



The Global Roots of the
Current Financial Crisis
and its Implications for
Regulation
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Comments by
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Policy action in the financial crisis



- Central bank
- Longer term loans
- Relax collateral requirements
- Lend domestic currency and USD
- Swap lines with the Federal Reserve
- Emergency liquidity assistance to banks
- Interest rate cuts
- Government
- Increase deposit insurance
- Guarantees
- Capital injections
- Public administration of failed banks

The financial safety net

- The objective is to protect
- The financial system as a whole
- Depositors against bank failures

Why do externalities problems arise in the interbank market?



- Banks have overlapping claims
- A chain of unsettled transactions may arise in the interbank market if one bank faces problems
- Difficult to distinguish banks with liquidity problem from those with solvency problems
- If confidence is undermined a gridlock may occur in the interbank market

The role of the central bank

- Asymmetric information provides a motive for the LLR function Acharya, Gromb & Yorulmazer (2008)
- The central bank has more information than individual participants
- The central bank can act as a potential competitor: squeezes the price of liquidity
- Liquidity support by central banks only to solvent financial institutions

The role of the government



- Capital regulation
- Supervisory intervention
- Deposit insurance
- Capital injections to insolvent institutions of systemic importance
- Public administration of failed banks

The problem

- The traditional view on capital-regulation is too focused on defaults by individual banks
- Agency problems and externalities neglected
- Fire sales
- Credit crunch
- In a bad state too much liquidation and too little recapitalization
- In a good state too much profit and mismanagement

The solution

- State-contingent capital insurance
- The insurer of the bank
- Puts \$ X billion into a custodial account
- No event: \$ X billion + insurance premium + interest returned to insurer
- Systemic event: \$ X billion transferred to the insured bank
- Still guaranteed not to default in either state
- Agency problem attenuated: less cash in a good state

Implementation

- Participants: All financial institutions facing capital requirements
- Providers: individual investors, pension funds, SFW
- Triggers
 - Losses that affect aggregate bank capital
 - Uniform standards in each major country or region
 - A) Aggregate bank losses in the domestic economy exceeds a significant amount
 - B) An index of bank stock prices below a certain threshold

Discussion

- An important paper on a timely topic
- The basic idea of applying insurance policies is good
- Can be applied to solve externality problem in financial markets without tax payers money
- My comments
 - The trigger
 - The role of collateral
 - The price of the insurance
 - Other solutions involving the government

The trigger

- Is it possible to implement different triggers in different countries or regions when markets are global?
- Market price of risk has increased everywhere in the current crisis.
- Is it possible to base the trigger for a specific bank on losses of all other banks *except* the covered bank?
- How do you define all other banks when several are defaulting?
- Is not a firm-specific trigger better?
- It may reduce the probability of distress for each institution
- It may also be more in line with the overall idea of a market solution

