Securitized Products Weekly

Global Markets Research

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US Securitized Products

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Agency MBS: Market Overview and Relative Value

During the past two weeks, 30-year 3.0s and 3.5s have lagged their Treasury hedges by 6-8 ticks and higher-coupon TBAs have meaningfully lagged lower-coupon TBAs. We view the recent production coupon MBS performance as quite impressive, considering that this period included a 35bp rally in the 10-year Treasury yield, which took the 30-year PMMS rate to 3.41%. We continue to believe that production coupon MBS spreads will remain within the past two years' range. We suggest a neutral stance on the MBS basis at current spread levels and will wait for MBS spreads to move 3-4bp one way or the other for initiating an overweight or underweight on MBS versus Treasuries. In a separate section, we discuss relative value in the loan balance specified pool market in the context of the recent sharp decline in mortgage rates to close to historical low levels and compare the payups to those in Q4 2012.

Agency MBS: June Prepay Commentary and Short-Term Projections

Aggregate prepays in June increased by 8% to 17.1CPR for Fannie 30-year collateral and increased by 7% to 16.9CPR for Freddie 30-year collateral. Aggregate GN I prepays increased by 7% to 22CPR, and aggregate GN II prepays increased by 10% to 21.9CPR. We expect aggregate prepays in July to be almost unchanged month-over-month with increase in refinancing activity offsetting a sharp drop in daycount and a slight decline in turnover. Mortgage rates have rallied close to the historic lows this week, and we have seen a pickup in the media effect. We expect the majority of the prepay impact associated with the recent rally to show up in August, with August prepays increasing 26% month over month. However, it is possible that some of cohorts with slightly higher WACs and larger loan sizes (i.e., 30-year 2015 Vintage 3.0s) could see prepays increase sharply as soon as July.

Mortgage Credit

Trading volumes were low this week on account of the holiday, and there was continued pickup in Countrywide post-settlement bonds. In CRT, LCF spreads were 20-30bps tighter and MCF 10bps tighter over the week. In R&W settlements, HSBC as Trustee notified bondholders about a revised settlement agreement, and the Lehman bankruptcy court released $250mn of reserves to the estate. We discuss 2016 H1 trends; across RMBS sectors, POA bonds returned around 6% YTD and CRT M3 around 5.5%. We expect RMBS spreads to compress by 10-15bps through year-end, assuming no broad riskoff event on the back of limited supply, lack of alternate investments, and strong money manager and insurance demand.

CLO

Prices of CLO mezz bonds were 1pt higher over the week and volumes were low on account of the holiday. A total of $500mn of CLO tranches were refinanced this week and YTD CLO issuance is $26.9bn. We evaluate CLO exposure to UK and Europe, considering lower GDP projections in those regions following the referendum, and see at least $8bn of loans in CLOs with potential risk to the UK. We review 2016 H1 trends for post-crisis deals; CLO mezz returns vary between 2% and 4% and have underperformed HY for the first half of the year. Default and recovery rate assumptions in CLO deals have also improved, driven by an increase in loan prices. We also discuss issuance trends and relative value going forward.

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Recent Performance and Market Overview

During the past two weeks, 30-year 3.0s and 3.5s have lagged their Treasury hedges by 6-8 ticks and higher-coupon TBAs have meaningfully lagged lower-coupon TBAs (Thursday-Thursday closes). We view the recent production coupon MBS performance as quite impressive, considering that this period included a 35bp rally in the 10-year Treasury yield. However, note that the shape of the yield curve has changed a lot over this period and the realized MBS performance versus Treasuries could be quite sensitive to the curve hedges used by different investors. The 30-year PMMS rate was reported to be 3.41% on July 7 versus the historical low level of 3.31% reported in November 2012. Consequently, the range-bound mortgage rates environment seen for several quarters had ended and the market's attention now is focused on the likely prepay behaviour of recent origination mortgage collateral.

Aggregate prepays in June increased by 8% to 17.1CPR for Fannie 30-year collateral and increased by 7% to 16.9CPR for Freddie 30-year collateral. Across 15-year collateral, aggregate prepays increased by 8% to 13.4CPR for Fannie and increased by 9% to 13.2CPR for Freddie. Aggregate GN I prepays increased by 7% to 22CPR, and aggregate GN II prepays increased by 10% to 21.9CPR. The gross issuance of agency MBS increased to $119bn in June from $114bn in May. The net issuance of agency MBS was $9bn in June compared with $12bn in May. Paydowns on the Fed's MBS portfolio were $34bn in June versus $31bn in May.

Agency MBS: Recap of 2Q 2016

Figure 1 summarizes changes in MBS dollar prices and Treasury yields during 1Q and 2Q 2016. Similar to its behavior in 1Q'16, the sentiment in the agency MBS market had seen sharp swings in 2Q, as the outlook for US economic growth, expectations for the Fed's tightening path, and the headlines related to Brexit dominated market activity. By the end of the quarter, following the negative headlines out of Europe, the 10-year Treasury yield declined to its four-year lows and the 30-year mortgage rate is hovering around its lowest level since 2012.

Fig. 1: Changes in MBS Dollar Prices, Treasury Yields, and Implied Volatilities

	1Q'16	2Q'16
FNCL 3.0s	2-18	1-05
FNCL 3.5s	1-22	0-20
FNCL 4.0s	1-01	0-10
FNCL 4.5s	0-26	0-10
30-year CC MBS Yield	-47bp	-25bp
2-year Treasury	-32bp	-14bp
5-year Treasury	-54bp	-21bp
10-year Treasury	-49bp	-30bp
30-year Treasury	-39bp	-33bp
3mo*10yr Swaption vol	+1bp	+1bp
3yr*10yr Swaption Vol	+1bp	-2bp

Source: Bloomberg, Nomura Securities International Estimates

For the 2Q as a whole, the 10-year Treasury rallied by 30bp, which brings the cumulative decline in 10-year Treasury yield in 1H'16 to 80bp. While a rally of this magnitude, which brought interest rates to generational lows, should have been expected to have a meaningful negative impact on agency MBS spreads, this market held up very well due to the dramatic rise in the relative attractiveness of US fixed income assets to overseas investors. At the same time, despite the elevated uncertainty in the macroeconomic environment, implied volatilities in the options market have changed very little. Although production coupon MBS spreads widened in June, for 2Q as a whole, FN 3.0s and 3.5s have lagged Treasuries only marginally. The demand for agency MBS from overseas investors is continuing to surprise the market to the upside, and this is likely to remain the wild card for MBS performance in 2H'16.

Below we summarize a few key themes that prevailed in the agency MBS market in 1H'16.

- We estimate that the gross and net issuances of agency MBS in 1H'16 were $607bn and $65bn, respectively (and $331bn and $38bn for 2Q alone). We expect the monthly gross issuance of agency MBS to reach $130-135bn and the monthly net issuance to reach $22-25bn in 3Q. For 2016 as a whole, we expect the annual net issuance of agency MBS to be $185-190bn if the 30-year PMMS rate averages below 3.5% in 2H'16.
- Figure 2 shows our estimates for changes in the ownership structure of the agency MBS market in 1H'16 and in 2015. Both the domestic banks and overseas investors have provided a very strong demand for agency MBS in 1H'16.

