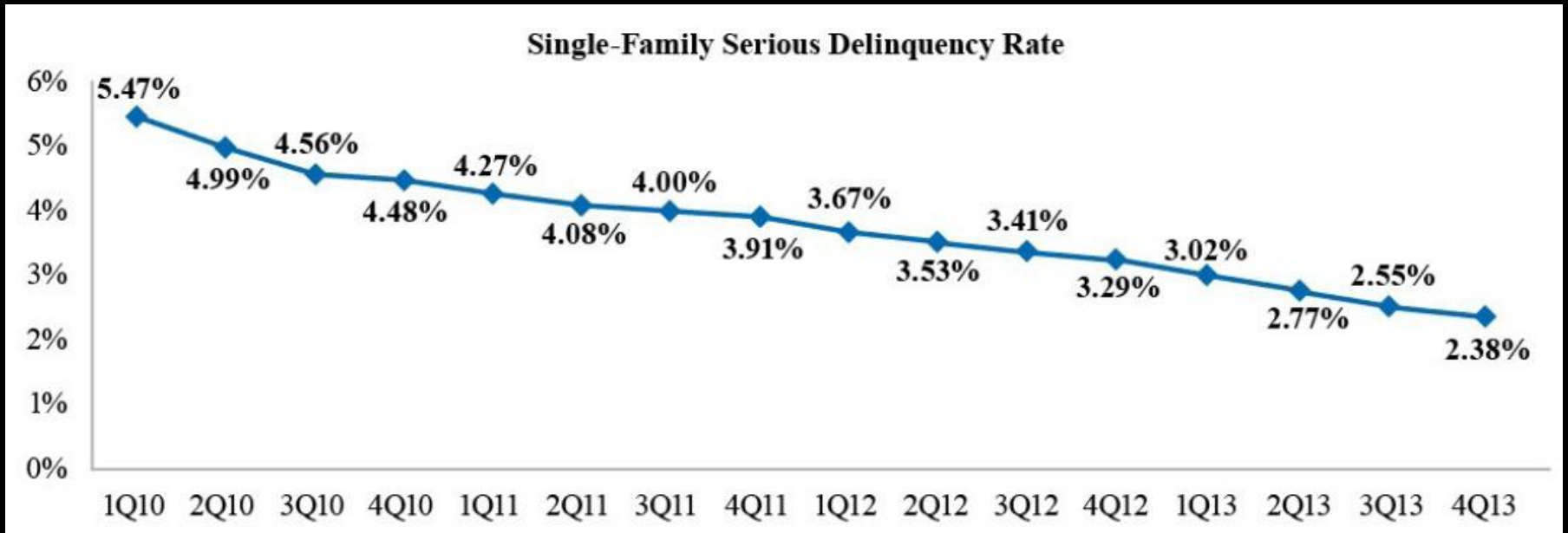
State of Affairs from 2008 - 2014

Home price performance by state
December 2012 to December 2013¹



State of Affairs from 2008 - 2014

▪ Delinquency Rates Down



Ginnie Mae

- Ginnie Mae has also increased exposure.
- 2006: \$409B mortgages with a CAR of 2.94%. Did 4% of MBS market.
- 2012: \$1304B (3x) and a CAR of 1.23%. Did 23% of MBS market.

Potential Future of the GSEs

▪ Problems of GSEs

- Excessive political power
- Insufficient capital
- Large bailout cost to taxpayers (at least short-term)

▪ Suggestions Solutions

- Complete Privatization (not an issue for rates, but not strategically consistent)
- Private with Govt. Oversight (maybe, but govt. was part of the problem)
- FDIC-like Insurance program for mortgage issuers (premiums vary by size, risk of loans, etc. Protection of pools, not of banks?)

Potential Future of the GSEs

- Key Elements of a Solution
- Remove political influence (including former govt. officials as employees and lobbying – includes reducing charter for low-income housing)
- Restrict securitization to only certain types of loans (e.g. prime)
- FDIC-like insurance only for loans with premiums based on risk of pool
- Reduced leverage of institutions

Potential Future of the GSEs

- Key Elements of a Solution

Problem:

- Doesn't support "dream of home" for those who can't afford, but maybe that's a good thing.
- Might lower rates for those that can afford?

Current Changes of the GSEs: The FHFA (February 2012)

- 1. **Build**. *Build a new infrastructure for the secondary mortgage market;*
- 2. **Contract**. *Gradually contract the Enterprises' dominant presence in the marketplace while simplifying and shrinking their operations; and*
- 3. **Maintain**. *Maintain foreclosure prevention activities and credit availability for new and refinanced mortgages.*

Current Changes of the GSEs: The FHFA

- **How have they done?** In 2013...
 - - the model CDF is still in development (standardized rules for mortgage contracts)
 - - platform to assist trading, disclosure, and quality of mortgages (still in progress) – CSS (jointly owned) – Bethesda Maryland starts in 2014 – independent?
 - - **reduce single-family mortgages by 5% from 2012 levels** by selling to private (Freddie sold \$21B and Fannie \$16B)
 - - **reduce multi-family mortgages by 10% from 2012 levels** (has not been done – just plan)
 - - **selling some credit risk to private entities** (but usually the best stuff – low LTV ratios)
 - - new risk standards for MIs (mortgage insurers) - NC

Other Issues

U.S. NEWS

Fannie-Freddie Fate Rests in Courts

Shareholder Suits Challenge U.S.'s Profit-Taking Structure

By NICK TIMIRAOS

Updated Feb. 11, 2014 9:24 a.m. ET

- **Shareholder lawsuit** – will Freddie/Fannie shares be worth more with damages or something else? Some hedge fund think so.



