Mortgage Modification Activity—Recent Developments

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Most non-agency mortgage market participants are not surprised that modification activity is beginning to taper. The directional movement actually makes sense, because by now servicers have gone through most of the universe of delinquent loans and completed the modifications they are required to implement. In this article, we delve deeper into modification activity, focusing primarily on the subprime sector (over 70% of private label modifications occur on subprime securities). We hone in on changes in modification types and their success rates. Most investors are aware of the growing importance of principal reductions; we confirm that trend, highlighting success rates by modification type, and the variations across servicers.

On the flip side, many investors are unaware of the rising importance of second and subsequent modifications. We also examine these, again focusing on modification success, as well as variations in mod type across servicers.

Overall, we find a number of interesting results, which we carefully document:

- Principal reductions have become a larger overall share of modification activity; however, there is a huge variation across servicers.
- Controlling for payment relief, we find that principal reduction modifications are more effective than either rate modifications or capitalization modifications. These differences by modification type are larger for modifications on prime/Alt A/option ARM loans than for subprime loans.
- Second modifications constitute 30% of all recent modifications, and 42% of all recent subprime modifications.
- Subprime modifications show huge variation across servicers with respect to second modifications. Most second mods are driven by a weak first modification. Second modifications also have much higher re-default rates than first mods (even controlling for modification type, pay relief, and months DQ at modification).

We want to warn our readers that there is a lot of detail in this analysis. For convenience, we have divided the article into six sections. It is written to enable readers to skip (or skim) sections of the article that may hold less interest. The outline is as follows:

1. Level of modification activity
2. Differences across subprime servicers
3. Second and subsequent subprime modification activity
4. Liquidation timelines for modified subprime loans
5. Subprime modification success rates

6. Success rates on subprime modifications versus prime/Alt A/option ARM modifications.

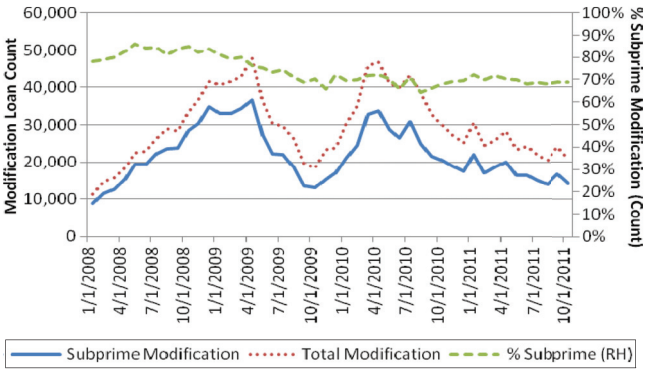
LEVEL OF MODIFICATION ACTIVITY

Exhibit 1 shows the very quickly tapering level of modification activity for private label securitizations. Total modification activity, which had ranged from 40,000–50,000 loans/month in late 2008/early 2009 and early 2010, slumped to less than 25,000/month by mid to late 2011. This reflects servicers having combed through the delinquent loans in their servicing portfolio, and having already modified most of those that qualify for a mod.[1] Of modifications done in private label securitizations, 70% were for subprime securities. For much of the remainder of this article, we will focus on modifications in subprime space, in order to highlight differences across servicers. However, in the final section of the article, we compare success rates of modifications on subprime loans with those on prime/Alt A/option ARMs.

Exhibit 2 highlights two very interesting trends in subprime modifications. First, principal modifications have become a larger share of total modification activity, and capitalization modifications have become

EXHIBIT 1

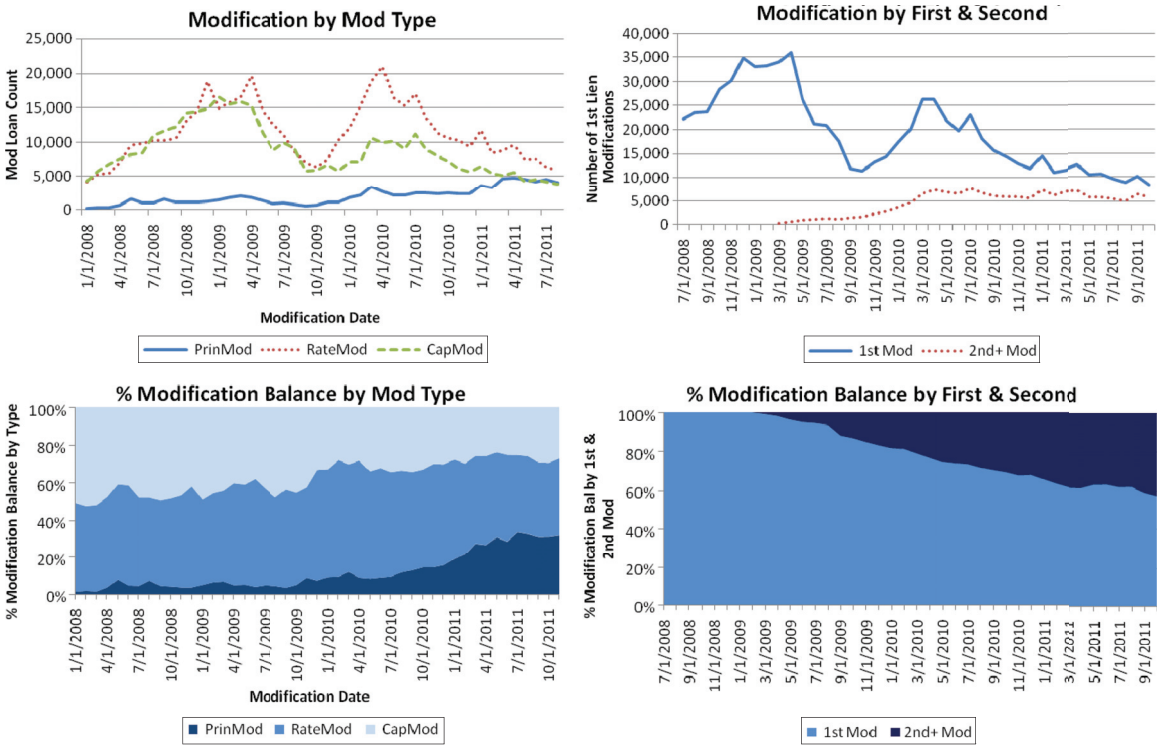
Total Modification Volume for Private Label Securitization



Source: CoreLogic, 1010data, Amherst Securities as of October 2011.

