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Alternative-A Prepayment Speeds:

A Comprehensive Review

With a majority of alt-A loans being underwritten using “expanded criteria” guidelines, alt-A collateral should enjoy favorable convexity characteristics because the typical alt-A borrower will, at least initially, not have access to the same refinancing opportunities as an agency borrower. In general, past prepayment speeds on alt-A collateral have supported this assumption. However, the recent refinancing wave provides a more aggressive stress test.

To summarize recent alt-A prepayment behavior, we create alt-A generics by aggregating loan level data from INMC, RALI, RAST, and HMSI (Headlands Mortgage) deals in WAC and origination-year buckets. Figure 2 displays alt-A and Fannie Mae prepayment speeds for comparable generics. Overall, as the ratios in Figure 2 show, March alt-A speeds have been about 70%–80% of those experienced by comparable Fannie Mae loans. The diminished interest-rate sensitivity of alt-A collateral also shows up in the ratios of agency and alt-A 3-month CPRs. One caveat — speeds may not have peaked yet for some alt-A deals because of the general dependence of lags on age *and credit*. On the whole, Figure 2 shows that alt-A collateral does possess the less negatively convex characteristics that we anticipated.

Figure 2. Historical Speeds on Fannie Mae and Alt-A Vintages, Mar 98

WAC Range	Alternative-A		Fannie Mae						Ratio of Alt-A to FNMA Speeds for Last							
	Orig Year	Amt Out (\$mm)	WAC	% CPR for Last			Cpn	WAC	% CPR for Last			1-mo	3-mo	1-Year		
				Age	1-mo	3-mo			12-mo	Age	1-mo				3-mo	12-mo
7.50-7.99	1997	560	7.79%	6	17.0	18.1	6.3	7	7.66%	8	13.1	11.4	4.5	1.30	1.59	1.40
8.00-8.49	1997	1,832	8.22	8	26.7	23.6	14.3	7.5	8.06	10	32.7	27.4	11.6	0.82	0.86	1.23
	1996	383	8.25	21	43.8	40.4	21.6		8.13	20	42.8	34.4	16.0	1.02	1.17	1.35
8.50-8.99	1997	2,669	8.68	9	31.8	24.2	14.4	8	8.47	10	42.9	34.4	17.8	0.74	0.70	0.81
	1996	1,275	8.72	21	42.5	32.7	21.9		8.53	20	52.3	41.7	21.6	0.81	0.78	1.01
	1995	386	8.73	29	39.5	32.4	24.5		8.59	33	52.7	41.5	24.3	0.75	0.78	1.01
9.00-9.49	1997	938	9.13	10	33.5	26.1	19.4	8.5	8.93	11	40.9	33.3	26.8	0.82	0.78	0.72
	1996	983	9.18	20	45.1	37.6	26.2		8.95	20	49.9	39.7	24.9	0.90	0.95	1.05
	1995	474	9.19	30	32.5	29.7	25.2		9.07	35	55.2	44.4	28.5	0.59	0.67	0.88
9.50-9.99	1997	189	9.59	10	33.3	22.0	19.6	9	9.38	10	64.4	56.3	-	0.52	0.39	-
	1996	471	9.63	20	37.9	31.2	26.9		9.38	19	57.0	43.5	33.8	0.67	0.72	0.80
	1995	382	9.67	33	37.2	31.2	28.5		9.50	37	54.4	42.8	29.4	0.68	0.73	0.97

Source: Smith Barney Inc./Salomon Brothers Inc.

Alt-A collateral prepaid consistently more slowly than agency collateral throughout the refi wave as RALI led the way.

RALI Speeds Slower

Within the alt-A sector, there are differences in prepayment behavior among issuers. RAST (Indy Mac) and RALI (RFC) are the alt-A sector's most active issuers, with \$2.8 billion and \$2 billion issued in 1998, respectively (other issuers like Headlands, and ICI Funding have not issued securities this year). Figure 3 shows three-month CPRs for RALI, RAST, and Headlands Mortgage (HMSI) for all vintages by WAC bucket (these buckets are comparably seasoned). March prepayment speeds (not shown) essentially illustrate the same conclusion, although those results are more pronounced than when shown with three-month CPRs (which we elected to use in order to account for month-to-month noise in deal speeds). The figure shows that RALI collateral has prepaid more slowly in three of the four coupon buckets, while RAST premiums have prepaid slower than RALI.