Other Issues

- So far, little fundamentally has changed.
- Mortgage and guarantee portfolios are still large (Freddie ~ \$1.9 trillion and Fannie ~ \$3.1 trillion)
- Single-family loans with low FICO still about the same (Freddie – 9% in 2008 and 8.7% 2013)
- Freddie and Fannie are now **more involved** with government that ever before.
- **Positive Signs:** Steps in progress to make mortgage market more transparent and Freddie and Fannie less dominant, **but will it occur?**

Thank you

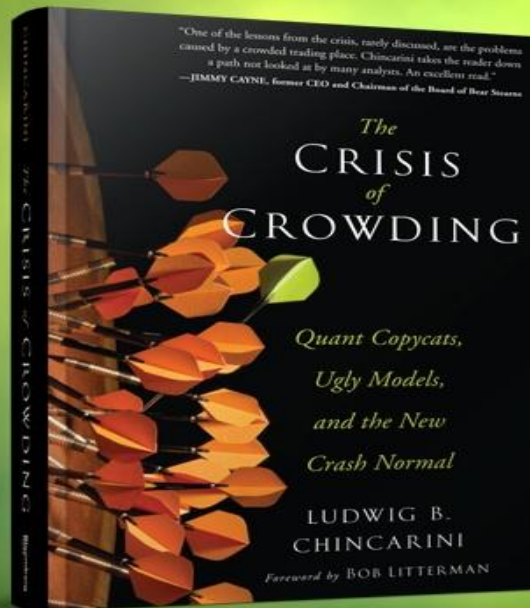
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A RARE, IN-DEPTH ANALYSIS OF THE 2008 FINANCIAL CRISIS

“An excellent read.” —JIMMY CAYNE



A unique blend of storytelling and sound quantitative analysis, *The Crisis of Crowding* explores the circle of greed from homeowners to real estate agents to politicians to Wall Street.

Linking the 2008 financial crisis back to the 1998 crisis of LTCM, *The Crisis of Crowding* shows how banks, hedge funds, and other market participants repeated the sins of the past and how the collapse of Lehman Brothers led to market insanity thanks to the irrational behaviors of buyers and sellers in the crowded space.

LEARN MORE ►

Stories Discussed in the Book

- **The Circle of Greed** – *The Housing Bubble how it got started, why it kept going, and everyone's role in its spreading.*
- **Fannie and Freddie**– *Although Wall Street is often blamed, much of the housing catastrophe started with the quasi-government institutions of Fannie Mae and Freddie Mac. This chapter described their colored past and how they and politicians manipulated the American housing market.*
- **The LTCM Debacle** – *The fascinating story of a hedge fund's troubles and how a problem in 1998 should have warned us about what could happen.*
- **The Lehman Collapse** – *The inside story of what led to Lehman's collapse and why no one did anything to save it.*
- **The Bear Stearns Hibernation** – *With inside interviews of the key players, a detailed analysis of why the market decided to make a run on the Bear.*
- **Asleep in Basel** – *Discusses how regulation can fail and how rules that regulators made actually helped fuel the housing bubble.*
- **The End of the LTCM Legacy** – *John Meriwether, the legendary investor, made famous in Liar's Poker, fell again in 2008. Why did it happen? Why didn't their risk models work?*

Stories Discussed in the Book

- **The Quant Crisis** – *In early August 2007, one of the most efficient areas of portfolio management went into trouble for all the same reasons that would cause banks to suffer in 2008, yet it was hardly noticed. This discusses that amazing event.*
- **Absurdity of Imbalance** – *We failed to understand that a Lehman Collapse would cause market chaos. This chapter discusses the most bizarre, irrational things that happened due to the Lehman failure.*
- **The Flash Crash** – *In 2010, one of the most liquid markets in the world led to people buying Apple stock at \$100,000 per share and selling Sothebys at 1 cent per share. What in the world happened?*
- **Getting Greeked** – *The Euro crisis has had its verberations everywhere, including the US. How did the whole problem start? Why did Greek politicians lie? What happened?*
- **New and Old Lessons from the Crisis of 2008** – *Discusses the important lessons that we should all understand about the financial system.*

Open Discussion

- Have you done an analysis on how much each participant in the “Circle of Greed” contributed to the crisis?
- Regarding your point about the ethical responsibility, buying Phillip Morris stock and tobacco concerns is similar. Given your crowding examples, what do you think about the cheap Yen and the carry trade?
- Could you please define crowding for us?
- You mentioned some of the aspects of local real estate markets, like San Francisco. Can some of those elements be preventative for bubbles?
- Ultimately, what could have halted the crisis and the circle of greed?
- What are your best proposals for what to do with Freddie and Fannie?
- Other countries had different systems for homeownership, as you mentioned, and had fewer problems.
- What are people doing now to manage crowding risk?

Response Summary

- Hard to measure, but in some sense, everyone was involved because every mortgage passed through the circle. More research should be done on this though.
- Have not studied this trade in detail.
- (Longer Discussion)
- Yes and no. (Longer Discussion)
- Several things, but simplest...limit leverage.
- See my presentation. (Longer Discussion).
- Indeed.
- Some firms are working on it, but generally little.