

## Issuer Credit Quality and the Price of Asset Backed Securities

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Following the financial market crisis of the past few years, critics and scholars have identified numerous problems related to all parties associated with securitization, including investors, rating agencies, issuers, underwriters, and borrowers. Some of this research focuses on the rating process itself. Adam Ashcraft, Paul Goldsmith-Pinkham, and James Vickery (2009) show that observable credit fundamentals deteriorated relative to ratings between 2005 and 2007. Efraim Benmelech and Jennifer Dlugosz (2009) find that collateralized debt obligations (CDOs) rated by only one rating agency are more likely both to be downgraded and to suffer more severe downgrades than CDOs rated by more than one agency. Joshua Coval, Jakub Jurek, and Erik Stafford (2009a) point out that ratings of CDOs were highly unreliable due to models that were highly sensitive to even small errors in economic projections or losses and that underestimated the correlation of risks across various debt securities.

Other research focuses on the conflicts of interest between parties who participate in the underlying processes of originating and bundling loans and collecting payments from delinquent borrowers. Chris Downing, Dwight Jaffee, and Nancy Wallace (2009) find that some residential mortgage backed securities trade in a market for lemons where originators can use private information to determine which mortgage

pools to securitize. Yingjin Gan and Christopher Mayer (2007) show that servicers of commercial mortgages who do not have an economic stake in the assets appear to delay foreclosing on properties to increase their fees.

Some of these aspects of securitization appear to have been well known and priced by buyers of asset backed securities (ABS). Yields on securities appear to reflect buyers' understanding of the lemon's problem (see Downing et al. 2009) and servicer incentives (see Gan and Mayer 2007). Similarly, Manuel Adelino (2009) and Oliver Faltin-Traeger, Kathleen Johnson, and Mayer (2009) show that, all else equal, higher yielding ABS are downgraded more quickly than lower yielding ABS. Other evidence suggests that ABS buyers did not either fully recognize and/or fully price the risk of the securities they were buying. Coval et al. (2009b) conclude that buyers of CDOs accepted much lower yields than buyers of economic catastrophe bonds with similar risks.

This article presents evidence of another important factor that ABS buyers failed to fully recognize prior to the recent crisis: the important role of the sponsor of the ABS. Adam B. Ashcraft and Til Schuermann (2008) highlight the sponsor's critical role in the securitization process. Faltin-Traeger et al. (2009) show that the survival time of a security until downgrade sharply increases with the credit rating and the amount of capital held by the sponsor, suggesting that sponsor quality should have been priced into the security at issuance. However, as with earlier work, we find that investors appeared to give lower spreads to ABS with the same sponsor as servicer, thus having reduced conflicts of interest between these important parties to the securitization.

### I. Data

Our dataset derives primarily from Lewtan Technologies' ABSNet securitization database, which provides information on public, domestic

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ABS that closed between 1995 and 2008.<sup>1</sup> From this database we obtain the security's initial coupon and rating, and other characteristics. Approximately one-half of the ABS in the dataset are backed by home equity loans, which often contain some subprime mortgages, while another 32 percent are other types of residential mortgage backed securities (RMBS). The remaining deals are backed by commercial mortgages (CMBS), auto loans, credit card balances, CDOs, and other smaller types of assets.<sup>2</sup> Despite the large share of home equity securities in the dataset, the dollar volume of home equity ABS represents only about 29 percent of the sample.

The majority of the ABS in our sample were rated AAA by Standard & Poor's (S&P) at issuance with a fairly even distribution of lower ratings, similar to Coval et al. (2009a). The AAA-rated tranches of ABS deals are generally much larger than the lower tranches—the dollar volume of these tranches represents about 92 percent of the sample. Non-investment grade securities (those rated BB or below) represented only 0.7 percent of the dollar value. About two-thirds of the securities in the sample are floating rate. Although relatively few deals in the dataset were initiated in 2008, 87 percent were originated in the past ten years, and nearly half were closed in the last five years.

For each security, the initial coupon was converted into a coupon spread. For approximately 19 percent of fixed rate securities in the sample, ABSNet provides an expected maturity. We used the average expected maturity for securities in the same asset class and with the same initial rating as a proxy for the expected maturity of those fixed rate securities with missing data. The approximately 500 securities backed by manufactured housing were dropped because the expected maturity was missing. For fixed rate securities, the comparable-maturity Treasury yield was subtracted from the initial coupon to create a coupon spread.

