Learning Lessons? The GFC five years on.

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http://royalsoc.org.au/generator/assets/journal/J_Proc_RSNSW_Vol_146_1_Nos_447_448_Marks.pdf

“The Equivalent of Cardiac Arrest”

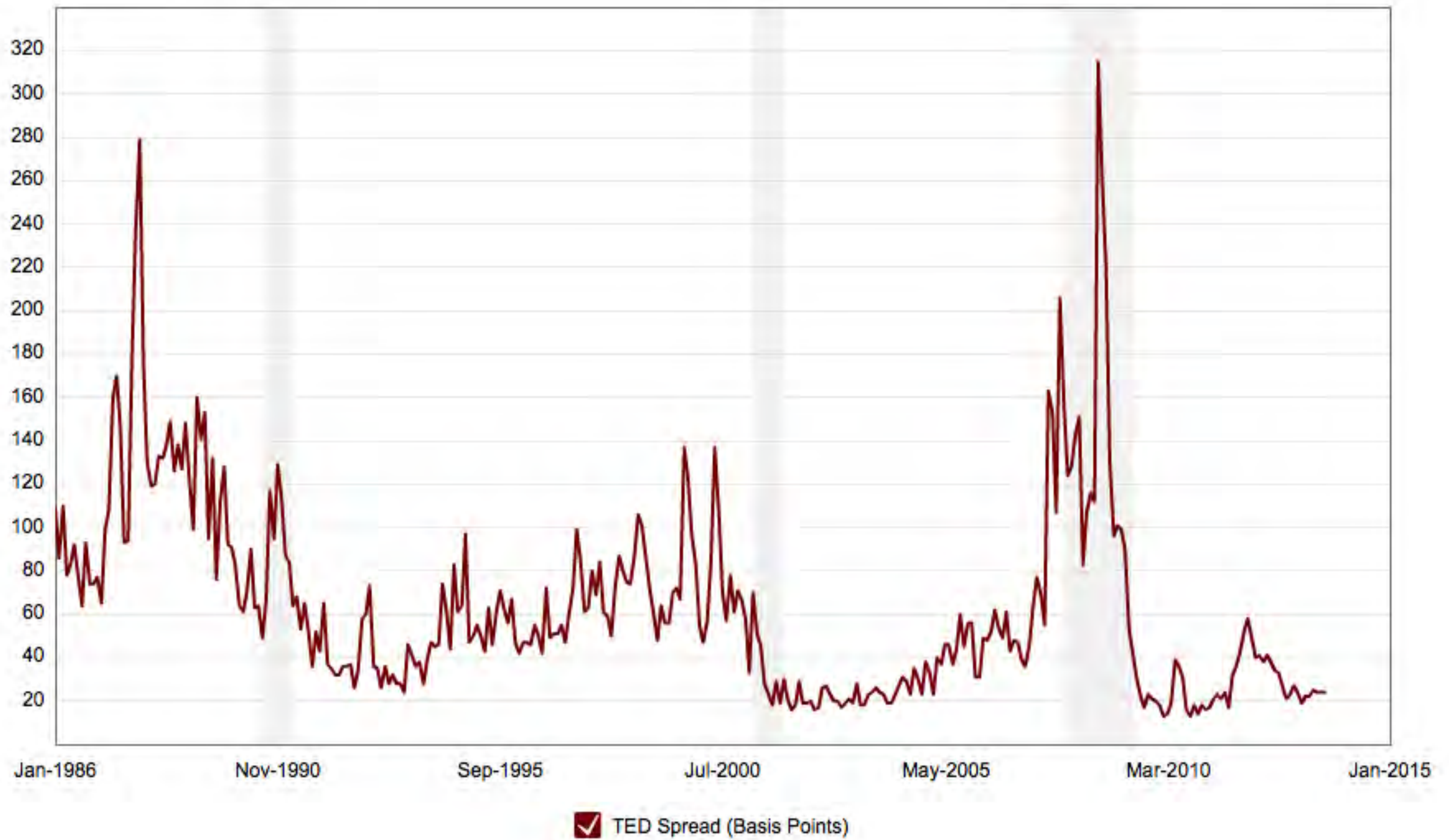
October 13, 2008, the *Financial Times* characterised the western world’s banking system as having a coronary.

