Commodity derivatives speculation – too much of good thing?

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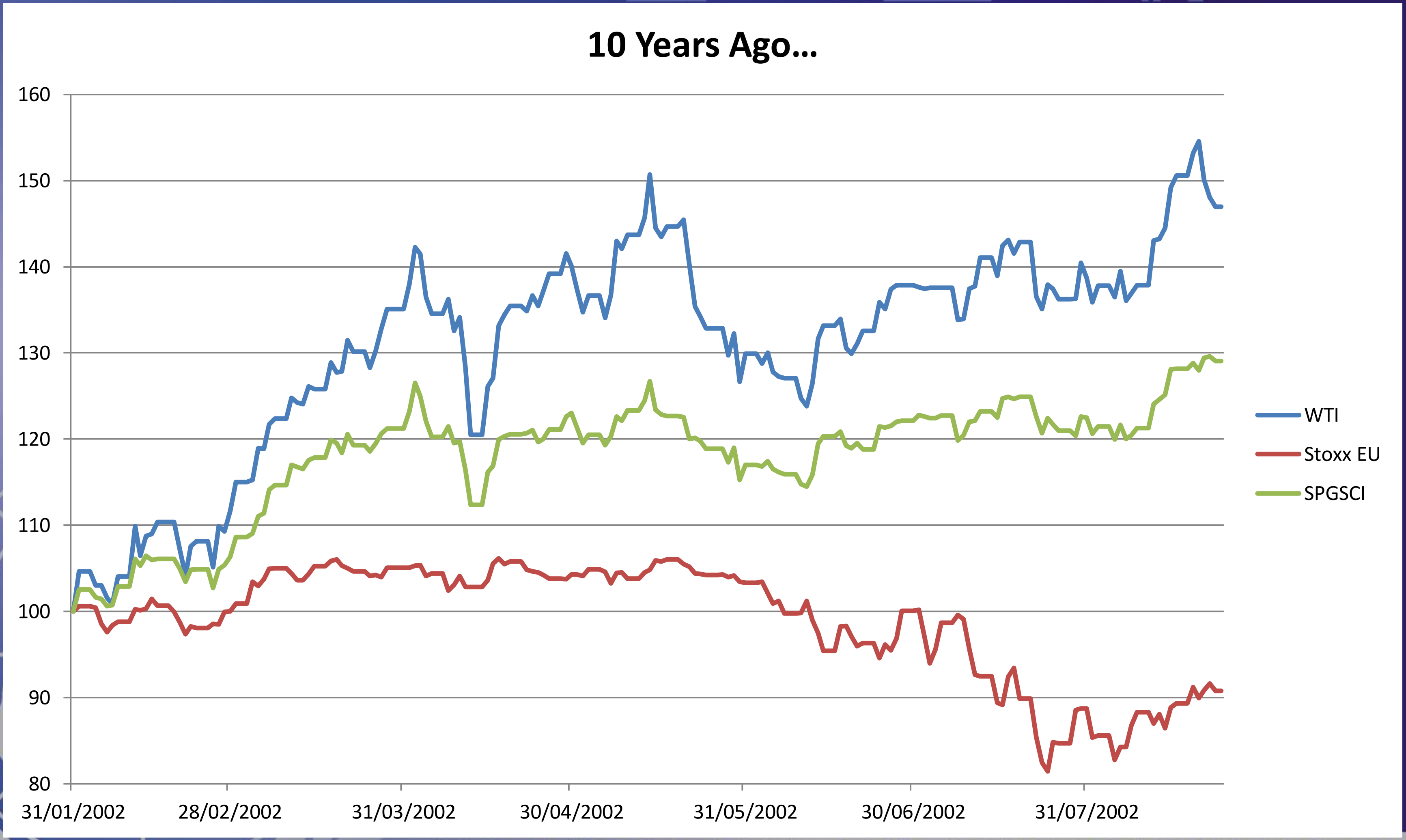
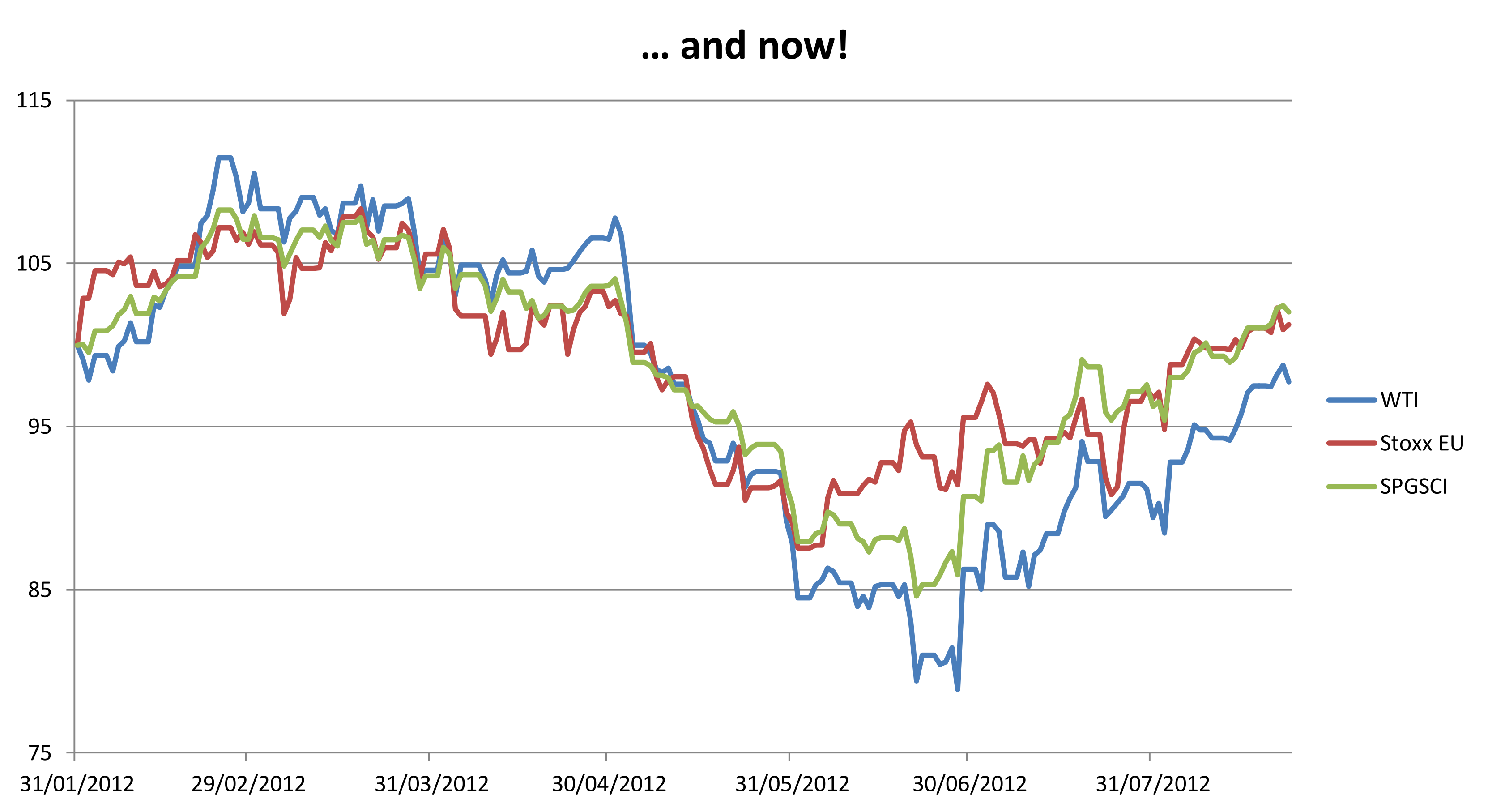
Rising sophistication in commodity speculation