EXHIBIT 2

Subprime Modification by Mod Type and by First vs. Second Modification



Source: CoreLogic, 1010data, Amherst Securities as of October 2011.

a less significant share of overall subprime modification activity. Principal modifications now account for a full 30% of total modification activity. This represents a large increase in recent months. Second, the share of second and subsequent modifications is now a staggering 42% (as measured by loan count). That reflects a decline in the number of first modifications, *not* an increase in the number of second modifications. When we look at trends in prime/Alt A/option ARM modifications, we find that principal modifications have also become more significant in that space, accounting for a similar 30% share of total, mostly due to increases in option ARM mods. However, second modifications are much less common in prime/Alt A/option ARMs loans, accounting for only about 15% of total modification activity.

One caveat is in order. When discussing principal modifications, our data do not allow us to distinguish between principal forbearance, in which the borrower still owes the money (the forborne amount appears as a realized loss now, but the borrower must make a balloon payment at the end of the life of the loan) and principal forgiveness in which the amount written down is forgiven. We believe principal forgiveness is much more powerful and results in lower re-default rates, but we do not have the data to prove it. (CoreLogic, our data provider, has a field to capture the balloon payments, but the field is not well populated).

DIFFERENCES ACROSS SUBPRIME SERVICERS

Exhibit 3 shows the variations in modifications across subprime servicers, examining the total number of modifications, modification as the percent of unpaid principal balance, and the percent of non-performing balances (borrowers that are ≥2 payments past due) plus re-performing loans (borrowers that used to be >2 payments behind, but no longer are, either through natural cure or modification).

EXHIBIT 3
Subprime Modification Re-Default Rate by Servicers

	Volume		Modification Statistics					Distribution by Mod Type			Rate Mods		Prin Mods		Cap Mods	12-Month Re-Default Rate		
Servicer	Total Unpaid Balance ($B)	Total Loan Count (K)	Ever Mod # (K)	Avg # Mods per Mod Loan	Ever Mod as % UPB	Ever Mod % NPL + RPL	Pay Relief %	Prin Mod %	Rate Mod %	Cap Mod %	GWAC before Rate Mod	GWAC after Rate Mod	Loss for Prin Mod	Bal Cut for Prin Mod	Bal Incr for Cap Mod	NPL Rate	1st Mod cum ReDEF	2nd+ Mod cum ReDEF
CW/BOA	65	357	89	1.1	29	36	23	4	53	43	8.1	4.2	26	21	6	38	41	58
OPTIONONE/AHM	29	143	62	1.3	53	67	29	3	53	44	8.4	4.2	4	26	9	28	35	58
WF	23	134	48	1.2	42	59	16	1	64	35	8.1	4.7	29	25	7	30	37	58
GMAC/RFC	21	150	46	1.1	38	58	21	1	66	33	8.5	5.0	34	25	7	26	33	52
CHASE	20	113	34	1.1	38	51	32	7	55	39	8.1	3.7	18	23	8	31	36	58
OCWEN	18	115	57	1.4	57	74	26	6	67	26	8.4	4.5	31	26	7	26	38	60
AMERIQUEST/AHM	18	113	34	1.2	37	55	29	3	50	47	8.0	3.7	2	26	12	29	36	55
HOMEQ/OCWEN	17	100	34	1.2	40	56	27	8	64	28	8.1	4.2	29	30	7	24	34	54
SAXON/OCWEN	16	90	33	1.1	43	53	33	9	67	25	8.2	3.8	21	20	10	24	32	48
LITTON/OCWEN	16	99	27	1.1	33	44	31	16	59	25	8.1	4.0	17	25	7	23	26	52
AURORA	15	86	31	1.2	43	58	25	6	59	35	8.0	4.0	10	27	8	28	34	56
WAMU/CHASE	14	78	28	1.2	44	56	30	2	75	22	8.2	4.4	29	23	7	29	35	57
EMC/CHASE	12	68	21	1.2	39	48	28	5	67	28	8.6	5.2	26	26	7	36	49	62
WILSHIRE/BOA	10	54	12	1.1	25	30	29	16	56	28	8.1	4.0	25	21	8	34	49	54
NC/CARRINGTON	9	50	25	1.4	57	75	23	0	43	57	8.2	5.3	34	26	6	26	34	57
FREMONT/OCWEN	7	30	13	1.2	44	52	27	13	48	39	8.1	4.1	35	26	6	23	28	57
HLS/BOA	7	34	10	1.1	35	43	28	12	43	45	8.3	4.3	28	22	7	36	58	56
BOA	6	36	9	1.1	32	43	25	7	41	51	8.0	4.2	12	22	7	34	54	57
SPS/CS	6	36	15	1.2	45	61	26	27	45	28	8.2	4.3	37	36	7	24	30	52
Total Subprime	**359**	**2,099**	**691**	**1.2**	**39**	**52**	**26**	**6**	**57**	**37**	**8.2**	**4.3**	**23**	**26**	**8**	**29**	**36**	**57**

Source: CoreLogic, 1010data, Amherst Securities as of October 2011.

Let's note a few interesting points. Looking at the balance of loans that have ever received a modification ("ever modified" loans) as a share of NPL and RPL (nonperforming and re-performing loan) balances, we find that on average 52% of the balances have been modified. The results range from a low in the 30%–36% area (Countrywide and Wilshire) to the high 70s (Ocwen and New Century/Carrington). Modified loan payment relief averages 26%, ranging from a low of 16% (Wells Fargo) to a high of 30%–33% (Saxon, Chase, WAMU, and Litton).

There is also a large variation in the types of modification done. On average, based on cumulative modifications to date, subprime modifications consist of 6% principal modifications, 57% rate modifications, and 37% capitalization modifications. (More recently, principal modifications have become prevalent and capitalization modifications have become less widespread, as we will discuss shortly). Looking at these lifetime results, 27% of SPS (Select Portfolio Servicing) modifications involved principal reductions, as did 16% of Litton and Wilshire. The average balance cut for a principal reduction is 26%, with SPS cuts being on the high side, at 36%. The usage of principal modifications seems to be tied to re-default rates: two of the servicers with the highest use of principal modifications (Litton and SPS) have the lowest 12-month cumulative re-default rates, at 39% and 42%, respectively.

Rate modifications are used an average 57% of the time; the lowest usage by a major servicer is by Bank of America (BOA), which conducts rate modifications only 41% of the time, and the highest is by WAMU at 75%. These modifications typically involve substantial pay relief. The weighted average coupon (WAC) paid by the borrower (the gross WAC, shown in Exhibit 3 in the column labeled "GWAC before Rate Mod") averaged 8.2%, with little variation. After modification, the rates ranged from 3.7% to 5.2%.