“It is now virtually impossible for any institution to finance itself [borrow] in the markets longer than overnight.”

— The freezing of the interbank credit market, less than a month after Lehman Brothers collapsed.

Counterparty risk was seen as prohibitive to prospective lenders, at any price.

See the spike in the TED spread = Libor − US bond yield.
The London Interbank Borrowing Rate



320
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Jan-1986
Nov-1990
Sep-1995
Jul-2000
May-2005
Mar-2010
Jan-2015
TED Spread (Basis Points)

1. What caused the GFC? and

2. How can we attempt to avoid other such crises in future?

To try to answer these two related questions, we must see what happened, when.

Five years ago I started a timeline of the crisis, for my own purposes: things were happening too fast.

Go to the link on the cover page to see the Timeline (from June 1720 to July 2013) and to read a discursive version of this talk, at

`http://www.agsm.edu.au/bobm/papers/marksfinal.pdf`

Necessity and Sufficiency

Ideally, want to identify the *necessary* conditions for the GFC — factors without which the GFC would not have occurred.

But instead we identify a number of plausible *sufficient* conditions
— those factors that preceded, accompanied, and followed the GFC.

From these, which are the most important?

To avoid future crises, this is vital.

I focus on:

1. seven changes to U.S. legislation from 1977 to 2008;
2. changes in U.S. financial institutions' ownership;
3. several new technologies;
4. a couple of market and extra-market events;
5. three U.S. regulatory changes that might have contributed to the financial crisis of 2008, and one change in response to events in 2008;
6. and at least six changes in corporate behaviour in the U.S, financial sector.

Seven Changes to U.S. Legislation from 1977 to 2008:

1977: *The Community Reinvestment Act*.

1980: *The Depository Institutions Deregulatory and Monetary Control Act*.

1988 September 13: *The Fair Housing Act*.

1999 November 12: The Gramm-Leach-Bliley *Financial Services Modernization Act* repeals the Glass-Steagall Act of 1933.

2000 December 21: *The Commodities Futures Modernization Act*.

2006 September 29: *The Credit Ratings Agency Reform Act*.

2008 July 30: The *Federal Housing Finance Regulatory Reform Act*.

Changes to Corporate Ownership:

1981 August 1: Salomon Brothers, a private partnership since its founding in 1910, sells itself to Phibro Corporation, a commodities firm.

1999: the last Wall Street investment bank to do so is Goldman Sachs.

1997 October 1: Northern Rock floats as a demutualised building society.
In 2007, it suffers the first bank run in the UK since 1866.

2000 September: Dunn & Bradstreet spun off Moody's as a public company after 35 years.

Several New Technologies;

1977: With the Bank of America, Salomon Brothers issues the first privately backed MBSs.

1988: Citibank invents the Structured Investment Vehicle (SIV).

1997 December: A team at JP Morgan develop many of the credit derivatives that are intended to remove risk from companies' balance sheets.

1983 June: Larry Fink is the co-inventor, for Freddie Mac, of the collateralized mortgage obligation (CMO).

An example from Goldman Sachs

In August 2006 the best tranche in the residential mortgage pool known as GSAMP 2006-S5 was rated (twice) at AAA. (The pool holds $338 million of second mortgages to SP borrowers.)

A year later Moody's downgrades this to Baa, the lowest investment-grade level.

Four months later it is downgraded to "below investment level."

In April 2008 it is downgraded to "junk" rating.

By December, it is no longer traded.

Market and Extra-market Events:

2001 September 11: The destruction of the World Trade Center, following soon after the bursting of the tech bubble.

2001: U.S. monetary policy (the "Taylor gap" with prolonged low interest rates) and fiscal policy (going into massive deficit as a consequence of the costly invasions of Iraq and Afghanistan and the Bush tax cuts) after the Al Qaeda attacks will exacerbate global financial imbalances.

