

# Benefiting from Extension Risk in the Non-Agency Market

LAURIE GOODMAN, ROGER ASHWORTH, BRIAN LANDY,  
AND KE YIN

## LAURIE GOODMAN

is a senior managing director in MBS Strategy at Amherst Securities Group, LP in New York, NY.

lgoodman@asglp.com

## ROGER ASHWORTH

is an analyst in MBS Strategy at Amherst Securities Group, LP in New York, NY.

rashworth@asglp.com

## BRIAN LANDY

is a senior vice president in MBS Strategy at Amherst Securities Group, LP in New York, NY.

blandy@asglp.com

## KE YIN

is a vice president in MBS Strategy at Amherst Securities Group, LP in New York, NY.

kyin@asglp.com

Two trends are pervasive in the mortgage market: the time between last payment and liquidation is stretching out and modification activity is picking up. These trends, which are usually negative for non-agency MBS valuation, seem likely to continue. In this article, we focus on three types of bonds that are attractively priced to begin with and that actually benefit from these trends. We first discuss *front pay sequential tranches of subprime deals*, where the deal goes *pro rata* when the subs are extinguished. Many of these bonds have considerable value in the base case and actually do better when the time between the last pay date and liquidation stretches out (or the loan is modified), as it delays the date the deal goes *pro rata*. We argue that the market does *not* price these *pro rata* structures appropriately—that is, the front pay tranche on stay sequential deals is often much richer than on *pro rata* deals. Next, we delve into the *mezzanine (AA) tranches of subprime collateral*, which trade as credit IOs. Slowing down the liquidation pipeline is a good thing, as losses will be delayed and the deal will continue to pay its coupon. Finally, we focus on *non-agency inverse IOs*. These bonds, most commonly found in Alt-A deals, obviously benefit from extension risk. Investors should realize that the latter two sectors we are discussing (AA tranches trading as credit IO and the non-agency IIO sectors) are quite small.

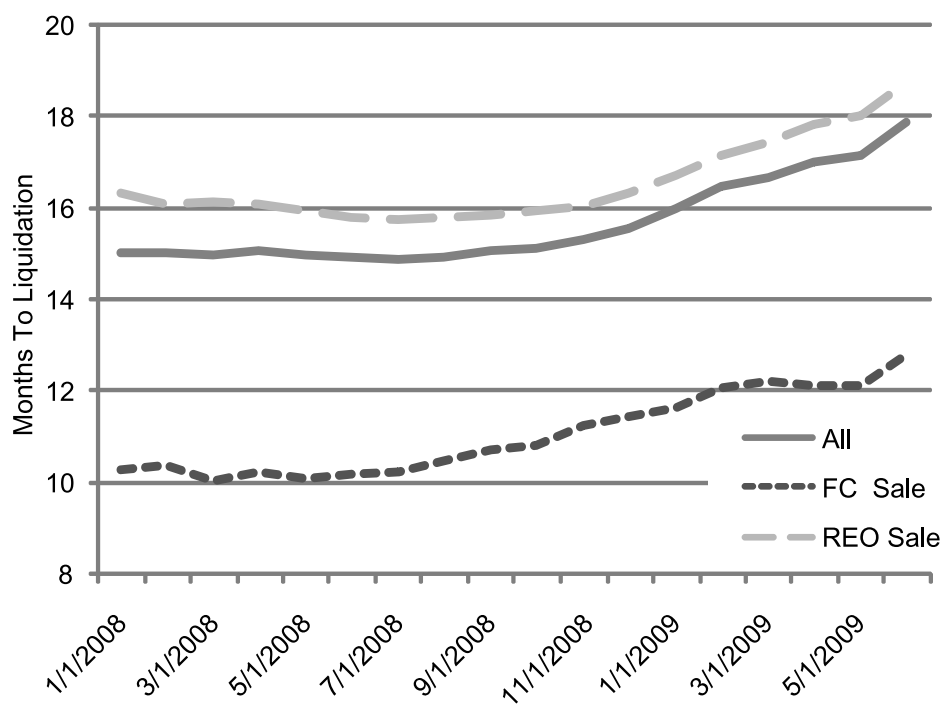
## TWO TRENDS

We begin this article by emphasizing the two readily apparent trends: 1) time from last payment to liquidation is increasing and 2) the number of modifications has risen the past few months and should increase more as servicers ramp up staff to handle the Home Affordable Modification Program (HAMP) modifications more efficiently. (For more information on the Home Affordable Modification Program, see <https://www.hmpadmin.com/portal/index.html>.)

Exhibit 1 shows that the time from last payment to liquidation has increased by almost three months over the past year (from 14.9 months in June 2008 to 17.9 months in June 2009). The exhibit shows that this increase applies both to loans liquidated from the foreclosure bucket as well as loans liquidated from the REO bucket. The time between last payment and liquidation for loans in the foreclosure bucket rose from 10.1 months in June 2008 to 12.8 months in June 2009. Similarly, the time between last payment and liquidation for REO loans has grown from 15.8 months in June 2008 to 18.7 months in June 2009. Another measure of the stretching out of the period between last payment and liquidation is the percentage of loans liquidated in a given month that have spent more than a given number of months in the liquidation pipeline. Exhibit 2 shows

## EXHIBIT 1

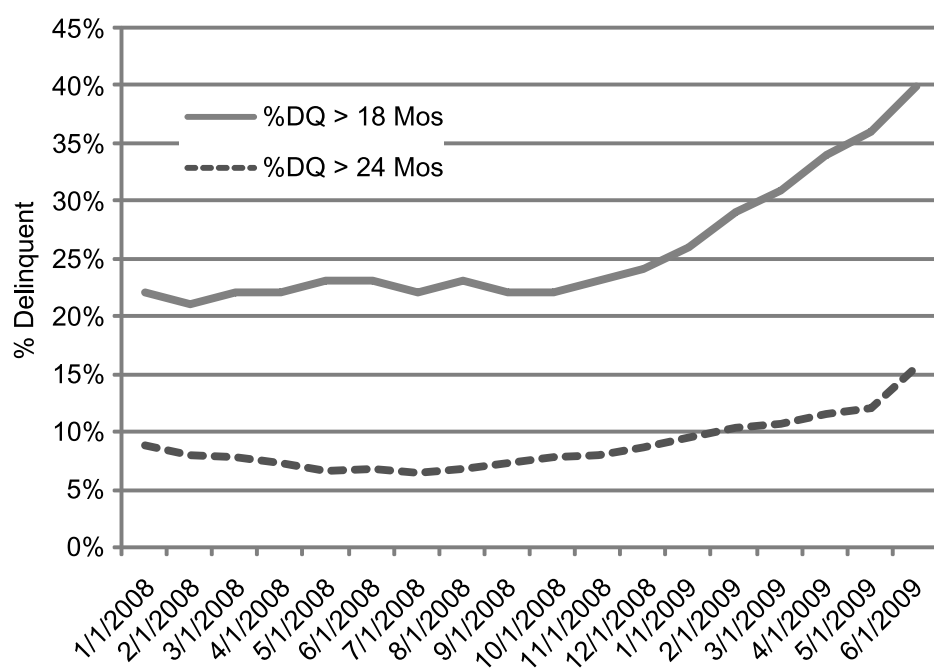
### Months to Liquidation



Source: Loan Performance, Amherst Securities.

## EXHIBIT 2

### 18/24-Month Delinquency Rates



Source: Loan Performance, Amherst Securities.

that 23% of loans liquidated in June 2008 spent more than 18 months in the liquidation pipeline. For June 2009, that number is 40%.

