MACRO FINANCIAL MODELING MEETING

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September 14, 2012

- Fire sales
- Problems with price based risk measures
- Provisional measurement principles

Background:

Financial Regulation in General Equilibrium, 2012, (with Charles A. E. Goodhart, Dimitrios P. Tsomocos and Alexandros P. Vardoulakis), NBER WP # 17909

and

Macroprudential Toolkit", 2011, (with Richard Berner and Charles A.E. Goodhart), *IMF Economic Review*, 59(2), pp 145-161.

Fire Sale

- A fire sale is ""“essentially a forced sale of an asset at a dislocated price. A sale is forced in the sense that the seller cannot wait to raise cash, usually because he owes that cash to someone else. The price is dislocated because the highest potential bidders are typically involved in a similar activity as the seller, and are therefore themselves in a similar financial position. Rather than bidding for the asset, they might be selling similar assets themselves.”
  - Requires stream of cash flows and a stable discount rate does not price assets

Shleifer, Andrei and Robert Vishny, 2011, “ Fire Sales in Finance and Macroeconomics”, *Journal of Economic Perspectives*, 25(1) Winter 2011, pp. 29-48.

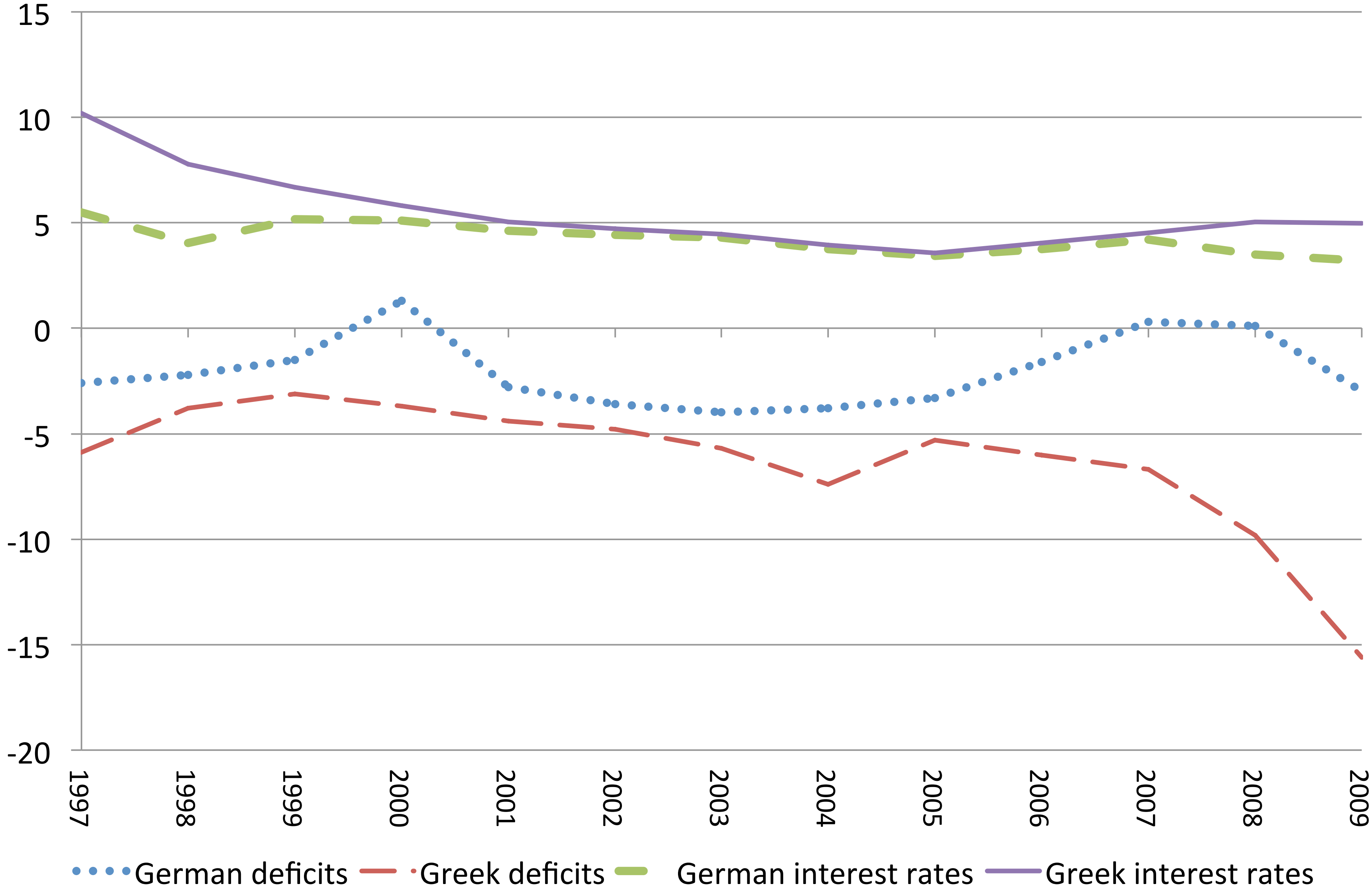
Price-Based Risk Measures

- Fire sale risk involves urgent sellers overwhelming potential buyers

- Leverage and/or shocks that impact maturity transformation makes this much more likely
  - Big swings in equity prices are common and yet do not seem to be a problem

- Prices did not send good warnings about imbalances and fire sales from 2005 to 2007

