

# Discussion: Adverse Selection in Resale Markets for Securitized Assets

by Martin Kuncel

Sebastian Pfeil  
University of Bonn

BdF/TSE Conference  
"Securitisation: The Way Forward"  
October 2015

# Summary

- ▶ DSGE model with financial intermediation through securitization
- ▶ Continuum of financial firms owned by households with log utility
- ▶ Idiosyncratic shocks to investment opportunities:

$$TFP = \begin{cases} A^h & \text{with probability } \pi\mu \\ A^l & \text{with probability } \pi(1 - \mu) \\ 0 & \text{with probability } 1 - \pi \end{cases}$$

# Summary

- ▶ DSGE model with financial intermediation through securitization
- ▶ Continuum of financial firms owned by households with log utility
- ▶ Idiosyncratic shocks to investment opportunities:

$$TFP = \begin{cases} A^h & \text{with probability } \pi\mu \\ A^l & \text{with probability } \pi(1 - \mu) \\ 0 & \text{with probability } 1 - \pi \end{cases}$$

- ▶ Securitization:
  - ▶ Investing firms securitize part of the investment on primary market
  - ▶ All firms can trade securitized assets on resale market

# Summary

- ▶ DSGE model with financial intermediation through securitization
- ▶ Continuum of financial firms owned by households with log utility
- ▶ Idiosyncratic shocks to investment opportunities:

$$TFP = \begin{cases} A^h & \text{with probability } \pi\mu \\ A^l & \text{with probability } \pi(1 - \mu) \\ 0 & \text{with probability } 1 - \pi \end{cases}$$

- ▶ Securitization:
  - ▶ Investing firms securitize part of the investment on primary market
  - ▶ All firms can trade securitized assets on resale market
- ▶ Frictions in the model
  1. Asymmetric information on primary market
  2. Moral hazard on primary market (not modeled)  $\Rightarrow$  skin in the game
  3. Impossible to verify quality of assets on resale market  
 $\Rightarrow$  asymmetric information also on resale market

# Implicit Recourse on Primary Market

- ▶ Firms may offer implicit (noncontractual) recourse guaranteeing some minimum cash flow for the lifetime of a securitized asset
- ▶ Can be enforced by a punishment mechanism:
  - ▶ If a firm fails to honor recourse, others will punish it by never again buying securities from that firm
  - ▶ If a firm fails to punish, other firms assume it will never punish and therefore not honor recourse to that firm in the future

# Implicit Recourse on Primary Market

- ▶ Firms may offer implicit (noncontractual) recourse guaranteeing some minimum cash flow for the lifetime of a securitized asset
- ▶ Can be enforced by a punishment mechanism:
  - ▶ If a firm fails to honor recourse, others will punish it by never again buying securities from that firm
  - ▶ If a firm fails to punish, other firms assume it will never punish and therefore not honor recourse to that firm in the future
- ▶ Possible outcomes depending on **dispersion** of TFP ( $A^h - A^l$ ):
  - ▶ **low** dispersion: pooling equilibrium on primary market ( $h$  and  $l$  assets issued with implicit recourse)
  - ▶ **medium** dispersion: separating equilibrium on primary market (only  $h$  assets are issued and carry recourse)
  - ▶ **high** dispersion: past issuers of  $l$  assets default on implicit recourse and no punishment takes place

# Endogenous Adverse Selection on Resale Market

Pooling on primary market: **low** type assets issued **with recourse**

- ▶ As long as recourse is honored (low and medium dispersion of TFP), holders of these assets are uninformed about their quality

# Endogenous Adverse Selection on Resale Market

## Pooling on primary market: **low** type assets issued **with recourse**

- ▶ As long as recourse is honored (low and medium dispersion of TFP), holders of these assets are uninformed about their quality
- ▶ When recourse is no longer honored, holders privately observe quality
  - ▶ Sellers on the resale market become informed
  - ▶ Adverse selection problem
  - ▶ Depresses asset prices on resale market, investment and output



# Endogenous Adverse Selection on Resale Market

## Pooling on primary market: **low** type assets issued **with recourse**

- ▶ As long as recourse is honored (low and medium dispersion of TFP), holders of these assets are uninformed about their quality
- ▶ When recourse is no longer honored, holders privately observe quality
  - ▶ Sellers on the resale market become informed
  - ▶ Adverse selection problem
  - ▶ Depresses asset prices on resale market, investment and output
- ▶ The longer the preceding period of pooling on the primary market, the more low type assets with recourse exist and thus the more severe is the asymmetric information on the resale market

