

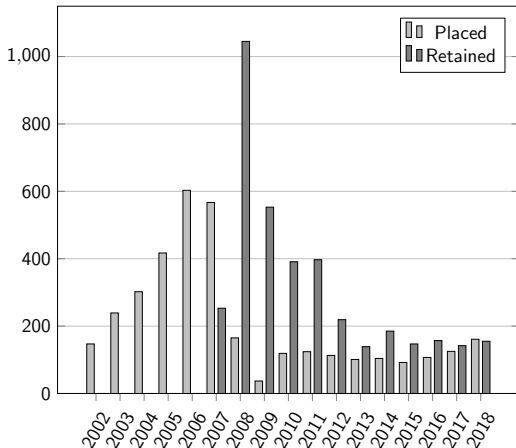
Conference: After the Crisis is Before the Crisis  
**Is Transparency a Solution for Agency Issues in  
Securitization? Evidence from the ABS Loan-Level  
Initiative.**

P. Klein, C. Mössinger, A. Pfingsten

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- 1 Motivation
- 2 Empirical Strategy
- 3 Empirical Results
- 4 Conclusion

## ABS issuances in Europe [bn. \$]:



Source: Securities Industry and Financial Markets Association (2019).

## Poor transparency of asset-backed securities (ABS) as a key driver of the latest financial crisis:

*“During the subprime crisis, the lack of transparency regarding SIVs compounded investors’ uncertainty and resulted in banks struggling to either roll over or refinance the maturing debt through new commercial paper issuance or asset sales.” (IMF, 2008)*

- Originators exhibited lax screening and monitoring incentives
  - Investors heavily relied on ratings
  - Mistrust eventually lead to ABS market illiquidity
- European Central Bank (ECB) launched loan-level reporting initiative in 2009 to revive the ABS market

## ECB's loan-level reporting initiative in a nutshell:

- *Main objectives:*
  - Restore investor trust in the ABS market
  - Facilitate the risk assessment of ABS used as collateral in monetary policy operations
- *Reporting requirements:*
  - Eight asset classes (RMBS, SME, auto, consumer, leasing, credit card, CMBS, public sector)
  - Pool-, tranche- and loan-level data quarterly reported in a standardized format

### Overall research topic:

Does transparency in the ABS market have *real effects* on bank securitization behavior?

## Transparency as potential remedy for agency problems:

- Originators expect market participants to assess disclosed data, and fear disciplinary actions
- Originators may adjust their policies regarding which loans to securitize and how to combine them in pools

### Resulting research questions:

- 1 Do banks securitize *better-performing* loan pools under the novel transparency regime?
- 2 Do banks securitize *better-diversified* loan pools under the novel transparency regime?
- 3 Do banks retain *poor-performing* loans on their balance sheet?

## We build on work by ERTAN ET AL. (2017, JAR):

- *Main finding:* loans originated under the novel transparency regime are of better quality (lower PD, delinquent amount and LGD, fewer days in delinquency)
- *Data:* European DataWarehouse, Q1/2013 – Q2/2014, SME

## Our contribution:

- Focus on pool-level in securitizations!
  - Continuous loan replacements  
( $\varnothing$  10 % new loans in a pool every reporting quarter)
  - Time period until a loan is securitized  
( $\varnothing$  7.5 quarters after its origination)
  - Portfolio diversification effects

## Data source:

- *Securitization data*: European DataWarehouse

## Data sample:

- *Asset class*: SME securitizations
- *Observation period*: 2012 – 2017
- *Quarterly data*: 12,315,037 loan-quarter, 3,852 tranche-quarter and 1,072 pool-quarter observations

## Data preparation:

- Prepare data at the loan- and tranche-level separately
- Aggregate loan- and tranche-level data at the pool-level
- Add bank variables from Fitch Connect



## Pools under the transparency regime are...

- 1 ...pools issued after the loan-level reporting requirements were announced in April 2011, OR
- 2 ...pools issued before April 2011 after a period of two years from their first reporting quarter.

## Timeline:

- Dec 2009 • ECB forms a technical group to determine the requirements of the new reporting standards.
- Apr 2011 • Disclosure requirements for SME loan securitizations are announced.
- Jun 2012 • European DataWarehouse is established.
- Jan 2013 • Loan-level reporting begins for SME loan securitizations.

## Comparing transparent to non-transparent pools:

### ① First regression model:

$$\text{Pool performance}_i = \alpha + \beta_1 \cdot \text{TransPool}_i + \beta' \cdot \text{controls}_i + \epsilon_i \quad (1)$$

### ② Second regression model:

$$\text{Pool diversification}_i = \alpha + \beta_1 \cdot \text{TransPool}_i + \beta' \cdot \text{controls}_i + \epsilon_i \quad (2)$$

### ③ Third regression model:

$$\text{Bank risk exposure}_i = \alpha + \beta_1 \cdot \text{TransPool}_i + \beta' \cdot \text{controls}_i + \epsilon_i \quad (3)$$

**① Pool performance measures:**

- Loss rate and default rate
- Rate of delinquent amounts, rate of delinquent loans, and number of days in delinquency

**② Pool diversification measures:**

- Single-name credit concentration risk index  
(UBERTI AND FIGINI (2010))
- Herfindahl-Hirschman-Indices of borrower characteristics  
(business type, geographic location, industry)

**③ Bank risk exposure:**

- Bank NPL ratio

## Regression models (pooled regressions):

- Fractional response regression model: Ratios as endogenous variables are bounded between 0 and 1
- OLS regression: Number of days in delinquency