Capitalization modifications are used, on average, 37% of the time. Bank of America and New Century/Carrington use them over 50% of the time, while a number of servicers, including the largest users of principal modifications (SPS, Litton, Wilshire), use capitalization modifications less than 30% of the time.

The last four columns in Exhibit 3 show different measures of re-default rate after 12 months, based on modifications done from 11/2009 to 10/2010. Note that the market's most commonly used measure of re-default is "the % of unpaid principal balance that is >60 days delinquent" (the column labeled "NPL Rate"). Along this measure, there's a fairly low variation across servicers; it averages 29% and ranges from a low of 23%–24% (Fremont, SPS, HomEq, Saxon) to a high of 36%–38% (EMC, Countrywide). However, as we stressed in Goodman et al. [2011a, 2011b], looking at modification success in this manner is incorrect. It neglects liquidations (if a borrower is modified but the modification fails and the borrower is liquidated—that should be counted as a failed modification). Similarly, it neglects failed first modifications (a borrower is modified but the modification fails and then the borrower is re-modified and is paying on the second modification). We correct for these aspects by looking at the cumulative re-default rate as a percentage of the unpaid principal balance of the loan at the time of modification. When we do this, the 29% delinquent re-default rate for 12 months becomes a 49% overall cumulative re-default rate (last column of Exhibit 3). Variations among servicers also become somewhat more pronounced, with a low of 39%–42% (Litton, SPS, Saxon) and a high of 55%–57% (EMC, HLS, BOA, Ocwen). Note that 1) servicers with higher share of principal reductions usually have lower overall re-default rates (SPS and Litton) and 2) every servicer currently owned by Bank of America (BOA) has an above-average re-default rate (Countrywide, BOA, HLS, Wilshire) over the past 12 months.

The BOA performance may change going forward. Information available in the popular press indicates that beginning in May 2011, BOA introduced earned principal forgiveness as an important enhancement to its modification program. Program guidelines allow the principal forgiveness option to be considered when it provides a more positive outcome under the net present value test than does the standard HAMP waterfall. Exhibit 4 shows recent trends in the percentage of principal modifications. It is actually quite encouraging. BOA has gone from 6%–7% principal modifications in March–April 2011 to 24% for the three-month period from August to October 2011, with Countrywide, Wilshire and HLS also experiencing large increases. Many of the other large servicers (Chase, Wells Fargo, Ocwen) have also dramatically increased the share of principal reduction modifications that they are doing, indicating they too may have altered their programs. Chase has increased the share of principal modifications from 10%–12% in March 2011 to more than 20% for the August–October 2011 period, while EMC (owned by Chase) has shown an even larger increase. Wells Fargo ramped up principal modifications dramatically in the

EXHIBIT 4
Share of Modification with Principal Reduction by Subprime Servicers

Servicer	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11
AMERIQUEST/AHM	0	0	1	0	0	0	0	1	0	0	1	1	1	1	10	8	3	3	3	5	3	5	8	4	6	5	9	8	7	7	6	6	5	6
AURORA	0	0	1	1	1	2	1	5	2	5	7	8	9	11	8	7	4	5	4	9	7	7	7	9	8	8	11	10	12	14	15	18	14	11
BOA	6	7	3	2	1	1	4	3	2	2	5	3	4	1	5	2	5	12	8	7	5	12	2	9	5	5	6	7	26	34	43	29	25	19
CHASE	1	1	1	1	0	0	0	0	0	2	1	6	6	3	3	3	4	6	6	13	16	15	13	14	15	16	12	10	16	18	19	23	17	20
CW/BOA	0	2	1	0	0	0	0	0	1	1	0	1	1	6	4	7	8	6	1	1	4	4	3	6	13	13	10	12	25	17	25	18	19	16
EMC/CHASE	0	0	0	1	0	1	2	1	3	24	26	13	2	2	2	1	1	0	8	6	5	6	4	13	10	10	13	15	20	31	34	38	28	31
GMAC/RFC	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	10	10	10	11	7	8	8	9	15	9
HLS/BOA	8	7	2	4	3	3	3	7	2	5	6	7	3	4	5	10	8	13	15	14	12	10	0	12	11	2	3	7	44	41	50	33	41	32
HOMEQ/OCWEN	0	0	0	0	1	1	0	1	0	1	0	0	1	3	3	4	5	6	6	6	3	10	8	11	7	22	26	26	33	33	40	40	33	35
LITTON/OCWEN	19	18	19	27	27	19	14	26	20	15	11	15	11	11	11	8	9	11	17	17	17	18	15	20	16	21	27	31	17	24	22	31	26	16
NATCITY/PNC	0	11	0	8	1	4	1	4	3	1	0	4	1	6	4	1	3	11	11	15	16	20	10	14	11	2	12	15	10	10	22	25	11	19
NATIONSTAR	0	0	0	0	0	0	0	0	0	0	2	5	10	11	10	9	6	4	2	3	7	6	4	2	6	2	6	8	6	2	3	5	2	1
NC/CARRINGTON	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	8	4	5	7	5	5	5	7	8	6
OCWEN	1	1	0	0	1	0	0	1	0	0	0	1	1	2	4	4	5	4	6	5	6	9	9	9	11	15	22	22	32	33	35	35	35	37
OPTIONONE/AHM	0	0	0	0	0	0	0	0	0	0	0	1	1	2	13	3	1	2	1	2	4	5	6	5	8	9	12	11	11	3	2	4	3	3
SAXON	0	15	10	9	17	15	1	20	1	0	3	1	5	5	7	7	7	8	6	7	5	5	8	6	7	9	9	11	13	10	13	11	9	7
SPS/CS	5	12	22	25	23	32	56	25	19	18	15	33	37	31	32	29	27	29	26	27	20	22	3	22	22	19	18	21	19	24	17	27	17	14
WAMU/CHASE	0	0	0	0	0	0	0	0	4	0	0	0	2	0	0	1	0	0	1	13	11	12	13	15	14	11	17	10	12	16	13	15	17	20
WF	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	3	1	1	1	6	4	5	6	9	22	21	20
WILSHIRE/BOA	24	17	28	16	18	16	16	16	9	5	9	15	12	18	19	0	8	7	7	8	6	10	8	14	16	14	22	24	22	20	30	24	24	16

Source: CoreLogic, 1010data, Amherst Securities as of October 2011.

August–October 2011 period. Similarly, Ocwen ramped up from less than 10% in the last quarter of 2010 to 36% over the August–October 2011 period, with HomEq experiencing a similar increase. Unfortunately, the modifications are so recent we will be unable to assess the success rate of these modifications in this article.