- At the beginning index funds
  - Rising correlation between commodities + unidirectional bets, mostly long only
- Then hedge funds, structured products and now high frequency traders and algo traders
  - Rising correlation between commodities and other financial markets
- Now AuM over $400 bln in commodities, derivatives 20-30 times physical production
- Overall effect negative: commodity prices are distorted
- The implications go beyond food crisis/shocks: macroeconomic management in the EZ, economic crisis, etc.
- Can Europe afford oil at USD 150/bbl? Can Europe afford higher interest rates because of commodity inflation?

US confined oil benchmark follows EZ crisis events…



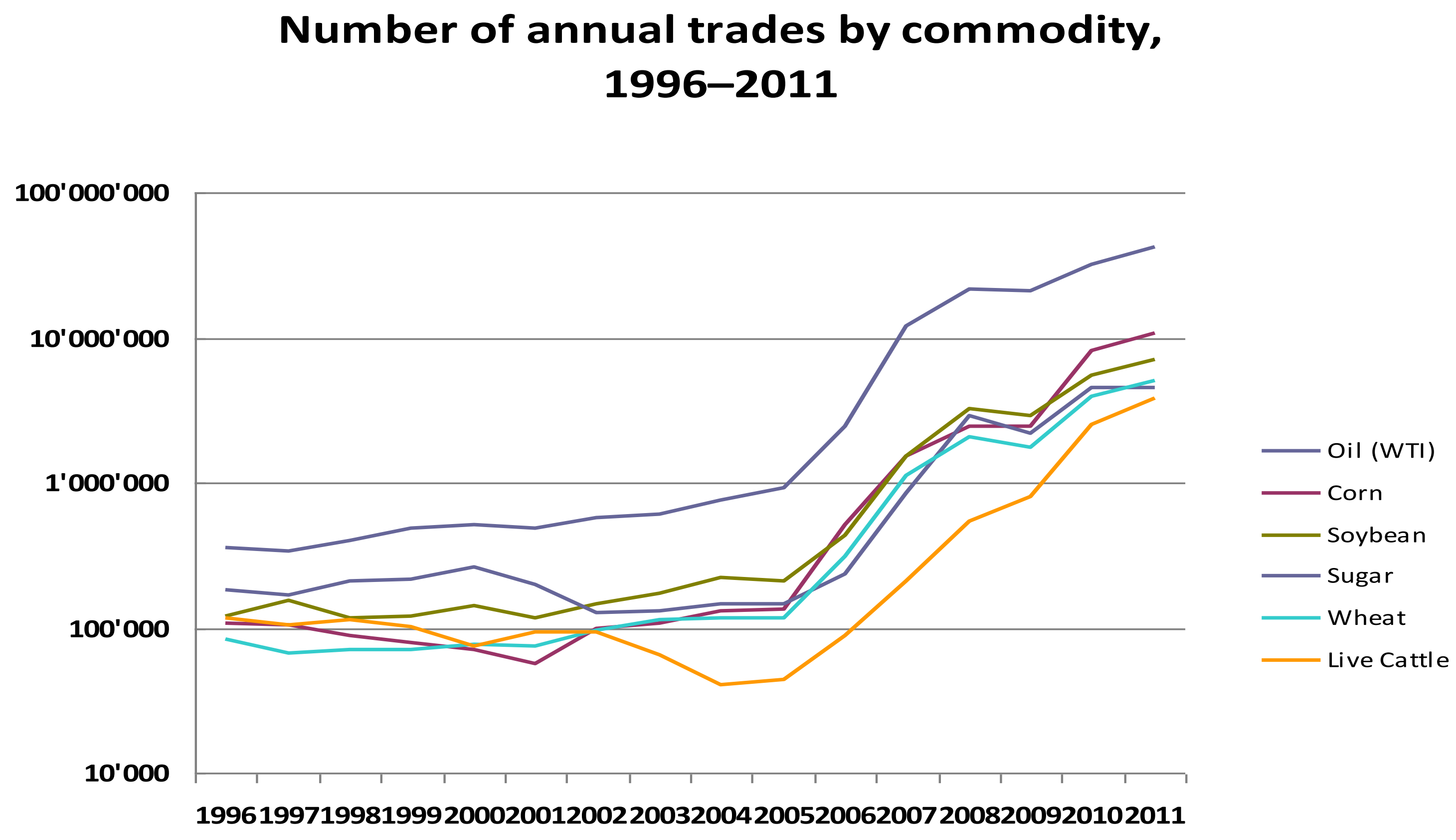
As shown by UNCTAD Policy Brief (September 2012)



What happens during the day?

- **Bicchetti & Maystre (2012) first to use tick by tick data to analyze commodity markets**
- **Consider actual trades & most liquid futures**
- **Identify a synchronized structural change across commodities starting after LB collapse**
- **Most likely caused by HFT & algo trading**