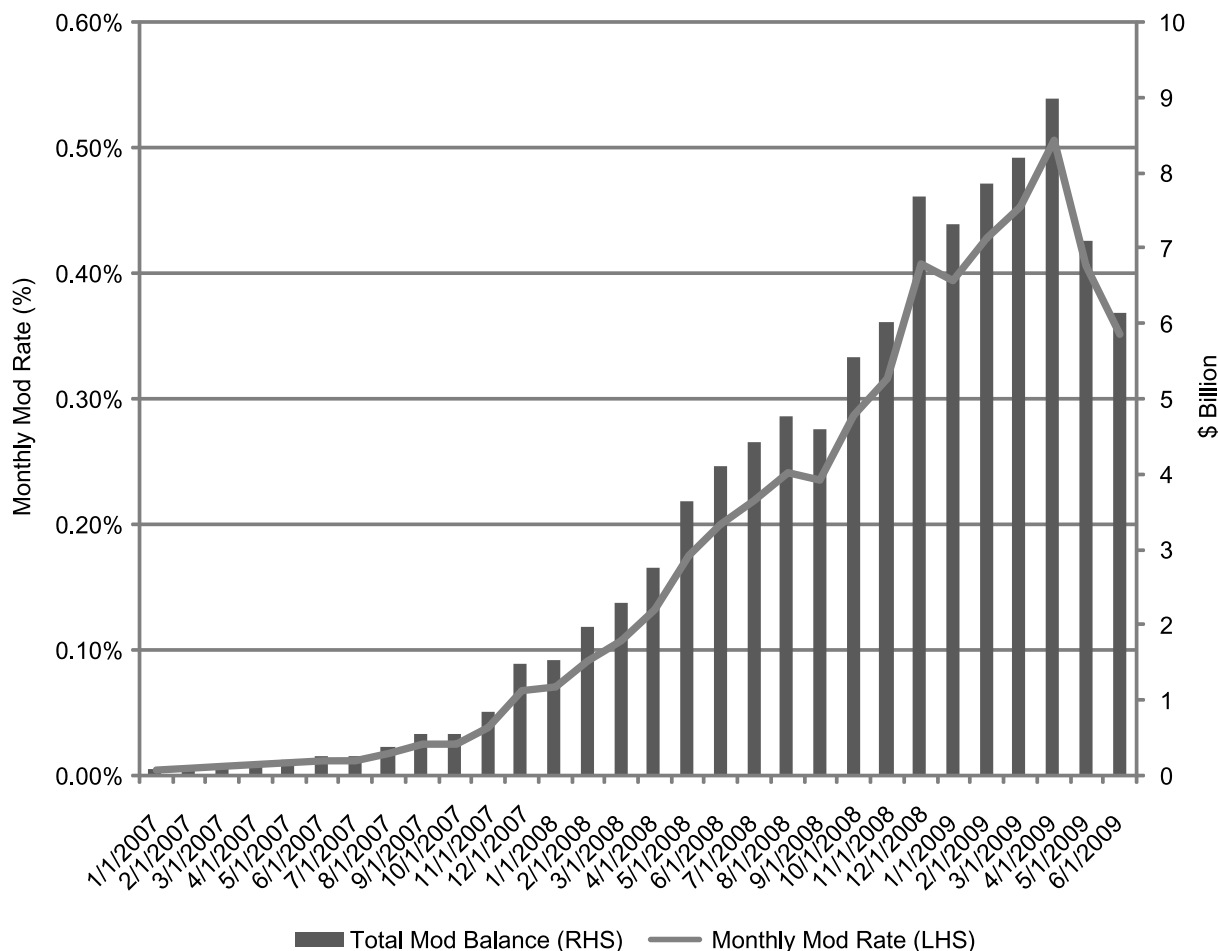
The time from the last payment to liquidation is rising for a number of reasons. First, the regulatory environment has become increasingly kind to borrowers. Before one can do a foreclosure in a judicial state, the servicer is likely to be asked if he has contacted and tried to work with the borrower. Second, with a large supply of foreclosed homes on the market, it is taking longer for properties to sell. Third, the personnel resources devoted to foreclosure and liquidation activity is stretched to the hilt: once a price is agreed on, due to limited resources it takes longer to close. Finally, attempts to modify will also extend the timeline, because 1) the HAMP modification

program requires every delinquent borrower to be tested for a modification (and if he is eligible to be offered one) and the testing itself will add time and because 2) a failed modification will extend the time spent in delinquency/foreclosure (as discussed later in the article).

Modifications have also increased sharply in 2009 versus earlier years. Exhibit 3 highlights the increase in modifications in 2009 in the non-agency universe. This increase holds for all types of non-agency products: subprime, Alt A option ARMs, prime. The exhibit clearly shows that although modifications have been much higher in 2009 than in prior years, there has been a sharp drop the last two months (May and June 2009). We believe this reflects three factors: 1) servicers are temporarily diverting some resources away from day-to-day modifications in

## EXHIBIT 3

Loan Modification Volume by Product and Monthly Modification Rate



Source: Loan Performance, Amherst Securities.

order to automate their systems to fully take advantage of HAMP; 2) borrowers in the trial modification are generally not reported as a modification during this trial period; 3) some servicers are not yet HAMP approved. All three of these factors may be slowing the pace of mods until approval. All of these factors are clearly temporary.

We believe modifications will rise well above the peak pace registered earlier this year, as servicers hire additional staff to implement the HAMP modification program. In order to show participation and collect the modification fees, the servicers are motivated to try to contact delinquent, mod-eligible borrowers and entice them to apply for a modification. Servicing fees average about 37.5 basis points, or \$750/year on a \$200,000 mortgage. The servicer will collect \$1,000 for initially doing the modification (with an additional \$500 bonus if the borrower is current) and \$1,000/year for each year the borrower is current (with a three-year maximum). Thus, we expect modifications to rise as lenders staff up and automate the implementation of these modification programs.

For sure, some borrowers won't respond to the modification offer. Of those who do respond, most will be offered a three-month trial modification. Realize that you don't need to be on time each month during the three-month period, you only need to be current at the end of the three-month period. Even so, many of these borrowers will not successfully complete this three-month trial. A failed mod will stretch the timeline between the last payment and liquidation.

## FIRST-PAY TRANCHES ON SUBPRIME DEALS THAT GO *PRO RATA*

One type of deal that benefits from the extension/postponement of write downs are the first-pay tranches of subprime deals in which the senior tranches are initially sequential and go *pro rata* after the subordinate tranches are extinguished. As long as the deal is sequential, all principal cash flows are directed to this tranche, but after the deal goes *pro rata*, this tranche receives only its *pro rata* share of the principal pay downs. Thus, if the tranche is not completely paid down before the losses completely erode the subordinate tranches, the bond will have a window that extends for the length of the deal. As the time from last payment to liquidation stretches out and as modifications become more common, a bond like this will stay sequential for a longer period of time; hence

the bond will receive a larger percentage of its cash flow back before it becomes *pro rata*.

An example of this type of deal is SVHE 07-1. The 2A1 tranche is the first-pay bond. The top section of Exhibit 4 shows a drill down of the collateral backing the deal. Let's look at this deal closely. In deciding how to divide the loans, we did not sequester the second liens separately, as only 3.72% of the deal is seconds. So we divided the deal into five buckets, as follows:

1. 25.2% of the bonds are currently non-performing. These loans have an average CLTV, on a mark-to-market basis, of 126.7 ("CLTV MTM CS," for CLTV, mark-to-market, Case-Shiller Index). These loans will be liquidated using our liquidation model, which includes a distribution of lags from last payment to liquidation. The lag structure is done on a statewide basis, taking into account whether the state is a judicial or non-judicial state. The default lag in our model averages 18 months. Note that loans liquidated out of this bucket the last three months experienced a severity of 71% ("3M Sev").
2. 16.2% are re-performing. These loans are likely to redefault relatively quickly and prepay slowly. This is shown by the three-month sTr (single month transition rate) of 12.9% and the voluntary annual prepayment rate (vPr) of 1.5%. The sTr measures the monthly rate at which mortgage loans transition from the performing bucket (current or 30 days delinquent) to the non-performing bucket (60 or more days delinquent).
3. 16.6% of the loans are eligible for an agency refinance. We refer to this as Tier 3 eligibility, as we have screened for minimum eligibility (conforming or high balance conforming in terms of size, plus meet the criteria of the Fannie Mae underwriting grid).<sup>1</sup> Note that loans eligible for agency refinancing tend to prepay relatively quickly and default very slowly. This bucket has a three-month sTr of 1.1% and a three-month vPr of 15.5%.
4. 15.6% of the loans have a  $CLTV < 100$  but are not eligible for an agency refinance. These loans have prepaid at 11.2% the last three months and defaulted at a rate of 2.3%.
5. 26.5% of the loans have a  $CLTV \geq 100$ . These loans have defaulted more quickly than the other categories (3.8%/month) and prepaid more slowly (2.9%/year).

