

**Discussant comments on
Financial intermediation, risk taking and monetary policy**

Simona Cociuba, Malik Shukayev and Alexander Ueberfeldt

Prepared for the 2nd BIS CCA Conference on
“Monetary policy, financial stability and the business cycle”

Ottawa, 12–13 May 2011

Discussant*: Benôit Mojon

Affiliation: Bank of France

Email: benoit.mojon@banque-france.fr

* These comments reflect the views of the author and not necessarily those of the BIS or of central banks participating in the meeting.

Discussion of

**Financial intermediation, risk taking
and monetary policy**

by Cociuba, Shukayev and Ueberfeldt

Benoit Mojon (Banque de France)

**Monetary Policy, Financial Stability and the
Business Cycle**

BIS, Bank of Canada, Ottawa, 12 May 2011

Outline

- Thanks to the organisers
- Thanks to the authors
- My take on the model

Thanks to the authors

- Very rich model (Wall Mart)
 - 4 assets, 2 types intermediaries, 2 states at each period, 2 labor markets,...
 - Calibrations
 - Simulations

The model set up

Time zero: the banker knows it will be revealed his type at the next stage

proba	return	<u>Risky bank</u>		return	return	<u>Safe bank</u>		return
p	q(risk,good)	k	z	rz	q(safe,good)	k	z	rz
1-p	q(risk,bad)				q(safe,bad)			
	rb	b	d	rd		b	d	rd

about assest returns: $q(\text{risk,good}) > q(\text{safe, good}) > q(\text{safe,bad}) > q(\text{risk,bad})$
 about Basel K R: $z > k^*$ Cooke ratio

All bankers, who are ex ante "identical"

They collect capital and deposits to invest into the risky asset and treasury bonds.

The model set up

Time 1: the banker is revealed his type

And Risky bankers want to use repo to expand their exposure to the risky asset.

proba	return	Risky bank		return
p	q(risk,good)	k+Repo	z	rz
1-p	q(risk,bad)			
	rb	b	d	rd
			Repo	r_mp

return	Safe bank		return
q(safe,good)	k	z	rz
q(safe,bad)			
rb	b	d	rd
r_mp	Repo	????	

about assest returns: $q(\text{risk,good}) > q(\text{safe, good}) > q(\text{safe,bad}) > q(\text{risk,bad})$

about Basel K R: $z > k \cdot \text{Cooke ratio}$

Collateral constraint $\text{Repo} < b$

Monetary policy sets the repo rate r_{mp}

Issues / the set up

- Why can risky bankers increase investment in the risky asset at period 1?
- How does the Repo loan affects the balance sheet of the safe bankers? Where is the cash of these loans coming from?
- Why grant or authorize Repo at all?

The policy questions

proba	return	Risky bank		return	return	Safe bank		return
p	q(risk,good)	k+Repo	z	rz	q(safe,good)	k	z	rz
1-p	q(risk,bad)				q(safe,bad)			
	rb	b	d	rd	rb	b	d	rd
			Repo	r_mp	r_mp	Repo	????	

about asset returns: $q(\text{risk,good}) > q(\text{safe, good}) > q(\text{safe,bad}) > q(\text{risk,bad})$
 about Basel K R: $z > k \cdot \text{Cooke ratio}$
 Collateral constraint: $\text{Repo} < b$
 Monetary policy sets the repo rate r_{mp}

How to set r_{mp} , the Cooke ratio (and a haircut on repos) optimally?

Monetary policy and (excess) risk taking

bank's owners over-invest in the risky
asset

Expected profits of the risky bank **without risk shifting** (planner's pbm)

$$r_z z = p [q(\text{risk,good}) (k+\text{Repo}) + r_{\text{mp}} (\text{B-Repo}) - r_d d] \\ + (1-p) [q(\text{risk,bad}) (k+\text{Repo}) + r_{\text{mp}} (\text{B-Repo}) - r_d d]$$