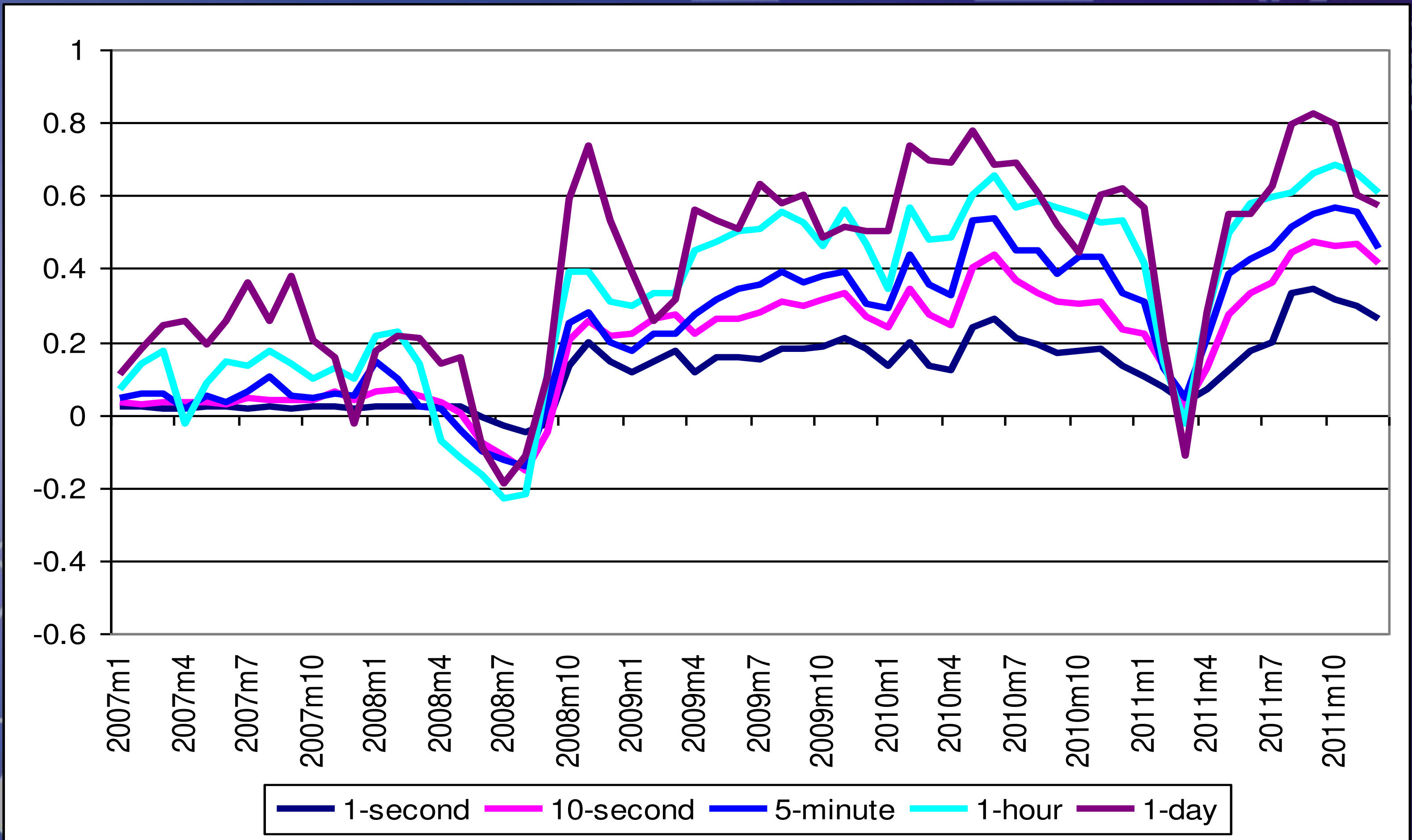
Electronic trading caused trading activities to increase dramatically…



Note: The y-axis is a logarithmic scale of base 10.