SECOND AND SUBSEQUENT SUBPRIME MODIFICATION ACTIVITY

Over the past three months, the average modification rate for subprime loans was 0.8%/month, as shown in the bottom row of Exhibit 5. Of this average mod rate, 0.5% is first mods, 0.3% is second mods, and 0.1% is third or subsequent mods. Thus, *a staggering 42% of the modifications in the last three months are re-modifications.*

The rate at which loans receive a second modification is very different across servicers. Exhibit 5 shows that over the past three months, the four most active re-modification servicers experienced re-modifications, which composed >50% of their total modification activity: Option One (64%), WF (66%), Ocwen (68%), and New Century/Carrington (75%).[2]

Second modifications tend to occur when the loan is fewer months DQ than for first modifications but further along in the foreclosure process. This makes sense, because when a borrower re-defaults on a modification, the loan is placed into the delinquency/foreclosure pipeline in a position not too different from when that loan was initially modified. Exhibit 6 illustrates both these points based on a six-month snapshot of modification activities. It shows that for first modifications, the loans were 14 months DQ at modification. For second modifications, the loans were 10 months DQ. For third modifications, they were 7 months DQ. The exhibit also illustrates that second and subsequent modifications are occurring much later in the delinquency/foreclosure process, with many more loans already in foreclosure. For first modifications, 70% are 90+ DQ and 14% are in FC; for second modifications, 68% are 90+ DQ and

EXHIBIT 5

Frequency of Re-Modification Activity by Subprime Servicers, Three Month

Servicer	Mod % UPB	Mod1%	Mod2%	Mod3+%	% Re-Mods
CW/BOA	0.6%	0.4%	0.2%	0.0%	32%
OPTIONONE/AHM	1.0%	0.4%	0.5%	0.1%	64%
WF	0.5%	0.2%	0.3%	0.1%	66%
GMAC/RFC	0.6%	0.3%	0.2%	0.0%	44%
CHASE	1.1%	0.8%	0.3%	0.0%	31%
OCWEN	1.2%	0.4%	0.6%	0.3%	68%
AMERIQUEST/AHM	0.9%	0.5%	0.3%	0.0%	41%
HOMEQ/OCWENS	1.2%	0.7%	0.5%	0.1%	43%
AXON/OCWEN	1.1%	0.6%	0.4%	0.1%	48%
LITTON/OCWEN	0.8%	0.6%	0.2%	0.0%	24%
AURORA	0.8%	0.5%	0.3%	0.1%	42%
WAMU/CHASE	1.3%	0.6%	0.6%	0.1%	50%
EMC/CHASE	0.7%	0.4%	0.3%	0.0%	38%
WILSHIRE/BOA	0.9%	0.7%	0.1%	0.0%	16%
NC/CARRINGTON	0.8%	0.2%	0.4%	0.1%	75%
FREMONT/OCWEN	0.9%	0.6%	0.3%	0.1%	39%
HLS/BOA	1.1%	0.7%	0.3%	0.0%	29%
BOA	0.8%	0.5%	0.3%	0.0%	35%
SPS/CS	0.8%	0.5%	0.3%	0.0%	38%
ALL	0.8%	0.5%	0.3%	0.1%	42%

Source: CoreLogic, 1010data, Amherst Securities as of October 2011 (UPB = unpaid principal balance).

EXHIBIT 6

Subprime First vs. Second Modifications, Six Month

1st Modification		2nd Modification		3rd+ Modification	
Monthly Mod Rate	0.5%	Monthly Mod Rate	0.3%	Monthly Mod Rate	0.1%
DQ Months	14	DQ Months	10	DQ Months	7
% Prin Mod	22	% Prin Mod	24	% Prin Mod	23
% Rate Mod	64	% Rate Mod	53	% Rate Mod	38
% Cap Mod	14	% Cap Mod	23	% Cap Mod	39
% CURR	8	% CURR	6	% CURR	6
% 30D	4	% 30D	3	% 30D	4
% 60D	5	% 60D	5	% 60D	8
% 90D	70	% 90D	68	% 90D	61
% FCL	14	% FCL	17	% FCL	20
% REO	0	% REO	0	% REO	0
% Pay Relief	27	% Pay Relief	23	% Pay Relief	18

Source: CoreLogic, 1010data, Amherst Securities as of October 2011.

17% are in FC; for third modifications, 61% are 90+ DQ and 20% are in FC.

Exhibit 6 (bottom row) shows that, on average, less pay relief is provided by second and subsequent modifications than is provided by first modifications. This is very rational, as the borrower has already received some pay relief in the first mod. The average pay relief is 27% on first modifications, 23% on second modifications, and 18% on third modifications. The pay relief comparison is also consistent with modification type: capitalization modifications (with less pay relief) are more common in second and subsequent modifications. In first modifications, 14% are capitalization modifications; that figure rises to 23% for second modifications and 39% for third modifications.

Were second modifications the remedy for weak and in some cases sham first modifications, where servicers re-modified in order to improve the modification success rate? Or were second modifications the result of "kicking the can down the road" to postpone liquidation? The answer is both. Many (the majority) of the second mods were re-dos of weak first modifications, especially those done in the 2008–2009 time period. However, there were some clearly "kicking the can down the road" modifications—a weak second modification that does not provide much pay relief. This can be seen in the numbers given in Exhibit 6: capitalization mods were 23% of second mods and 39% of third mods.

In Exhibit 7 we look at the relationship between pay relief on the first and the second modifications. A few observations can be derived:

- The right-hand side of Exhibit 7 shows that most of the second modifications are re-dos of 2008 and 2009 modifications. That is, 41% of 2008 modifications have a second mod, and 27% of 2009 modifications have a second mod, while only 4% of 2010 modifications and <1% of 2011 modifications have a second mod.

