DETERMINANTS OF ASSET-BACKED SECURITIZATION SPREADS AT ISSUE

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Market

- The asset securitization market is composed of asset-backed securities (*ABS*), mortgage-backed securities (*MBS*) and collateralized debt obligations (*CDO*).

- The securitization market has grown to become one of the most prominent fixed income sectors, and the securitization issues are backed by a diverse and ever-expanding array of assets.

Output

- The question constituting the focus of our research investigates *which determinants influence the primary market spreads of asset-backed securitization issues.*

  - **ABS, MBS AND CDO PRICING COMPARISONS: AN EMPIRICAL ANALYSIS**
  - **AN EMPIRICAL ANALYSIS OF ASSET-BACKED SECURITIZATION**
  - **SECURITIZATION: EMERGING MARKETS VERSUS DEVELOPED COUNTRIES**

Contribution

1. Investment banks in charge of structuring the technical features of certain issues may find the estimates concerning the size of each variable's impact on the issuance spread by security class a useful tool;

2. financial institutions and corporations wishing to raise funds in the asset-backed markets may obtain reasonable estimates of the average spread that they would face;

3. rating agencies are provided with empirical information concerning the way their credit risk evaluations are perceived by investors.

ABS, MBS AND CDO PRICING COMPARISONS: AN EMPIRICAL ANALYSIS

conclusions

- (1) The impact of a typical credit rating on the spread differs substantially from security class to security class, and these differences become bigger as credit ratings deteriorate;

- (2) credit rating does not provide an unbiased estimate in the determination of spreads;

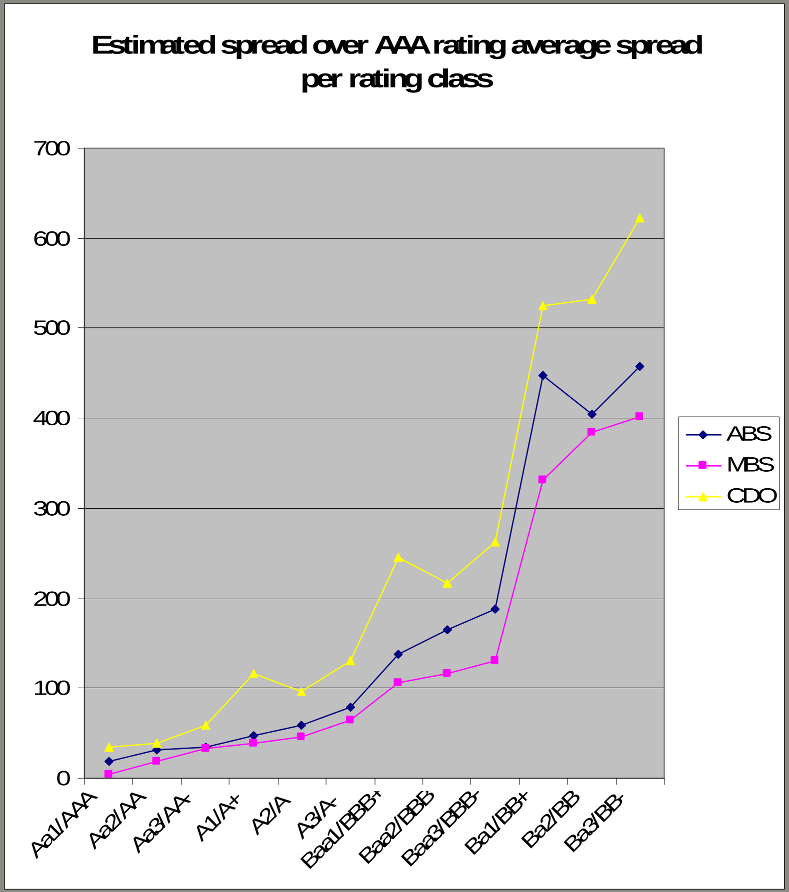
- (3) CDOs tend to be more exposed to higher levels of distressed assets, thereby dramatically increasing risk from the higher to the lower rating categories;

ABS, MBS AND CDO PRICING COMPARISONS: AN EMPIRICAL ANALYSIS
conclusions

- (4) lenders demand lower spreads for MBS with a longer maturity as compared with ABS and CDOs;
- (5) CDOs are much more sensitive to third-party guarantees in comparison with ABS and MBS;
- (6) lenders tend to offer a higher discount for short-term CDOs in comparison with short-term ABS and MBS, after controlling for credit rating.