# EXHIBIT 4

## Collateral Overview of Subprime Sequentials

### SVHE 07-1 2A1 PRO RATA SUBPRIME FRONT PAY

Collateral Bucket	Curr Balance	% of Total	Avg Loan Size	Conforming Bal	GWAC	NWAC	WAM	WALA	FICO	IO	Owner Occupied	Full Doc
Non Performing Loans	116,682,369	25.17	235,247	80.71	7.519	7.017	366	31	641	24.75	91.47	54.21
Re-Performing Loans	75,110,766	16.20	180,555	91.42	5.830	5.338	347	32	640	24.82	92.69	59.56
Performing Loans CLTV < 100 (GSE Eligible/Tier 3)	76,985,402	16.60	158,733	100.00	6.503	6.075	309	35	718	20.14	93.27	79.11
Performing Loans CLTV < 100 (Non-Conforming)	72,145,316	15.56	197,118	77.21	6.995	6.510	332	32	675	24.51	90.77	74.48
Performing Loans CLTV ≥ 100	122,706,662	26.47	228,504	86.64	6.735	6.271	346	33	691	35.47	96.86	78.23
<b>Grand Total</b>	<b>463,630,515</b>	<b>100.00</b>	<b>201,578</b>	<b>86.67</b>	<b>6.788</b>	<b>6.312</b>	<b>343</b>	<b>33</b>	<b>672</b>	<b>26.79</b>	<b>93.28</b>	<b>68.72</b>

Collateral Bucket	Curr Balance	% of Total	Sim 2nds %	HPA CS	LTV Orig	LTV MTM CS	CLTV Orig	CLTV MTM CS	3M sTr	3M vPr	3M Sev
Non Performing Loans	116,682,369	25.17	30.90	26.87	79.45	114.56	88.08	126.70	100.0	2.3	70.5
Re-Performing Loans	75,110,766	16.20	20.96	21.90	77.60	106.39	84.83	115.46	12.9	1.5	0.0
Performing Loans CLTV < 100 (GSE Eligible/Tier 3)	76,985,402	16.60	1.13	-8.37	70.01	73.41	70.23	73.61	1.1	15.5	0.0
Performing Loans CLTV < 100 (Non-Conforming)	72,145,316	15.56	12.40	-10.55	74.13	81.57	78.80	86.05	2.3	11.2	0.0
Performing Loans CLTV ≥ 100	122,706,662	26.47	25.13	-32.94	79.12	120.95	85.72	129.80	3.8	2.9	0.0
<b>Grand Total</b>	<b>463,630,515</b>	<b>100.00</b>	<b>19.94</b>	<b>-22.06</b>	<b>76.67</b>	<b>102.96</b>	<b>82.52</b>	<b>110.56</b>	<b>2.5</b>	<b>8.7</b>	<b>70.5</b>

### SABR 07-BR1 A2A PRO RATA SUBPRIME FRONT PAY

Collateral Bucket	Curr Balance	% of Total	Avg Loan Size	Conforming Bal	GWAC	NWAC	WAM	WALA	FICO	IO	Owner Occupied	Full Doc
Non Performing Loans	246,704,537	41.31	226,542	92.12	8.539	8.037	379	31	628	27.29	89.96	44.11
Re-Performing Loans	123,587,644	20.70	186,971	91.80	7.082	6.580	383	31	603	20.04	95.63	65.39
Performing Loans CLTV < 100 (GSE Eligible/Tier 3)	23,712,965	3.97	137,069	100.00	7.360	6.858	331	31	693	5.39	86.55	44.42
Performing Loans CLTV < 100 (Non-Conforming)	79,127,264	13.25	130,789	94.46	8.543	8.041	358	31	608	6.84	89.56	67.47
Performing Loans CLTV ≥ 100	124,049,176	20.77	198,479	91.89	7.810	7.308	371	31	647	29.44	91.45	66.08
<b>Grand Total</b>	<b>597,181,586</b>	<b>100.00</b>	<b>189,401</b>	<b>92.63</b>	<b>8.040</b>	<b>7.538</b>	<b>373</b>	<b>31</b>	<b>627</b>	<b>22.65</b>	<b>91.25</b>	<b>56.18</b>

Collateral Bucket	Curr Balance	% of Total	Sim 2nds %	HPA CS	LTV Orig	LTV MTM CS	CLTV Orig	CLTV MTM CS	3M sTr	3M vPr	3M Sev
Non Performing Loans	246,704,537	41.31	36.28	-32.26	78.81	125.76	89.31	142.25	100.0	0.7	78.3
Re-Performing Loans	123,587,644	20.70	25.38	-25.18	77.65	114.29	85.02	125.31	10.1	1.1	0.0
Performing Loans CLTV < 100 (GSE Eligible/Tier 3)	23,712,965	3.97	16.11	-5.99	69.76	71.51	72.95	74.42	2.0	9.9	0.0
Performing Loans CLTV < 100 (Non-Conforming)	79,127,264	13.25	19.08	-5.24	75.86	79.26	81.95	85.04	4.2	11.3	0.0
Performing Loans CLTV ≥ 100	124,049,176	20.77	38.37	-34.80	78.00	126.52	89.15	142.83	5.8	5.4	0.0
<b>Grand Total</b>	<b>597,181,586</b>	<b>100.00</b>	<b>31.38</b>	<b>-26.70</b>	<b>77.65</b>	<b>115.23</b>	<b>86.76</b>	<b>128.59</b>	<b>4.7</b>	<b>6.5</b>	<b>78.3</b>

## EXHIBIT 4 (continued)

SASC 07-BC1 A2 STAY SEQUENTIAL SUBPRIME FRONT PAY

Collateral Bucket	Curr Balance	% of Total	Avg Loan Size	Conforming Bal	GWAC	NWAC	WAM	WALA	FICO	IO	Owner Occupied	Full Doc
Non Performing Loans	310,512,128	37.91	260,497	93.51	8.023	7.330	391	31	623	31.27	90.77	55.30
Re-Performing Loans	171,881,851	20.98	242,429	92.64	6.022	5.348	388	31	611	25.54	95.36	59.74
Performing Loans CLTV < 100 (GSE Eligible/Tier 3)	27,333,964	3.34	198,072	100.00	7.165	6.575	365	32	685	9.10	94.84	62.32
Performing Loans CLTV < 100 (Non-Conforming)	98,704,525	12.05	191,659	89.17	7.981	7.401	370	31	614	11.43	91.37	72.46
Performing Loans CLTV ≥ 100	210,674,433	25.72	258,496	92.47	7.260	6.479	390	31	646	26.64	93.92	71.80
<b>Grand Total</b>	<b>819,106,900</b>	<b>100.00</b>	<b>243,131</b>	<b>92.75</b>	<b>7.373</b>	<b>6.679</b>	<b>387</b>	<b>31</b>	<b>627</b>	<b>25.75</b>	<b>92.75</b>	<b>62.78</b>

Collateral Bucket	Curr Balance	% of Total	Sim 2nds %	HPA CS	LTV Orig	LTV MTM CS	CLTV Orig	CLTV MTM CS	3M sTr	3M vPr	3M Sev
Non Performing Loans	310,512,128	37.91	16.20	−35.57	83.25	141.09	86.50	146.58	100.0	3.4	74.1
Re-Performing Loans	171,881,851	20.98	10.70	−29.98	81.51	128.29	83.93	131.87	11.5	1.7	0.0
Performing Loans CLTV < 100 (GSE Eligible/Tier 3)	27,333,964	3.34	2.15	−9.74	68.66	73.79	69.09	74.19	2.6	3.2	0.0
Performing Loans CLTV < 100 (Non-Conforming)	98,704,525	12.05	7.35	−9.84	77.03	84.19	78.67	85.74	3.9	8.0	0.0
Performing Loans CLTV ≥ 100	210,674,433	25.72	9.75	−36.98	84.08	139.01	86.39	142.38	5.0	2.4	0.0
<b>Grand Total</b>	<b>819,106,900</b>	<b>100.00</b>	<b>11.85</b>	<b>−30.80</b>	<b>81.86</b>	<b>128.77</b>	<b>84.41</b>	<b>132.67</b>	<b>4.4</b>	<b>3.9</b>	<b>74.1</b>

Note: Since 21.07% in current credit enhancement is provided by the subordinate tranches, which are cross collateralized by all the bonds in the deal, we do the collateral drill down using all the loans backing the deal, not just those loans backing that group.

Source: Loan Performance, Amherst Securities.

Because the loans that default don't prepay and the loans that prepay don't default, it is important to calculate the yield on the bond by running each of the five collateral groups separately. The results of the analysis are shown in Exhibit 5. If we use the three-month average sTr, vPr and 75% severity (Scenario 1), the bond yields 20.6%. Note that the bond will go *pro rata* in period 21 (March 2011). This can be seen in the row entitled "Minimum Support," which shows when the subordinate bonds are eroded. We ran a number of other scenarios to see the sensitivity of the bond. Scenario 2 increases severity to 85%; the bond still yields 15.5%. Scenario 3 is an extreme stress; we ran the bond at 150% of its three-month average transition rate (sTr), 50% of its average speed (vPr), and 85% severity; the yield on the bond is around 0.5%.

Scenarios 4, 5, and 6 show the impact of extending the liquidation timeline and modifying the yield on the security. Scenario 4 is the cousin of Scenario 1, the only difference is that the liquidation lag is increased from 18 to 24 months on new defaults. To be conservative, we

have not altered the lags on the loans currently in the liquidation pipeline. The yield rises from 20.6% in Scenario 1 to 26.5% in Scenario 4. Intuitively, as long as the deal stays sequential, the cash flows on the deal are being solely directed to this first tranche. If this tranche stays sequential for a longer period of time, then its cash flows will actually be shorter than in the base case. The row labeled "Minimum Support" shows that if we extend the lag to 24 months (Scenario 4), the deal goes *pro rata* (attaches) in month 27 rather than Scenario 1's month 21.

