HOT TOPICS IN RISK MANAGEMENT: OPEN QUESTIONS POSED BY THE CRISIS

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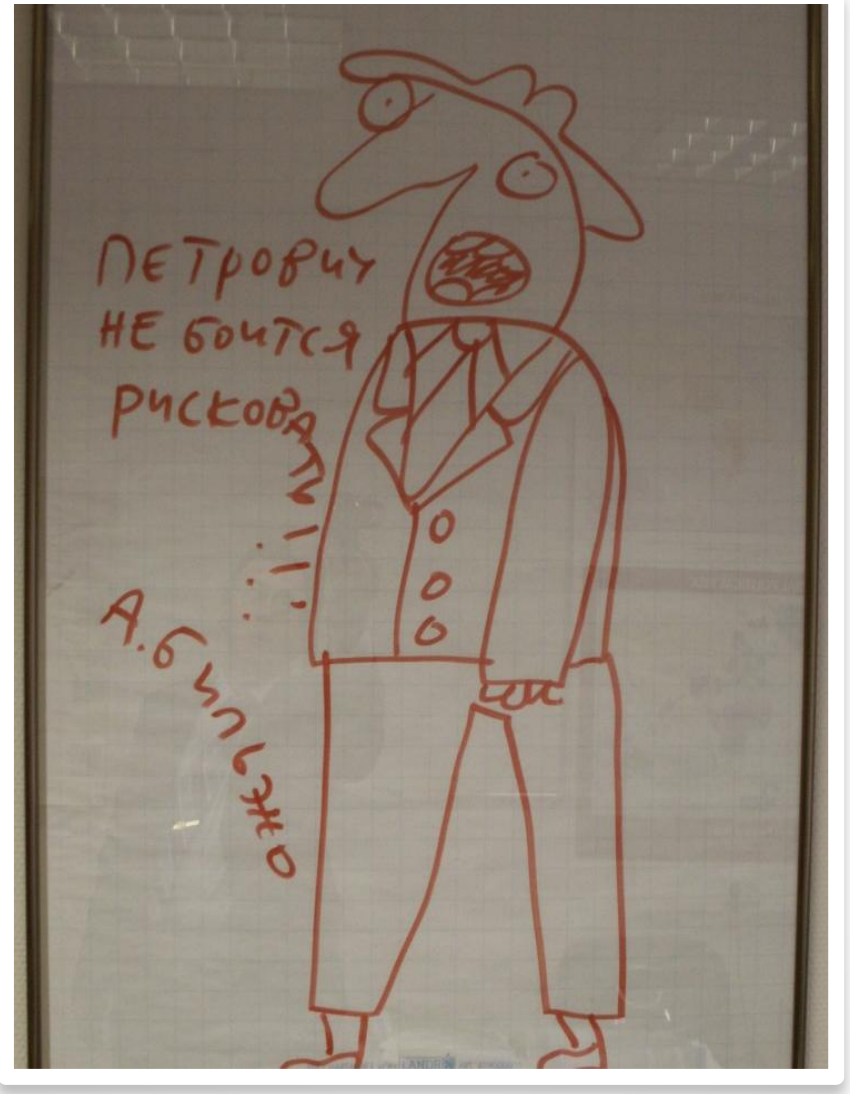
Why Petrovich do not afraid to take risk?



Some economic considerations

- Negative externalities
- Agency costs
- Ersatz-capitalism (Joseph Stiglitz)
- Moral hazard
- Systemic risk
- Liquidity
- Risk free rate
- Regulation and capital arbitrage
- Riskiest portfolio structure when leverage limited (Smirnov, Skvortsov 2002)
- Risk management procedures and regulation requirements that can destabilize market
- Agent interaction, market microstructure

‘Risk-sensitive’ regulation failed to stop the crisis?