Germany vs. Greece



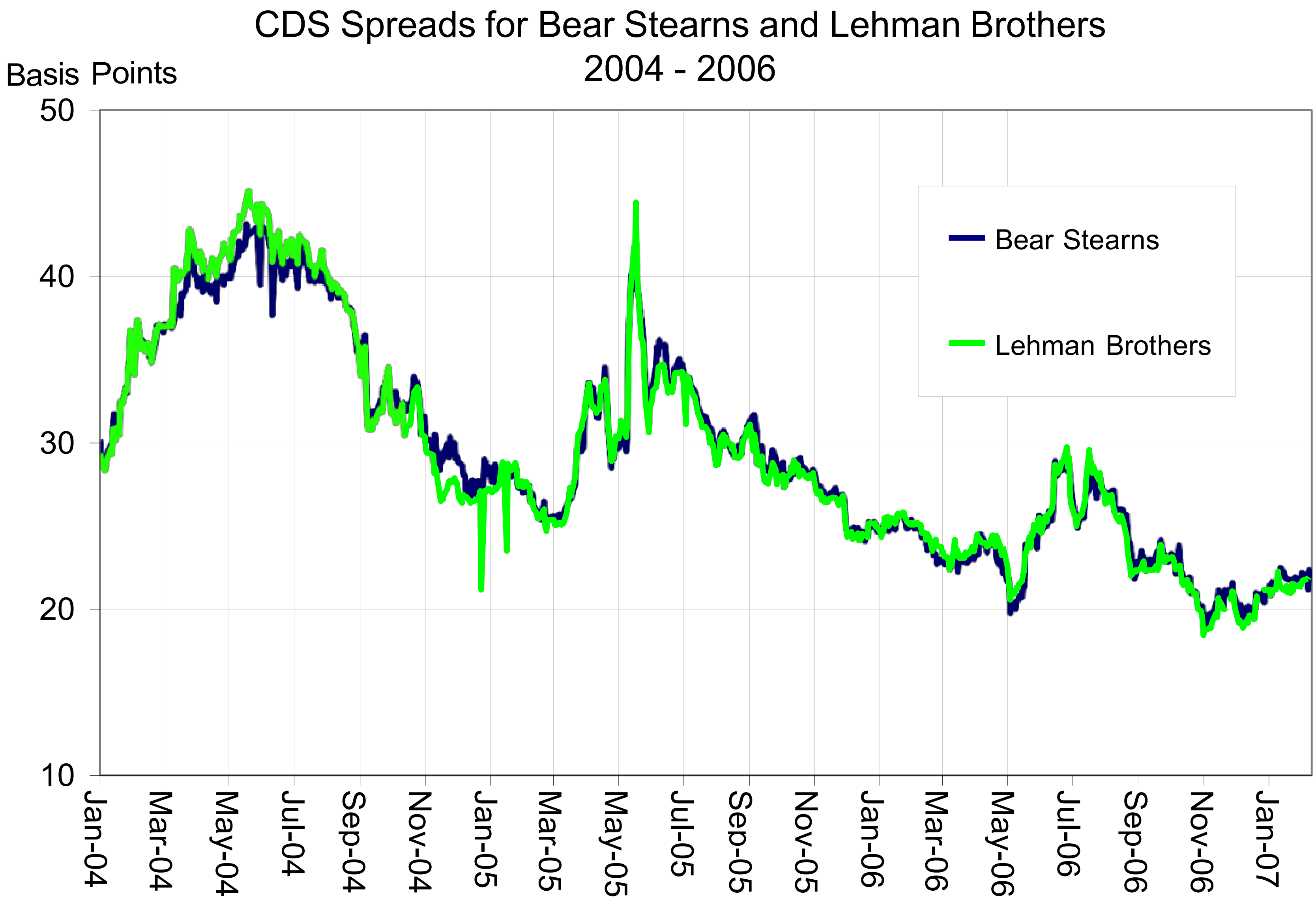


Figure 4. CDS spreads for Bear Stearns and Lehman Brothers (Jan 2004 - Jan 2007)