Scenario 5 is very similar to Scenario 1, except that we introduce modifications. We modify 75% of the mod-eligible loans by reducing their coupon to 2%. (We thought about reducing the principal balance but did not do so, as few modifications to date have had their balance reduced. Moreover, if the principal is forborne rather than forgiven, it is not clear whether the forborne amount will be treated as forgiveness and written off immediately or written off at the end of the mortgage when the forborne amount is not repaid.) We assume a 50% success rate. We modify the

## E X H I B I T 5

### Yield Table for SVHE 07-1 2A1

	Scenarios					
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
<b>Price → Yield</b>	59 → 31.76 61 → 27.73 63 → 24.02 65 → 20.61 67 → 17.46 69 → 14.56 71 → 11.86	59 → 26.33 61 → 22.39 63 → 18.78 65 → 15.48 67 → 12.45 69 → 9.66 71 → 7.09	59 → 7.98 61 → 5.23 63 → 2.73 65 → 0.44 67 → -1.64 69 → -3.54 71 → -5.28	59 → 37.68 61 → 33.65 63 → 29.92 65 → 26.47 67 → 23.26 69 → 20.28 71 → 17.49	59 → 33.27 61 → 29.55 63 → 26.12 65 → 22.97 67 → 20.07 69 → 17.39 71 → 14.93	59 → 27.18 61 → 23.65 63 → 20.44 65 → 17.53 67 → 14.88 69 → 12.47 71 → 10.30
<b>WAL (Bal/Prin/Int)</b>	6.64/1.34/4.28 0.939	7.91/1.28/4.41 0.972	11.41/1.32/4.54 1.412	5.12/1.37/3.94 0.925	5.4/2.09/7.41 1.017	6.84/2.23/7.71 1.106
<b>Principal Window</b>	07/09 - 07/38	07/09 - 07/38	07/09 - 07/38	07/09 - 01/39	07/09 - 01/39	07/09 - 09/38
<b>Collateral Loss</b>	293,022,602 (63.2%)	319,729,525 (68.96%)	352,368,959 (76%)	293,016,577 (63.2%)	255,511,073 (55.11%)	276,570,696 (59.65%)
<b>Collateral Liquidation</b>	377,921,004 (81.51%)	377,921,004 (81.51%)	415,577,226 (89.64%)	375,669,481 (81.03%)	322,368,777 (69.53%)	322,368,777 (69.53%)
<b>Tranche Writedown</b>	15965127 (19.12%)	19955556 (23.89%)	30399974 (36.4%)	11116154 (13.31%)	10087395 (12.08%)	14,082,745 (16.86%)
<b>Period of First Writedown</b>	349, Jul 26, 38	349, Jul 26, 38	349, Jul 26, 38	355, Jul 26, 39	355, Jul 26, 39	355, Jul 26, 39
<b>Minimum Support %</b>	0.00 In Period 21. Mar 25, 11	0.00 In Period 21. Mar 25, 11	0.00 In Period 20. Feb 25, 11	0.00 In Period 27. Sep 25, 11	0.00 In Period 26. Aug 25, 11	0.00 In Period 25. Jul 25, 11
<b>Loss at Min Support</b>	0	0	0	0	0	0
<b>Cum Loss at 1st Writedown</b>	NA	NA	NA	NA	NA	NA

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
	3m Avg	3m Avg	150% 3m Avg	3m Avg	3m Avg	3m Avg
<b>sTr</b>						
<b>vPr</b>	3m Avg	3m Avg	50% 3m Avg	3m Avg	3m Avg	3m Avg
<b>Severity</b>	75%	85%	85%	75%	75%	85%
<b>Loan Mod</b>	n/a	n/a	n/a	n/a	75% Mod • 50% Success • 18 Mo To Liq • 2% Target WAC • 0% Prin Cramdown	75% Mod • 50% Success • 18 Mo To Liq • 2% Target WAC • 0% Prin Cramdown
<b>Lag (mos)</b>	18	18	18	24	18	18

Source: Loan Performance, Amherst Securities.

performing loans as they move in the non-performing bucket; for the loans that are already non-performing, we modify loans that are 60 or 90 days late or in foreclosure. We do not modify loans already in REO. If the mod fails, we liquidate the loan in 18 months. One can think of this as somewhat extreme modification scenario. We actually think that considerably less than 75% of mod-eligible borrowers will receive a modification, and the success rate will be well less than 50%. Many borrowers will fail during the three-month trial modification. But this is very useful for illustrative purposes. Note that Scenario 5 yields 23.0%, which is higher than Scenario 1's 20.6%. The intuition is simple—losses are postponed and in some cases eliminated (collateral liquidations total 69.3% in the mod scenario versus 81.2% in the base case). Thus, the subordinate securities remain outstanding for a longer period of time, and while the subordinate security is outstanding, the first-pay class stays sequential. Scenario 5 in Exhibit 5 shows that this bond attaches in month 26, rather than month 21 in the base case.

Scenario 6, a modification scenario, is similar to Scenario 2 in that the security is run with 85% severity. We again note that yield on the security is much higher when modifications are present. Exhibit 5 shows that the bond yields 17.5% in Scenario 6 rather than 12.5% in Scenario 2. This reflects the fact that the security attaches in month 25 with the modifications, instead of month 21 without modifications.

## ALL COLLATERAL ≠ NOT EQUAL

It is important to realize that although modifications and the extension of the liquidation pipeline helps all first-pay bonds that go *pro rata* when the subs are gone, not all of these bonds are equally attractive. The market does not seem to adequately price differences in collateral.

Consider SABR 07-BR1 A2A, the middle bond in Exhibit 4. This bond has the same structure as our first example (SVHE 07-1 2A1), but the collateral is much less attractive. This bond is priced at 62.5 rather than 65, a differential that we quickly will see is far too small. SABR 07-BR1 A2A has 41.3% of the deal already non-performing (rather than 25.2% for SVHE 07-1 2A1). And it has a much lower percentage of “good” performing collateral. Only 3.97% of SABR 07-BR1 A2A is eligible for an agency refinancing (rather than 16.6% of SVHE 07-1 2A1). Moreover, while the percentages of the other categories are similar, for comparable buckets, the SABR

collateral has a higher transition rate from the performing bucket to the non-performing bucket (loans that are eligible for an agency refinancing as transitioning at 2.0% in the SABR deal, 1.1% in the SVHE deal; loans that have CLTV < 100 are transitioning at 4.2% in the SABR deal and 2.3% in the SVHE deal; loans that have a CLTV ≥ 100 are transitioning at 5.8% in the SABR deal and 3.8% in the SVHE deal. This reflects the SABR collateral being more risk layered to begin with. Of the SABR loans, 31.3% have simultaneous seconds, versus 20.0% on the SVHE loans; the average original CLTV is 86.8% on the SABR deal versus 82.5% on the SVHE deal; average FICO score is 627 on the SABR deal and 672 on the SVHE deal; the full share is 55.8% on the SABR deal but 68.5% on the SVHE deal.

This is reflected in the yield on the SABR 07-BR1 A2A security, as shown in Exhibit 6. The base-case yield on this security (Scenario 1: three-month average sTr, vPr, 75% severity) is 5.9%, rather than the 20.6% yield for the SVHE bond. The difference: given the larger size of the non-performing bucket and the poorer collateral performance, the deal goes *pro rata* in 15 months (the row “Minimum Support %” goes to 0 in period 27 versus period 21 in the base case on the SVHE security). The yield on the security is quite negative if one increases the severity to 85%, as in Scenario 2. Thus the security is substantially less attractive than the SVHE in the base or stress cases.

The stretching out of the liquidation timeline or extensive modifications helps this security a great deal but still not enough to make it an attractive purchase. Stretching out the liquidation timeline for new defaulters from 18 to 24 months raises the yield on the security from 5.9% in Scenario 1 to 8.7% in Scenario 4. And introducing modifications (we modify 75% of the mod-eligible loans, giving each a 2% mortgage; we assume a 50% success rate) raises the yield from 5.9% in Scenario 1 to 9.9% in Scenario 5. Scenario 6 introduces modifications to high severity Scenario 2; the yield jumps from -12.0% to 0.2%.

## PRO RATA VERSUS STAY SEQUENTIAL STRUCTURES

Why bother with a security like SVHE 07-1 2A1 when one can just buy a front pay cash flow that always stays sequential? The reason is that the cash flows that always stay sequential are much higher in price and look much less attractive than the SVHE 07-1 2A1 bond.