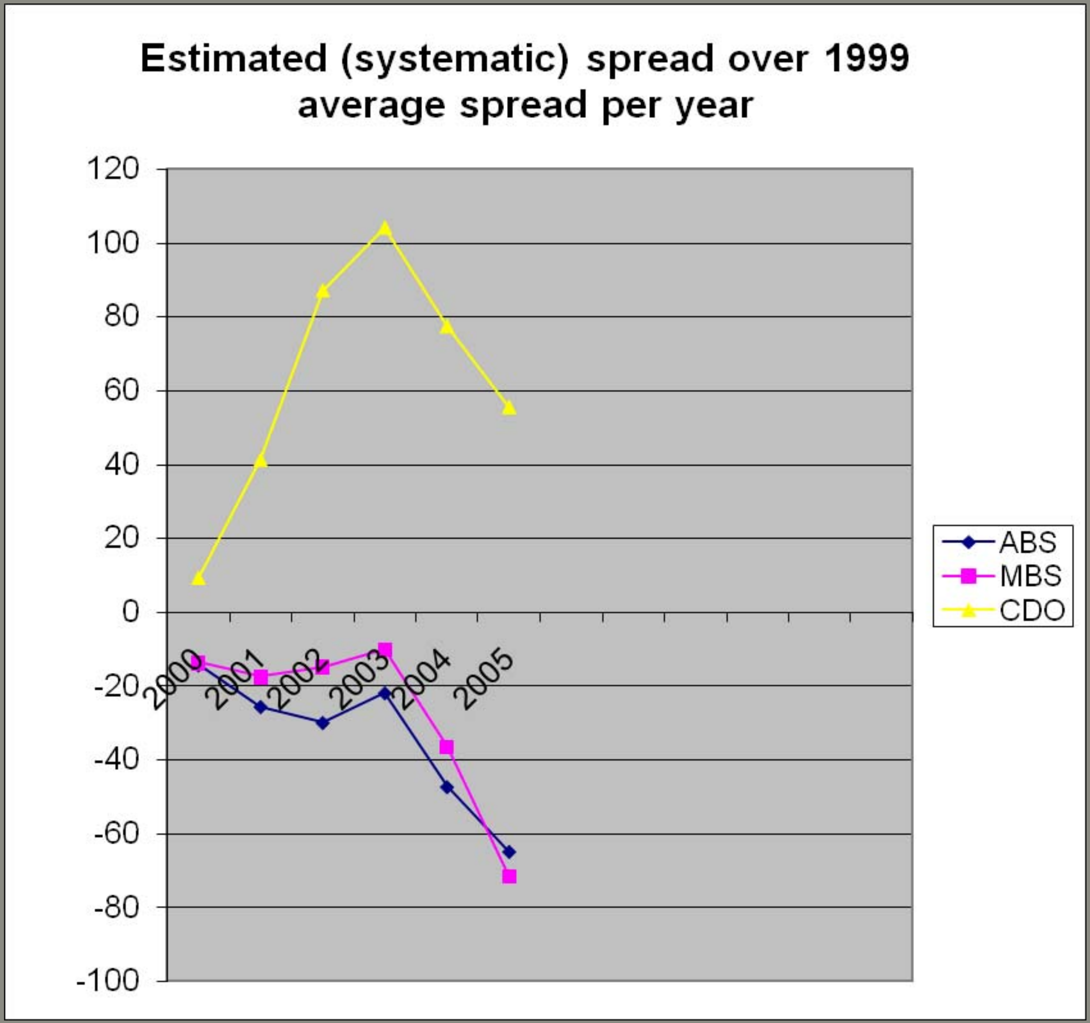
ABS, MBS AND CDO PRICING COMPARISONS: AN EMPIRICAL ANALYSIS

estimated spread controlled for nature of assets and time



ABS, MBS AND CDO PRICING COMPARISONS: AN EMPIRICAL ANALYSIS

estimated spread controlled for credit rating and nature of assets



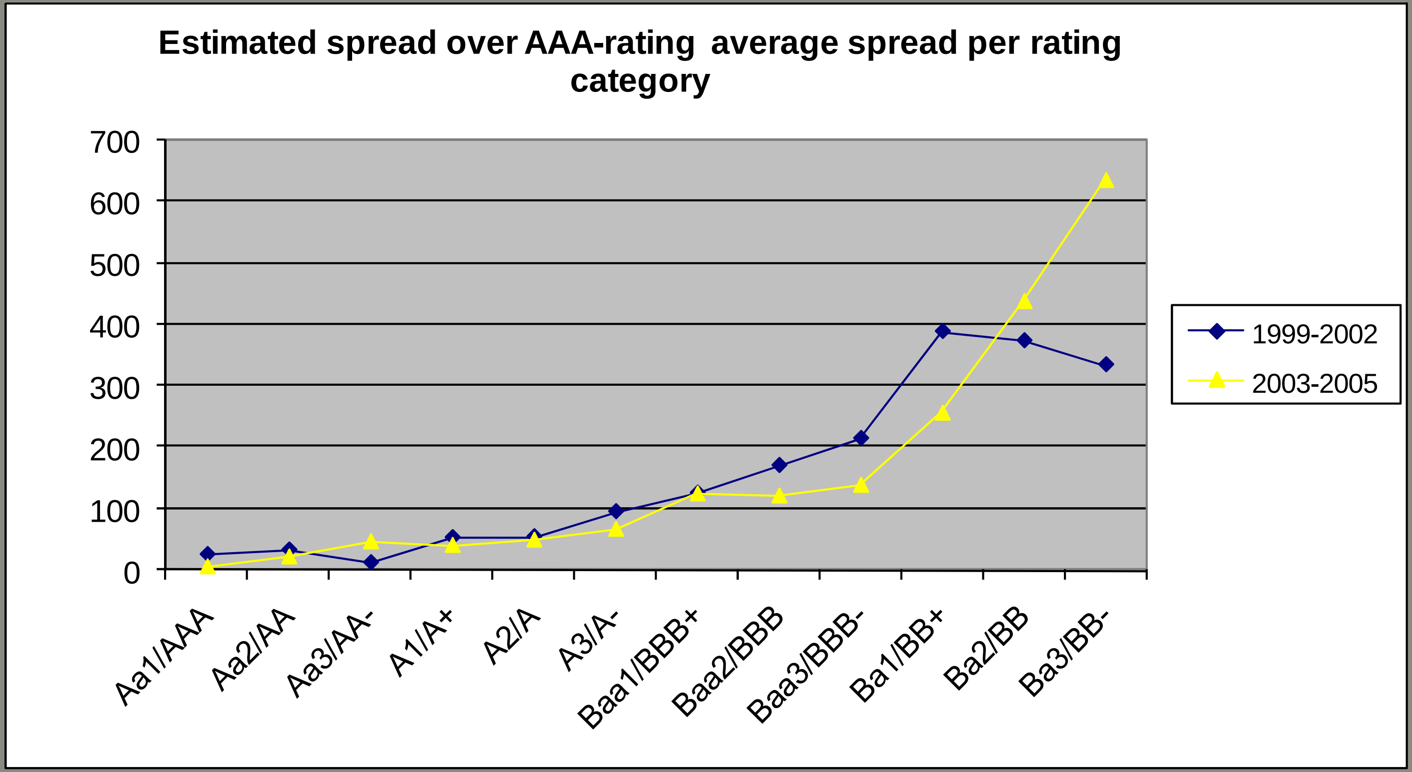
AN EMPIRICAL ANALYSIS OF ASSET-BACKED SECURITIZATION

conclusions

- (1) Default and recovery risk characteristics represent the most important group in explaining loan spread variability;
- (2) systemic risk characteristics - as measured by legal and currency risk - appear to be poor explanatory variables;
- (3) the same poor results emerge for variables measuring marketability characteristics such as loan tranche size, transaction size, number of tranches, number of lead managers, number of credit rating agencies, tap issuance, and finally retained interest.