- “If the bad apple theory were correct, financial crises would be random, arising whenever there was a sufficient concentration of evil-doers. But crashes are not random; they always follow booms. And booms are not caused by people doing things they know are risky, but by people doing things they perceive as safe; so safe as to justify doubling up and betting the house. This is the essential challenge of banking regulation, a challenge ill served by the “Basel II” approach of requiring the banks to put aside capital depending on their perception of risks. So-called “risk-sensitive” regulation adds fire to the boom and ice to the bust”.
- *Prof Avinash D. Persaud*

Deficiencies of regulation

- Alexander *et al.* (2007) also critiqued the role of Basel I and II in having produced procyclical and homogenous liquidity demanding activity during a crisis which exacerbates the down turn leaving no stabilizers from within the sector. It is well known that marginal cost pricing at the level of an individual unit is fallacious for pricing and modelling economic activities that have negative externalities even as far back as Pigou (1948) and the Tragedy of Commons (Hardin, 1968).

What is Liquidity

- Justice Potter Stewart's avoidance of a definition of pornography using the pragmatic 'I'll know it when I see it' is not appropriate if we are to conduct any meaningful analysis of liquidity.

- (Keating, Marshall 2010)

Market liquidity

- Liquidity risks are not accounted for in pricing models used in trading on the financial markets. Since all models are not geared towards this scenario, all participants in an illiquid market using such models will face systemic risks.
- Liquidity reserve vs capital reserve: when Bear Stearns defaulted in 2008, its capital reserve where above the minimal regulatory capital required by Basel II, but was not available (liquid) for meeting margin calls.

Basel findings (an excerpt)

FROM:

Findings on the interaction of market and credit risk

Basel Committee on Banking Supervision

Working Paper No. 16, May 2009

Liquidity issues for the interaction between market and credit risk

- *Liquidity conditions interact with market risk and credit risk through the horizon over which assets can be liquidated.*
- *In particular, deteriorating market liquidity often forces banks to lengthen the horizon over which they can execute their risk management strategies.*

Continuation…

- *As this time horizon lengthens, overall risk exposures generally increase, as does the contribution of credit risk relative to market risk. The liquidity of traded products can vary substantially over time and in unpredictable ways. Such liquidity fluctuations, all else equal, should have a larger impact on prices of products with greater credit risk.*

Continuation…

- Liquidity risks are not accounted for in pricing models used in trading on the financial markets. Since all models are not geared towards this scenario, all participants in an illiquid market using such models will face systemic risks.

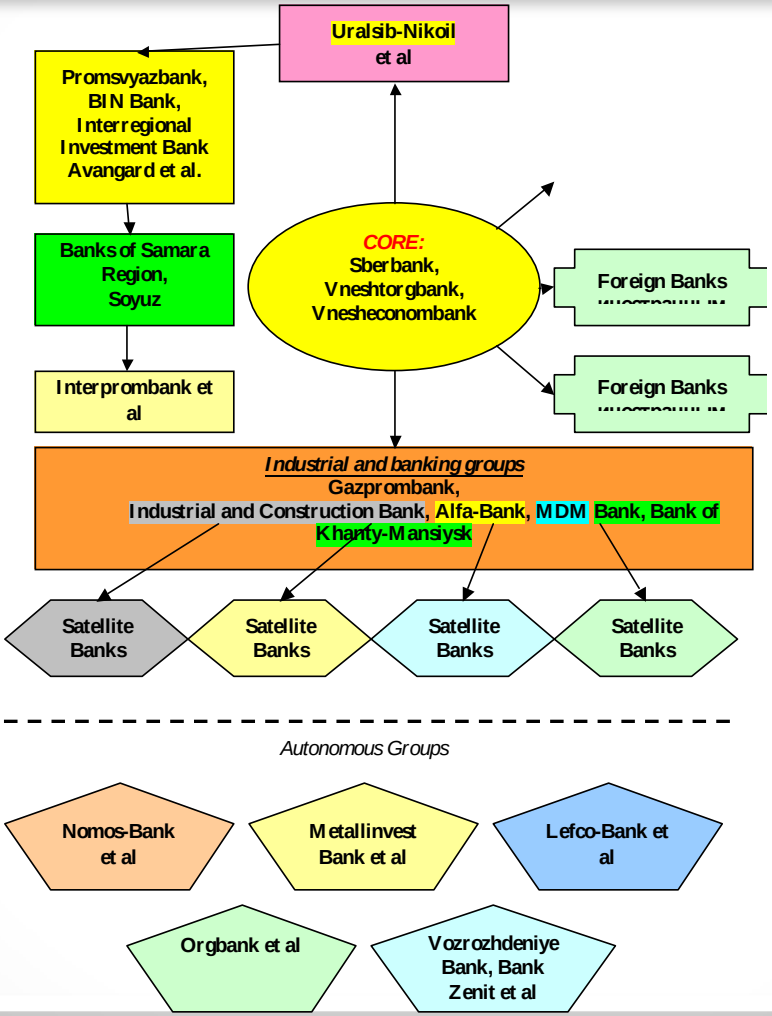
Global Financial Stability Report 2009: when risk become systemic