## EXHIBIT 6

### Yield Table for SABR 07-BR1 A2A

	Scenarios					
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
<b>Price → Yield</b>	56.5 → 15.70 58.5 → 12.08 60.5 → 8.81 62.5 → 5.86 64.5 → 3.17 66.5 → 0.73 68.5 → -1.49	56.5 → -7.95 58.5 → -9.61 60.5 → -11.11 62.5 → -12.47 64.5 → -13.71 66.5 → -14.85 68.5 → -15.89	56.5 → -16.29 58.5 → -17.86 60.5 → -19.28 62.5 → -20.57 64.5 → -21.74 66.5 → -22.81 68.5 → -23.79	56.5 → 18.4 58.5 → 14.85 60.5 → 11.63 62.5 → 8.71 64.5 → 6.05 66.5 → 3.62 68.5 → 1.39	56.5 → 17.81 58.5 → 14.81 60.5 → 12.17 62.5 → 9.85 64.5 → 7.82 66.5 → 6.04 68.5 → 4.49	56.5 → 3.12 58.5 → 2.00 60.5 → 1.03 62.5 → 0.17 64.5 → -0.59 66.5 → -1.27 68.5 → -1.88
<b>WAL (Bal/Prin/Int)</b>	10.83/1.22/4.10	16.09/1.40/4.20	17.55/1.19/3.43	10.31/1.33/4.24	9.82/2.72/8.59	14.25/3.68/8.66
<b>Duration</b>	1.137	2.460	2.603	1.149	1.472	3.975
<b>Principal Window</b>	07/09 - 06/38	07/09 - 06/38	07/09 - 06/38	07/09 - 12/38	07/09 - 12/38	07/09 - 11/38
<b>Collateral Loss</b>	420,035,695 (70.34%)	474,091,198 (79.39%)	495,063,291 (82.9%)	420,033,638 (70.34%)	376,596,743 (63.06%)	418,804,110 (70.13%)
<b>Collateral Liquidation</b>	549,877,700 (92.08%)	549,877,700 (92.08%)	574,536,691 (96.21%)	548,108,794 (91.78%)	477,809,375 (80.01%)	477,809,375 (80.01%)
<b>Tranche Writedown</b>	39,358,796 (34.6%)	60574549 (53.25%)	66,961,322 (58.86%)	36,291,473 (31.9%)	30,175,925 (26.53%)	46,564,563 (40.93%)
<b>Period of First Writedown</b>	348, Jun 25, 38	348, Jun 25, 38	348, Jun 25, 38	354, Dec 27, 38	354, Dec 27, 38	354, Dec 27, 38
<b>Minimum Support %</b>	0.00 In Period 15. Sep 27, 10	0.00 In Period 10. Apr 26, 10	0.00 In Period 10. Apr 26, 10	0.00 In Period 15. Sep 27, 10	0.00 In Period 24. Jun 27, 11	0.00 In Period 20. Feb 25, 11
<b>Loss at Min Support</b>	0	0	0	0	0	0
<b>Cum Loss at 1st Writedown</b>	NA	NA	NA	NA	NA	NA

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
	3m Avg	3m Avg	150% 3m Avg	3m Avg	3m Avg	3m Avg
<b>sTr</b>						
<b>vPr</b>	3m Avg	3m Avg	50% 3m Avg	3m Avg	3m Avg	3m Avg
<b>Severity</b>	75%	85%	85%	75%	75%	85%
<b>Loan Mod</b>	n/a	n/a	n/a	n/a	• 75% Mod • 50% Success • 18 Mo To Liq • 2% Target WAC • 0% Prin Cramdown	• 75% Mod • 50% Success • 18 Mo To Liq • 2% Target WAC • 0% Prin Cramdown
<b>Lag (mos)</b>	18	18	18	24	18	18

Source: Loan Performance, Amherst Securities.

Moreover, the stay sequential bond is hurt by extension in any form. SASC 07-BC1 A2 is a front pay stay sequential cash flow. The collateral on this bond is broken down into buckets at the bottom of Exhibit 4. Note that the collateral on this bond looks a lot like that on SABR 07-BR1 A2A. This security would be priced at 88, rather than 62.5 for the SABR 07-BR1 A2A or 65 for the SVHE 07-1 2A1.

At a price of 88, Exhibit 7 shows that the SASC 07-BC1 A2 yields 12.1% in the base case (Scenario 1), assuming the three-month average sTr, vPr, and 70% severity. (Exhibit 4 shows the bond has actually been coming in at about 71% severity.) Scenario 2 raises the severity to 80%; the bond yields 11.1%. Note that severity makes much less of a difference for the front pay in a stay sequential structure than in a *pro rata* structure; in a stay sequential structure, higher severity means the bond is marginally longer, as there is no change in cash flow priorities. In the extreme Scenario 3 (150% of the recent transition experience and 50% of the recent prepayment experience at the higher severity level) the bond is only marginally affected, yielding 10.5%. And it never takes a loss in any of these scenarios. Intuitively the credit support on this deal is so high (72.7%, due to its stay sequential nature) that the bond is always paid off before the losses hit.

Note that if the time from last payment to liquidation extends from 18 to 24 months for new defaulters, it actually hurts this bond; the yield is reduced from Scenario 1's 12.1% to Scenario 4's 10.4%. And if the loans are heavily modified, the yield on the bond is reduced from Scenario 1's 12.39% to Scenario 5's 9.0%. The results remain consistent (modifications are a negative) at a higher severity. Exhibit 7 shows that at an 80% severity, the bond yields 11.1% in Scenario 2; this is reduced to 7.7% in our heavy modification Scenario 6. This makes perfect sense: in a stay sequential security, the highest return is achieved by maximizing cash flow to the front security, thus paying down the bond quickly. Anything that interferes with this is a negative.

## The Bottom Line

Front pay subprime securities that go *pro rata* can look very attractive in the base case and benefit from the macro trends—an extension of the time from last payment to liquidation and rising modifications. However, it is important to watch the collateral on these securities;

the market is not adequately differentiating between better and worse collateral. Stay sequential structures are considerably more expensive than a better-quality first-pay sequential that goes *pro rata*. And these securities are hurt by the extension of the liquidation timeline and by modifications.

It's important to realize that we ran these bonds at current LIBOR. They will all look better at forward LIBOR. Moreover, the relative value analysis will be even more compelling; if one uses forward rates, the first-pay subprime sequentials that go *pro rata* will look even better than illustrated here versus the stay sequential bond, as the initial prices of front pay bonds in *pro rata* structures are lower.

## SELECT SUBORDINATE SECURITIES

The subordinate universe is mostly trading as credit IOs, the market is expecting no principal return and is betting how long the cash flows will continue. In the subprime world, many of the securities are trading at a dollar price <\$5. In this section, we make the case that some of these securities can be attractive and will greatly benefit from the increased time between last pay and liquidation as well as modifications. As with the securities discussed in the previous section, it is important to run each security individually. We looked at a number of these securities and some seemed very attractive at actual trading levels, others too rich. The returns on all these securities are heavily scenario-dependent.

Our example, SAIL 05-HE3 M2, is a class with an original AA rating. The bond has 24.2% current credit enhancement; Exhibit 8 shows that 39.9% of the deal is non-performing, with severities typical of this asset class (70% on first liens, 105% on second liens). Thus, the liquidation pipeline alone is enough to ensure this bond receives no return on principal. The question is how long the interest payments will last. Remember, once this bond is hit, it will lose all of its principal quickly, as it is a very thin tranche.

Exhibit 9 shows a yield table on this bond. In every case, the principal is written off entirely. In the base case (Scenario 1, three-month average sTr, vPr, 75% severity), at a price of \$2.15, the bond has a negative yield (−47.0%) to current LIBOR. However, it has a very positive yield (68.5%) to forward LIBOR. If we raise the severity to 85% (Scenario 2), the yield to current LIBOR becomes