EXHIBIT 7

Subprime Payment Relief for First vs. Second Modifications

1st Mod Date	1st Mod Relief Bucket	2nd+ Mod Relief Bucket				2nd Mod Total	No 2nd Mod
		≤0	1–20	21–40	>40		
2008	≤0	3%	7%	9%	7%	27%	27%
	1–20	3%	10%	11%	10%	34%	29%
	21–40	3%	9%	10%	10%	31%	33%
	>40	1%	2%	2%	2%	7%	11%
	Total	11%	28%	32%	29%	100%	100%
2009	≤0	2%	5%	6%	5%	18%	14%
	1–20	3%	11%	12%	11%	36%	29%
	21–40	4%	10%	11%	11%	37%	38%
	>40	2%	2%	2%	2%	9%	19%
	Total	11%	28%	32%	30%	100%	100%
2010	≤0	3%	4%	5%	6%	18%	10%
	1–20	4%	10%	9%	7%	31%	24%
	21–40	6%	8%	9%	6%	28%	31%
	>40	11%	4%	3%	4%	23%	35%
	Total	24%	27%	27%	22%	100%	100%
2011	≤0	5%	2%	1%	7%	15%	10%
	1–20	12%	3%	8%	4%	28%	22%
	21–40	12%	16%	2%	3%	34%	32%
	>40	12%	6%	5%	2%	24%	37%
	Total	40%	27%	16%	16%	100%	100%

1st Mod Date	1st Mod Relief Bucket	% 2nd+ or No 2nd+ Mod		
		2nd Mod	No 2nd Mod	Total
2008	≤0	41%	59%	100%
	1–20	45%	55%	100%
	21–40	39%	61%	100%
	>40	31%	69%	100%
	Total	41%	59%	100%
2009	≤0	31%	69%	100%
	1–20	32%	68%	100%
	21–40	26%	74%	100%
	>40	15%	85%	100%
	Total	27%	73%	100%
2010	≤0	8%	92%	100%
	1–20	6%	94%	100%
	21–40	4%	96%	100%
	>40	3%	97%	100%
	Total	4%	96%	100%
2011	≤0	0%	100%	100%
	1–20	0%	100%	100%
	21–40	0%	100%	100%
	>40	0%	100%	100%
	Total	0%	100%	100%

Source: CoreLogic, 1010data, Amherst Securities as of October 2011.

- The left-hand side of Exhibit 7 shows that loans that received a second modification had, by and large, received less pay relief the first time around than those that did not get a second mod. That is, for 2009 first modifications, 18% of the borrowers that received a second modification experienced a payment increase on their first modification, versus a lower 14% among the first mods that experienced a payment increase and did not receive a second mod. Similarly, only 9% of borrowers who had received a second modification experienced >40% pay relief on the first modification, compared to 19% of the first modifications that did not receive a second modification.
- The subset of loans that received a second modification experienced larger pay relief on the second modification than on the first modification. So, for those 2008 first modifications that received second modifications, if we look at the payment relief for the first mod, 27% received a payment increase, 34% received 1%–20% pay relief, 31% received 21%–40% pay relief, and 7% received >40% pay relief. For the same borrowers on their second modifications, only 11% received a payment increase, 28% received 1%–20% pay relief, 32% received 20%–40% pay relief, and 29% received >40% pay relief.
- We showed in Exhibit 6 that over the last six months, second modifications have less pay relief than first modifications done during the same time (but not the same loans). However, when we look at the same borrower across time, we find that the borrowers who needed a second modification, on average, received less pay relief than the norm on their first modification. In addition, because the second modifications occurred at a later point in time, the modifications are more in line with later modification style, which entails, on average, more pay relief and more use of principal reductions. This is consistent with the view that the majority of the re-modifications were re-dos of weak first modifications.

- The right-hand side of Exhibit 7 shows that relatively few loans with 2010 and 2011 first modifications have had second modifications. The left-hand side of the exhibit shows that in these cases, the percentage of second modifications with no pay relief (24% for 2010 first mods, 40% for the small number of 2011 first mods) is significantly higher than for loans in which the first modification occurred in 2008–2009 (11% for those loans).

Exhibit 8 shows modification type for first and second mods in a similar format. Again, the same patterns are apparent. Borrowers who received a second modification were more apt to have a weaker first modification—the first mods were less apt to have had a principal modification and more apt to have had a capitalization modification. The right-hand side of Exhibit 8 shows that for the 2009 first modification cohort, 19% of the principal modifications were re-modified, versus 30% of the capitalization modifications.

For those borrowers who received second modifications, the second modification was apt to be far more significant (principal and rate mods rather than capitalization mods) than the first mod. In particular, as shown in the left-hand side of Exhibit 8, principal reduction was used a far higher percentage of the time in second mods. So for example, on 2009 first modifications that received a second modification, the first modification was composed of 3% principal modifications, 50% rate modifications, and 48% capitalization modifications. For those borrowers, on their second modification, 19% were principal modifications, 40% were rate modification, and 41% were capitalization modifications.

LIQUIDATION TIMELINES FOR MODIFIED SUBPRIME LOANS

The market, when pricing securities, does not distinguish between re-performing loans (loans that used to be at least two payments behind, but no longer are) and non-performing loans (loans at least two payments behind). We believe investors in non-agency mortgage-backed securities should have a strong bias for re-performing loans versus non-performing loans, because even if the re-performing loan liquidates, it is apt to do so with a lower severity than the non-performing loan.

EXHIBIT 8

Subprime Modification Type for First vs. Second Modifications

1st Mod Date	1st Mod Type	2nd+ Mod Type			2nd Mod Total	No 2nd Mod
		PrinMod	RateMod	CapMod		
2008	PrinMod	1%	2%	1%	4%	3%
	RateMod	7%	20%	21%	48%	51%
	CapMod	5%	26%	19%	49%	46%
	Total	12%	48%	40%	100%	100%
2009	PrinMod	1%	1%	1%	3%	4%
	RateMod	11%	19%	19%	50%	54%
	CapMod	7%	20%	20%	48%	41%
	Total	19%	40%	41%	100%	100%
2010	PrinMod	3%	1%	1%	5%	8%
	RateMod	25%	13%	19%	58%	64%
	CapMod	11%	9%	17%	37%	29%
	Total	39%	23%	38%	100%	100%
2011	PrinMod	6%	1%	4%	11%	18%
	RateMod	30%	8%	19%	57%	59%
	CapMod	12%	6%	15%	32%	23%
	Total	47%	14%	38%	100%	100%

1st Mod Date	1st Mod Type	% 2nd+ or No 2nd+ Mod		
		2nd Mod	No 2nd Mod	Total
2008	PrinMod	45%	55%	100%
	RateMod	39%	61%	100%
	CapMod	42%	58%	100%
	Total	41%	59%	100%
2009	PrinMod	19%	81%	100%
	RateMod	25%	75%	100%
	CapMod	30%	70%	100%
	Total	27%	73%	100%
2010	PrinMod	3%	97%	100%
	RateMod	4%	96%	100%
	CapMod	6%	94%	100%
	Total	4%	96%	100%
2011	PrinMod	0%	100%	100%
	RateMod	0%	100%	100%
	CapMod	0%	100%	100%
	Total	0%	100%	100%

Source: CoreLogic, 1010data, Amherst Securities as of October 2011.