Courtesy of Hyun Song Shin

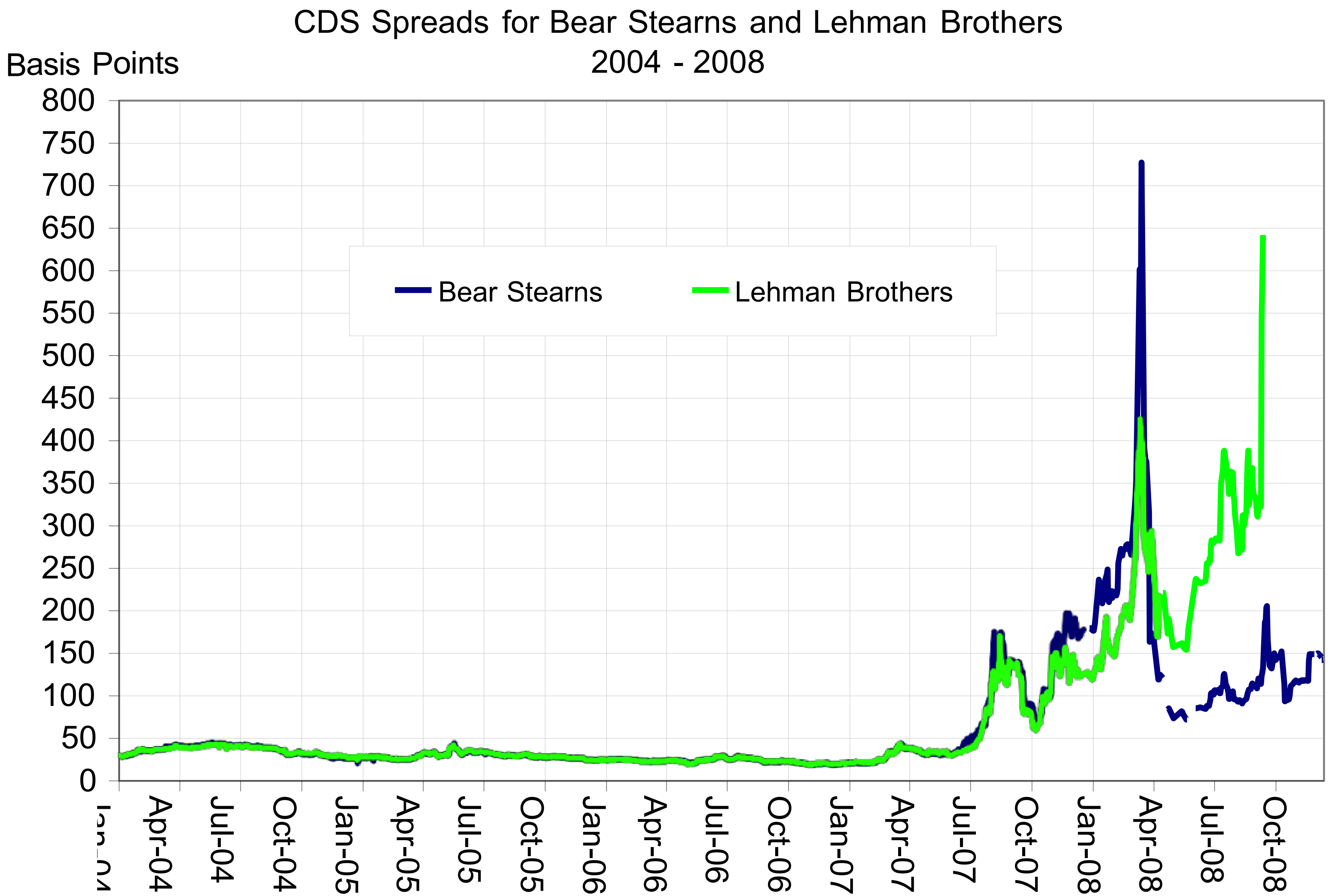