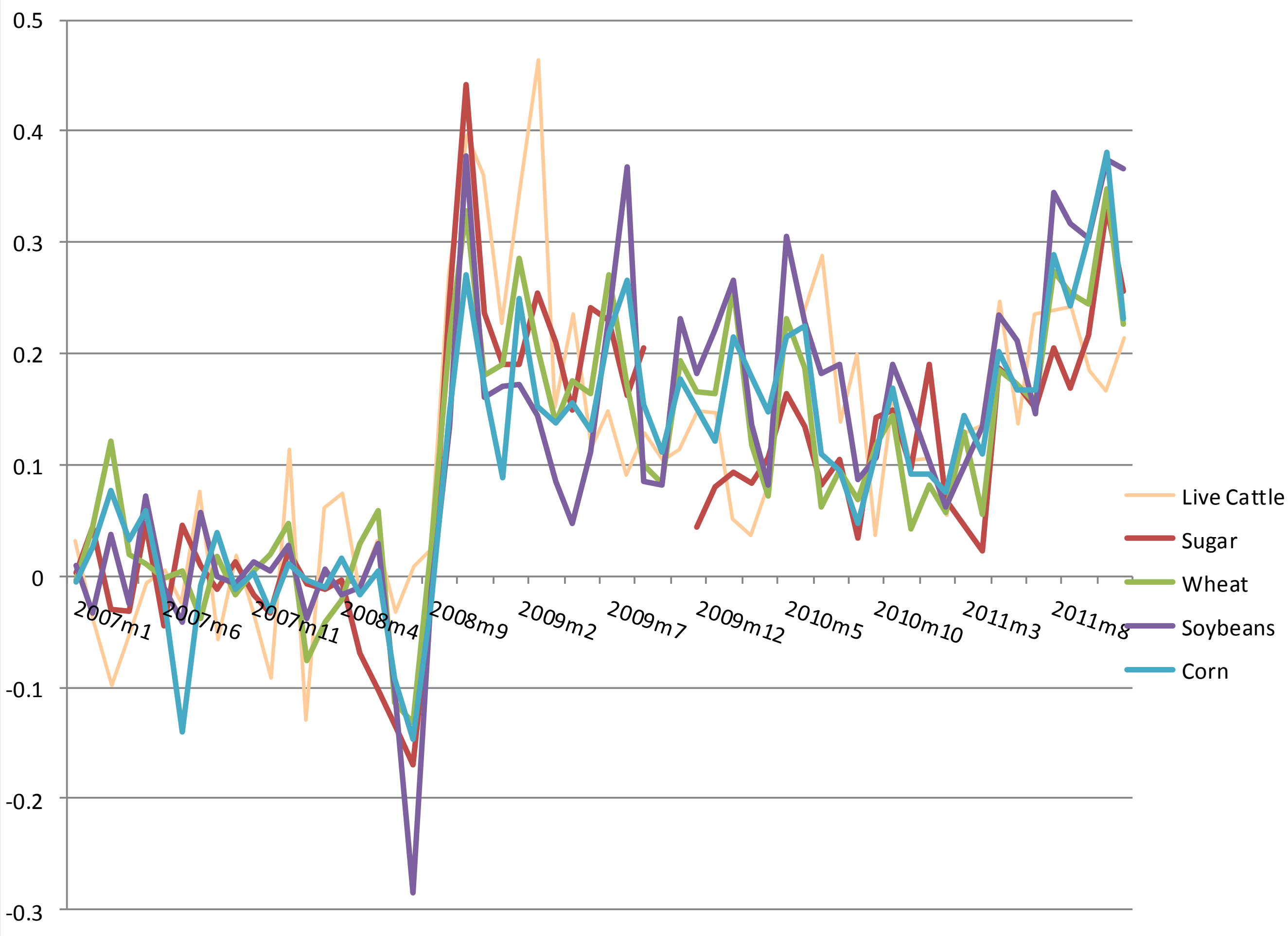
Source: Bicchetti & Maystre (2012) calculations based on Thomson Reuters Tick History database