## EXHIBIT 7

### Yield Table for SASC 07-BC1 A2

	Scenarios					
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
<b>Price → Yield</b>	82 → 19.20 84 → 16.71 86 → 14.34 88 → 12.08 90 → 9.91 92 → 7.84 94 → 5.85	82 → 17.69 84 → 15.39 86 → 13.20 88 → 11.11 90 → 9.12 92 → 7.22 94 → 5.39	82 → 16.67 84 → 14.51 86 → 12.46 88 → 10.49 90 → 8.62 92 → 6.83 94 → 5.11	82 → 16.47 84 → 14.33 86 → 12.30 88 → 10.36 90 → 8.51 92 → 6.74 94 → 5.04	82 → 14.21 84 → 12.39 86 → 10.66 88 → 9.00 90 → 7.41 92 → 5.89 94 → 4.42	82 → 12.22 84 → 10.65 86 → 9.16 88 → 7.73 90 → 6.36 92 → 5.06 94 → 3.81
<b>WAL (Bal/Prin/Int)</b>	1.14/1.14/0.84	1.25/1.25/0.97	1.33/1.33/1.04	1.35/1.35/1.06	1.54/1.54/1.15	1.83/1.83/1.51
<b>Duration</b>	1.027	1.115	1.185	1.200	1.400	1.629
<b>Principal Window</b>	07/09 - 12/11	07/09 - 10/12	07/09 - 07/13	07/09 - 09/12	07/09 - 03/13	07/09 - 04/15
<b>Collateral Loss</b>	573,289,976 (69.99%)	620,845,989 (75.8%)	636,596,670 (77.72%)	620,845,386 (75.8%)	509,358,815 (62.18%)	545,270,018 (66.57%)
<b>Collateral Liquidation</b>	779,848,291 (95.21%)	779,848,291 (95.21%)	799,762,266 (97.64%)	777,406,809 (94.91%)	664,559,568 (81.13%)	664,559,568 (81.13%)
<b>Tranche Writedown</b>	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
<b>Period of First Writedown</b>	NA	NA	NA	NA	NA	NA
<b>Minimum Support %</b>	NA	NA	NA	NA	NA	NA
<b>Loss at Min Support</b>	0	0	0	0	0	0
<b>Cum Loss at 1st Writedown</b>	NA	NA	NA	NA	NA	NA

	Scenarios					
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
<b>sTr</b>	3m Avg	3m Avg	150% 3m Avg	3m Avg	3m Avg	3m Avg
<b>vPr</b>	3m Avg	3m Avg	50% 3m Avg	3m Avg	3m Avg	3m Avg
<b>Severity</b>	70%	80%	80%	70%	70%	80%
<b>Loan Mod</b>	n/a	n/a	n/a	n/a	75% Mod	75% Mod
					50% Success	50% Success
					18 Mo To Liq	18 Mo To Liq
					2% Target WAC	2% Target WAC
					0% Prin Cramdown	0% Prin Cramdown
<b>Lag (mos)</b>	18	18	18	24	18	18

Source: Loan Performance, Amherst Securities.

## EXHIBIT 8

### Collateral Overview of Subprime Subordinate Class

SAIL 05-HE3 M2 Original AA Rated Sub Class

Collateral Bucket	Curr Balance	% of Total	Avg Loan Size	Conforming Bal	GWAC	NWAC	WAM	WALA	FICO	IO	Owner Occupied	Full Doc
Non Performing Loans	220,341,847	39.85	206,894	94.51	8.088	6.997	318	48	628	34.46	88.04	58.10
Re-Performing Loans	113,194,343	20.47	166,462	98.15	6.959	5.799	318	49	607	21.24	94.09	70.47
Performing Loans CLTV < 100 (GSE Eligible/Tier 3)	29,303,421	5.30	150,274	1000.00	6.816	5.763	310	49	685	11.41	90.98	65.57
Performing Loans CLTV < 100 (Non-Conforming)	79,134,483	14.31	129,729	97.80	7.625	6.254	307	49	616	11.10	88.65	68.31
Performing Loans CLTV ≥ 100	110,910,410	20.06	174,114	99.51	7.254	5.990	314	49	640	29.23	88.44	70.28
<b>Grand Total</b>	<b>552,884,504</b>	<b>100.00</b>	<b>173,481</b>	<b>97.02</b>	<b>7.556</b>	<b>6.378</b>	<b>315</b>	<b>49</b>	<b>628</b>	<b>26.14</b>	<b>89.60</b>	<b>64.93</b>

Collateral Bucket	Curr Balance	% of Total	Sim 2nds %	HPA CS	LTV Orig	LTV MTM CS	CLTV Orig	CLTV MTM CS	3M sTr	3M vPr	3M Sev
Non Performing Loans	220,341,847	39.85	28.21	-23.65	85.00	115.98	91.04	124.98	100.0	0.6	68.7
Re-Performing Loans	113,194,343	20.47	15.87	-18.03	83.76	110.15	87.66	115.88	7.5	1.3	0.0
Performing Loans CLTV < 100 (GSE Eligible/Tier 3)	29,303,421	5.30	12.40	4.28	79.92	72.77	82.09	74.55	2.2	14.5	0.0
Performing Loans CLTV < 100 (Non-Conforming)	79,134,483	14.31	10.22	0.43	84.67	81.64	87.23	83.86	3.4	6.3	0.0
Performing Loans CLTV ≥ 100	110,910,410	20.06	20.71	-32.96	84.54	126.72	90.36	135.46	3.3	3.0	0.0
<b>Grand Total</b>	<b>552,884,504</b>	<b>100.00</b>	<b>20.77</b>	<b>-19.46</b>	<b>84.34</b>	<b>109.73</b>	<b>89.19</b>	<b>116.66</b>	<b>3.1</b>	<b>4.9</b>	<b>68.7</b>

Source: Loan Performance, Amherst Securities.

even more negative: -73.4%. However, the yield to forward LIBOR is 35.2%.

It is important to realize this security is very sensitive to the timing of the liquidations. If we increase the lag between the last pay date and liquidation on new defaulters from 18 months (Scenario 1) to 24 months (Scenario 4), the yield to current LIBOR increases from -46.7% to -20.1%. The yield to forward LIBOR in Scenario 4 is 81.9%. If we had altered the bonds already in the liquidation pipeline, the yield in this scenario would have been even higher. In our modification scenario (Scenario 5), in which we modify 75% of the mod eligible loans by giving each a 2% coupon and 50% of these modifications succeed, the security yields -7.4% to current LIBOR, 97.6% to forward LIBOR—an improvement from the base case. Similarly, if we compare Scenario 2, with an 85% severity, to Scenario 6, with modifications, the yield on the security at current LIBOR jumps from -73.4% to -22.3%; the yield to forward LIBOR jumps from 35.2% to 83.3%.

### The Bottom Line

We believe that these subordinate securities represent a very attractive way to take advantage of an extension of the liquidation timeline as well as modifications. We would look to purchase securities where the downside in the base case is limited and the securities have huge upside on any extension risk.

### NON-AGENCY INVERSE IOs

Non-agency inverse IOs also benefit from the extension of the liquidation pipeline and modifications. These securities are most commonly found in fixed-rate Alt-A deals. The two risks to non-agency inverse IOs are that *prepayments pick up* (shortening the life of the security) or that *LIBOR rises* (eroding the coupon, which generally takes the form of  $(X - 1\text{-month LIBOR})$ ). In our example bond, CWALT 05-J11 1A5, the coupon formula on the security is  $(5.10 - 1\text{-month LIBOR})$ ; with 1-month LIBOR at 32 bps, the coupon on this security is 4.78%.

One question often asked about these securities is, *In a modification, the interest payment will be reduced, so isn't there a concern about having enough interest to pay these securities?* This is actually not a concern for most deals that contain inverse IOs. The inverse IO is carved off the senior-most security in the deal (it was designed to facilitate the creation of a senior floating rate security) and the interest on the senior tranches is at the top of the cash flow waterfall. This can be most easily explained by looking at the prospectus supplement for our example deal CWALT 05-J11:

**Priority of distribution (p. S-6).** On each distribution date amounts available from each loan group to make distributions on the related classes of certificates will be applied in the following order of priority:

1. to interest on the interest-bearing classes of the senior certificates relating to that loan group;
2. to principal of the classes and components of the senior certificates relating to that loan group in the manner, order, and priority described under "Description of the Certificates—Principal" in this prospectus supplement;
3. to any deferred amounts payable on the PO Class relating to that loan group, as described under "Description of the Certificates—Principal" in this prospectus supplement; and
4. from remaining available funds from all of the loan groups, to interest on and then principal of each class of subordinated certificates, in order of their numerical class designations, beginning with the Class M Certificates, as described under "Description of the Certificates—Interest" and "—Principal" in this prospectus supplement.