Fig. 2: Change in Ownership of Agency MBS ($bn)

	2015	1Q'16	1H'16
Supply Side:			
Change in the Outstanding Balance	$170bn	$25bn	$65bn
Demand Side:			
Federal Reserve	$10bn	$0bn	$0bn
Banks + Savings + Credit Unions	$135bn	$20bn	$45bn
GSEs (Fannie + Freddie + FHLBs)	-$45bn	($5bn)	($15bn)
Overseas Investors	$20bn	$30bn	$45bn
Mortgage REITs	-$30bn	$0bn	$0bn
All Other DomesticMoney Managers	$80bn	($20bn)	($10bn)

Source: Nomura Securities International estimates

- The trend in the past several quarters of mortgage rates remaining in a narrow range was broken toward the end of 2Q'16, as the weak May employment data and macro headlines from Europe drove the 10-year Treasury yield to below 1.50%. The 30-year mortgage rate (30-year PMMS rates) moved in a very narrow range of 50bp for more 1.5 years before breaking out of the range.
- Domestic banks have been providing a very strong bid for agency MBS in 2016. After adding as many as $135bn agency MBS in 2015, they added about $45bn in 1H'16. While bank demand for agency MBS was significantly higher than expected in 2015, it seems to be close to market's expectations in YTD 2016. We believe that it is hard for MBS spreads to widen materially as long as this demand source doesn't go away.
- While domestic bank demand for MBS was along the expected line, overseas investors exceeded market's expectations YTD 2016. Although overseas investors may not add MBS in the short term due to the recent sharp rally in rates, they are likely to provide strong bid for MBS again once rates stabilize at new low levels, as there are very limited attractive alternative products for them to buy.
- Domestic money manager holdings of agency MBS have declined marginally in 1Q'16. We expect domestic money managers to show a marginal preference for

buying agency MBS over Treasuries and corporate bonds in the current rate environment. Implied volatilities are remaining well behaved and the carry offered by negative convexity exposure is more attractive now than before. From the valuation side, agency MBS look fair to slightly cheap versus corporate bonds relative to the past year. Thus, any new cash coming into fixed income funds may find its way into the MBS market.

- The performance of the MBS basis trade and the coupon stacks showed a very high level of sensitivity to the direction of rates in 1H'16, which is a continuation of the theme seen in 2015. The rate directionality in the performance of the MBS basis trade and the coupon stacks has been providing some interesting relative value trading opportunities.
- The GN II/FN swaps have experienced high volatility throughout the quarter, either increasing or decreasing sharply based on overseas demand. At current prices, we think that GN/FN swaps are somewhat rich. The short-term supply technicals are also somewhat negative for GNMAs, as positive housing seasonals are likely to result in a meaningful pickup in GNMA supply over the next three to four months.
- Prepays in the Q2 were mostly predictable, given that the driving mortgage rates continued to languish within the range of 3.57-3.73%. Even though the driving mortgage rate in June was 1bp lower than the lows seen in 2015, we expect the aggregate prepays to be still lower than the highs that year. We believe it is because the media effect has been largely absent in the recent rally. In early 2015, the media effect was higher, possibly because of the following factors: a large number of recent vintage borrowers (i.e., 2013 and 2014 vintages) were seeing mortgage rates of 3.75% and lower for the first time in 18 months and, hence, the media effect as it relates to mortgage rates was relatively high, and FHA cut its annual insurance premiums by around 50bp, creating new refinance opportunities for existing FHA borrowers. It is possible that increased media coverage of refinance opportunities as a result of the policy change, albeit for FHA mortgages, increased borrower awareness in general regarding refinancings. However, we do expect prepays to pick up sharply as early as July because mortgage rates moved out of the range seen since mid-2013 for the first time, thereby increasing the media effect.
- In Q2, aggregate prepays on 15-year and 20-year continued to exhibit lower sensitivity to mortgage rate compared with the 30-year collateral because of the additional prepay protection provided by collateral characteristics and borrower behavior. However, we expect this trend to change as mortgage rates rally to all-time lows in the coming months.
- Prepays on the 2015 vintage Ginnie cohorts continued to prepay noticeably faster than corresponding conventional cohorts because S-curves for both FHA and VA loans are steeper than conventionals. We believe that the steepening in FHA/VA s-curves is caused by FHA/VA borrowers becoming increasingly efficient in exercising the refinance option as a result of some nonbank lenders that have origination and servicing practices that are heavily reliant on high "recapture" (i.e., customer retention) rates, focusing more on FHA/VA loans. We expect this trend to continue and GNs to be more sensitive to mortgage rate movements than conventionals, causing Ginnie prepays to increase more than conventionals, especially for the recent 2013-2015 vintages.
- Turnover for Q2 2016 was around 8%-10% higher year over year, although the purchase applications tracked close to 27% higher year over year. This is partly because of lower pull-through rates.
- Agency CMO Issuance during Q2'16 nearly doubled to reach about $62-63bn compared with just $34bn during Q1'16. The share of Freddie collateral was over 45%, likely due to the involvement of the GSE portfolio. The share of Fannie and Ginnie was comparable at about 25-27% each. Average monthly issuance volume of CMO deals backed by Fannie collateral was about $1bn higher during Q2 compared with Q1, while that backed by Ginnie increased by about $1.5bn during the same period. Interestingly, trading volumes for CMO IO/PO and P&I-paying securities increased by about 20-30% compared with Q1'16 and Q2'15. The pickup this quarter appears to have reversed a generally declining trend observed over the past few quarters and was likely due to the sharp increase in CMO issuance volumes.

- Floater DMs were fairly stable through the quarter, with DMs on sequential floaters remaining mostly unchanged, while those on the strip floaters tightened slightly. However, at current DMs, low yields and flat curve, DMs on floaters appear to be attractive. Performance in the CMO derivative market was tiered across collateral types with the derivs backed by stable prepay stories such as loan balance and super-seasoned collateral performing well, while those backed by seasoned MHA collateral widened. However, the sharp rally in mortgage rates toward the end of Q2, following the surprise outcome of the UK referendum, has resulted in increased prepayment concerns in the market. In the Fixed Rate CMO market, benchmark front sequentials off GD 3.0s widened by about 10-12bp over the course of the quarter, with the most widening occurring during the last two weeks.

MBS Basis: Remain Neutral on MBS vs. Treasuries

Our strategy team returned to a neutral stance from an overweight on the MBS basis on June 24. This change in recommendation was prompted by the observation that there was limited upside, but a meaningful downside exists to owning MBS from the then-prevailing spread levels if the 10-year Treasury yield remains below 1.50%. As the 10-year Treasury yield is currently around 1.35-1.40%, this low rate environment is a reality now, and we we highlight some key themes that are likely to prevail in 2H'16 in this scenario below (i.e., the scenario of 10-year Treasury yield averaging 1.20-1.50% in 2H'16).

- The 30-year mortgage rate is likely to average 3.30-3.35% and the monthly gross issuance of agency MBS is likely to average $140bn. Originators are likely to operate at their full capacity and the aggregate Fannie 30-year MBS prepays should be around 21-22CPR at these mortgage rate levels. The 15-year S-curves are likely to steepen and become comparable to those of 30-year S-Curves. Prepay pickup will be highest for 2015 vintage 3.0s and 3.5s of large loan size and higher WACs.
- Mortgage securitization rate is likely to be somewhat higher, and hence, net issuance in 2H'16 could be higher by about $10bn due to the rates rally alone. The net issuance of agency MBS in 2H'16 is likely to be about $125-130bn.
- The Fed is unlikely to tighten again in 2H'16, and the tapering of Fed's reinvestments may not happen before year-end 2017—there may even be talk of QE 4 again. The monthly paydowns on Fed's MBS holdings should average $41bn.
- Normalized implied volatilities are likely to have a downward bias, as the absolute level of yields reaches historical lows (although initially they may spike slightly higher). In this low-yield/low-volatility environment, spreads offered by agency MBS should be quite attractive.
- Servicers may become buyers of MBS as the rates rally shortens their MSR portfolios.
- Domestic fixed income money managers are likely to see strong inflows, which could result in additional demand for MBS.
- Demand from domestic banks is likely to be lower than expected at the low yield levels (but MSR hedging related flows should compensate for lower bank portfolio demand).
- Overseas investors may not add MBS initially, but they are likely to provide strong bid once rates stabilize at new low levels, as there will be very limited attractive alternatives.

Figure 3 summarizes our estimates of overall supply demand technicals in the MBS market in 2H'16 in three different rate scenarios. While money managers need to absorb $50-55bn agency MBS in 2H'16 if the 10-year Treasury yield averages 1.20-1.50%, it is unlikely that the nominal spread offered by CC MBS versus the Treasury curve will move out of the past two-year range of 71-86bp on a sustained basis because of the lack of attractive alternatives to agency MBS. Although it is difficult to quote a reliable production coupon MBS spread versus the Treasury curve currently, as FN 2.0s and 2.5s are part of the CC MBS yield calculation, based on the valuations of 2.5s and 3.0s from OAS models, we estimate that the CC MBS spread metric is at around 80-81bp versus its past two-year range of 71-86bp. We suggest a neutral stance on the MBS basis at current spread levels. We will wait for MBS spreads to move 3-4bp one way or the other for initiating an overweight or underweight on MBS versus Treasuries.