After LB correlations become positive and significant (here WTI)



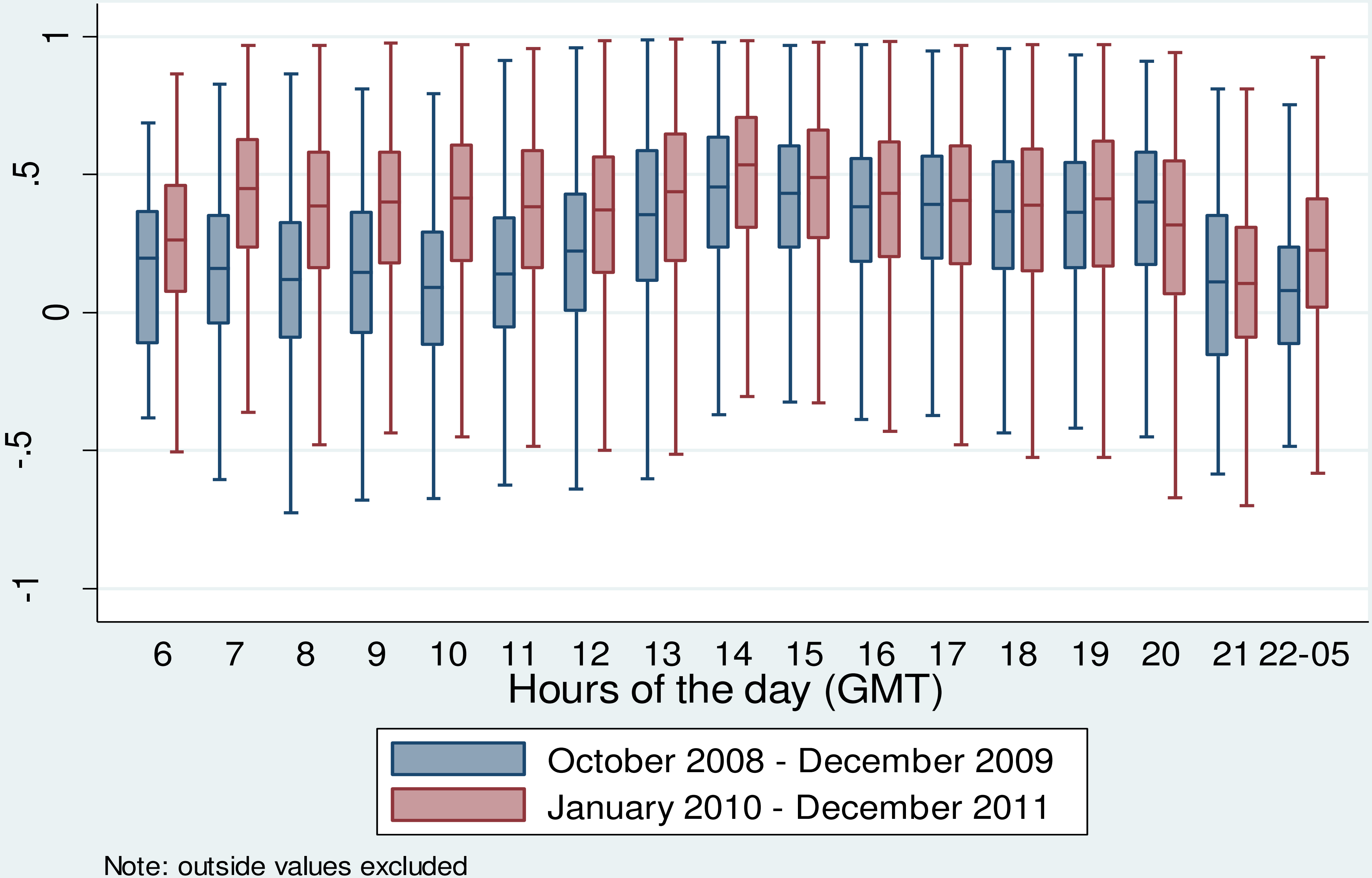
Source: Authors' calculations based on Thomson Reuters Tick History database

Including live cattle!!!!