Figure 3. Comparison of Three-Month CPRs by Issuer for All Vintages, Mar 98

WAC Range	3-Month CPR (%)		
	Issuer		
	RALI	RAST	HMSI
8.00 - 8.49	18.6	30.0	32.6
8.50 - 8.99	22.0	27.2	39.1
9.00 - 9.49	29.3	33.2	37.7
9.50 - 9.99	30.3	27.9	NA

Source: Smith Barney Inc./Salomon Brothers Inc.

Baseline alt-A speeds are somewhat faster than agency speeds.

Loan Balances and California Concentration Best Indicators of Prepayment Behavior

Figure 2 also shows that, after taking March speeds into account, lower WAC (less than 8.5%) alt-A collateral has prepaid faster than agency collateral over the last year. For higher WAC alt-A collateral, there is a fair amount of variation in the one-year speed ratios. Overall, Figure 2 suggests that baseline speeds for alt-A collateral may be somewhat faster than for agencies.

Alt-A conforming balance loans prepay more slowly than agency, while alt-A jumbos prepay faster than whole loans.

Figure 4 reveals one of the driving forces behind these high baseline speeds. The table breaks down the WAC and origination-year generics from Figure 2 by separating loans with conforming loan balances (Conf Balance) and nonconforming balances (Nonconf Balance) into different buckets. We have chosen to highlight RALI and RAST collateral in the figure, since these issuers constitute the most consistent presence in the alt-A market. Figure 4 shows that there is a dramatic difference in prepayment characteristics when loans are partitioned on this basis. The speeds on

conforming balance alt-A loans are significantly lower than for comparable agency loans. In contrast, nonconforming balance alt-A loans are prepaying at rates comparable to equivalent nonagency jumbo loans. The figure suggests that average loan balance, as well as the percentage of jumbo loans in an alt-A pool, is the best indicator of convexity and value in alt-A securities.

Another current driver of prepayment speeds is the percentage of California collateral in deals. Going forward, because of the California region's booming housing market, deals with higher California concentrations will likely have higher baseline speeds because strong equity growth facilitates refinancings and higher turnover levels. Manifold MB766 summarizes collateral information and historical and projected speeds for alt-A deals, and shows that RALI has the lowest California concentrations in their deals (about 20%), followed by RAST (between 30% and 40%), and Headlands (between 60% and 70%).

Even for high loan balance, high California concentration pools, there may be hidden value in longer locked-out cashflows (like NAS bonds and subordinates) as the pool seasons and faster refinancers exit the pool. At the same time, because alt-A collateral has faster baseline speeds, extension risk should be mitigated.

Figure 4. RALI and RAST Prepayment Speeds: Conforming versus Nonconforming Balance, by Vintage for Selected Coupons, Mar 98

Coupon Range	Orig Year	Balance	WAC	WAM	Avg Loan Size	Avg LTV	Amt Iss (\$mm)	Amt Out (\$mm)	Factor	CPR (%)			
										1-Mo	3-Mo	6-Mo	1-Yr
RALI													
8.00 - 8.49	1996	Conf	8.27%	27.5	108K	74%	53.0	46.2	0.87	13.2	21.5	16.3	11.4
	1996	Nonconf	8.24	27.4	341	75	44.7	32.3	0.72	45.6	51.7	43.3	27.2
	1997	Conf	8.23	29.2	112	76	565.6	534.0	0.94	17.9	12.8	8.4	6.0
	1997	Nonconf	8.22	29.2	329	76	255.5	237.2	0.93	26.9	21.0	13.7	12.0
8.50 - 8.99	1996	Conf	8.73	27.7	99	75	258.1	216.8	0.84	29.2	21.5	19.3	14.7
	1996	Nonconf	8.73	27.8	336	76	125.1	89.0	0.71	35.1	33.0	25.2	24.3
	1997	Conf	8.69	29.0	94	78	1010.9	940.6	0.93	22.8	16.5	13.4	9.2
	1997	Nonconf	8.66	29.1	323	76	284.6	243.6	0.86	39.0	33.7	28.2	23.3
9.00 - 9.49	1996	Conf	9.19	27.8	86	77	287.4	223.8	0.78	38.8	30.2	25.7	20.5
	1996	Nonconf	9.18	27.9	326	75	91.1	53.0	0.58	45.1	51.1	39.4	34.3
	1997	Conf	9.14	28.9	80	81	471.9	420.5	0.89	24.0	20.4	17.8	16.7
	1997	Nonconf	9.15	28.8	336	74	88.0	64.3	0.73	65.9	51.6	44.7	41.6
RAST													
8.00 - 8.49	1996	Conf	8.27%	27.5	116K	71%	90.3	76.8	0.85	45.2	29.1	19.8	15.6
	1996	Nonconf	8.23	27.8	342	74	170.4	129.7	0.76	52.1	46.9	37.9	25.4
	1997	Conf	8.22	29.1	116	70	488.8	438.6	0.90	14.4	10.9	8.5	5.9
	1997	Nonconf	8.19	29.1	341	70	508.0	407.2	0.80	41.8	42.8	35.8	27.6
8.50 - 8.99	1996	Conf	8.74	27.7	106	71	467.8	392.1	0.84	35.3	24.9	20.8	15.1
	1996	Nonconf	8.70	27.9	339	74	422.8	287.9	0.68	54.7	42.5	40.8	31.0
	1997	Conf	8.68	28.9	103	72	857.2	782.1	0.91	21.9	16.5	13.2	9.4
	1997	Nonconf	8.66	29.0	341	71	396.0	322.0	0.81	53.3	37.2	33.4	25.3
9.00 - 9.49	1996	Conf	9.18	27.8	103	71	552.0	428.4	0.78	40.7	31.5	27.2	21.1
	1996	Nonconf	9.17	28.0	340	74	284.3	161.4	0.57	59.5	53.4	48.7	38.2
	1997	Conf	9.13	28.9	92	74	331.0	296.7	0.90	29.9	22.7	18.3	13.6
	1997	Nonconf	9.12	28.9	344	73	84.9	69.9	0.82	45.3	34.6	32.8	25.8