- The GFSR 2009 feature methodologies that can shed light on when direct and indirect financial linkages can become systemic. Specifically, the authors present complementary approaches to assess financial sector systemic linkages, including:
- • ***The network approach,*** which tracks the reverberation of a credit event and a liquidity squeeze throughout the system. • ***The co-risk model,*** which exploits market data to assess systemic linkages at an institutional level and is an important method of assessing the markets' perception of how much more tightly the fortunes of financial institutions are linked together during stress times. • ***The default intensity model,*** which measures the probability of failures of a large fraction of financial institutions (default clustering) as a result of both direct and indirect systemic linkages.

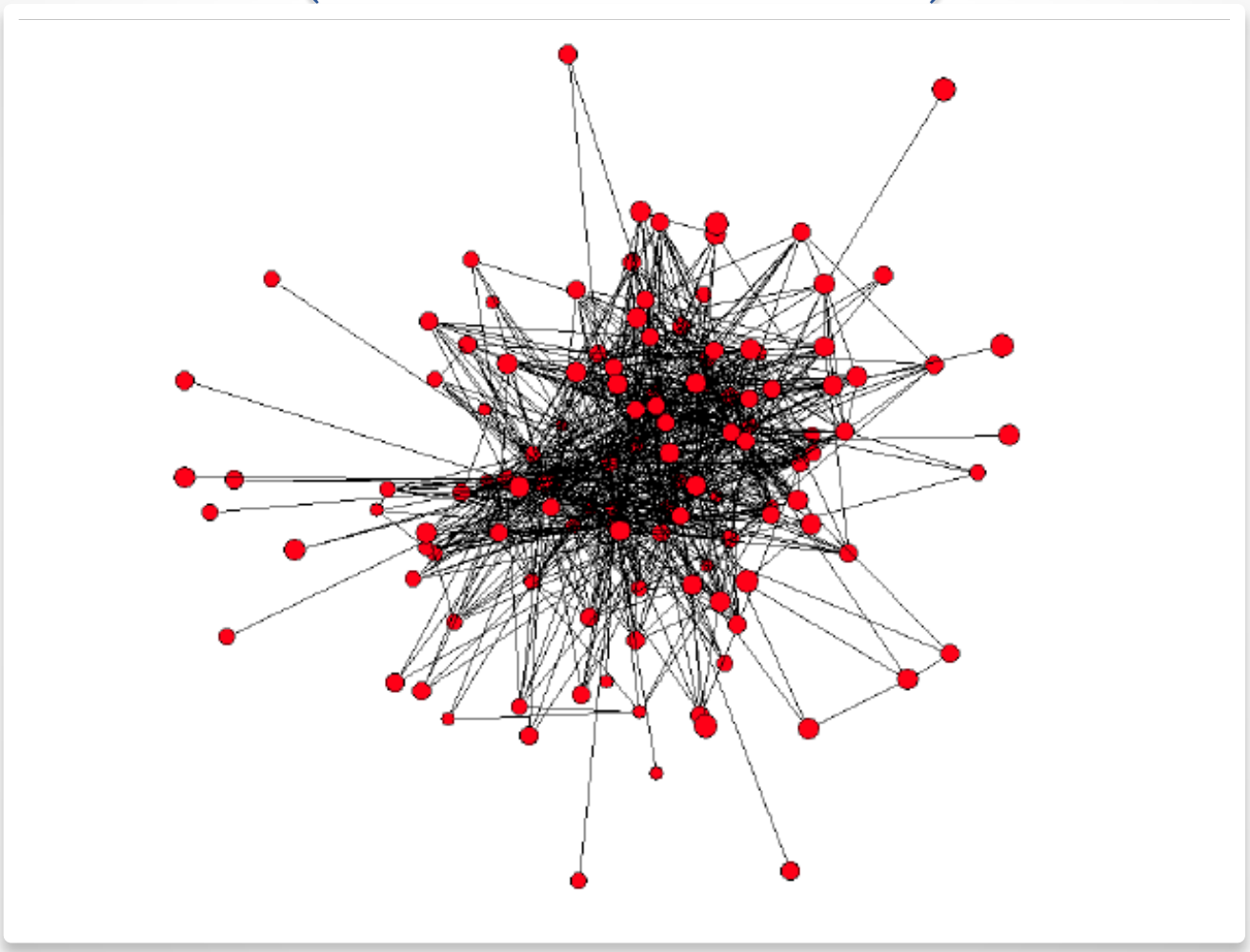
Russian Interbank market liquidity (Buzdalin, Smirnov et al, 2005)