<sup>1</sup> Some securitizations are treated as private, where information on the underlying securitization and their ratings are only available to a very restricted group of actual and potential investors. This private structure was particularly prevalent for CDOs but is sometimes used for other asset types. Thus CDOs are likely substantially underrepresented in our sample.

<sup>2</sup> Including student loans, small business loans, manufactured housing, auto leases and auto dealer floorplans.

An expected maturity is available for approximately 22 percent of floating rate securities in the sample, and in those cases a coupon spread was created by subtracting the appropriate benchmark yield from the initial coupon. For those floating rate securities without a known index benchmark, the modal benchmark for securities in the same asset class was used as a proxy for the benchmark yield.

Because these securities are predominantly priced at par at issuance, we used the coupon spread as a proxy for the yield spread at issuance. The median issuance price in the 37 percent of the sample for which an issuance price is provided by Bloomberg was par, and 95 percent of this subsample had an issuance price greater than 99.8 percent of the par value.

We augmented these data with information on the sponsor of each securitization. Consistent with SEC Regulation AB, we define the sponsor as the entity that “organizes and initiates an asset-backed securities transaction by selling or transferring assets, either directly or indirectly, including through an affiliate, to the issuing entity.”<sup>3</sup> The sponsor may or may not be the originator of the receivables. For example, in some mortgage securitizations, sponsors pool loans that were originated by many different mortgage brokers, while in credit card securitizations the sponsor is most often also the originator of the loans. For each securitization in the ABSNet database, we identified the parent company of the sponsor through individual Internet and database searches.<sup>4</sup> In the case of mergers or other consolidations, we used the name and attributes of the parent at the time of the ABS issuance. We then obtained the parent's S&P credit rating at the time of deal closing from S&P's RatingsXpress database. Over 90 percent of the securities in the dataset were sponsored by an investment grade firm, with the majority of issuers rated A or AA.

## II. Empirical Analysis

Our primary goal is to examine how the bond market priced sponsor quality. Faltin-Traeger et al. (2009) show a very strong link between the

<sup>3</sup> 17 C.F.R. § 229.1101.

<sup>4</sup> In less than one percent of deals where several sellers were identified, the first listed seller was assumed to be the primary seller associated with the deal.

financial condition of the sponsor and the subsequent performance of the securitization. For example, securities sponsored by AAA-rated lenders retain their initial ratings up to 32 percent longer before being downgraded than identically rated securities that are sponsored by a lender with a non-investment grade credit rating. Similarly, securities sponsored by domestic banks, especially domestic banks with greater capital, also retain their initial rating longer. Finally, securities in which the sponsor also served as the servicer also have a lower likelihood of downgrade.

To discern whether the characteristics of the sponsor influence the initial coupon spread of the security, we regressed the coupon spread of the security on characteristics of the security and those of the issuer. Because the sponsor clearly takes a more active role in master trust structures and in some CDOs, we removed these securities from the dataset, which reduced the sample size by approximately 5,000 securities but did not change the qualitative results. The effect of security characteristics on the initial coupon spread are as expected. Fixed effects for the year of security issuance reflect very low spreads in 2000 and again in 2005, and sharply rising spreads in 2007–2008. Spreads also decline monotonically as ratings rise; spreads on AAA-rated securities are 1.4 percentage points lower than those rated BB or below (Table 1). Spreads are also about 7.2 basis points lower when the sponsor acts as servicer on its own deals, and 9.2 basis points lower when the sponsor acts as both servicer and underwriter.

Turning to the characteristics of the sponsor, the credit rating of the sponsor does not have a significant effect on spreads, with the exception of sponsors who were rated A or not rated by S&P at the time of the issuance. Securities sponsored by these firms have spreads that were respectively eight basis points higher and 15 basis points lower than those of other securities.

“Tiering” in the ABS market refers to the separation of sponsors into different “quality” tiers in which the securities of “high quality” sponsors garner lower spreads than other issuers. To look at tiering and its determinants, we replaced the sponsor characteristics with fixed effects for the top 30 sponsors (in terms of outstanding volume of ABS) in the base regression from Table 1. Many of these fixed effects are significantly different from zero, suggesting that

TABLE 1—SPREAD REGRESSION RESULTS

	Coefficient (percentage points)
<i>Coupon type</i>	
Floating rate	0.699***
Fixed rate	
<i>Trust type</i>	
Mortgage loan trust	0.169***
Other trust type	
<i>Initial rating</i>	
AAA	−1.370***
AA	−1.117***
A	−0.772***
BBB	−0.095***
BB and below	
<i>Parent rating</i>	
AAA	0.194
AA	0.018
A	0.079*
BBB	−0.062
BB and below	
NR	−0.145***
<i>Deal participants</i>	
Sponsor = servicer	−0.072**
Sponsor = servicer = underwriter	−0.092***
Servicer or underwriter unidentified	−0.038
Sponsor ≠ servicer	
<i>Sponsor diversification</i>	
Collateral types issued > 4	0.230***
Collateral types issued ≤ 4	

\*\*\* Significant at the 1 percent level.