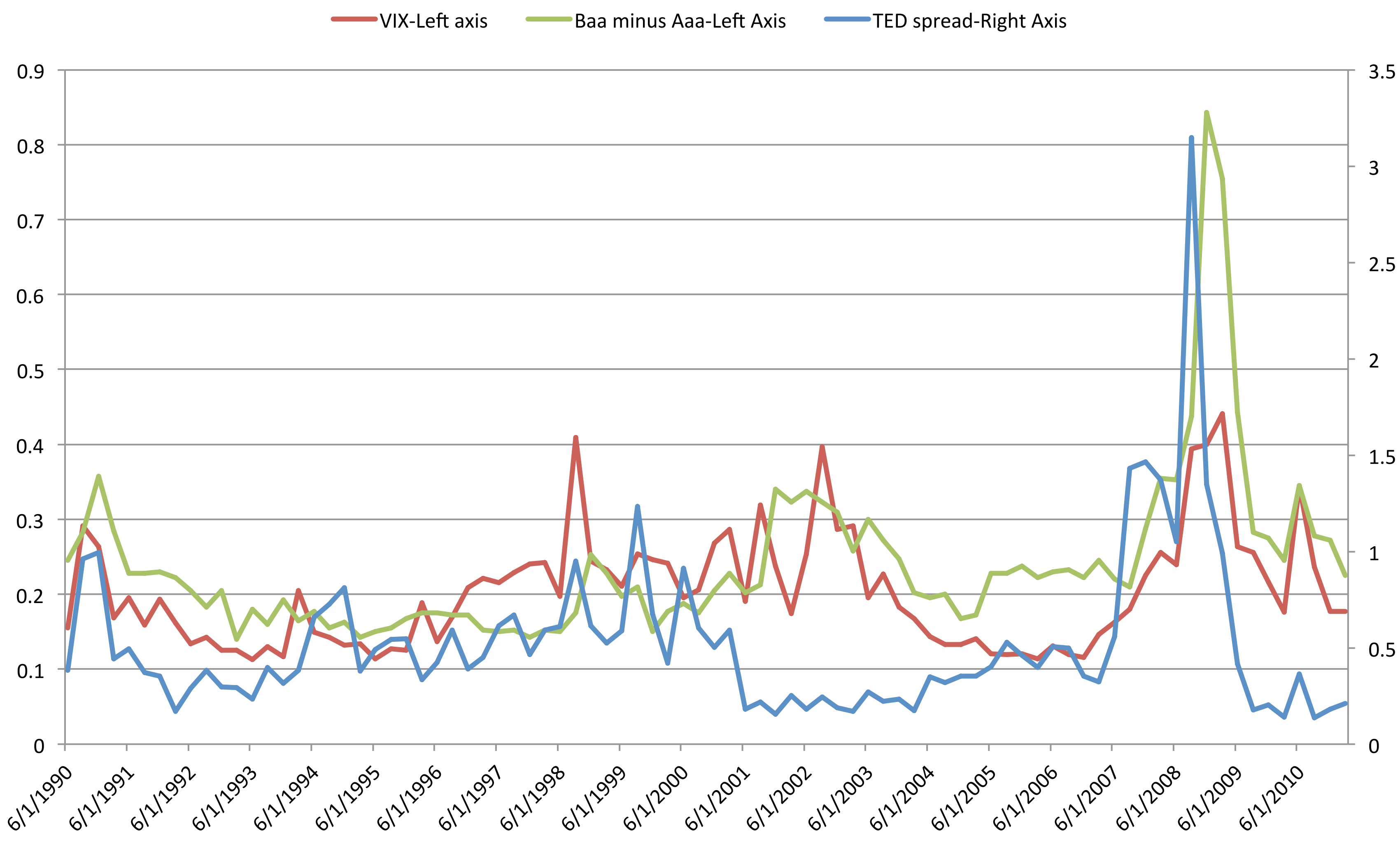