Fig. 3: Summary of Supply-Demand Technicals in 2H'16 in Different Rate Scenarios

		Scenario A	Scenario B	Scenario C
10-year Treasury Yield		1.20-1.50%	1.50-1.80%	1.80-2.10%
30-year Mortgage Rate	1H'16 (Est)	3.30-3.35%	3.50-3.55%	3.75-3.80%
Net Growth of the Agency MBS Market	$65bn	$125-130bn	$115-120bn	$110-115bn
Likely Net Demand for Agency MBS				
Federal Reserve	$0bn	$5bn	$5bn	$5bn
Domestic Banks + Savings	$45bn	$45bn	$45bn	$50bn
Overseas Investors	$45bn	$30bn	$35bn	$40bn
GSEs	-$15bn	-$10bn	-$10bn	-$10bn
Mortgage REITs	$0bn	$5bn	$5bn	$5bn
Agency MBS that Need to be Absorbed by Others (Domestic Money Managers)	($10bn)	$50-55bn	$35-40bn	$20-25bn

Domestic bank demand includes changes in MSR portfolios also.

Source: Nomura Securities International Estimates

Relative Value in the Agency Passthrough Market

- Long FN 3.5s Butterfly with duration hedges (Since 6/10/2016)
- Long 15-year DW 3.0s/2.5s Swap at 80% HR (Since 5/6/2016)

Figures 4 and 5 show the valuations of the 30-year and 15-year coupon stacks on our models as of yesterday's close (the results from YieldBook models adjusted to reflect our expectations for prepayment speeds). Higher-coupon MBS look somewhat cheap in OAS terms. Although it is hard to take a strong view on coupon stack valuations at current dollar prices, we think that higher-coupon MBS are somewhat attractively priced relative to lower-coupon MBS now.

The 15-year MBS have underperformed 30-year MBS (especially the DW 2.5s/FN 3.0s swap) over the past two months and 15-year/30-year swaps are looking attractively priced at the moment. We look for the right opportunity to initiate an overweight on the 15-year sector.

Our strategy team has been recommending buying FN 3.5s butterfly with duration hedges since June 10 when this fly was trading at around 0.5-1.0 ticks. Although this fly had declined from 0.5/1.0 tick to -0.5 ticks as of yesterday's close, after adjusting for the duration in this fly, this trade is flat to up marginally since inception. We continue to believe that the 3.5s fly is cheap and recommend buying it as follows: Long $200mn FN 3.5s fly + Long $10mn FN 3.5s. Across the 15-year coupon stack, we continue to suggest buying the DW 3.0s/2.5s swap at 80% hedge ratio now (i.e., Long $100mn DW 3.0s versus $80mn DW 2.5s).

Fig. 4: Valuations of the 30-year Coupon Stack (as of July 7, 2016)

Security	TBA Assumption (July)	Yield	Tsy ZV (bp)	Swap ZV (bp)	Tsy OAS (bp)	LOAS (bp)	Duration	Convexity	1-yr Speed
FNCL 3.0s	2 WALA, 3.70 GWAC, $280 K	2.20%	94	108	23	33	3.9	-4.1	8.8
FNCL 3.5s	6 WALA, 4.20 GWAC, $280 K	1.89%	97	106	30	38	2.6	-3.0	20.1
FNCL 4.0s	6 WALA, 4.60 GWAC, $280 K	1.58%	76	80	39	44	2.4	-1.0	26.0
FNCL 4.5s	30 WALA, 5.00 GWAC, $280 K	1.41%	63	65	39	44	2.0	-0.5	26.4

Source: YieldBook, Nomura Securities International

Fig. 5: Valuations of the 15-year Coupon Stack (as of July 7, 2016)

Security	TBA Assumption (July)	Yield	Tsy ZV (bp)	Swap ZV (bp)	Tsy OAS (bp)	LOAS (bp)	Duration	Convexity	1-yr Speed
FNCI 2.5s	2 WALA, 3.10 GWAC, $260 K	1.60%	52	56	15	17	2.7	-2.5	12.0
FNCI 3.0s	6 WALA, 3.50 GWAC, $260 K	1.61%	63	67	29	30	2.3	-1.9	17.3
FNCI 3.5s	48 WALA, 4.00 GWAC, $200 K	1.21%	38	36	22	19	1.6	-0.8	24.4

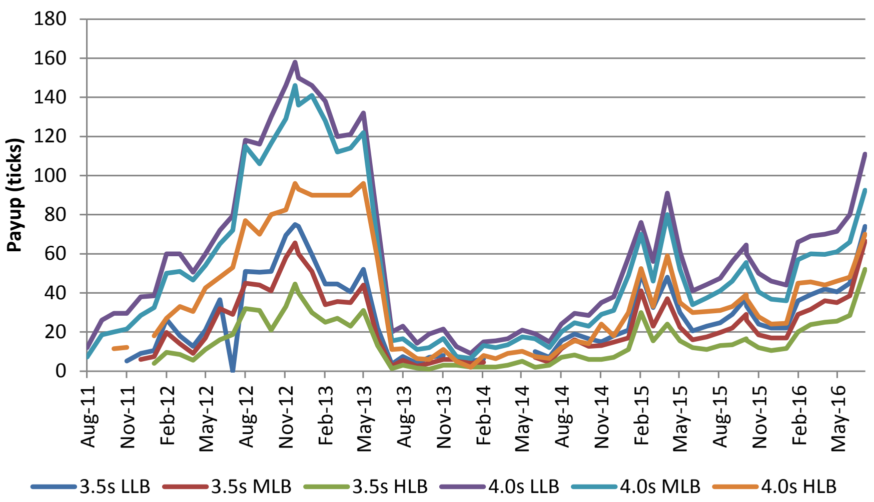
Source: YieldBook, Nomura Securities International

Loan Balance Specified Pools During the Recent Rate Rally

Specified pool payups have appreciated significantly since the beginning of the year and witnessed a further leg up this week, largely driven by the sharply lower mortgage rates, weakness in dollar rolls, and a flatter yield curve (Figure 6). As a result of the latter two effects, adjusting recent payups for the change in moneyness is not a good benchmark for comparing current levels. However, as mortgage rates have now declined to levels that are comparable to those observed during Q4 2012, we find payups from that period to be more representative. In this section, we present our views on the new issue loan balance specified pools at mortgage rates of around 3.40%.

Figure 7 summarizes current payups on loan balance 3.0-4.0s pools and compares them with levels seen during Nov-Dec 2012. For comparison, the table also lists the other drivers of payups. The curve is much flatter now than in 2012, which should all else equal result in high payups for the specified pools. The 3.5s roll is pricing in a higher CPR now than in the past, while the 4.0s roll is pricing in much lower prepays. Other drivers such as mortgage rates, primary-secondary spread and vols are somewhat comparable.