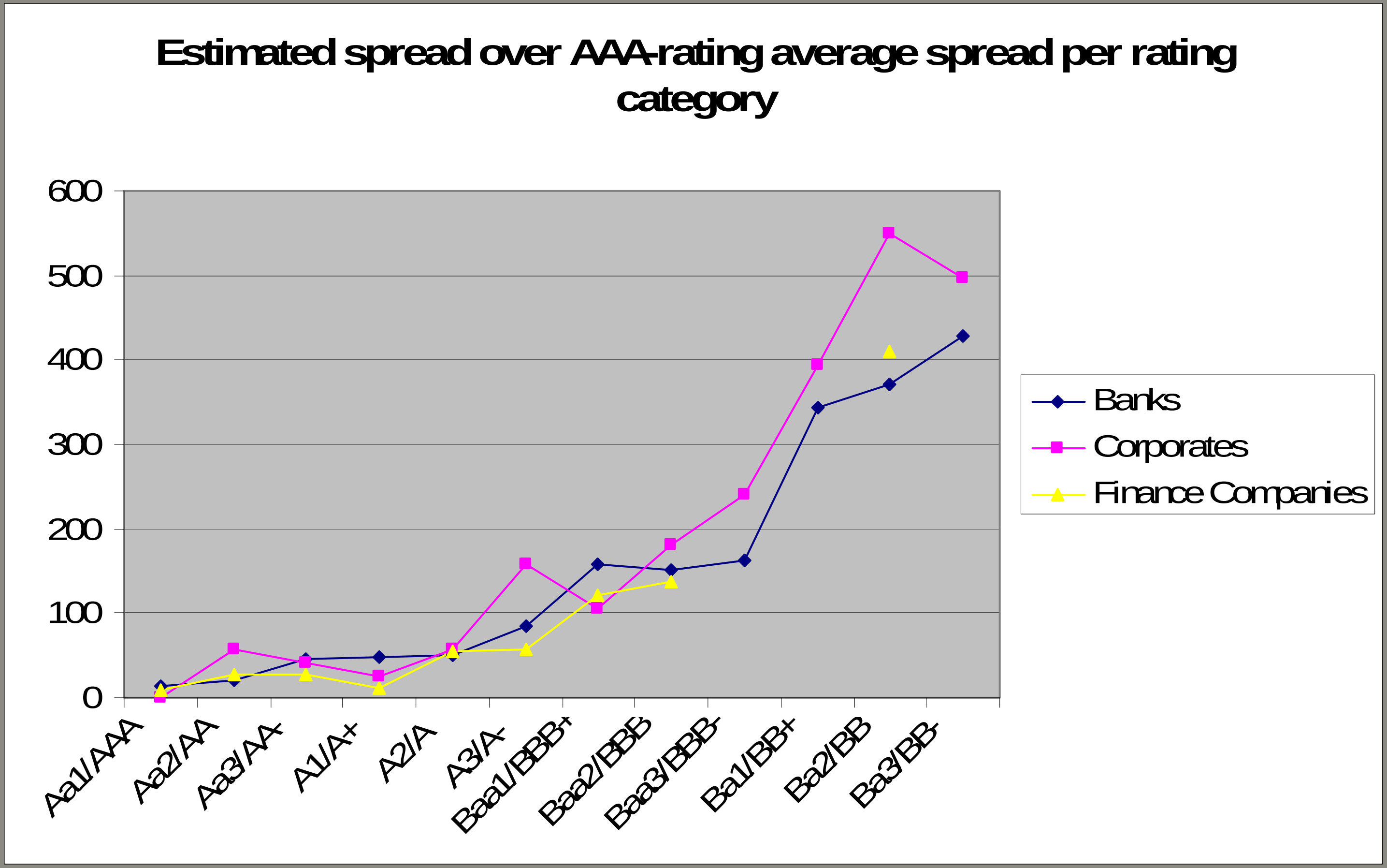
AN EMPIRICAL ANALYSIS OF ASSET-BACKED SECURITIZATION

estimated spread controlled for nature of assets



AN EMPIRICAL ANALYSIS OF ASSET-BACKED SECURITIZATION

estimated spread controlled for nature of assets and time



SECURITIZATION: EMERGING MARKETS VERSUS DEVELOPED COUNTRIES
conclusions

- (1) Issues originated in emerging markets are more likely to be restricted to less variation in collateral pledged to the security;
- (2) they are considered more risky; they have shorter maturity, lower issue size and a higher number of credit rating agencies involved;
- (3) they can be found in countries with a lower level of enforcement;