The role of collateral

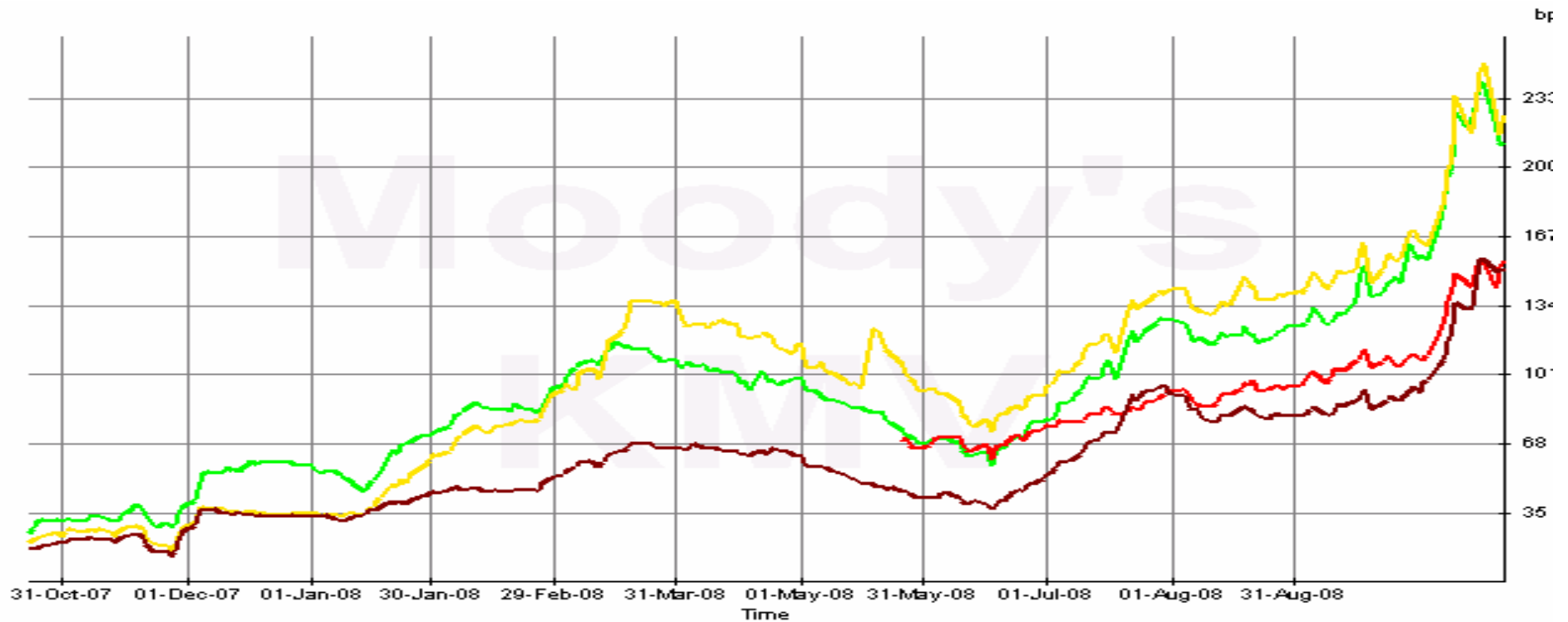
- In the present crisis infusions of equity may not help bank start lending
- For banks to lend they must borrow which requires collateral, which is in short supply
- Restoring the value of collateral is necessary
- Can be implemented by selling insurance against default on good assets (AAA) or by purchasing bad collateral

The pricing of the insurance is difficult



- Claims have a low probability of occurrence, but occur in a very bad state
- A global crisis increases the global risk premium
- The global risk premium affects the cost for all banks but is not related to mismanagement everywhere
- Therefore the insurance fee should be lower than in a crisis situation

EDF-Implied CDS Spreads for Top Four Swedish Banks



Plot: Values

Period: Last 1 Year

From: October 23, 2007

Currency: SWEDISH KRONER[SEK]