Source: Bicchetti & Maystre (2012) calculations based on Thomson Reuters Tick History database

Europe catching up



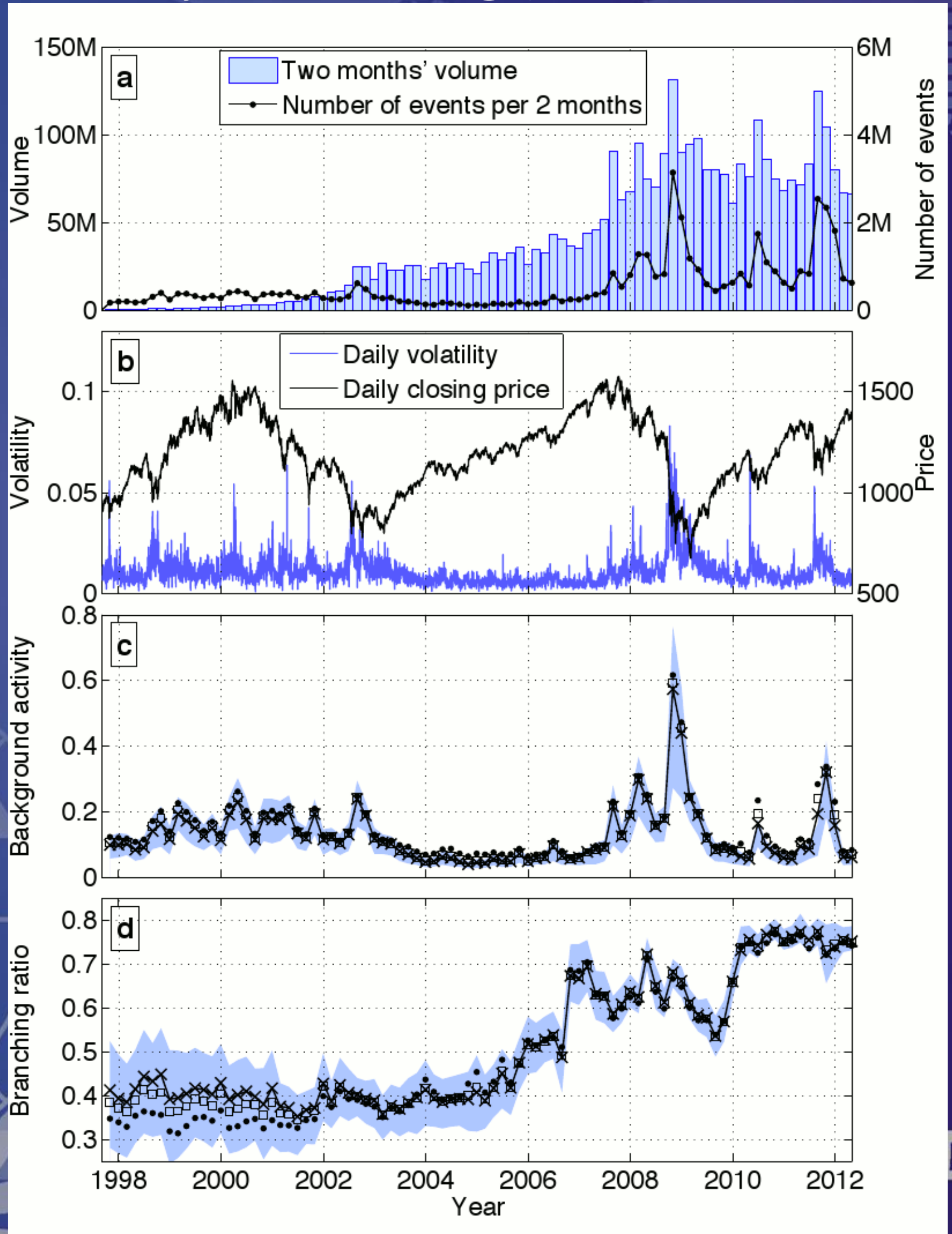
Source: Bicchetti & Maystre (2012) calculations based on Thomson Reuters Tick History database

What does that teach us?

- Fundamentals for the US/EU stock market and commodities markets differ greatly; and different fundamentals cannot induce similar price movements at the same time continuously and consistently for the past few years across all the markets investigated.