Fig. 6: Indicative Payups for New Issue Loan Balance 3.5s-4.0s Specified Pools



Source: Nomura Securities International Estimates

Fig. 7: Comparison of Payups with Historical Peak Levels

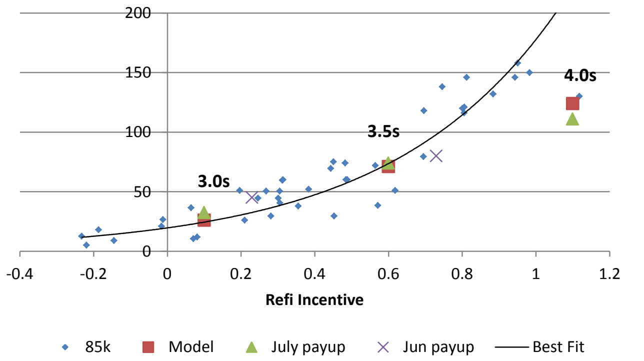
		Current Payup 7/6/2016	Peak 11/5/2012	11/26/2012	12/4/2012	vs prior peak
3.0s	LLB	32.5	15	24	27	8.5
	MLB	29	10	21	24	8
	HLB	23	5	14	12	9
3.5s	LLB	74	69.5	75	74	-1
	MLB	66.5	58	65.5	60	1
	HLB	52	33	44.5	40	7.5
4.0s	LLB	111	146	158	150	-47
	MLB	92.5	129	146	136	-53.5
	HLB	70	82.5	96	93	-26
3.0s	Dollar Roll	5.5	6.625	7.5	7.125	
3.5s	Dollar Roll	3.375	5.625	6.875	6.625	
4.0s	Dollar Roll	2.25	2	2.625	2.125	
3.0s	Implied CPR	1.3	NEG	NEG	1.1	
3.5s	Implied CPR	20.2	10.4	9.6	10.5	
4.0s	Implied CPR	25.1	29.8	32.8	33.6	
	3m*10yr	77.3	77.2	69.6	67.1	
	3yr*10yr	82.8	88.6	85.7	86.7	
	Curr Cpn (YB)	2.2	2.15	2.15	2.09	
	CC Basis	79.1	47.5	51.0	49.7	
	10yr Tsy	1.37	1.68	1.66	1.60	
	5s10s Slope	42.5	98.4	99.7	98.3	
	Freddie survey rate	3.41	3.4	3.32	3.34	
	YB model rate	3.46	3.56	3.55	3.52	
	Prim-Sec sprd	121	125	117	125	

Source: Yieldbook, Bloomberg, Nomura Securities International Estimates

Figures 8-10 compare the observed payups for loan balance specified pools in July with those from a historical time period (Nov’11-May’13). We use this period because mortgage rates recently rallied to comparable levels and the pricing of the dollar rolls was somewhat more comparable than during most of the 2014-15 period. We also overlay the payup implied by our OAS models on these charts. Broadly, it appears that payups on the 3.0s and 3.5s specified pools have been fairly comparable to that observed by the Q4 2012 period. However, payups for 4.0s loan balance pools are noticeably lower than that observed during 2012. We think there are two reasons that may explain why payups on 4.0s are at lower levels now:

- Back in Q4 2012, the implied CPR on the 4.0s dollar roll was about 30-34 CPR, while the 4.0s roll is currently pricing about 25 CPR for the next two cycles. This difference is particularly interesting because prepays on the worst to deliver collateral for TBA 4.0s are expected to be comparable to those during 2012. However, the market may be more comfortable with the lower prepays this time around, given that the Fed owns about 40% of the outstanding float of the 4.0% coupon.
- Given that we have not yet reached new historical lows in headline mortgage rates and have not been in this low rate environment for long, it is possible that investors are more wary of the high payups now. Additionally, REITs were active buyers of specified pools in 2012 and their demand has been much more subdued in the current environment.

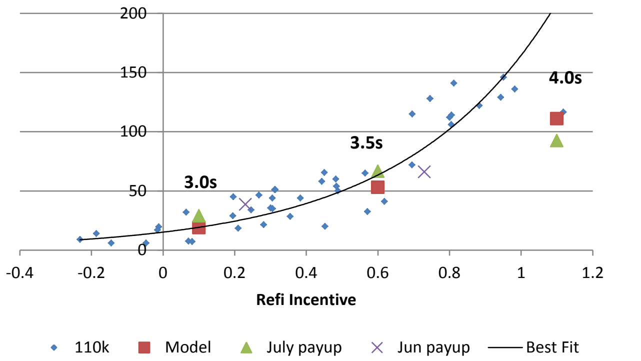
Fig. 8: Payups for LLB Pools Versus Incentive (Nov'11-May'13)



Source: Yieldbook, Nomura Securities International Estimates

Note: Based on indicative historical payups for 3.5-4.0s pools from a large servicer between Nov 2011 and-May 2013. Incentive calculated using model mortgage rates

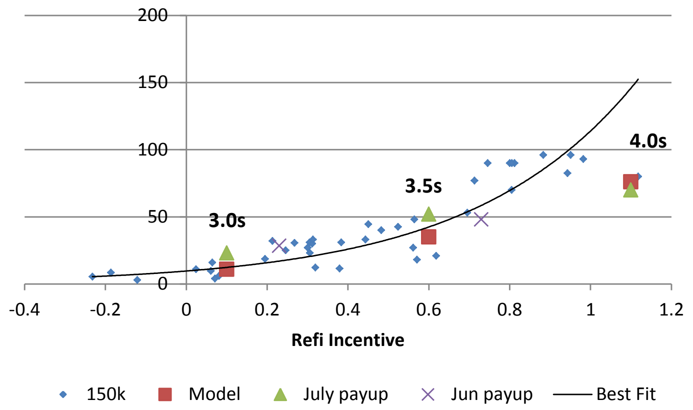
Fig. 9: Payups for MLB Pools Versus Incentive (Nov'11-May'13)



Source: Yieldbook, Nomura Securities International Estimates

Note: Based on indicative historical payups for 3.5-4.0s pools from a large servicer between Nov 2011 and-May 2013. Incentive calculated using model mortgage rates

Fig. 10: Payups for HLB Pools Versus Incentive (Nov'11-May'13)



Source: Yieldbook, Nomura Securities International Estimates

Note: Based on indicative historical payups for 3.5-4.0s pools from a large servicer between Nov 2011 and-May 2013. Incentive calculated using model mortgage rates

Figure 11 summarizes valuations for recently issued 30-year loan balance specified pools (using Yieldbook model adjusted to reflect our prepayment expectations). The sharp rally in rates and the decline in FN 3.5s and 4.0s TBA dollar rolls over the past few months have significantly improved the relative attractiveness of the carry offered by specified pools (we assume that pools are funded using 3m LIBOR rates and at one-year average CPR assumptions; the actual carry could be different based on other assumptions).

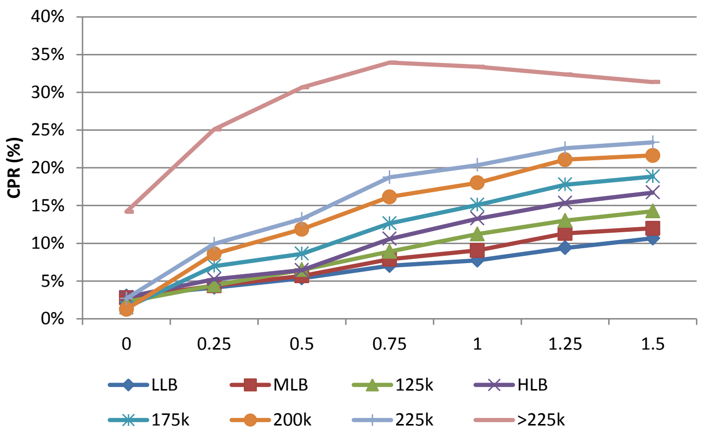
- Payups for 3.0s loan balance pools appear to be higher than that expected on our models, particularly given the unattractive duration hedged carry versus the roll. However, at current rate levels, prepays on the 2015 3.0s are expected to increase sharply due to their higher WAC and loan size. As a result, indexed and non-rolling investors may still find value in owning these pools.
- Payups for the 3.5s loan balance pools appear to be fairly priced. Within this coupon, we think the higher balance collateral such as 175k/200k appear more attractive in terms of their OAS% and offer a positive duration-adjusted carry. These higher balance pools offered some protection even during the time when mortgage rates declined to historical low levels (Figure 12). The protection offered has likely increased since then, as the average loan size of TBA has increased since 2012.
- The 4.0s loan balance pools appear slightly cheap to our models (similar incentive pools in the past have traded at higher OAS %) and offer an attractive duration hedged carry (despite the higher dollar prices).