Some Regulatory Changes:

2004 July 21: The SEC launches the "Consolidated Supervised Entities" program.

2007 July 6: After 73 years, the SEC eliminates the "uptick rule."

2008 July 21: The SEC bans "naked" short selling of the stocks of Fannie Mae and Freddie Mac and 17 large finance companies.

2008 October 7: Before the congressional Committee on Oversight and Government Reform, the former chief accountant at the SEC reveals that the SEC's Office of Risk Management was cut back to a single employee.

Changes in Corporate Behaviour:

In the 1970s: ratings firm Moody's and others began to charge the firms (issuers) whose products they were rating, rather than the potential buyers (investors) of these products. Later, they sell advice to issuers on how to structure their instruments to gain high ratings.

1986 June: American pension funds hold about $30 bn of CMOs; three years earlier none. 1987: The London office of Salomon Brothers sells $2 bn of the first tranche of CMOs to international banks.

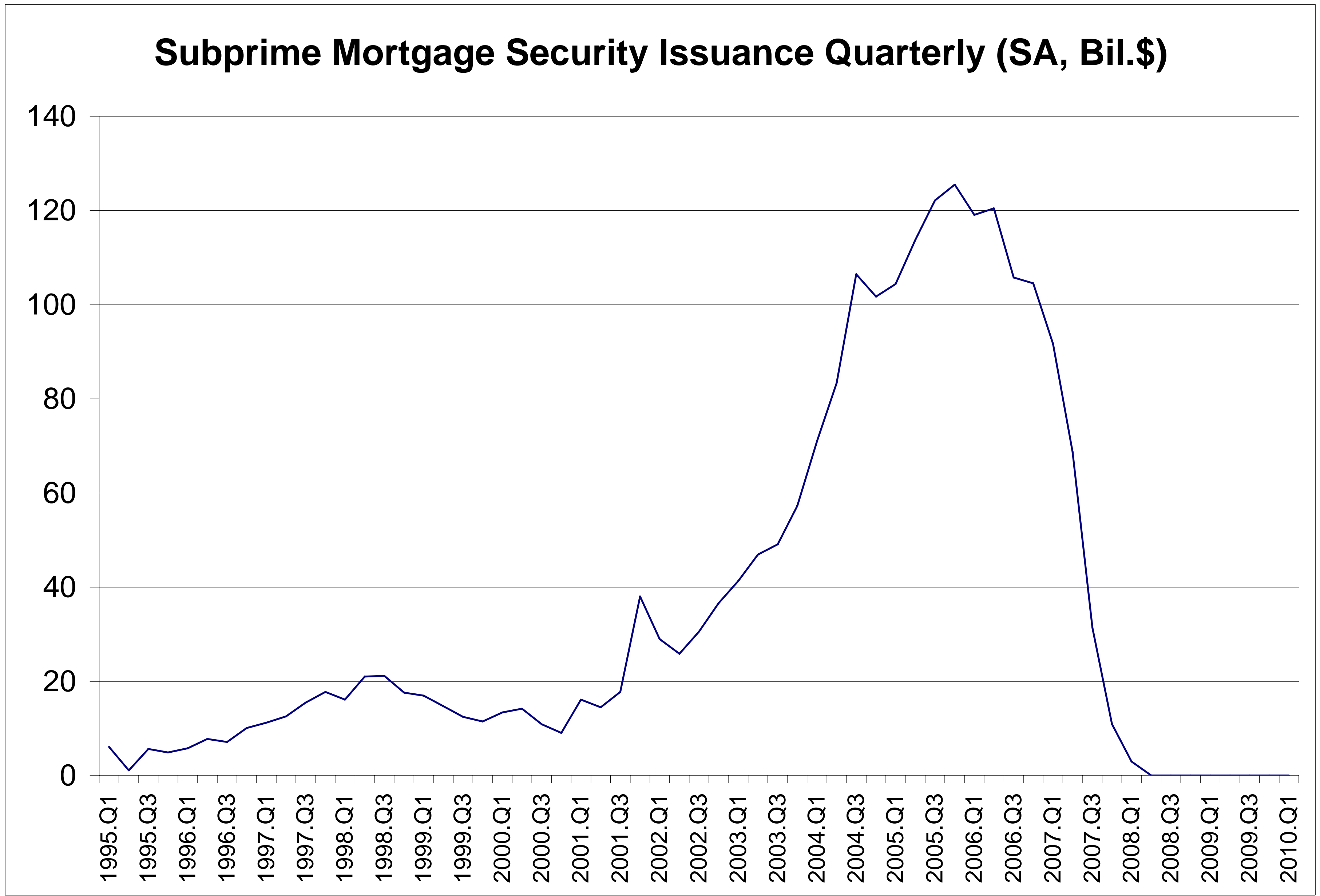
1998: AIG FP begins to write CDSs, at first with JPM.