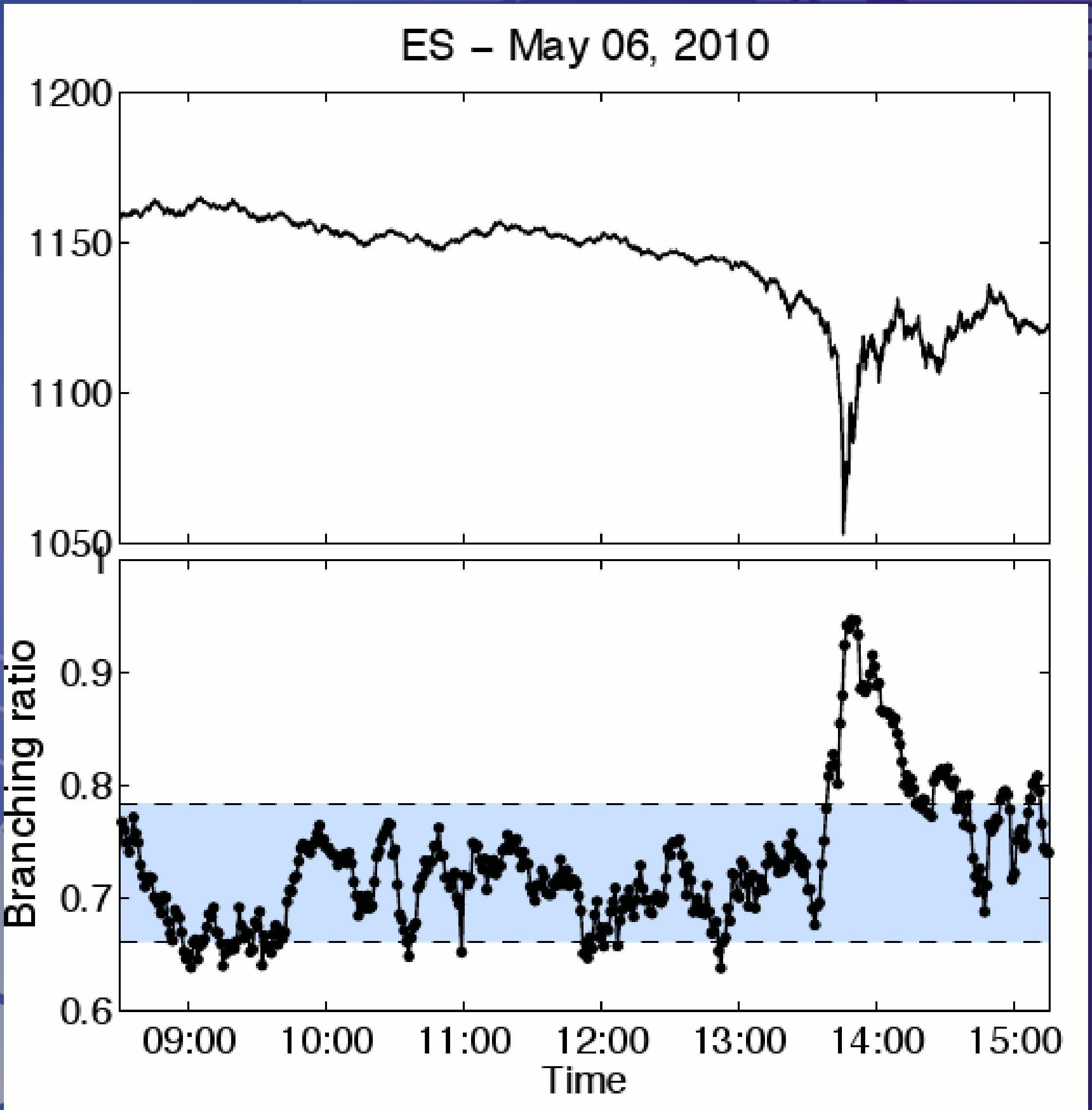
- That is I – M – P – O – S – S – I – B – L – E based on fundamentals

Filimonov & Sornette developed a method to measure "reflexivity" or herding (2012, forthcoming)