Fig. 11: Relative Value in the Specified Pool Market

Type	Coupon	WALA	WAC	ALS ($000)	1-yr CPR (%)	Theoretical Payup	Actual Payup	OAS %	Carry vs Roll	Dur-adj. Carry vs Roll	Hedge Ratio
TBA	3.0	2	3.7	280	9.5						
LLB	3.0	1	3.7	65	4.6	2-23+	1-00+	37%	-1.0	-2.1	1.2
MLB	3.0	1	3.7	95	5.2	1-30	0-29	47%	-1.1	-2.0	1.2
HLB	3.0	1	3.7	135	6.4	1-04	0-23	64%	-1.2	-1.9	1.1
175k	3.0	1	3.7	160	7.3	0-23+	0-155	66%	-1.3	-1.8	1.1
TBA	3.5	6	4.2	280	20.8						
LLB	3.5	1	4.0	65	5.1	4-05+	2-10	55%	1.8	-0.3	1.6
MLB	3.5	1	4.0	95	6.0	3-14+	2-02+	60%	1.6	-0.2	1.5
125k	3.5	1	4.0	115	7.0	2-29	1-24+	61%	1.5	-0.1	1.5
HLB	3.5	1	4.0	135	8.2	2-14	1-20	67%	1.3	-0.1	1.4
175k	3.5	1	4.0	160	9.6	1-31+	1-04	57%	1.1	0.2	1.3
200k	3.5	1	4.0	185	10.8	1-19+	0-242	47%	1.0	0.4	1.2
TBA	4.0	6	4.6	280	27.3						
LLB	4.0	1	4.5	65	8.1	4-20+	3-15	75%	2.8	0.9	1.9
MLB	4.0	1	4.5	95	10.1	4-02	2-28+	71%	2.3	0.9	1.7
125k	4.0	1	4.5	115	12.1	3-12	2-13	71%	1.9	0.8	1.5
HLB	4.0	1	4.5	135	14.2	2-25	2-06	79%	1.4	0.5	1.4
175k	4.0	1	4.5	160	16.2	2-07	1-18	70%	1.1	0.6	1.3

Source: Yieldbook, Bloomberg, Nomura Securities International (As of 7/6/2016 closes)

Fig. 12: S-Curves for Loan Balance Collateral During Q4 2012 and Q1 2013 (6-24 WALA)



Source: Freddie Mac, Nomura Securities International

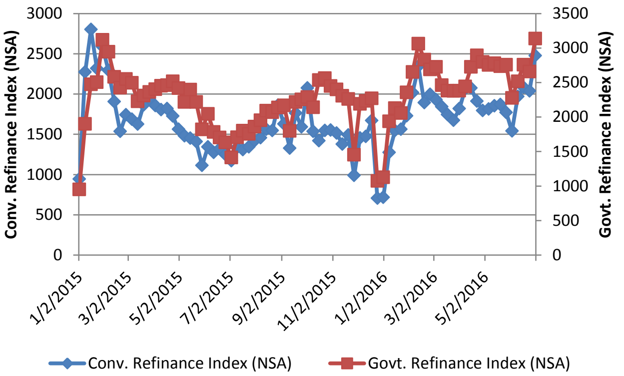
MBA Weekly Application Indices

The MBA conventional seasonally adjusted (SA) and non-seasonally adjusted (NSA) refinance index reported this week increased 21% week over week at 2474 (Figure 13). The driving mortgage rate tracked by the MBA has been declining since the beginning of June, with its largest weekly decline of 9bp reported this week, bringing the mortgage rate down to 3.66%. Note this is just 19bp higher than the historical low mortgage rate of 3.47% tracked by MBA. The average loan size of conventional refinance applications has been increasing since the beginning of June and was reported to be 10K higher week over week at 305K.

The MBA government SA and NSA refinance index increased 18% this week at 3135 (Figure 13). The average loan size of government refinance applications reported this week was unchanged week over week at 218K (Figure 14). A further breakdown of the government refinance index shows that the MBA VA SA/NSA refinance index increased 31% to 277, while the FHA SA/NSA refinance index declined 2% week over week at 184 (Figure 15). The average LS of VA refinance applications declined 5K week over week at 232K and FHA refinance applications was unchanged week over week to 190K (Figure 16).

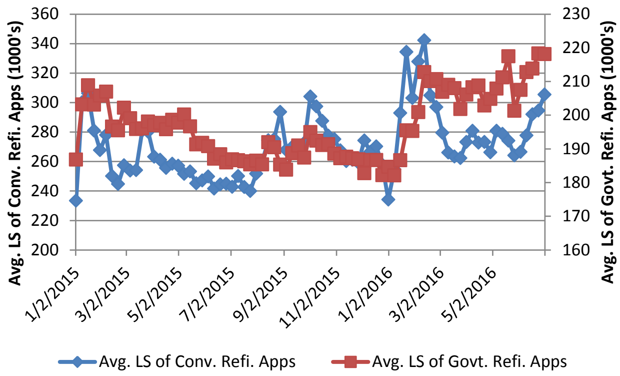
The conventional and government SA/NSA purchase indices increased around 4% week over week (Figure 17). The government purchase index is almost unchanged year over year while the conventional purchase index is still around 16% higher year over year (Figures 18 and 19)

Fig. 13: MBA Conv. and Govt. Refinance Indices



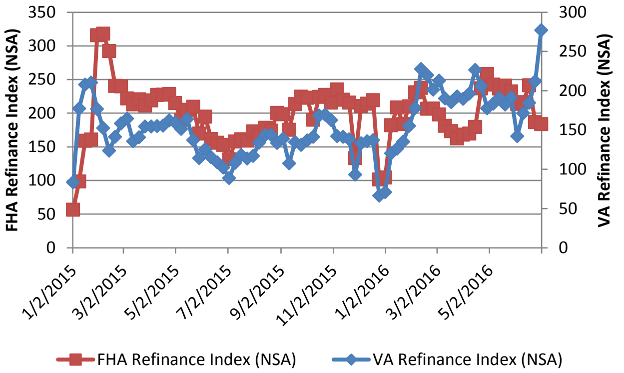
Source: MBA, Nomura Securities International

Fig. 14: Avg. LS of Conv. and Govt. Refinance Applications



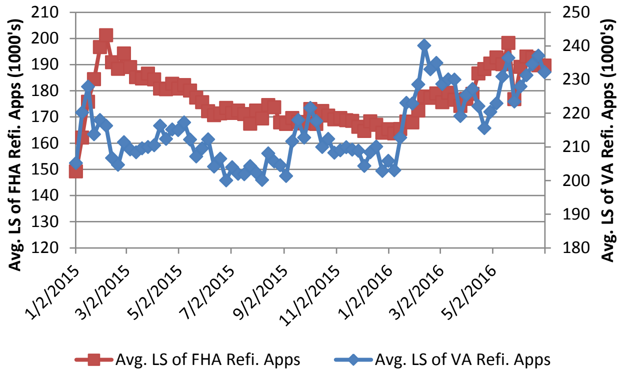
Source: MBA, Nomura Securities International

Fig. 15: MBA FHA and VA Refinance Indices



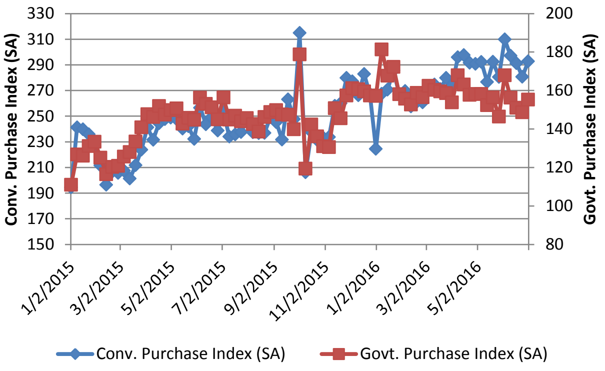
Source: MBA, Nomura Securities International

Fig. 16: Avg. LS of FHA and VA Refinance Applications



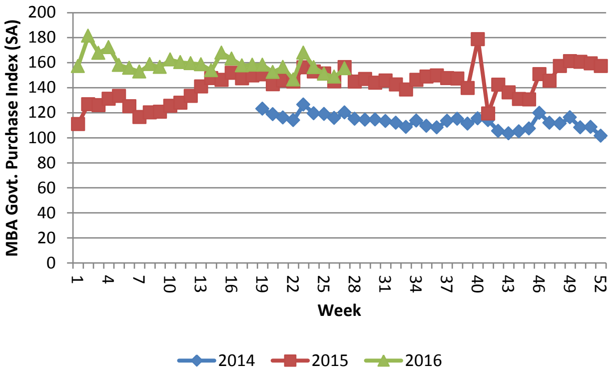
Source: MBA, Nomura Securities International