1999 September: Fannie Mae eases credit requirements on mortgage loans it will buy from banks and other lenders.

2004 July 21: Before the "Consolidated Supervised Entities" program, leverage of 12:1 is typical; after, more like 33:1 (and up to 40:1 in the case of ML).

2006: In Q4 2005 the issuance of SP mortgages peaked at $125 bn.

Exhibit 4



Source: Inside Mortgage Finance

4/15/2010

Incentives

Firms respond to incentives.

Managers respond to incentives.

Intelligent managers might attempt to change the incentives they face, or their company faces.

More intelligent managers might see that behaviour that is individually rational, given the incentives all face, is collectively irrational: think the Prisoner's Dilemma; think Charles Prince.

Executives in the *U.S.* financial sector successfully lobbied to ease the restrictions their firms faced — to change the incentives they operated under: see the successive easing of restrictions above, both legislative and regulatory.

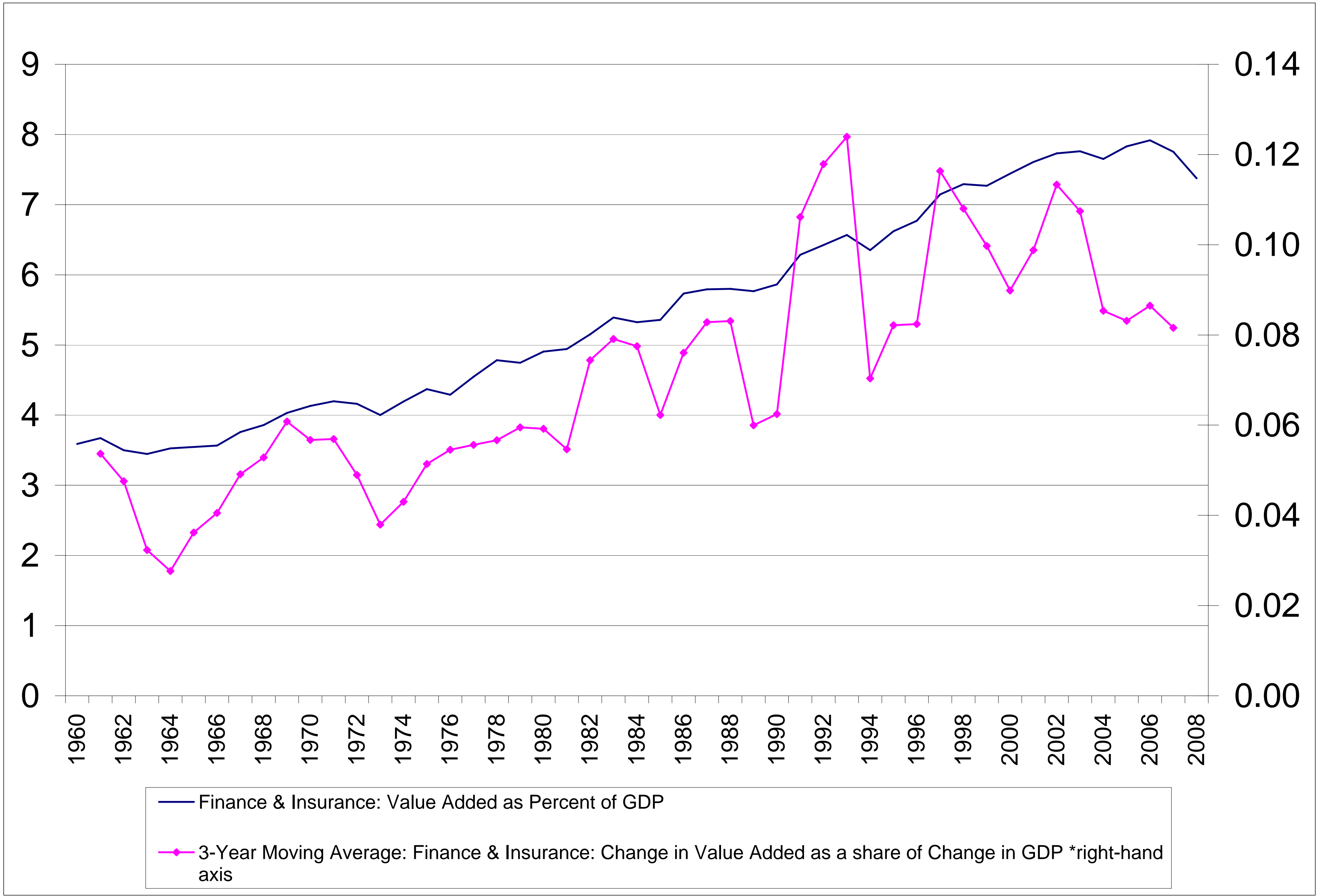
Cassidy's "Utopian Economics"