## Comments

**Very interesting channel** that endogenizes the degree of private information on the resale market for securitized assets

# Comments

**Very interesting channel** that endogenizes the degree of private information on the resale market for securitized assets

**Very rich model - Maybe even too rich?**

- ▶ Many results already known from Kuncl (2014)
- ▶ Even numerically only solvable for very specific parameter constellations under which endogenous switching iff exogenous TFP changes occur
- ▶ What is the minimum set of ingredients to generate endogenous asymmetric information on the secondary market?  
(e.g. start with a basic model that abstracts from adverse selection problem on the primary market)

# Business Cycles

- ▶ Motivated by empirical evidence: The cross-sectional dispersion of TFP is counter-cyclical

$$TFP_t^i = A_t \Delta_t^i \text{ for } i \in \{h, l\}$$

# Business Cycles

- ▶ Motivated by empirical evidence: The cross-sectional dispersion of TFP is counter-cyclical

$$TFP_t^i = A_t \Delta_t^i \text{ for } i \in \{h, l\}, \quad \text{where} \quad \frac{\partial(\Delta_t^h - \Delta_t^l)}{\partial A_t} < 0 \quad (1)$$

- ▶ ...but is the counter-cyclical in any way important for the main results of the paper or just for interpretation?

# Business Cycles

- ▶ Motivated by empirical evidence: The cross-sectional dispersion of TFP is counter-cyclical

$$TFP_t^i = A_t \Delta_t^i \text{ for } i \in \{h, l\}, \quad \text{where} \quad \frac{\partial(\Delta_t^h - \Delta_t^l)}{\partial A_t} < 0 \quad (1)$$

- ▶ ...but is the counter-cyclical in any way important for the main results of the paper or just for interpretation?
- ▶ Interpretation
  - ▶ The market dry-up in 2007 was **caused** by a deep recession - really?!
  - ▶ Length of recession increases in length of preceding boom - what is this statement based upon, given that the business cycle (governed by  $A_t$ ) is exogenous in the model?

# Reputation and Punishment Mechanism

- ▶ Incentives to punish firms that default on recourse: Firms that do not punish have a reputation to be weak and will not be able to benefit from recourse in the future
  - ▶ Recourse is provided to an SIV, how can the sponsor of the SIV discriminate between buyers with different reputations?
  - ▶ Reputation of non-punishing firms when all firms default?

# Reputation and Punishment Mechanism

- ▶ Incentives to punish firms that default on recourse: Firms that do not punish have a reputation to be weak and will not be able to benefit from recourse in the future
  - ▶ Recourse is provided to an SIV, how can the sponsor of the SIV discriminate between buyers with different reputations?
  - ▶ Reputation of non-punishing firms when all firms default?
- ▶ Who would punish if one firm defaults?
  - ▶ Only the holders of that firm's asset?
    - > there are still other firms that would buy from the defaulting firm



# Reputation and Punishment Mechanism

- ▶ Incentives to punish firms that default on recourse: Firms that do not punish have a reputation to be weak and will not be able to benefit from recourse in the future
  - ▶ Recourse is provided to an SIV, how can the sponsor of the SIV discriminate between buyers with different reputations?
  - ▶ Reputation of non-punishing firms when all firms default?
- ▶ Who would punish if one firm defaults?
  - ▶ Only the holders of that firm's asset?
    - > there are still other firms that would buy from the defaulting firm
  - ▶ All firms (also firms that did not own defaulting firm's assets)?
    - > how can they identify the defaulting firm given that recourse is assumed to be not detectable

# Explicit Guarantees

- ▶ Signalling with explicit retention is not considered
- ▶ Attention restricted to implicit recourse which is less costly (regulatory arbitrage)
- ▶ Explicit "skin in the game" identical for all issuers and only for one period

# Explicit Guarantees

- ▶ Signalling with explicit retention is not considered
- ▶ Attention restricted to implicit recourse which is less costly (regulatory arbitrage)
- ▶ Explicit "skin in the game" identical for all issuers and only for one period
- ▶ But what if issuers could use explicit guarantees to signal quality?
  - ▶ If signalling with **implicit** recourse does not work due to limitations to punishment, signalling with **explicit** retention might work
  - ▶ Trade-off between higher regulatory costs and more powerful signalling

Thank you!