Fig. 17: : MBA Conv. and Govt. Purchase Indices



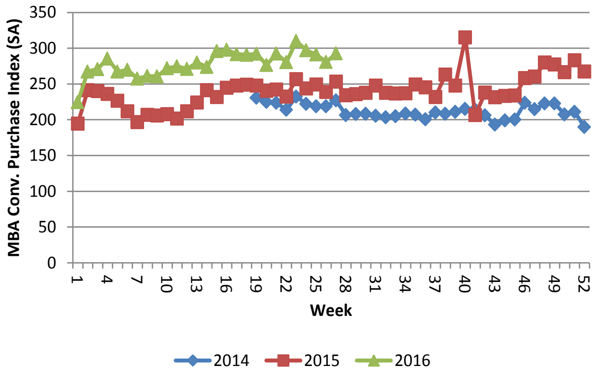
Source: MBA, Nomura Securities International

Fig. 18: Weekly Year-over-Year Change in Government Purchase Index



Source: MBA, Nomura Securities International

Fig. 19: Weekly Year-over-Year Change in Conventional Purchase Index



Source: MBA, Nomura Securities International

June Prepays and Short-Term Projections

Aggregate prepays in June increased by 8% to 17.1CPR for Fannie 30-year collateral and increased by 7% to 16.9CPR for Freddie 30-year collateral. Across 15-year collateral, aggregate prepays increased by 8% to 13.4CPR for Fannie and increased by 9% to 13.2CPR for Freddie. Aggregate GN I prepays increased by 7% to 22CPR, and aggregate GN II prepays increased by 10% to 21.9CPR. The gross issuance of agency MBS increased to $119bn in June from $114bn in May. The net issuance of agency MBS was $9bn in June compared with $12bn in May. Paydowns on the Fed's MBS portfolio were $34bn in June versus $31bn in May.

Turnover prepays: Figure 1 shows prepays on 2012-13 FN 3.0s and the estimated turnover prepays based on the EHS data reported by NAR. Prepays on 2012-13 FN 3.0s increased by 16-19% to 12.4-12.9CPR, as turnover prepays continued to increase. Note that turnover prepays generally peak around June-July. Across spec buckets, the increase in prepays was higher for FL and MHA>105LTV buckets (Figure 2).

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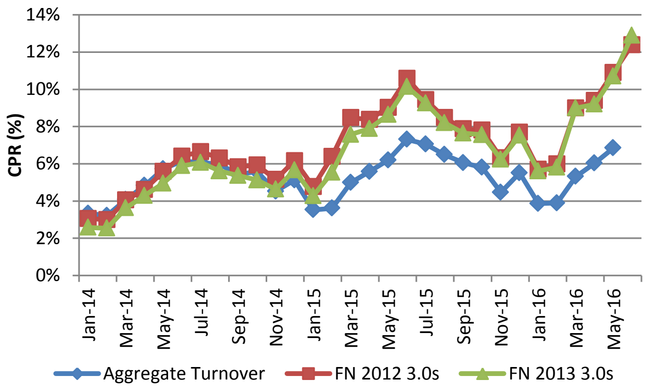
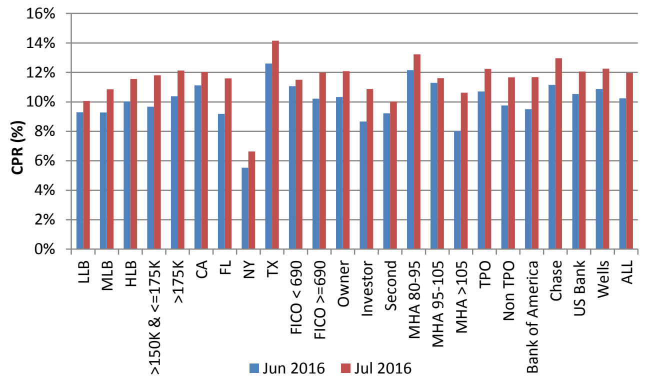
Fig. 1: EHS Implied Turnover and 2012-13 FN 3.0s Prepays



Source: Fannie Mae, Nomura Securities International

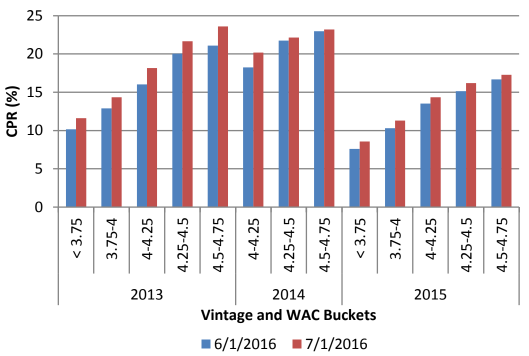
Fig. 2: Prepays on 24-48WALA GD 3.0s by Spec Buckets



Source: Freddie Mac, Nomura Securities International

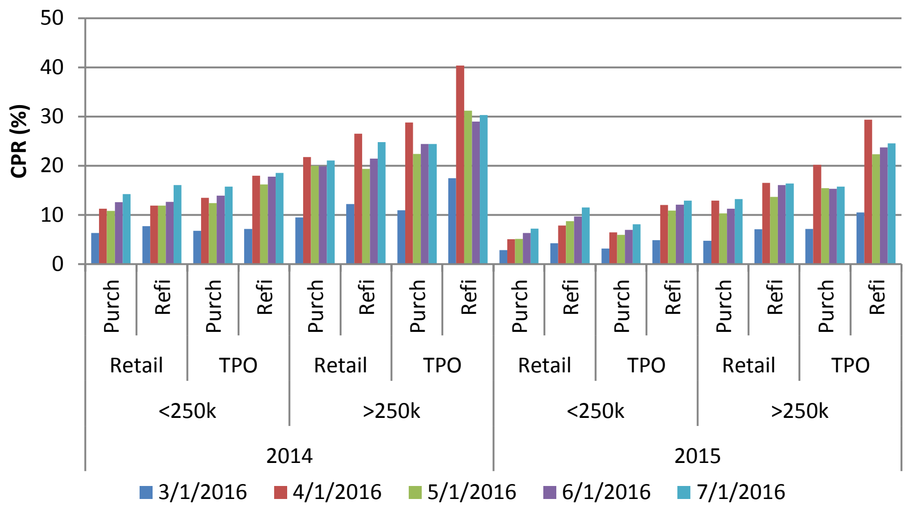
Cuspy Coupons: Prepays on 2014-15 FN 3.5s increased by 6-8% this month. The increase in prepays was likely driven by higher turnover and higher daycount as the m-o-m prepay increase was generally comparable across WAC bucket and prepay driver buckets (Figures 3 and 4).

Fig. 3: Prepays on 2015 Vintage GD Loans by WAC Buckets



Source: Freddie Mac, Nomura Securities International

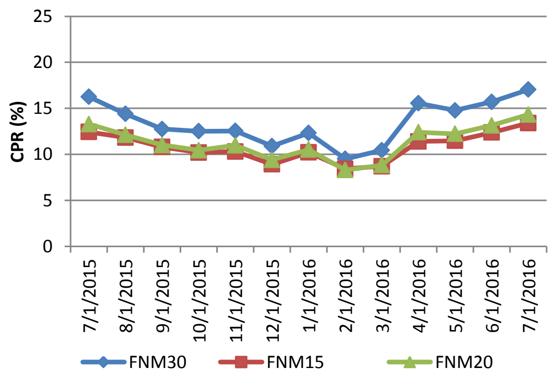
Fig. 4: Prepays by Driver Buckets, 2014-15 GD 3.5s



Source: Freddie Mac, Nomura Securities International

15-Year and 20-Year Prepays: The m-o-m increase in aggregate prepays on 20-year (+9%) and 15-year (+8%) collateral was comparable to that of 30-year collateral (+8%) this month (Figure 5).