Figure 5. CDS spreads for Bear Stearns and Lehman Brothers (Jan 2004 - Dec 2008)

Courtesy of Hyun Song Shin

US candidates



Courtesy of Alex Vardoulakis

Measurement principles

- Want to locate all the markets and institutions where maturity transformation takes place
- Would like to aggregate these data, paying attention to the amount of short-term debt involved, and the amount of leverage used.
- Focus on quantities

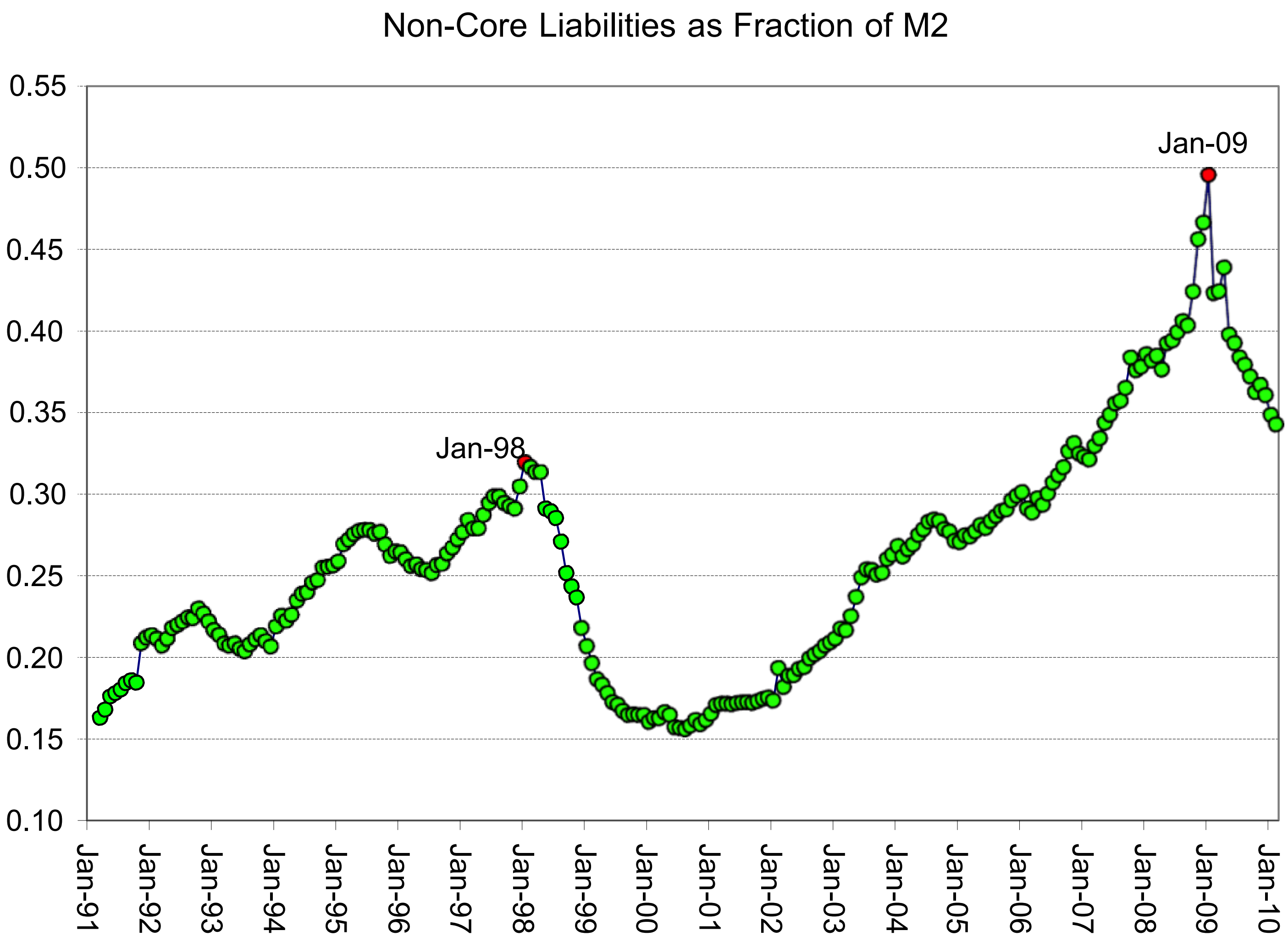
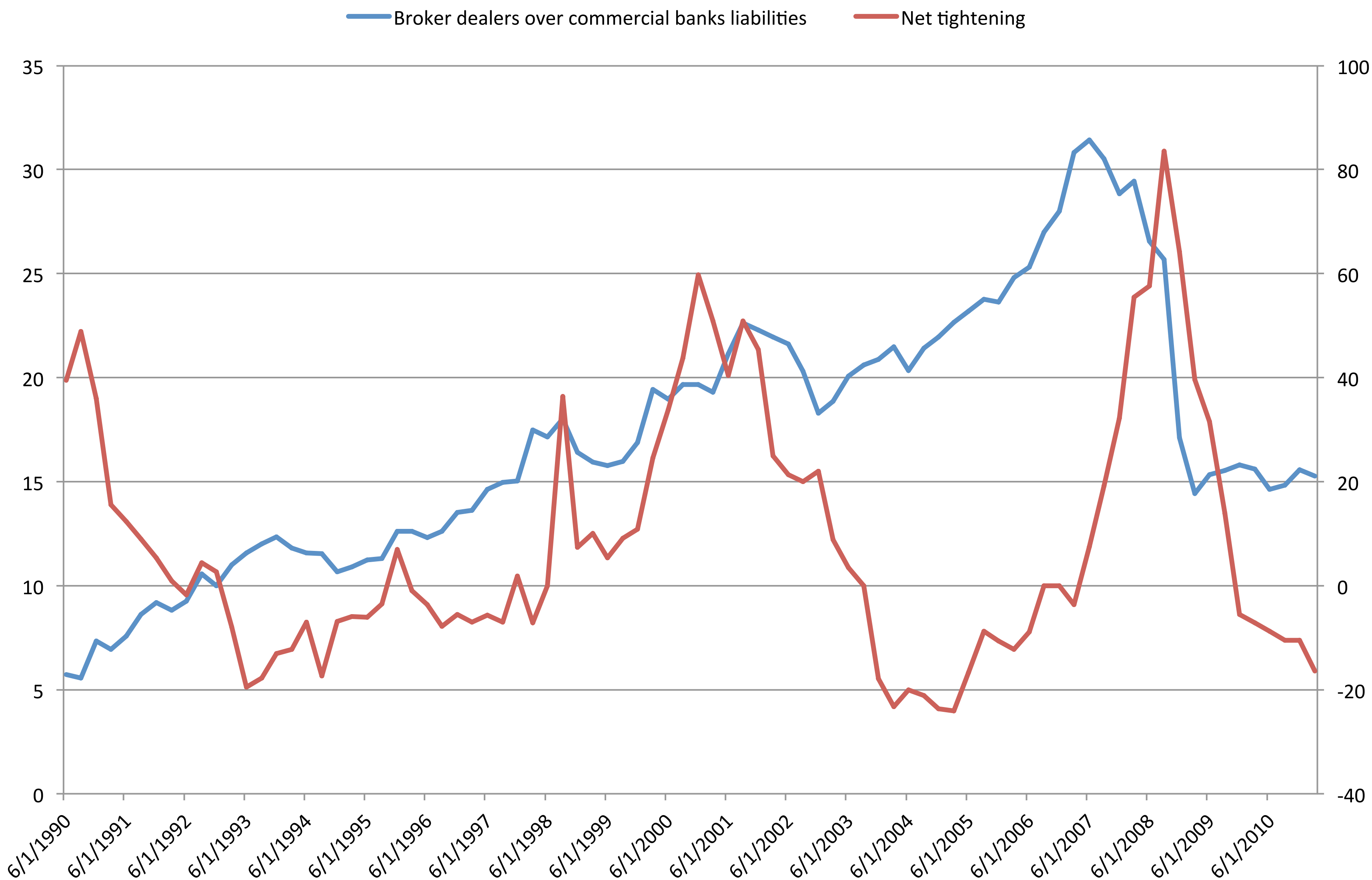


Figure 15. Non-core liabilities of Korean banks as proportion of M2 (Source: Shin and Shin (2010), data from Bank of Korea)

Courtesy of Hyun Song Shin



Courtesy of Alex Vardoulakis