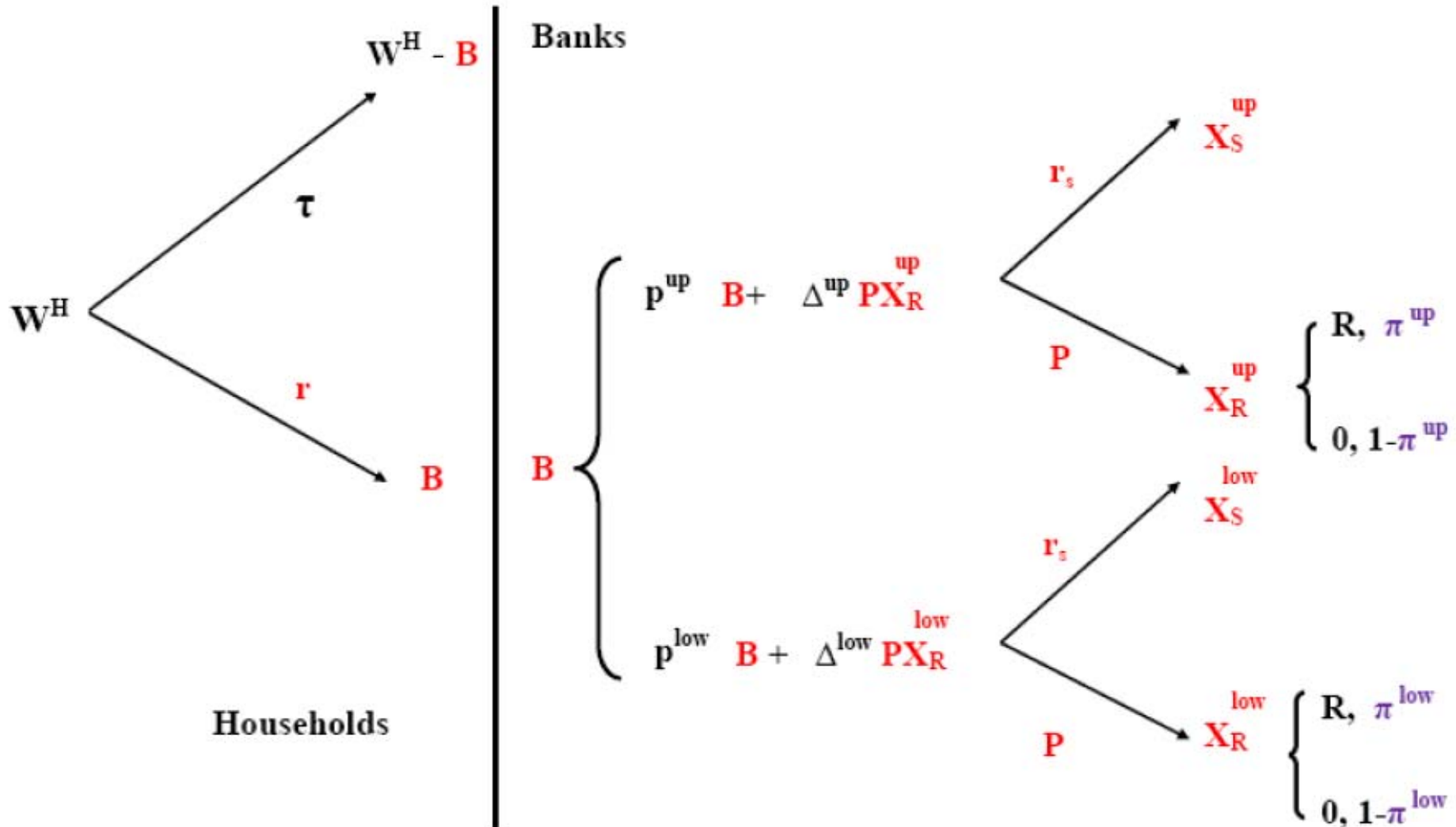
Expected profits of the risky bank **with risk shifting**

$$r_z z = \text{Max} \{ [q(\text{risk,good}) (k+\text{Repo}) + r_{\text{mp}} (\text{B-Repo}) - r_d d] ; 0 \}$$

Monetary policy and (excess) risk taking

- What is the convexity that limits the scale of risk shifting?
- Without convexity, risky banks maximise repos, $\text{Repo} = b$, and the monetary interest rate has no impact on risk incentives.
- Alternative: have an valuation effect of interest rate that changes risks pay-offs
 - Adrian and Shin
 - Dubecq, Mojon and Ragot
 - Challe, Mojon and Ragot

Monetary policy and (excess) risk taking



Monetary policy and (excess) risk taking

■ $P =$

$$\frac{\beta\pi R}{\Delta + r\beta\pi(1 - \Delta)} = \frac{\beta\pi^{up} R}{\Delta^{up} + r\beta\pi^{up}(1 - \Delta^{up})}$$

$$\pi^{up} = \frac{\pi}{\frac{\Delta}{\Delta^{up}}(1 - r\beta\pi) + r\beta\pi}$$

■ Lower levels of interest rates

- increase the value of the risky asset in the good state
- and the « endogenous » optimism of investors who lend to Fin. Intermediaries (Dubecq et al.)