SECURITIZATION: EMERGING MARKETS VERSUS DEVELOPED COUNTRIES

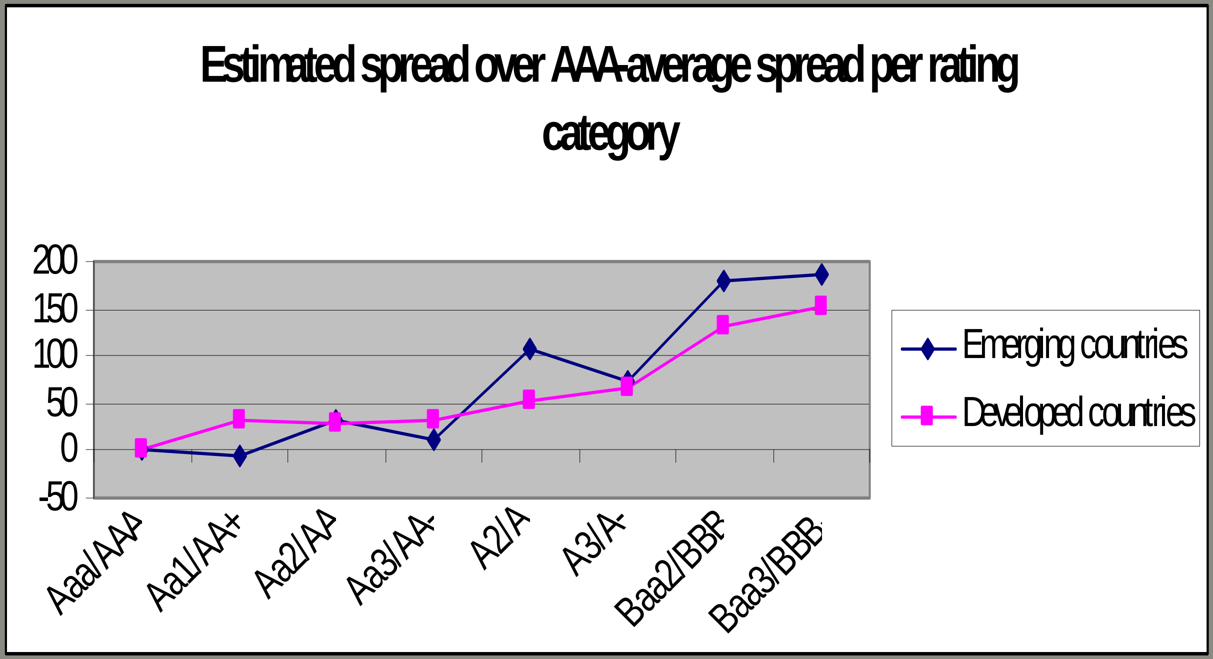
conclusions

- (4) in particular, issues with credit rating A- and below associated with emerging countries increase loan spread by more than 81 basis points;

- (5) emerging market issues with a maturity of less than 5 years increase loan spread by more than 195 basis points in comparison with a similar issue associated with a developed country.

SECURITIZATION: EMERGING MARKETS VERSUS DEVELOPED COUNTRIES

estimated spread controlled for nature of assets and time



GENERAL CONCLUSIONS

- After controlling the credit rating for key aspects of a securitization issue, one important conclusion is that that credit rating does not provide an unbiased estimate in the determination of spreads. At best, credit ratings explain about 75% of the issuance spread.

- At worst, one cannot compare the credit rating and the associated risk of an issue with an issue which has the same credit rating, since spreads differ substantially due to the fact that investors perceive differences in the following factors as a difference in risk:

GENERAL CONCLUSIONS

- 1) differences concerning the security class the issue is categorized into;
- 2) the nature of differences in the assets that support the issue as collateral;
- 3) the originator is different;
- 4) the country of origination is different.

Research ideas that we suggest

- So far, we have focused extensively on ABS. MBS and CDO are in the pipeline and awaiting further research.
- Our ultimate goal is to develop a model (based on linear regression) predicting spreads at issue for securitization issues on the basis of our empirical data. Credit rating agencies can then use the model to compare it with the output of their own model - using monte carlo simulation, for example .

APPENDIX

- 2,427 ABS issues, worth €363.19 billion
- 3,650 MBS issues, worth €715.21 billion
- 2,504 CDO issues, worth €316.72 billion

APPENDIX

1. spread in basis points
2. credit rating
3. loan to value
4. type of originator (six categories)
5. legal maturity
6. credit enhancement
7. asset type classification (eight categories for ABS, two for MBS, and five for CDOs)
8. year of issue
9. loan size
10. transaction size
11. type of market (2 categories)
12. whether issue is a tap, or not
13. number of lead managers
14. number of credit rating agencies
15. whether the issue is fixed rate or floating rate
16. whether the issue is originated in an emerging market country or a developed country
17. creditor rights
18. enforcement
19. currency risk

APPENDIX

Independent variables	adjusted R^2	F-test
all characteristics	0.76	84.71
default and recovery risk characteristics	0.70	109.67
marketability characteristics	0.13	20.41
systemic characteristics	0.07	22.88
default and recovery risk + marketability characteristics	0.77	106.51
default and recovery risk + systemic characteristics	0.69	82.14
marketability characteristics + systemic characteristics	0.19	20.88

APPENDIX

Value	Moody's	Standard & Poor's	Fitch
	Rating agency		
1	Aaa	AAA	AAA
2	Aa1	AA+	AA+
3	Aa2	AA	AA
4	Aa3	AA-	AA-
5	A1	A+	A+
6	A2	A	A
7	A3	A-	A-
8	Baa1	BBB+	BBB+
9	Baa2	BBB	BBB
10	Baa3	BBB-	BBB-
11	Ba1	BB+	BB+
12	Ba2	BB	BB
13	Ba3	BB-	BB-
14	B1	B+	B+
15	B2	B	B
16	B3	B-	B-
17	Caa1	CCC+	CCC+
18	Caa2	CCC+	CCC+
19	Caa3	CCC-	CCC-
20	-	CC	CC
21	-	D	D