The top left-hand section of Exhibit 9 captures the argument—the number of months delinquent at liquidation is lower on modified loans than on non-modified loans. And it is lower on loans with two or more modifications than on loans with one modification. This suggests that a modified loan is apt to liquidate with a lower severity, as the previous principal and interest advances have been recaptured at the time of modification, leaving fewer months of advancing between re-default and liquidation. Moreover, due to the modification, the going-forward interest rate that is advanced on will be lower.

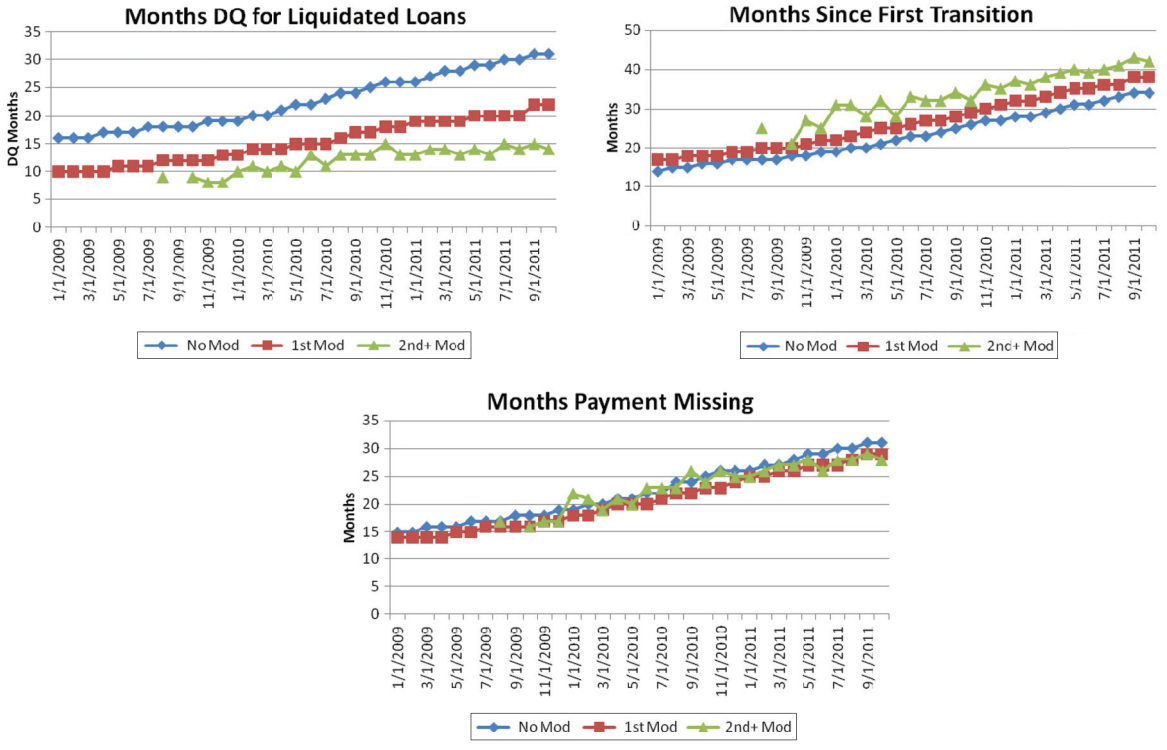
However, this begs the question: If you, as an investor, see a loan that has been modified once from a servicer who tends to do multiple modifications, do you need to assume a longer timeline until liquidation and, therefore, higher loss severity? Intuitively, if a loan is expected to cumulatively spend more time in the delinquency/foreclosure pipeline, this would increase the amount of depreciation on the property because the borrower is not really maintaining it, making the property less valuable. The answer to this question, as far as we can tell from the existing data on liquidated loans, is "no"—while there is an extension in the absolute number of months from the initial delinquency to the final liquidation, the cumulative amount of time the loan stays in delinquency is about the same.

To make this point, look at the top right-hand panel of Exhibit 9. This tells you that the number of months from the date the borrower first missed two payments (first transition) until liquidation is higher for loans with two or more modifications versus loans with one modification and higher on loans with one modification than on loans with no modifications. This is to be expected, as the modifications take time. There is usually a trial period, during which the borrower makes payments so the modification can become permanent (and the borrower might also subsequently make some modified payments).

The real question is: Cumulatively, how many payments has the borrower missed between first transition and liquidation? This is shown in the bottom section of

EXHIBIT 9

Subprime Liquidation Timeline for First vs. Second Modifications, 2006–2007 Vintages



Source: CoreLogic, 1010data, Amherst Securities as of October 2011.

the exhibit. As can be seen, the cumulative missed payments are marginally lower for modified loans than for non-modified loans. There is no real difference between loans that have received one modification and those that have received two or more modifications.

These results are consistent with our findings in Exhibit 6, indicating that when a loan re-defaults after modification, it is placed into the delinquency/foreclosure pipeline in a position not too different from when that loan was initially modified. When an investor buys the loan before modification (or second mod), the expected cumulative amount of time in delinquency is about the same whether or not the loan will receive a mod in the future. However, when an investor buys the loan after the loan modification, some of the P&I has already been recaptured by the servicer, thus the loan will liquidate at lower DQ months and should be priced at a higher value.

SUBPRIME MODIFICATION SUCCESS RATES—FIRST VERSUS SECOND MODS

How do second modifications perform? Frankly, they are less successful than first modifications. Exhibit 10 shows the cumulative re-default rate of first versus second modifications completed in 2009 (left-hand panel). The first modification re-default rate is ~40% after 12 months, 58% after 24 months. The second modification re-default rate is about 60% after 12 months, 67% after 24 months. And the 12-month differential is very similar for 2010 modifications, even though overall success rates have improved slightly: The re-default rate on 2010 first modifications is 35%; it is 53% on second modifications.