- It was a part of the work done in 2005 for Deposit Insurance Agency. We were using the data on the number and volume of the inter-bank lending of the Russian banks in the first quarter 2005.
- Since only about 250 Russian banks are active on the inter-bank lending market, the suggested algorithm is suitable only for these banks, whereas the available statistic data is insufficient for clusterization of other banks. However, the 250 banks active on the inter-bank lending market account for 90% of the total assets of the banking system.
- Based on the computations performed, 18 main clusters were identified (see **next slide**). The hierarchical structures within the banking system are represented by arrows that indicate the banks of the senior clusters that redistribute liquidity to the subordinate

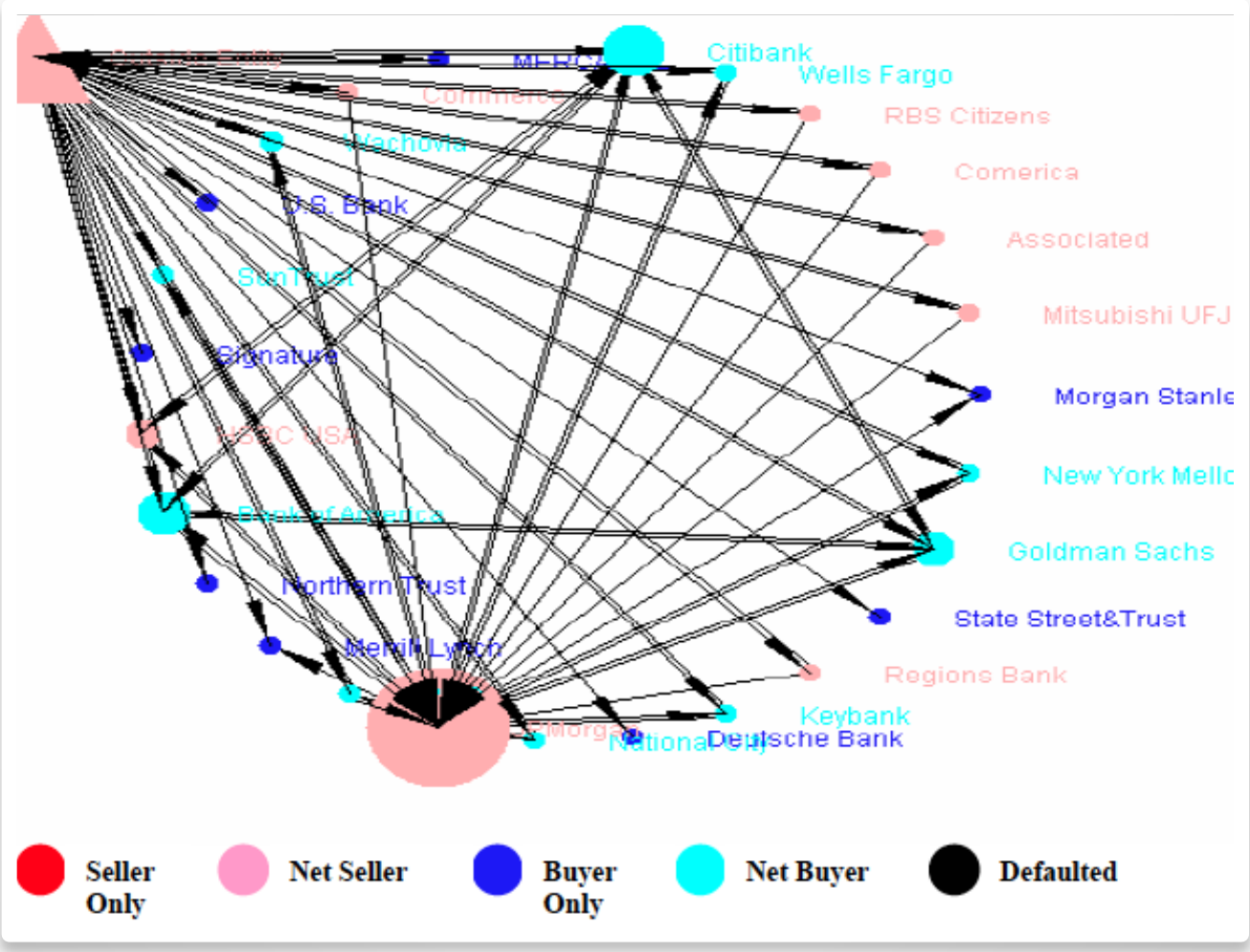
Identified clusters



Brasilian interbank network (Cont & Bastos 2009)



The Empirically Constructed CDS Network for US Banks and Outside Entity (Markose et al 2010)



April 2010 GFSR

- The report examines systemic risk and the redesign of financial regulation (in particular, Implementing Systemic-Risk-Based Capital Surcharges) ;the role of central counterparties in making over-the-counter derivatives safer; and the effects of the expansion of global liquidity on receiving economies.

Liquidity-easing measures impact