*To translate:* The cash flow coming into the deal is fungible and is used to first pay the interest on the senior certificates. Thus, if there is insufficient interest from the mortgage loans because so many have had their rates reduced due to modifications, the interest on the senior classes will be

## EXHIBIT 9

### Yield Table for SAIL 05-HE3 M2 (Forward Rates)

Forward Rates:

	Scenarios					
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Price → Yield	1.4 → 168.3 1.65 → 124.60 1.9 → 92.81 2.15 → 68.52 2.4 → 49.28 2.65 → 33.60 2.9 → 20.54	1.4 → 129.98 1.65 → 88.22 1.9 → 58.07 2.15 → 35.17 2.4 → 17.13 2.65 → 2.51 2.9 → -9.62	1.4 → 129.75 1.65 → 87.94 1.9 → 57.73 2.15 → 34.79 2.4 → 16.72 2.65 → 2.06 2.9 → -10.09	1.4 → 177.68 1.65 → 135.51 1.9 → 105.04 2.15 → 81.90 2.4 → 63.66 2.65 → 48.86 2.9 → 36.58	1.4 → 192.97 1.65 → 150.98 1.9 → 120.63 2.15 → 97.58 2.4 → 79.40 2.65 → 64.64 2.9 → 52.38	1.4 → 181.16 1.65 → 138.21 1.9 → 107.06 2.15 → 83.33 2.4 → 64.57 2.65 → 49.31 2.9 → 36.62
WAL (Bal/Prin/Int)	1.53/0.00/0.80	1.18/0.00/0.70	1.17/0.00/0.70	1.94/0.00/1.00	2.30/0.00/1.14	1.90/0.00/0.95
Duration	0.532	0.566	0.565	0.560	0.562	0.545
Principal Window	386,235,848 (69.86%)	437,362,592 (79.11%)	455,555,607 (82.4%)	386,233,279 (69.86%)	346,621,448 (62.89%)	387,491,582 (70.09%)
Collateral Loss	506,969,234 (91.7%)	506,969,234 (91.7%)	528,175,938 (95.53%)	504,436,798 (91.24%)	442,321,712 (80%)	442,321,712 (80%)
Tranche Writedown	63,997,000 (100%)	63,997,000 (100%)	63,997,000 (100%)	63,997,000 (100%)	63,997,000 (100%)	63,997,000 (100%)
Period of First Writedown	11. May 25, 10	8. Feb 25, 10	8. Feb 25, 10	11. May 25, 10	22. Apr 25, 11	12. Jun 25, 10
Minimum Support %	0.00 In Period 11. May 25, 10	0.00 In Period 8. Feb 25, 10	0.00 In Period 8. Feb 25, 10	0.00 In Period 11. May 25, 10	0.00 In Period 22. Apr 25, 11	0.00 In Period 12. Jun 25, 10
Loss at Min Support	4,248,332	4,854,089	4,804,207	4,248,332	1,918,915	2,286,189
Cum Loss at 1st Writedown	NA	NA	NA	NA	NA	NA

## EXHIBIT 9 (continued)

Current LIBOR:

	Scenarios					
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
<b>Price → Yield</b>	1.4 → -8.80 1.65 → -25.00 1.9 → -37.28 2.15 → -46.99 2.4 → -54.92 2.65 → -61.56 2.9 → -67.21	1.4 → -38.45 1.65 → -53.36 1.9 → -64.58 2.15 → -73.39 2.4 → -80.55 2.65 → -86.51 2.9 → -91.57	1.4 → -40.26 1.65 → -55.22 1.9 → -66.48 2.15 → -75.32 2.4 → -82.49 2.65 → -88.46 2.9 → -93.53	1.4 → 16.31 1.65 → 0.91 1.9 → -10.82 2.15 → -20.14 2.4 → -27.79 2.65 → -34.21 2.9 → -39.71	1.4 → 29.11 1.65 → 13.70 1.9 → 1.95 2.15 → -7.40 2.4 → -15.08 2.65 → -21.54 2.9 → -27.08	1.4 → 15.12 1.65 → -0.67 1.9 → -12.70 2.15 → -22.26 2.4 → -30.09 2.65 → -36.67 2.9 → -42.30
<b>WAL (Bal/Prin/Int)</b>	1.61/0.00/0.84	1.25/0.00/0.70	1.23/0.00/0.69	2.07/0.00/1.11	2.42/0.00/1.24	2.04/0.00/1.06
<b>Duration</b>	1.308	1.446	1.443	1.361	1.355	1.326
<b>Principal Window</b>						
<b>Collateral Loss</b>	385,947,391 (69.81%)	437,066,273 (79.05%)	455,394,561 (82.37%)	385,971,828 (69.81%)	346,415,816 (62.66%)	387,258,532 (70.04%)
<b>Collateral Liquidation</b>	506,234,679 (91.56%)	506,234,679 (91.56%)	527,666,796 (95.44%)	503,530,753 (91.07%)	441,665,436 (79.88%)	441,665,436 (79.88%)
<b>Tranche Writedown</b>	63,997,000 (100%)	63,997,000 (100%)	63,997,000 (100%)	63,997,000 (100%)	63,997,000 (100%)	63,997,000 (100%)
<b>Period of First Writedown</b>	11. May 25, 10	8. Feb 25, 10	8. Feb 25, 10	11. May 25, 10	25. Jul 25, 11	13. Jul 26, 10
<b>Minimum Support %</b>	0.00 In Period 15. Sep 27, 10	0.00 In Period 10. Apr 26, 10	0.00 In Period 10. Apr 26, 10	0.00 In Period 15. Sep 27, 10	0.00 In Period 24. Jun 27, 11	0.00 In Period 20. Feb 25, 11
<b>Loss at Min Support</b>	1,091,899	2,570,587	2,498,870	1,091,899	6,962,192	692,773
<b>Cum Loss at 1st Writedown</b>	340,009,039	342,430,288	342,430,288	340,009,039	404,934,781	366,441,340
<b>sTr</b>	3m Avg	3m Avg	150% 3m Avg	3m Avg	3m Avg	3m Avg
<b>vPr</b>	3m Avg	3m Avg	50% 3m Avg	3m Avg	3m Avg	3m Avg
<b>Severity</b>	75%	85%	85%	75%	75%	85%
<b>Loan Mod</b>	n/a	n/a	n/a	n/a	75% Mod	75% Mod
					• 50% Success • 18 Mo To Liq • 2% Target WAC • 0% Prin Cramdown	• 50% Success • 18 Mo To Liq • 2% Target WAC • 0% Prin Cramdown
<b>Lag (mos)</b>	18	18	18	24	18	18

Source: Loan Performance, Amherst Securities.

paid from scheduled and unscheduled pay downs of principal. This means that the inverse IO tranche is relatively sure of receiving its coupon as long as it is outstanding.

With that as a backdrop, let's look more carefully at our example of CWALT 05-J11 1A5. The collateral drilldown on this bond is shown in Exhibit 10, where we examine how likely the underlying loans are to prepay or default (and we use the same 5-bucket collateral breakdown we have used for the other bonds in this article):

1. 11.6% of the loans are non-performing. These will be liquidated using the Amherst pipeline liquidation model.
2. 2.9% of the loans are re-performing. These are apt to prepay slowly and default quickly. Over the past three months, they have experienced voluntary prepayments at the rate of 1.9%/year (vPr) and defaulted at a rate of 10.1%/month (sTr).

3. 29.9% of the bonds are eligible for an agency refinancing. These bonds have prepaid at 19.9% vPr/year the past three months and defaulted at a modest 1.0%/month (sTr).
4. 29.7% of the bonds are not eligible for an agency refinancing, but have a CLTV of <100. The CLTV on these bonds averages 60.7%. These bonds have prepaid unusually slowly for this cohort (1.7%/year) and defaulted at 0.7%/month.
5. 25.9% of the bonds have a CLTV ≥ 100; the CLTV averages 122.0%. As would be expected, these loans prepay slowly (5.0%/year) and transition faster than lower LTV loans (sTr of 1.8%/month for the last three months).

Exhibit 11 shows the yield tables for this inverse IO (priced at 6:20 or 6.625) under 5 different scenarios. We show that these bonds represent value even under conservative assumptions. Scenario 1 is the base case; for each group of collateral we used the average monthly transition

## EXHIBIT 10

### Collateral Overview of Inverse IO

#### CWALT 05-J11 1A5 ALT-A INVERSE IO

Collateral Bucket	Curr Balance	% of Total	Avg Loan Size	Conforming Bal	GWAC	NWAC	WAM	WALA	FICO	IO	Owner Occupied	Full Doc
Non Performing Loans	43,347,819	11.64	341,321	77.90	6.401	6.184	301	49	688	32.48	89.60	25.09
Re-Performing Loans	10,638,760	2.86	287,534	77.87	6.252	6.042	285	50	664	23.89	85.22	39.10
Performing Loans CLTV < 100 (GSE Eligible/Tier 3)	111,248,681	29.88	261,147	100.00	6.220	6.007	248	57	722	20.68	86.26	31.32
Performing Loans CLTV < 100 (Non-Conforming)	110,613,073	29.71	521,760	30.08	6.064	5.851	297	48	710	44.41	93.49	45.19
Performing Loans CLTV ≥ 100	96,479,850	25.91	401,999	75.66	6.082	5.869	305	47	712	58.04	90.51	39.12
<b>Grand Total</b>	<b>372,328,183</b>	<b>100.00</b>	<b>357,321</b>	<b>69.72</b>	<b>6.160</b>	<b>5.946</b>	<b>285</b>	<b>51</b>	<b>710</b>	<b>38.87</b>	<b>89.87</b>	<b>36.96</b>

Collateral Bucket	Curr Balance	% of Total	Sim 2nds %	HPA CS	LTV Orig	LTV MTM CS	CLTV Orig	CLTV MTM CS	3M sTr	3M vPr	3M Sev
Non Performing Loans	43,347,819	11.64	36.57	-19.63	75.81	97.78	81.59	104.86	100.0	0.6	50.7
Re-Performing Loans	10,638,760	2.86	23.65	-15.93	72.12	87.37	76.18	92.15	10.1	1.9	0.0
Performing Loans CLTV < 100 (GSE Eligible/Tier 3)	111,248,681	29.88	14.84	1.33	64.27	58.80	66.49	60.70	1.0	19.9	0.0
Performing Loans CLTV < 100 (Non-Conforming)	110,613,073	29.71	23.05	-10.83	68.90	75.10	71.74	78.01	0.7	1.7	0.0
Performing Loans CLTV ≥ 100	96,479,850	25.91	31.39	-33.94	77.44	115.74	82.06	122.00	1.8	5.0	0.0
<b>Grand Total</b>	<b>372,328,183</b>	<b>100.00</b>	<b>24.35</b>	<b>-14.36</b>	<b>70.63</b>	<b>83.75</b>	<b>74.12</b>	<b>87.77</b>	<b>1.1</b>	<b>9.9</b>	<b>50.7</b>

Source: Loan Performance, Amherst Securities.