\*\* Significant at the 5 percent level.

\* Significant at the 10 percent level.

securities from these sponsors were either given a premium or a discount relative to other securities, holding asset type, issuance year and security rating at the time of issuance.

Figure 1 plots the regression coefficients for the top 30 sponsors against the parent’s credit rating for those sponsors.<sup>5</sup> Because the regression included all sponsors, the excluded category includes all sponsors outside of the top 30. The mean of the coefficients for the top 30 sponsors is 0.06 percent, suggesting that this group as a whole did not command an appreciable discount when sponsoring securities. The correlation between each firm’s credit rating and its coupon spread premium or discount relative

<sup>5</sup> In cases where the sponsor credit rating varied over time, the average rating weighted by the sponsor’s issuance volume was used in order to more heavily weight periods during which the sponsor was more active.

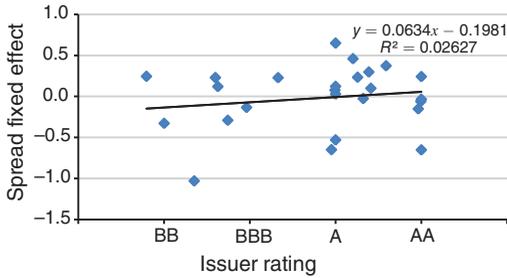


FIGURE 1

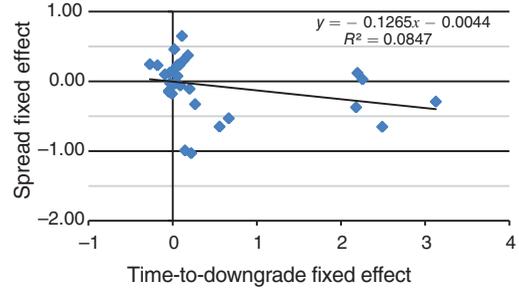


FIGURE 2

to other sponsors is the opposite of what one might expect given tiering. ABS sponsored by firms with higher credit ratings actually commanded higher, rather than lower spreads. That said, the effect is not economically large; a one notch increase in the credit rating (for example, from A to AA) is associated with a six basis point *higher* spread on the ABS security.

One possible explanation for these results is that the market used better information than the sponsor's parent credit rating to distinguish between higher and lower quality sponsors. To investigate this hypothesis, we estimate the ex post time-to-downgrade for ABS sponsored by each of these top 30 firms using the baseline lognormal time-to-downgrade regression in Faltin-Traeger et al. (2009), excluding all sponsor characteristics except the fixed effects.

Figure 2 plots sponsor fixed effects from the time-to-downgrade regression against the same sponsor's fixed effects in the spread at issuance regression above. There is a negative correlation between time to downgrade and spread (e.g., a sponsor whose securities are downgraded more quickly have a higher spread at issuance to compensate investors for this greater risk); however, the relationship is weak and statistically significantly different from zero with a  $p$ -value of 0.12.

### III. Conclusion

We examine the initial coupon spread of ABS issued between 1995 and 2008, and find appreciable "tiering" between the spreads of different sponsors, controlling for other security characteristics. Nonetheless, our analysis indicates that investors may have overlooked beneficial information about sponsors when pricing

ABS. Securities spreads were actually higher for some better-rated sponsors, whose bonds had a longer time before downgrade, and these spreads had only a weakly negative relationship with the overall time to downgrade of the issuers' securities. However, investors did provide lower spreads for deals where the sponsor acted as servicer and underwriter, consistent with those deals having better incentives and a longer time to downgrade.

These results may reflect ABS buyers who underwrote bonds based on other characteristics of issuers unrelated to risk, such as likelihood of early payment or MBS sponsors who focused on housing markets with high rates of appreciation. Alternatively, as suggested by Coval et al. (2009a), a large number of ABS included in CDOs might have limited incentives of bond buyers to adequately screen for quality. As with other papers, we show that deal incentives were priced at least to some extent. Nonetheless, these results suggest that relevant information about the quality of ABS sponsors may not have been fully appreciated by investors.

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