To: October 23, 2008

Description

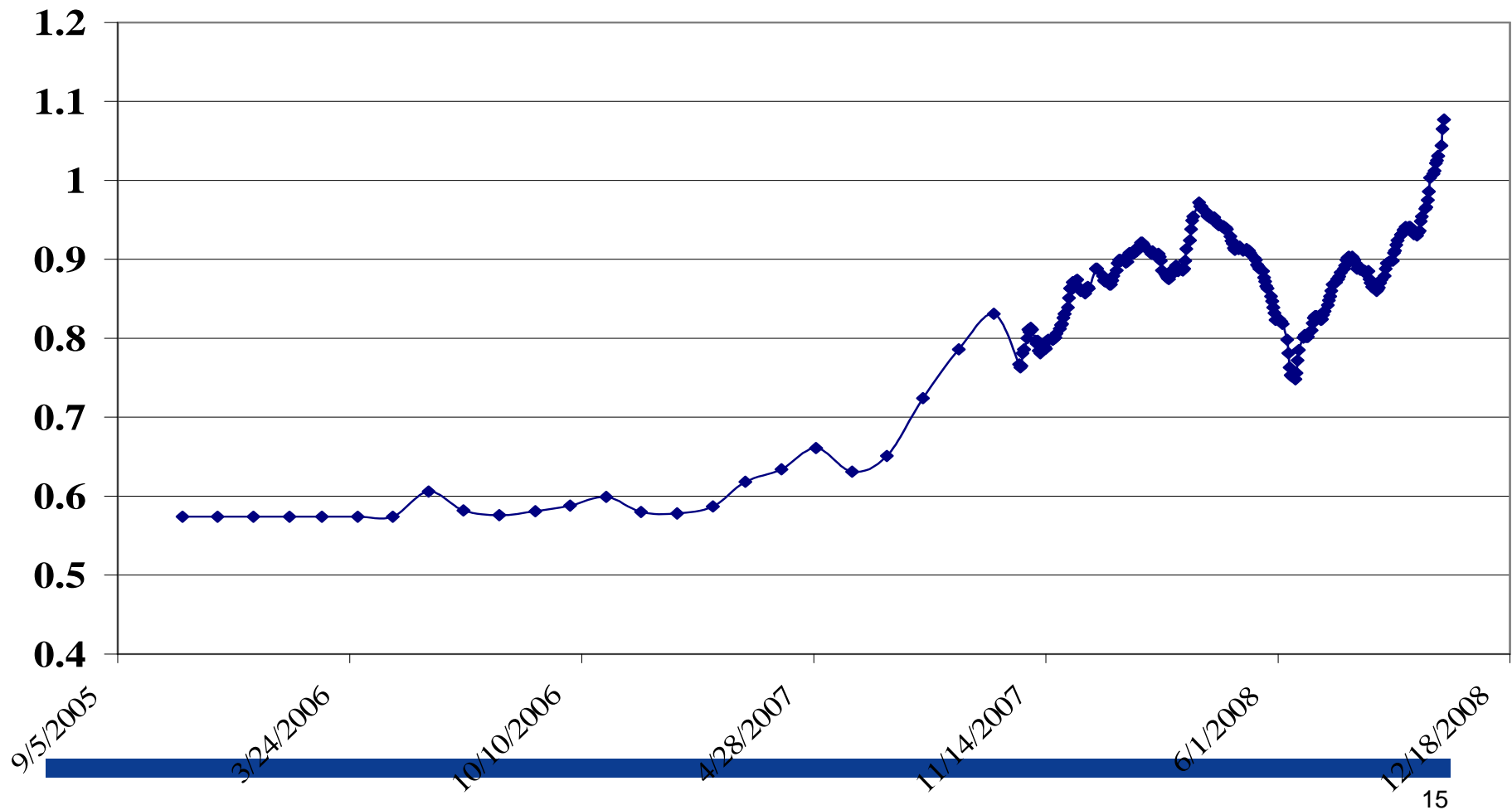
— SWEDBANK AB [SWEDA] EICDS
 — NORDEA BANK AB [NDA] EICDS
 — SKANDINAVISKA ENSKILDA BANKEN [SEBA] EICDS
 — SVENSKA HANDELSBANKEN AB [SHBA] EICDS

Value	As Of
211	22-Oct-08
155	22-Oct-08
225	22-Oct-08
151	22-Oct-08



Market Price of Risk, as Illustrated by the Sharpe Ratio

Market Sharpe Ratio



Rochet (2008)

- Similar to KSR
- Inspired by Homström & Tirole (1998)
- A contingent bond issued by the Government
- Conditioned on the same trigger as KSR
- Same insurance properties as KSR
- No need to monitor the solvency of the issuer
- Liquidity only issued ex-post
- The government may be superior than the market as it can implement taxes in the future

The government borrowing guarantee



- Broad category of liabilities from 3 months to 5 years
- For liabilities less than one year: a uniform fixed fee set at 0.5 per cent of the guaranteed amount
- For liabilities with maturities greater than one year the fee will be risk-based
- Based on CDS spreads 1/01 2007 – 31/08 2008 plus 0.5 percentage points

The price of the insurance

- Cheaper than during the present crisis but more expensive than during normal times
- High enough to provide the insurer a reasonable return
- Low enough to prevent a deep and long downturn
- Can contingent claims analysis be applied to set the price of the fee to cover bank's firm-specific risk in a uniform way by applying CCA-analysis?

Pros and cons

- A larger role for government
- But the cost of the financial guarantee could be based on the market value of the insurance
- The implicit put option associated with the debt of the banks gives the value of the insurance
- The value can be converted to a spread which gives the risk-based premium expected to cover the cost of the guarantee for a given horizon.

Conclusions

- I like the idea of applying insurance policy to solve the externality problem
- A firm-specific trigger might be better
- More work on risk-adjusted pricing of the insurance needed
- A global crisis increases the global risk premium
- Restoring the value of collateral is also important
- The government may be superior than the market as it can implement taxes in the future