Note: The conforming balance limit assumed in this table is \$227,150.

Source: Smith Barney Inc./Salomon Brothers Inc.

Most investor properties have conforming loan balances.

Figure 5 summarizes the aggregate collateral characteristics of the conforming balance and nonconforming balance loans for RALI and RAST. Apart from balance, the two groups of loans seem to be distinguished mainly by WAC (the nonconforming balance loans have WACs that are 15bp–30bp lower on average) and the percentage of investor properties (5% of the

⁵Available on the Yield Book or Salomon Smith Barney Direct.

nonconforming loan balances were underwritten to investors, versus 43% and 29% of RALIs and RASTs conforming balance loans, respectively). The lack of investor properties underwritten with nonconforming loan balances contributes to their lower WACs.

Figure 5. Aggregate Collateral Characteristics of Conforming versus Nonconforming Balance Loans for RALI and RAST, Mar 98

Characteristics	Conforming Balance		Nonconforming Balance	
	RAL	RAST	RAL	RAST
Avg WAC	8.79%	8.82%	8.60%	8.53%
Avg WAM	344mos	343mos	344mos	345mos
Avg Loan Balance	92K	103K	331K	344K
Avg LTV	78%	72%	76%	72%
Primary	57%	67%	95%	92%
Investment	43%	29%	5%	5%
Single-Family	58%	70%	69%	82%
Purchase	69%	55%	51%	44%
Refinance	13%	18%	20%	34%
Cashout Refinance	18%	27%	28%	22%
Full Documentation	58%	31%	41%	45%

Note: The conforming balance limit assumed in this table is \$227,150.

Source: Smith Barney Inc./Salomon Brothers Inc

We expect some of the convexity advantages to erode over time as the refinance option becomes more efficiently exercised.

Impact of Agencies on Private-Label Alt-A Market

An important question facing investors is to what extent alt-A collateral can be expected to retain its favorable convexity characteristics with the entry of Fannie Mae and Freddie Mac into the alt-A market. Lenders using the agencies' automated underwriting systems (Desktop Underwriter and Loan Prospector) may be able to offer borrowers a more competitive mortgage rate while qualifying them for expanded criteria underwriting guidelines. Consequently, we should expect some of the convexity advantages of alt-A collateral to erode over time as competition increases and will lead to a reduction in mortgage rates and costs for alt-A borrowers, and hence a more efficient exercise of the refinancing option.

While Freddie Mac's Loan Prospector does have the ability to underwrite alt-A loans, most of the current agency activity in the alt-A subsector seems to be coming from Fannie Mae. Currently, Fannie Mae conservatively estimates that it is underwriting about \$500 million in alt-A loans per month. To date, under its alt-A criteria, Fannie Mae has underwritten approximately \$1 billion in cash-out refinances, \$300 million–\$400 million in investor loans, and about \$200 million in "80-10-10s". Fannie Mae also originates "stated-income" loans (not included in the estimated totals).

Investors concerned about alt-A speeds should examine newly issued alt-A deals to see if they continue to have favorable collateral characteristics and monitor the competitive forces in the market by looking at the volume of collateral underwritten by the agencies' AU systems in the coming months.