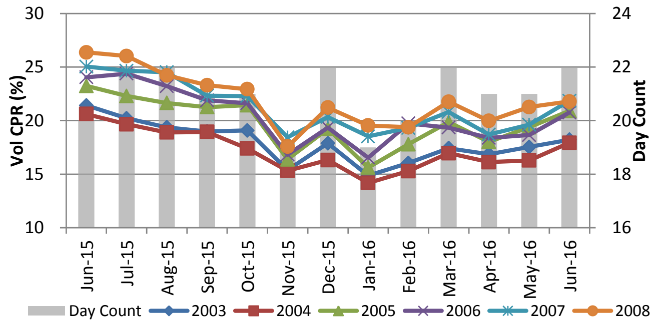
Fig. 5: Aggregate Prepays on 30-Year, 20-Year and 15-Year Cohorts



Source: Freddie Mac, Nomura Securities International

HARP Prepays: Voluntary prepays on HARP-eligible collateral increased by 2-11%, driven by higher day count and higher turnover (Figure 6).

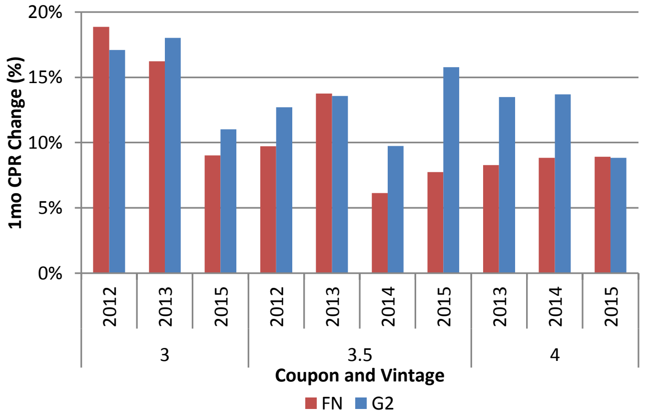
Fig. 6: Voluntary Prepays by Vintage (2003-08 GD Collateral)



Source: Freddie Mac, Nomura Securities International

Ginnie Prepays: The increase in prepays on recent vintage Ginnie cohorts was higher than comparable conventional cohorts. For example, prepays on 2014-15 G2 3.5s increased by 9-16% while 2014-15 FN 3.5s increased by 6-7% this month. The prepay increase was higher for Ginnie cohorts, likely because of the higher sensitivity of Ginnie cohorts to refinance incentives (see our prior article for details) and increasing number of FHA borrowers who become eligible for streamline refinancing with 6+ months of seasoning (Figure 7).

Fig. 7: 1-mo CPR Change, GN II and FN by Cohort



Source: Ginnie Mae, Nomura Securities International

Hybrid ARMs: Gross issuance of hybrid ARMs was $1.4bn in June compared with $1.6bn in May. Net issuance was -$4bn in June compared with -$3bn in May. Prepays generally increased across hybrid ARM cohorts and the prepay increase was higher for seasoned 5/1 vintages (2012-13) than recent vintage 5/1s (2014-15). Prepays on 2012-13 vintage 5/1s increased by 11-23%, due to higher turnover prepays, while prepays on 2014-15 vintage 5/1s increased by only 5-8%. The prepay increase on recent vintage GN 5/1s was comparable to that of conventional 5/1s (4-9%) (Figure 8).

Fig. 8: Hybrid ARM Prepays by Product and Vintage

						1-Mo Actual CPR		
Product	Vintage	Bal ($bn)	WAC	WALA	AOCS	May	Jun	Chg (%)
Conv. 5/1s	<= 2005	13	3.3	140	726	18.5	20.5	11%
	2006-8	15	3.3	110	730	16.1	19.8	23%
	2009	2	3.1	81	757	17.3	20.5	19%
	2010	5	3.2	72	760	21.8	24.9	14%
	2011	7	3.2	60	764	34.3	38.5	12%
	2012	6	2.7	49	771	28.5	35.0	23%
	2013	5	2.8	36	768	26.8	29.8	11%
	2014	7	3.3	24	760	27.3	29.5	8%
	2015	7	3.1	12	763	23.7	24.9	5%
Conv. 7/1s	2010	2	3.9	70	764	30.1	33.3	11%
	2011	6	3.5	59	764	26.9	28.1	4%
	2012	11	2.9	47	769	19.9	26.2	31%
	2013	10	3.0	36	766	20.9	23.3	11%
	2014	12	3.5	23	756	24.3	26.7	10%
	2015	11	3.3	12	759	18.3	21.4	17%
Conv. 10/1s	2011	1	3.8	59	769	18.7	25.5	36%
	2012	3	3.3	47	771	18.0	19.3	7%
	2013	4	3.2	37	767	15.2	18.3	21%
	2014	2	3.8	23	762	22.3	25.3	14%
	2015	2	3.6	11	763	16.1	15.2	-6%
GN 5/1s	2009	1	2.56	81	681	19.1	21.3	12%
	2010	3	2.75	71	702	18.7	19.5	4%
	2011	3	3.27	62	703	29.5	33.4	13%
	2012	2	3.02	50	705	29.1	28.6	-2%
	2013	2	2.91	36	702	33.8	40.7	20%
	2014	4	3.20	24	702	36.7	38.1	4%
	2015	4	3.20	12	701	27.8	30.2	9%

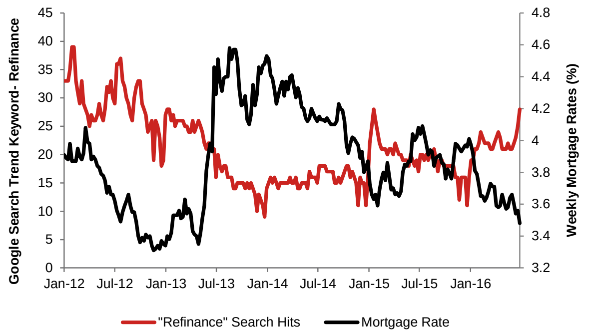
Source: Fannie Mae, Freddie Mac, Ginnie Mae, Nomura Securities International

Short-Term Projections

We expect aggregate prepays in July to be almost unchanged month over month, with the increase in refinancing activity offsetting a sharp drop in daycount and a slight decline in turnover. Note that our projections for July assume that lags will shorten slightly, causing the driving mortgage rate to be around 6bps lower month over month. However, if lags do not shorten as expected, then prepays could lower than projected.

Mortgage rates have rallied close to the historical lows this week, and we have seen a pickup in the media effect based on our proxy metric shown in Figure 9. We expect the majority of the prepay impact associated with the recent rally to show up in August, with August prepays increasing 26% month over month. Note that daycount in August is around 15% higher month over month. However, it is possible that some cohorts with slightly higher WACs and larger loan sizes (i.e., 30-year 2015 Vintage 3.0s) could see prepays increase sharply as soon as July. Our cohort level projections are shown in Figures 10-12.

Fig. 9: Proxy for Media Effect vs. Mortgage Rates



Source: Google, Freddie Mac, Nomura Securities International
Note: Scale is calibrated to the highs seen back in 2009.

