Arbitraging the Basel Securitization Framework: Evidence from German ABS Investment

Matthias Efing

HEC Paris

ABS Regulation

ABS regulation has been subject to extensive review since the crisis '07-09.

ABS Regulation

ABS regulation has been subject to extensive review since the crisis '07-09.

Weaknesses of capital requirements for ABS (BCBS, 2014):

- "mechanic reliance on external ratings"

e.g.

Credit rating	AAA	AA+	AA	AA-	A+	A	...
Risk weight	12%	15%	15%	15%	18%	20%	...

ABS Regulation

ABS regulation has been subject to extensive review since the crisis '07-09.

Weaknesses of capital requirements for ABS (BCBS, 2014):

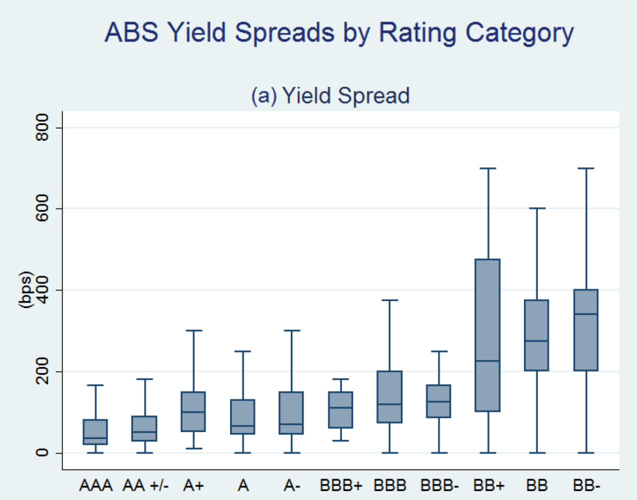
- "mechanic reliance on external ratings"

e.g.

Credit rating	AAA	AA+	AA	AA-	A+	A	...
Risk weight	12%	15%	15%	15%	18%	20%	...

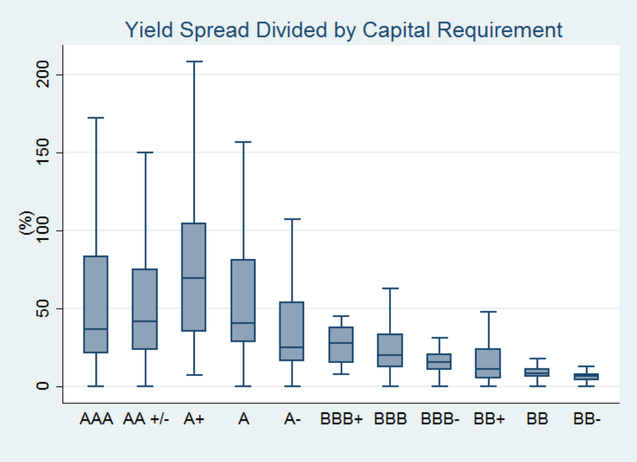
- "insufficient risk sensitivity"

Yield Sensitivity of ABS Ratings



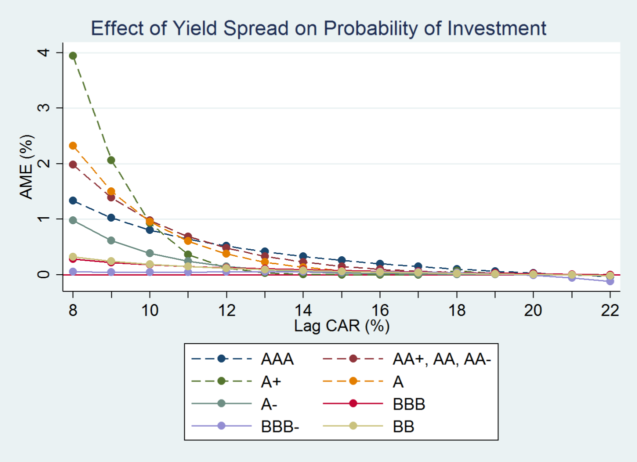
(Yield spread is the mark up of 3,278 floating-rate notes, issued at par between 2007 and 2012.)