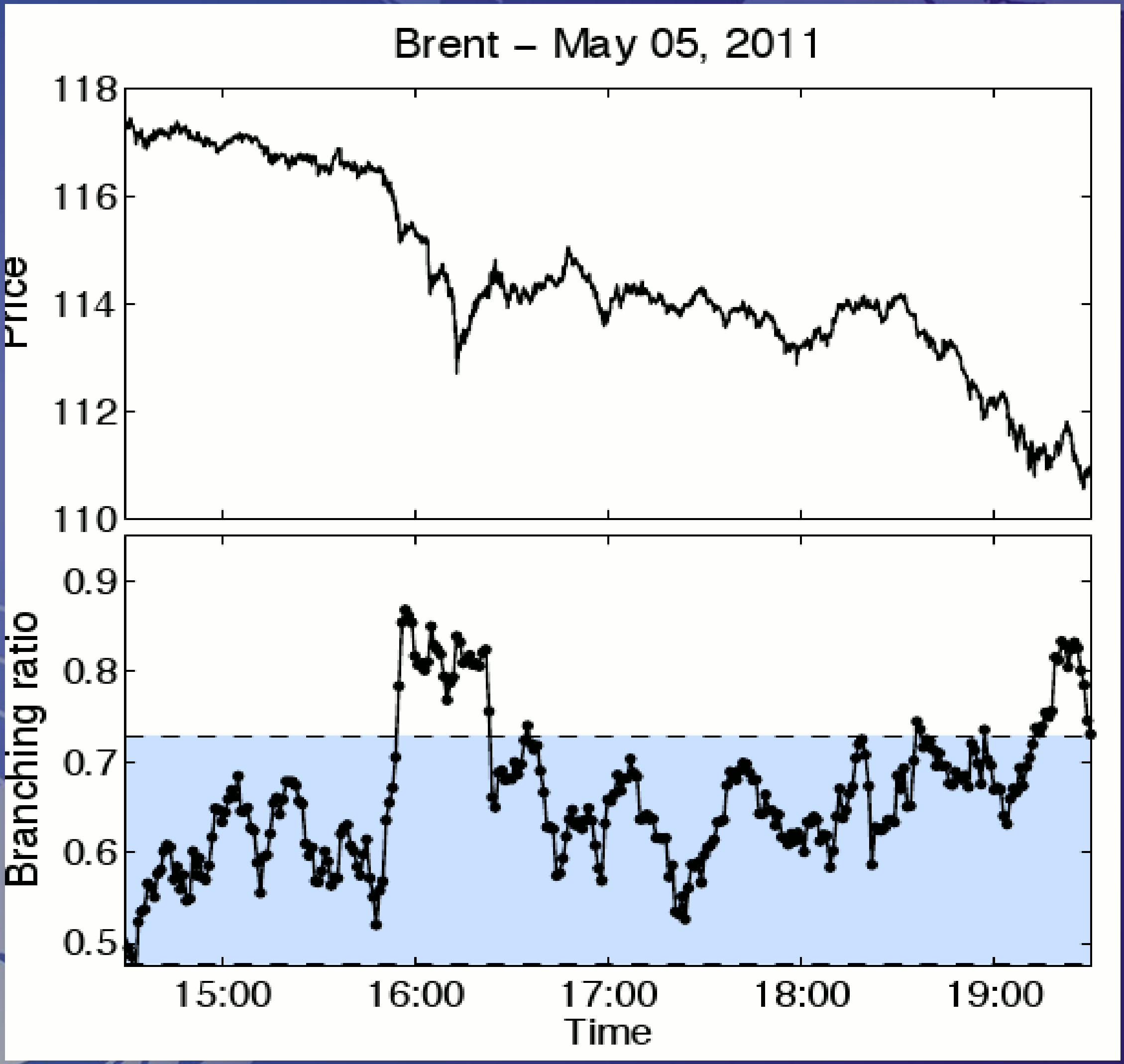


E AND DEVELOPMENT

Flash crash – almost 100% of the trades are "reflexive" = not based on fundamentals



Filimonov, Bicchetti, Sornette & Maystre measured herding on commodity markets (2012, forthcoming)



Source: Bicchetti & Maystre (2012) calculations based on Thomson Reuters Tick History database

What does that mean?

- Recent financial innovations on commodity futures exchanges have an impact on the price discovery process

- Herding shift market away from fundamentals (Frankel & Froot 1990)

- Feedback characteristics, which are self-reinforcing (Smith 2010)

- Works best during turbulent times (Sept 2008)

- Overall effect destabilizing, penalize the economy, little or no social benefit

UNCTAD position

- Increasing transparency in physical markets. Providing better and more timely data on fundamentals.
- Improving transparency in commodity futures exchanges and over-the-counter markets. Providing more data on market participants and position-taking, at least to regulators.
- Tightening regulation of financial investors. This could include the suppression of certain vehicles for investing in commodities, the imposition of position limits and a ban on proprietary trading by financial institutions that are involved in hedging the transactions of their clients. Internationally coordinated measures.
- Introducing a transactions tax system. This could generally slow down financial market activities, in particular high-frequency trading.
- Establishing schemes to deal with speculative bubbles. Market surveillance authorities could be mandated to intervene directly in exchange trading on an occasional basis by buying or selling derivatives contracts with a view to averting price collapses or deflating price bubbles. Such intervention could be considered a measure of last resort to address the occurrence of speculative bubbles if reforms aimed at achieving greater market transparency and tighter market regulation are either not in place or prove ineffective.