- "The global liquidity cycle started in 2003 and accelerated from the second half of 2007 when country authorities began to undertake unprecedented liquidity-easing measures to mitigate the effects of the crisis. While helping stabilize the financial system and support the return to growth, current easy global liquidity conditions and the accompanying surge in capital flows pose policy challenges to a number of countries where the crisis did not originate, with the primary challenge being an upside risk of inflation expectations in goods and asset markets. Such "liquidity-receiving" countries have had to ease domestic monetary conditions in response to both the slowdown in global demand and the acceleration in global liquidity, adding further pressure to asset prices".

Nouriel Roubini : if another crisis were to occur down the line, its going to be even more virulent then the last one measures

- **WEDNESDAY, FEBRUARY 2, 2011**
- **Nouriel Roubini** :...*I don't expect that my views are going to be implemented during this crisis. We might have to wait until the next one, until more radical proposals will be considered. My worry is that if we don't create a system where these crises occur less frequently, then the backlash we have seen in recent times against market oriented economies, against reforms, against globalization, against free trade, could become more severe the next time around. The lesson is actually if another crisis were to occur down the line, it's going to be even more virulent then the last one, even more damaging and costly for any measure you want to look at, income, jobs, wealth, fiscal costs. We just can not afford that....*
- *in www.spiegel.de*