Promised Return on Capital Requirement

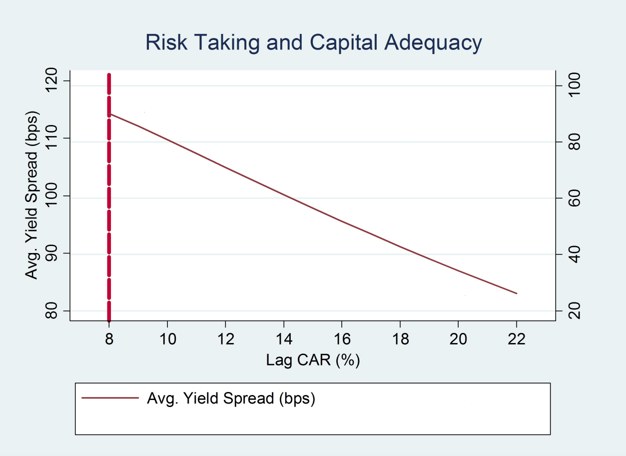


(Capital requirements as implied by IRB-RBA base risk weights.) *Link*

Reaching for Yield by Banks in Germany



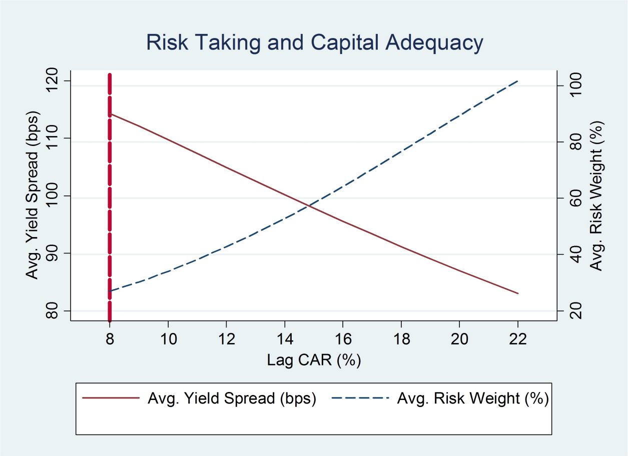
(Estimates based on a non-linear model. Data provided by Dt. Bundesbank.)



Ceteris paribus, banks with low CARs are estimated to buy riskier ABS.

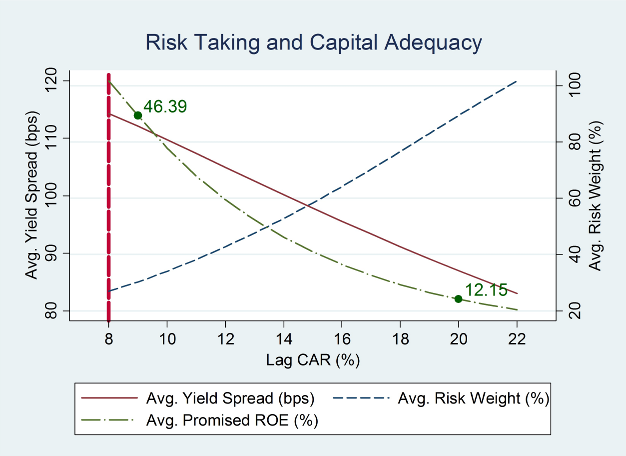
(Values estimated controlling for bank and bond heterogeneity.)

Regulatory Arbitrage



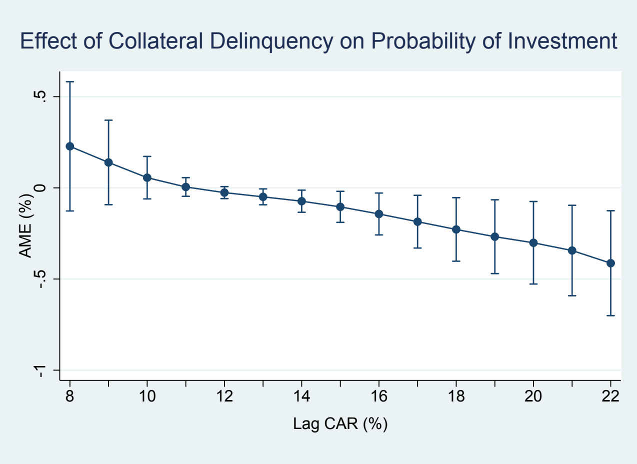
Negative relation between *Yield Spread* and *Risk Weight* of average ABS investment.

Regulatory Arbitrage



The average ABS bought by constrained banks promises an approximately four times higher return on the regulatory capital requirement.

Ex-post Performance of ABS Investments



(Estimates based on a non-linear model. Data provided by Dt. Bundesbank.)

Conclusion

- Banks exploit the low risk-sensitivity of rating-contingent ABS risk weights.

Conclusion

- Banks exploit the low risk-sensitivity of rating-contingent ABS risk weights.
- In particular, banks with tight regulatory constraints.

Conclusion

- Banks exploit the low risk-sensitivity of rating-contingent ABS risk weights.
- In particular, banks with tight regulatory constraints.
- The extent of regulatory arbitrage is economically large.

Conclusion

- Banks exploit the low risk-sensitivity of rating-contingent ABS risk weights.
- In particular, banks with tight regulatory constraints.
- The extent of regulatory arbitrage is economically large.

Conclusion

- Banks exploit the low risk-sensitivity of rating-contingent ABS risk weights.
- In particular, banks with tight regulatory constraints.
- The extent of regulatory arbitrage is economically large.

- Will "internal ratings" help?

Conclusion

- Banks exploit the low risk-sensitivity of rating-contingent ABS risk weights.
- In particular, banks with tight regulatory constraints.
- The extent of regulatory arbitrage is economically large.

- Will "internal ratings" help?
- Calibrate risk weights to market measures of risk? (see Rochet, 1992)

APPENDIX - Return on Capital Required for ABS

$$Return\ on\ Equity = \frac{(R_{Ref} + Spread) - (1 - c) \times R_D}{c},$$

where c, R_D, and R_{Ref} denote the capital requirement per Euro invested in the ABS, the cost of debt, and the reference rate of the ABS. For $R_{Ref} \approx R_D$ and small c and R_{Ref}, the return on equity simplifies to

$$Return\ on\ Equity \approx \left(\frac{Spread}{c} + R_{Ref}\right) \approx \frac{Spread}{c}.$$

Link