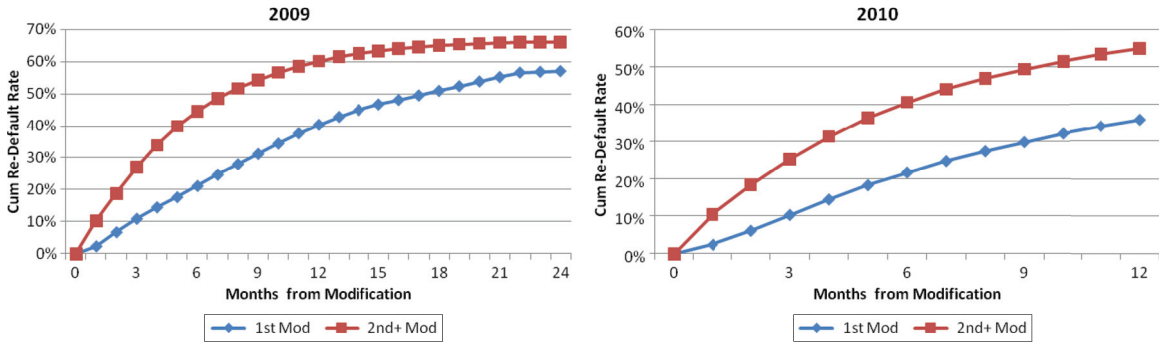
Please return to Exhibit 3, which shows default rate servicer by servicer. Two servicers, Ocwen and New Century/Carrington, are the most active with re-mods. They show the highest cumulative average number of modifications per modified loan in Exhibit 3 (each modified loan has been modified 1.4×) and the highest percent of re-modification in the three-month period from August to October 2011 shown in Exhibit 5. These two servicers have first modification re-default rates (measured as cumulative 12-month rates) that are at, near, or below the 36% average (compared to 38% for Ocwen and 34% for New Century/Carrington). However, their second modification re-default rates are much higher than average, which pushes their total re-default rate above that for the market as a whole (49% market average, versus 52% for New Century/Carrington, 56% for Ocwen). While the second mods are bringing up the re-default rate for these servicers, we argue that this is not necessarily bad for investors. Those borrowers who were targeted for second modifications had initial modifications that had already failed; thus, the re-modification saved borrowers who otherwise would have hit the liquidation pipeline. In addition, as we just argued, outstanding PITI (principal, interest, tax, and insurance) advances will be lower for those loans when they eventually liquidate.

SUBPRIME MODIFICATION SUCCESS RATES—THE ULTIMATE PERFORMANCE REPORT

One of the challenges in looking at performance is untangling the Gordian knot of factors that contribute

EXHIBIT 10

Subprime Cum Re-Default Rate for First vs. Second Modifications



Source: CoreLogic, 1010data, Amherst Securities as of October 2011.

to re-default rates. In Goodman et al. [2011a] we argued that the three important determinants of modification success are *modification type* (principal modification, rate modification, capitalization modification), *payment relief*, and *number of months delinquent* a loan was at the time of modification. We showed that pay relief is a key driver of modification re-default rates, as is how quickly the borrower receives the modification. The more pay relief the better. And, the earlier in the delinquency cycle the borrower receives the modification, the higher the success rate. (And the latter factor is quite important although often overlooked). In Exhibit 11, we control for all three of these factors, as well as whether the modification is a first or second when tabulating subprime modification success rates.

EXHIBIT 11

Subprime 12-Month Cumulative Re-Default Rate for First vs. Second Modifications

			2010				
Num Mods	Mod Type	Pay Relief	≤ 2 DQ	3–6 DQ	7–12 DQ	>12 DQ	Total
1st Mod	PrinMod	>40	6%	12%	18%	27%	19%
		20–40	19%	25%	29%	45%	32%
		0–20	36%	36%	44%	43%	40%
		≤0	23%	18%	19%	31%	24%
	PrinMod Total		15%	15%	20%	30%	22%
	RateMod	>40	8%	15%	23%	38%	27%
		20–40	14%	24%	34%	49%	35%
		0–20	22%	33%	44%	58%	45%
		≤0	19%	24%	38%	57%	40%
	RateMod Total		15%	23%	32%	47%	34%
	CapMod	>40	20%	19%	27%	48%	27%
		20–40	27%	35%	41%	53%	41%
		0–20	29%	40%	47%	55%	45%
		≤0	24%	32%	40%	52%	41%
	CapMod Total		26%	34%	42%	53%	41%
1st Mod Total			18%	26%	34%	47%	35%
2nd+ Mod	PrinMod	>40	17%	26%	37%	45%	35%
		20–40	32%	42%	45%	63%	47%
		0–20	53%	53%	62%	65%	58%
		≤0	47%	30%	39%	47%	39%
	PrinMod Total		38%	31%	39%	48%	39%
	RateMod	>40	22%	32%	44%	52%	43%
		20–40	29%	43%	55%	63%	52%
		0–20	37%	51%	61%	68%	59%
		≤0	35%	41%	53%	60%	49%
	RateMod Total		29%	42%	52%	59%	50%
	CapMod	>40	42%	48%	55%	57%	52%
		20–40	45%	53%	62%	67%	58%
		0–20	49%	58%	66%	72%	63%
		≤0	35%	48%	58%	65%	55%
	CapMod Total		41%	52%	61%	66%	58%
2nd+ Mod Total			36%	45%	55%	61%	52%
Grand Total			26%	35%	44%	52%	43%

Source: CoreLogic, 1010data, Amherst Securities as of October 2011.

Principal modification is more effective than other modification types, controlling for other performance drivers. Look at 2010 first modifications. Some of the buckets are very small, so it is more illustrative to look across row or column totals. Even controlling for pay relief, principal reductions are more effective, and that differential grows if the borrower is more delinquent at modification. Look at the 2010 modification success numbers. Borrowers receiving a modification when they are 3–6 months DQ via a principal modification have a 15% re-default rate after 12 months. But that default rate is 23% if the modification is a rate modification. If a borrower is 7–12 months DQ, the re-default rate on the principal modifications is 20%, while it is 32% on rate modifications. The spread is even larger for borrowers who are >12 months DQ at modification—30% for principal modifications, versus 47% for rate modifications. For borrowers who received >40% pay relief, 19% re-defaulted with a principal modification and 27% re-defaulted with a rate modification.