# EXHIBIT 11

## Yield Table for CWALT 05-J11 1A5 Inverse IO

### Forward Rates:

	Scenarios				
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Price → Yield	5.875 → 37.07	5.875 → 25.52	5.875 → 13.44	5.875 → 39.34	5.875 → 42.72
	6.125 → 34.00	6.125 → 22.76	6.125 → 11.04	6.125 → 36.26	6.125 → 39.60
	6.375 → 31.22	6.375 → 20.24	6.375 → 8.87	6.375 → 33.43	6.375 → 36.75
	6.625 → 28.62	6.625 → 17.94	6.625 → 6.89	6.625 → 30.84	6.625 → 34.14
	6.875 → 26.25	6.875 → 15.83	6.875 → 5.09	6.875 → 28.45	6.875 → 31.74
	7.125 → 24.07	7.125 → 13.89	7.125 → 3.45	7.125 → 26.24	7.125 → 29.52
	7.375 → 22.05	7.375 → 12.1	7.375 → 1.94	7.375 → 24.20	7.375 → 27.48
WAL (Bal/Prin/Int)	5.54/0.00/3.38	4.11/0.00/2.86	3.06/0.00/2.44	5.94/0.00/3.48	8.2/0.00/5.72
Duration	0.532	0.566	0.565	0.560	0.562
Principal Window					
Collateral Loss	91,725,669 (24.64%)	82,441,775 (22.14%)	75,546,637 (20.29%)	91,673,641 (24.62%)	81,112,238 (21.79%)
Collateral Liquidation	177,742,322 (47.74%)	160,418,677 (43.09%)	147,450,490 (39.6%)	175,666,940 (47.18%)	146,747,989 (39.41%)
Tranche Writedown	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Period of First Writedown	NA	NA	NA	NA	NA
Minimum Support %	NA	NA	NA	NA	NA
Loss at Min Support	NA	NA	NA	NA	NA
Cum Loss at 1st Writedown	NA	NA	NA	NA	NA

### Current LIBOR:

	Scenarios				
	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Price → Yield	5.875 → 74.77	5.875 → 60.79	5.875 → 45.96	5.875 → 77.25	5.875 → 81.3
	6.125 → 70.5	6.125 → 56.9	6.125 → 42.48	6.125 → 72.98	6.125 → 76.95
	6.375 → 66.61	6.375 → 53.35	6.375 → 39.33	6.375 → 69.09	6.375 → 72.99
	6.625 → 63.05	6.625 → 50.11	6.625 → 36.45	6.625 → 65.53	6.625 → 69.37
	6.875 → 59.77	6.875 → 47.13	6.875 → 33.82	6.875 → 62.25	6.875 → 66.03
	7.125 → 56.75	7.125 → 44.39	7.125 → 31.4	7.125 → 59.23	7.125 → 62.96
	7.375 → 53.96	7.375 → 41.86	7.375 → 29.17	7.375 → 56.43	7.375 → 60.11
WAL (Bal/Prin/Int)	5.54/0.00/4.83	4.11/0.00/4.15	3.06/0.00/3.58	5.94/0.00/4.93	8.20/0.00/7.59
Duration	1.067	1.174	1.324	1.067	1.048
Principal Window					
Collateral Loss	91,725,669 (24.64%)	82,441,775 (22.14%)	75,546,637 (20.29%)	91,673,641 (24.62%)	81,112,238 (21.79%)
Collateral Liquidation	177,742,322 (47.74%)	160,418,677 (43.09%)	147,450,490 (39.6%)	175,666,940 (47.18%)	146,747,989 (39.41%)
Tranche Writedown	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
Period of First Writedown	NA	NA	NA	NA	NA
Minimum Support %	NA	NA	NA	NA	NA
Loss at Min Support	NA	NA	NA	NA	NA
Cum Loss at 1st Writedown	NA	NA	NA	NA	NA

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
sTr	3m Avg	3m Avg	3m Avg	3m Avg	3m Avg
vPr	Cohort 3m Avg	150% Cohort 3m Avg	200% 3m Avg	Cohort 3m Avg	Cohort 3m Avg
Severity	50%	50%	50%	50%	50%
Loan Mod	n/a	n/a	n/a	n/a	<ul style="list-style-type: none"> <li>• 75% Mod</li> <li>• 50% Success</li> <li>• 18 Mo To Liq</li> <li>• 2% Target WAC</li> <li>• 0% Prin Cramdown</li> </ul>
Lag (mos)	18	18	18	24	18

Source: Loan Performance, Amherst Securities.



rate the deal experienced over the past three months. Since this deal is slower than average, we use average vPr for the cohort of 2005 Alt-A fixed rate bonds. Thus, we assume a base case speed of 19.2% for performing loans eligible for an agency refinancing, 7.9% for performing loans with CLTVs < 100 not eligible for an agency refinancing, and 3.4% for performing loans with CLTVS > 100. These speeds are far more conservative than the deal-specific three-month averages of 19.9%, 1.7% and 5.0%, and do not take into account the fact that prepayment speeds are likely to slow (reflecting higher rates). We assume 50% severity (the deal has been coming in at 42% severity, our model projection is around 50% severity). The bond yields 63.1%, assuming LIBOR stays at current levels, and 28.6% at forward rates. In Scenario 2, we increase the voluntary prepayments by 50%, the yield on the bond falls to 50.1% at current LIBOR and 17.9% at forward LIBOR. In Scenario 3, we double voluntary prepayment speeds; yield on the bond falls to 36.5% at current LIBOR and 6.9% at forward LIBOR.

Not only is the base case attractive, but the bond can benefit from either a stretching out of the liquidation pipeline or modifications. Exhibit 4 shows the effect of stretching out of the liquidation pipeline for new defaulters from 18 to 24 months in the base case. This scenario is directly comparable to Scenario 1. Note that the yield on the bond increases marginally from 63.1% to 65.5% assuming an unchanged LIBOR and from 28.6% to 30.8% at forward rates. Exhibit 5 shows the effect of modifications. We modify 75% of the mod-eligible loans by reducing their coupon to 2%, with 50% of those successful. As in our other examples, we modify both the non-performing pipeline and current loans as they become delinquent. At current LIBOR, the yield on the bond rises from 63.1% in the base case (Scenario 1) to 69.4% in the mod case (Scenario 5). At forward LIBOR, the yield on the bond rises from 28.6% in the base case (Scenario 1) to 34.1% in the mod case (Scenario 5).

## CONCLUSIONS

In this article, we made the case that two trends are in place: *extension of time from last payment to liquidation* and *increase in % of each deal being modified*. We highlighted three different types of bonds that both look attractive at current levels and benefit from an extension of the time from last payment to liquidation and also benefit from modifications:

1. *First-pay subprime tranches of pro rata structures with "good" collateral.* An extension in the timeline before losses are realized means that this bond will stay sequential for a longer period of time.
2. *Select subordinate securities, trading as credit IOs.* An extension of the liquidation pipeline or extensive modifications suggests losses are apt to take longer to materialize, allowing the low-priced security to garner its coupon for a longer period of time.
3. *Non-agency inverse IOs; very attractively priced securities in their own right, extension helps.* An extension of the liquidation pipeline or extensive modifications means that this security will have the benefit of its coupon for a longer period of time than initially anticipated.

## ENDNOTE

<sup>1</sup>We detail our tiering system in our *Amherst Mortgage Insight* article "Amherst Collateral Tiering: Refinanceability of Non-Agency Mortgages," March 20, 2009.

To order reprints of this article, please contact Dewey Palmieri at [dpalmieri@ijournals.com](mailto:dpalmieri@ijournals.com) or 212-224-3675.