## Further specifications:

- Controls: loan, borrower, tranche, pool and bank characteristics
- Time and country fixed effects
- Robust SE that are clustered with respect to the ABS pool

**Results: First regression model (I/IV)**
**1 Transparency pools perform better than other pools:**

	Loss rate	Default rate	Rate of del. amounts	Rate of del. loans	Number of days in del.
Transparency pool	-0.0229** (0.0095)	-0.0546** (0.0272)	-0.00323 (0.0037)	-0.0265 (0.0238)	-0.238** (0.0961)
Controls	Yes	Yes	Yes	Yes	Yes
Time + Country FE	Yes	Yes	Yes	Yes	Yes
N	1,072	1,072	1,072	1,072	1,072
Adj. $R^2$	0.1193	0.1443	0.0898	0.1088	0.4945

Marginal effects are reported.

Robust SE that are clustered w. r. t. the ABS pool are in parentheses.

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

**Results: First regression model (II/IV)**
**1 Subsample analysis:**

	Loss rate	Default rate	Rate of del. amounts	Rate of del. loans	Number of days in del.
Transparency pool	-0.0462** (0.0214)	-0.0523 (0.0562)	-0.00837 (0.0055)	-0.0977** (0.0424)	-0.478** (0.1798)
Controls	Yes	Yes	Yes	Yes	Yes
Time + Country FE	Yes	Yes	Yes	Yes	Yes
N	116	116	116	116	116
Adj. $R^2$	0.1874	0.2098	0.0928	0.0858	0.5575

Marginal effects are reported.

Robust SE that are clustered w. r. t. the ABS pool are in parentheses.

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

**Results: First regression model (III/IV)**
**1 Within pool analysis:**

	Loss rate	Default rate	Rate of del. amounts	Rate of del. loans	Number of days in del.
Transparency pool	-0.0171** (0.0084)	-0.0479** (0.0187)	-0.0103*** (0.0031)	-0.0581*** (0.0165)	-0.162** (0.0660)
ABS pool FE	Yes	Yes	Yes	Yes	Yes
Time x Country FE	Yes	Yes	Yes	Yes	Yes
N	1,072	1,072	1,072	1,072	1,072
Adj. $R^2$	0.2023	0.3302	0.1273	0.1622	0.8632

Marginal effects are reported.

Robust SE that are clustered w. r. t. the ABS pool are in parentheses.

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

**Results: First regression model (IV/IV)**
**1 Further transparency effect analysis:**

	Loss rate	Default rate	Rate of del. amounts	Rate of del. loans	Number of days in del.
Transparency pool	-0.0354*** (0.0095)	-0.0661** (0.0258)	-0.00830** (0.0039)	-0.0587** (0.0231)	-0.295*** (0.0973)
Number of previous reportings	-0.000105*** (0.0000)	-0.000121 (0.0001)	-0.0000370*** (0.0000)	-0.000240*** (0.0001)	-0.000585*** (0.0002)
Controls	Yes	Yes	Yes	Yes	Yes
Time + Country FE	Yes	Yes	Yes	Yes	Yes
N	1,072	1,072	1,072	1,072	1,072
Adj. $R^2$	0.1303	0.1471	0.0905	0.1091	0.5140

Marginal effects are reported.

Robust SE that are clustered w. r. t. the ABS pool are in parentheses.

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .



**Results: Second regression model (I/II)**
**② Transparency also affects pool diversification:**

	$\bar{I}$	Business type HHI	Geographic HHI	Industry HHI
Transparency pool	0.00884* (0.00518)	0.188* (0.107)	-0.0450* (0.0253)	0.0241** (0.00983)
Controls	Yes	Yes	Yes	Yes
Time + Country FE	Yes	Yes	Yes	Yes
N	580	580	580	580
Adj. $R^2$	0.1600	0.1183	0.1260	0.0263

Marginal effects are reported.

Robust SE that are clustered w. r. t. the ABS pool are in parentheses.

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

**Results: Second regression model (II/II)**
**2 Subsample analysis:**

	$\bar{I}$	Business type HHI	Geographic HHI	Industry HHI
Transparency pool	0.0172*** (0.00578)	0.162 (0.164)	-0.0700 (0.0430)	0.0709*** (0.0190)
Controls	Yes	Yes	Yes	Yes
Time + Country FE	Yes	Yes	Yes	Yes
N	79	79	79	79
Adj. $R^2$	0.2240	0.1734	0.1185	0.2240

Marginal effects are reported.

Robust SE that are clustered w. r. t. the ABS pool are in parentheses.

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

**Results: Third regression model: Bank risk exposure**
**3 Transparency also affects banks' risk exposure:**

	NPL ratio	NPL ratio
Transparency pool	0.0113 (0.00960)	0.0283** (0.0138)
Transparency pool x Loss rate		-0.410* (0.221)
Loss rate x Pool dynamics		2.263** (0.992)
Controls	Yes	Yes
Time x Country FE	Yes	Yes
N	194	194
Adj. $R^2$	0.0877	0.0885

Marginal effects are reported.

Robust SE that are clustered w. r. t. the ABS pool are in parentheses.

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

## Our findings indicate the following:

Transparency induces originators...

- 1 ... to securitize *better-performing* loan pools.
- 2 ... to securitize *better-diversified* loan pools.
- 3 ... to retain *poor-performing loans* on their balance sheets.

## Relevance and policy implications:

- ⇒ Transparency is an effective way to limit bank scope to exploit information asymmetries.

Thank you for your attention!

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