Now let's look at behavioral differences on first versus second modifications. Regardless of the category, second modifications have a significantly higher re-default rate. For example, for 2010 mods that received a principal modification at 7–12 months DQ, the re-default rate after 12 months was 20% on first mods and 39% on second mods. For 2010 principal mods with 20%–40% pay relief, the re-default rate was 32% on first mods and 47% on second mods. For 2010 rate mods that received a modification at 7–12 months DQ, the re-default rate was 32% for first modifications and 52% for second modifications.[3]

SUCCESS RATES ON SUBPRIME MODIFICATIONS VS. PRIME/ALT A/ OPTION ARM MODIFICATIONS

We thought it would be interesting to look at how subprime modification success compares to the success rates of other non-agency sectors (prime, Alt A, option ARMs). As we mentioned earlier, 70% of the modifications in the private label universe are subprime modifications, hence the universe of modifications for other product types is more limited. There were insufficient data to segment these sectors, so in Exhibit 12, we looked at modification success in prime, Alt A, and option ARMs together. We have organized the exhibit in the same format so it can be directly compared to Exhibit 11. A few obvious points of comparison:

- The overall re-default rate of modifications on prime/Alt A/option ARM modifications is lower than on subprime. This is true regardless of modification type, payment reduction, or first versus second modification. (Again, we caution readers from looking too carefully at individual cells, where the number of modifications are very limited. You are safer looking across rows or down columns.) For example, on 2010 first mods, where the mod was done when the loan was 7–12 months delinquent, the re-default rate for principal mods after 12 months was 20% on subprime loans, compared to 13% on prime/Alt A/option ARM loans. For rate mods, the re-default rate was 32% for subprime loans, compared to 27% for prime/Alt A/option ARM loans; for capitalization mods, the re-default rate was 42% for subprime loans, versus 32% for prime/Alt A/option ARMs.
- Controlling for pay relief, the relative advantage of principal modifications are more pronounced in the prime/Alt A/option ARMs than in subprime. It is intuitive that prime/Alt A/option ARM borrowers are more sensitive to equity relief than payment relief, while subprime borrowers are more sensitive to payment relief. For subprime first modifications in 2010, with 20%–40% pay relief, the re-default rate is 32% when a principal modification is used; it is 35% when a rate modification is used. For prime/Alt A/option ARMs, first modifications in 2010, the re-default rate is 17% when a principal modification is used; it is 23% when a rate modification is used. When the pay relief is smaller (0–20%) the advantage of principal mods increase, and the advantage increases more for prime/Alt A/option ARMs than for subprime. The subprime re-default rate is 40% for principal mods, 45% for rate mods. For prime/Alt A/option ARMS the re-default rate is 21% for principal mods, 32% for rate mods.
- Similar to our results for subprime, second modifications perform much worse than first mods for prime/Alt A/option ARM loans.

EXHIBIT 12

Prime/Alt A/Option ARM 12-Month Cumulative Re-Default Rate for First vs. Second Modifications

Num Mods	Mod Type	Pay Relief	2010 ≤ 2 DQ	2010 3–6 DQ	2010 7–12 DQ	2010 >12 DQ	Total
1st Mod	PrinMod	>40	4%	7%	11%	15%	10%
		20–40	5%	14%	18%	26%	17%
		0–20	6%	23%	20%	29%	21%
		≤0	24%	12%	14%	28%	17%
	PrinMod Total		12%	10%	13%	20%	13%
	RateMod	>40	5%	11%	19%	27%	18%
		20–40	9%	16%	26%	34%	23%
		0–20	14%	26%	36%	42%	32%
		≤0	13%	24%	35%	46%	32%
	RateMod Total		10%	18%	27%	35%	25%
	CapMod	>40	5%	9%	20%	34%	21%
		20–40	16%	18%	30%	39%	29%
		0–20	18%	29%	32%	41%	33%
		≤0	38%	31%	35%	43%	36%
	CapMod Total		32%	27%	32%	41%	33%
1st Mod Total			17%	20%	27%	36%	26%
2nd+ Mod	PrinMod	>40	11%	22%	21%	28%	22%
		20–40	15%	35%	30%	47%	33%
		0–20	59%	10%	36%	18%	25%
		≤0	32%	23%	29%	29%	28%
	PrinMod Total		27%	23%	26%	31%	26%
	RateMod	>40	16%	23%	35%	45%	33%
		20–40	15%	34%	43%	49%	39%
		0–20	26%	48%	55%	60%	51%
		≤0	24%	46%	47%	61%	47%
	RateMod Total		20%	38%	45%	52%	42%
	CapMod	>40	69%	35%	35%	55%	43%
		20–40	24%	32%	51%	57%	45%
		0–20	22%	49%	55%	58%	51%
		≤0	55%	46%	52%	59%	52%
	CapMod Total		50%	44%	50%	58%	50%
2nd+ Mod Total			34%	38%	45%	53%	43%
Grand Total			21%	24%	31%	39%	30%

Source: CoreLogic, 1010data, Amherst Securities as of October 2011.

CONCLUSIONS

We have provided an update on modification activity, with a special focus on subprime. We have shown that the number of modifications is declining, the number of principal modifications is rising, and the number of second modifications is growing.

We also looked carefully at success rates across modification types, controlling for other key performance drivers. We found that principal modification is more effective than other modification types, even controlling carefully for payment reduction and for months DQ at the time of modification. And second modifications have shown themselves to have higher re-default rates than do first modifications. We show that the overall modification re-default rates are lower for prime/Alt A/option ARMs than for subprime. We

also show that principal modifications produce much lower re-default rates in prime/Alt A/option ARMs than do rate modifications, controlling for pay relief. The differentials are more muted in subprime.

Finally, we have shown that there is a huge difference across subprime servicers, both in modification type and in the amount of first versus subsequent modifications. When evaluating bonds, investors often run similar scenarios across servicers. However, bond cash flows (particularly the cash flows on time-tranched bonds) can be very sensitive to timing. Thus, it is important to look at future modification behavior of the securitization's servicer(s). For a servicer performing a lot of principal mods, an investor will want to understand what happens to the security if losses occur earlier. And many servicers are ramping up their principal modification efforts; these changes in behavior must be factored in. For a servicer doing a lot of second modifications, investors may want to build in a higher modification re-default rate and assume more near-term recaptures of previously advanced delinquent principal and interest payments to the trust, lowering the near-term cash flows to the trust.

ENDNOTES

[1]The double hump in modification activity shown in Exhibit 1 is easily explained. Modification activity was particularly heavy in late-2008/early 2009 (due to voluntary modification activity, some of which was undoubtedly generated by funding pressures on servicers; these pressures could be partially alleviated by more aggressive recapturing of advances) and in early 2010 (as the Treasury pushed for the HAMP trial modifications, which started in 2009 and became permanent in early 2010).

[2]To understand how these numbers were calculated, look at the data for Ocwen in Exhibit 5. This servicer modified 1.2% of its portfolio a month over the past three months. Of those, 0.4% were first mods, 0.6% second mods, and 0.3% were third mods. Thus, 0.9/1.2, or 68%, were re-modifications.

[3]Realize that for second mods, we are only looking at the second mod type, pay relief, and months DQ. We left aside cumulative pay relief, as the behavior of the second mod was already so much worse than the first.

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