Conclusions

- Highly sophisticated model
- To address a very relevant challenge for economic policy
- Potential improvements:
 - include description of the pay-offs
 - separate « auxillary » characteristics of the model
 - Get an empirical sense of mechanism at play for and against a « risk taking » channel of mon pol
- Carry on !

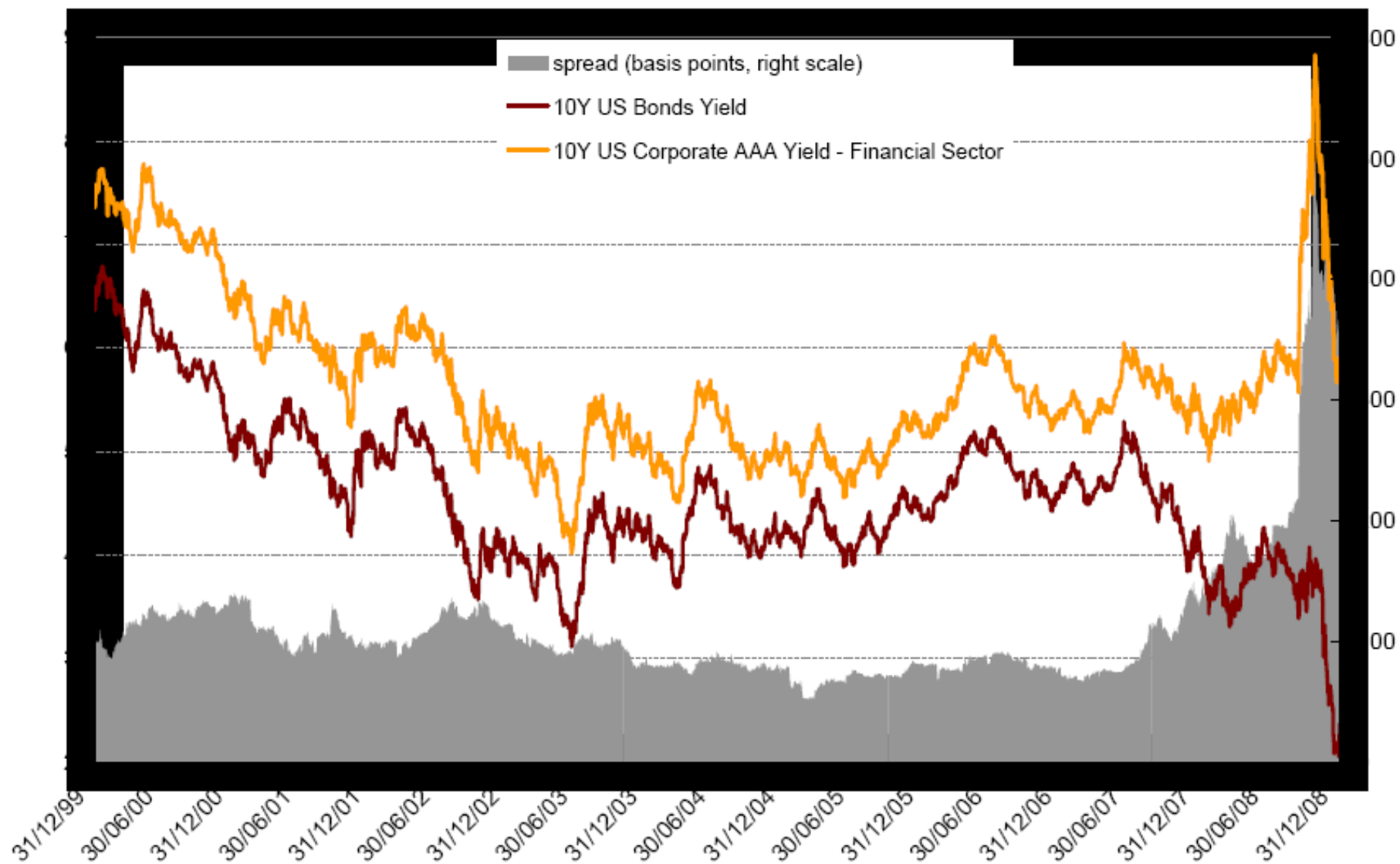


Fig 1: Spread between 10Y US T-Bonds and 10Y Bonds of US AAA Financial Companies