The U.S. financial sector grew in relative (and absolute) size from 3½% in 1960 to almost 8% of GDP in 2008 (Greenspan 2010, Exhibit 7).

The market share of the five largest U.S. banks rose from 8% in 1995 to 36.5% in June 2010.

Institutions too big to fail?

Exhibit 7



Source: Bureau of Economic Analysis

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Big is Beautiful?

Was there a corresponding increase in its contribution to the real economy? Paul Volcker doubts it. Others might too.

But a belief in the efficiency of real-world markets and the absence of such market failures as uncertainty, asymmetric information, increasing returns (although not apparently for banking) will allow one to look at Greenspan’s Exhibit 7 and say, There you are!

But TBTF results in *moral hazard*, which accelerates the disparity in market sharer: lower risk-adjusted cost of capital, greater lobbying power.

So, the Causes?

Four, I believe:

- **1999 November 12: repeal of the Glass-Steagall Act**
- **2000 December 21: the explicit decision of Congress not to regulate derivatives; and**
- **2004 July 21: a regulatory change allowing Wall Street banks to expand their leverage threefold or more.**
- **The change in the ratings firms' customers changed the firms' incentives for the worse, in a world of asymmetric information.**

Failures of regulation, not acts of venality.

Simple to say, but so what, or what now?

The Economist's Causes

1. **The financiers' irrational exuberance: risk was lost track of, not banished.**
2. **The negligence of the regulators.**
3. **Complacency from the low inflation and growth during "The Great Moderation."**
4. **The "savings glut" in Asia, and global imbalances.**
5. **The European banks' borrowings of questionable U.S. securities.**

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Five years on

Where's the next Lehman?

The Economist's Answer:

Possibly Europe:

- **its debt problems are growing: thinner equity buffers than the U.S. banks**
- **the imbalances in the Eurozone between north and south, and the austerity measures, mean it's harder to reduce debt burdens**
- **lack of adequate fiscal and monetary reforms, and untested resolve**

Remember: post-Lehman, TBTF might result in greater risk-taking, not less.

The Future

Focussing on Australia: we were well served by the "Four Pillars Policy" (I have to admit), and, as Ian McFarlane argued in 2009, our savings short-fall.

But we too rely on the ratings firms. And smaller countries are potentially more vulnerable to bad ratings.

In the future, a need to look beyond the nostrums (and elegance) of the General Equilibrium Model, to a real world in which asymmetric information, incentives to lobby to change incentives, uncertainty (rather than risk) is pervasive mean that there are no simple answers, even ignoring distributional issues, to questions of efficiency in the financial sector.