Fig. 10: Prepay Projections for 30-Year Fannie Mae MBS

									1-Mo Actual		1-Mo Projection		
Coupon	Vintage	Bal ($mm)	WAC	WAM	WALA	WACLS	FICO	LTV	May	Jun	July	Aug	Sep
3.0	2015	59,630	3.78	343	14	277,300	766	74	10.1	11.0	14.5	26.5	25.0
3.0	2013	158,337	3.58	314	39	241,950	763	72	10.7	12.4	12.0	15.0	16.0
3.0	2012	116,246	3.59	307	45	247,292	769	71	10.9	12.9	12.5	15.5	17.5
3.5	2015	190,999	4.11	345	12	258,013	750	78	13.7	14.8	17.5	27.0	24.5
3.5	2014	62,788	4.24	334	22	245,997	759	78	20.4	21.7	22.0	29.0	27.0
3.5	2013	82,436	4.02	316	37	215,050	743	77	14.9	16.9	17.0	20.5	21.5
3.5	2012	138,093	4.00	302	49	220,604	759	74	15.1	16.5	16.5	20.5	21.0
3.5	2011	24,202	4.02	293	57	223,262	772	70	15.6	17.6	17.5	22.0	23.0
3.5	2010	9,116	4.11	280	68	207,893	773	69	17.4	17.9	18.0	22.0	22.5
4.0	2015	56,814	4.58	346	12	216,651	715	80	15.2	16.6	17.5	22.5	20.0
4.0	2014	99,823	4.59	331	24	220,356	737	80	22.9	24.9	24.0	28.5	27.0
4.0	2013	60,119	4.58	320	34	205,519	741	80	21.7	23.5	22.5	26.5	25.5
4.0	2012	40,706	4.47	300	50	181,333	737	79	16.5	18.2	17.5	20.5	20.0
4.0	2011	47,674	4.47	291	60	201,909	759	73	18.0	21.0	20.0	24.0	24.0
4.0	2010	40,057	4.49	280	69	200,888	764	71	19.3	21.0	20.0	24.0	24.0
4.0	2009	23,189	4.54	262	85	184,644	765	66	21.7	23.3	22.0	27.0	26.5
4.5	2014	18,361	5.02	330	26	173,872	704	81	21.2	23.1	21.5	25.0	22.5
4.5	2013	12,142	5.04	321	33	170,666	718	81	20.3	23.3	22.0	25.0	23.5
4.5	2011	36,688	4.93	288	61	181,977	747	76	19.4	21.6	20.5	24.0	23.0
4.5	2010	34,189	4.94	277	73	190,670	752	74	20.7	22.9	21.5	25.5	24.5
4.5	2009	45,127	4.93	265	84	181,389	756	71	22.5	24.8	23.5	28.0	27.0
5.0	2011	10,930	5.38	289	62	171,657	727	81	20.3	21.5	20.0	23.0	21.5
5.0	2010	18,150	5.37	277	74	181,936	731	79	21.6	23.2	21.5	25.0	23.0
5.0	2009	13,641	5.42	267	83	167,761	738	75	21.2	23.5	22.0	25.5	24.0
5.0	2005	9,405	5.64	217	132	137,848	721	71	21.4	22.7	21.0	24.0	22.0
5.0	2004	5,873	5.55	202	145	123,859	720	71	18.7	19.2	18.0	20.5	19.0
5.0	2003	13,904	5.50	191	155	108,495	720	70	18.3	19.3	18.0	20.5	19.0
5.5	2008	7,455	6.03	252	98	155,732	726	74	23.6	24.1	22.5	25.5	23.5
5.5	2007	6,981	6.13	241	109	155,139	717	72	22.7	23.9	21.0	23.5	22.0
5.5	2005	9,631	5.98	217	132	123,143	710	73	18.7	20.8	19.0	21.5	19.5
5.5	2004	8,399	5.94	204	144	114,920	709	73	18.7	18.9	17.5	20.0	18.0
5.5	2003	14,554	5.94	189	157	100,518	713	72	17.2	18.4	17.0	19.5	17.5
6.0	2007	9,381	6.57	243	108	140,508	705	76	22.3	22.9	15.0	16.5	15.5
6.0	2006	7,664	6.56	229	121	131,811	705	74	21.1	21.8	20.0	22.5	20.5
							Mortgage Rate		3.64	3.61	3.55	3.40	3.35

Source: Fannie Mae, Nomura Securities International

Fig. 11: Prepay Projections for 15-Year Fannie Mae MBS

									1-Mo Actual		1-Mo Projection		
Coupon	**Vintage**	**Bal ($mm)**	**WAC**	**WAM**	**WALA**	**WACLS**	**FICO**	**LTV**	**May**	**Jun**	**July**	**Aug**	**Sep**
2.5	2015	26,239	3.05	165	13	227,364	765	65	11.8	11.8	12.5	24.5	23.0
2.5	2014	5,173	3.15	155	22	211,055	765	67	14.8	15.3	15.0	22.0	21.5
2.5	2013	47,210	2.94	136	39	171,243	762	64	10.4	11.3	10.5	13.0	13.5
2.5	2012	49,727	3.00	128	46	174,134	770	64	11.2	12.9	13.5	16.0	15.0
3.0	2015	30,053	3.48	165	12	190,738	748	66	11.6	12.1	12.5	19.5	18.0
3.0	2014	25,565	3.53	152	24	176,664	751	68	13.6	15.5	14.5	19.0	18.5
3.0	2013	19,661	3.51	140	35	151,486	751	67	13.2	14.3	13.5	16.5	16.5
3.0	2012	27,716	3.45	124	50	144,342	762	65	13.1	14.4	13.5	16.5	16.0
3.0	2011	17,140	3.45	117	57	146,279	770	63	12.8	14.8	14.0	16.5	16.5
3.5	2015	4,322	4.04	163	12	120,961	723	66	9.7	10.5	10.5	13.5	12.5
3.5	2014	9,444	4.05	150	25	132,221	729	69	13.9	15.6	14.5	17.5	16.5
3.5	2013	6,379	4.02	142	33	130,482	738	69	13.4	14.8	13.5	16.5	15.5
3.5	2012	4,305	3.97	122	51	105,368	749	67	14.1	14.9	13.5	16.0	15.0
3.5	2011	15,423	3.91	112	61	125,012	762	63	14.4	15.9	15.0	17.5	17.0
3.5	2010	11,390	3.92	104	69	117,989	769	62	15.3	17.1	16.0	19.0	19.0
4.0	2011	6,840	4.38	110	62	105,891	753	64	15.9	17.2	16.0	18.5	18.0
4.0	2010	8,284	4.42	100	73	100,027	758	62	17.0	17.8	16.5	19.5	19.0
4.0	2009	6,134	4.48	89	84	90,121	761	60	16.6	18.4	17.0	20.0	19.5
4.5	2010	2,013	4.85	99	74	86,677	742	65	17.5	16.8	15.5	18.0	17.0
4.5	2009	2,935	4.89	90	83	81,452	746	62	17.2	18.9	17.5	20.5	19.5
4.5	2003	2,663	4.96	23	155	21,522	734	59	22.5	23.2	23.0	24.0	23.5
							Mortgage Rate		2.92	2.87	2.82	2.74	2.70

Source: Fannie Mae, Nomura Securities International

Fig. 12: Prepay Projections for 30-Year Ginnie Mae MBS

									1-Mo Actual		1-Mo Projection		
Coupon	**Vintage**	**Bal ($mm)**	**WAC**	**WAM**	**WALA**	**AOLS**	**AOCS**	**OLTV**	**May**	**Jun**	**July**	**Aug**	**Sep**
3.0	2015	77,277	3.46	344	13	225,821	714	95	12.5	13.9	15.5	27.0	28.0
3.0	2014	9,572	3.49	334	23	205,907	699	95	16.0	19.1	20.0	27.0	30.0
3.0	2013	82,748	3.33	317	39	199,507	717	95	15.7	18.5	17.5	21.0	22.0
3.0	2012	54,879	3.37	310	45	200,412	720	95	16.4	19.2	18.0	21.5	21.5
3.5	2015	174,999	3.88	346	12	209,616	692	94	20.8	24.1	26.0	37.5	36.5
3.5	2014	68,377	3.90	334	23	193,197	705	96	24.3	26.7	27.5	34.0	33.5
3.5	2013	53,615	3.85	318	36	176,635	694	94	20.2	23.0	22.0	25.5	25.5
3.5	2012	81,647	3.81	306	49	191,677	712	94	20.4	23.0	22.0	25.5	25.5
3.5	2011	13,303	3.88	298	56	182,920	717	96	21.0	22.4	21.5	25.5	25.5
4.0	2015	45,934	4.37	347	11	194,944	665	94	28.1	30.5	31.5	40.0	38.0
4.0	2014	61,968	4.34	331	24	163,694	674	95	26.0	29.5	28.5	33.0	30.5
4.0	2013	26,464	4.36	323	33	162,183	693	95	25.7	29.2	27.0	30.5	28.0
4.0	2012	11,677	4.31	304	51	163,042	677	94	21.1	24.0	22.5	25.0	23.5
4.0	2011	27,894	4.35	294	60	164,762	704	95	22.3	24.5	23.5	27.0	26.0
4.0	2010	12,272	4.38	285	69	184,458	715	95	21.9	24.6	24.0	28.0	27.5
4.5	2014	9,721	4.84	331	25	153,700	646	94	34.6	39.9	38.5	42.0	39.0
4.5	2013	12,847	4.82	321	33	143,411	665	94	26.5	30.3	27.5	30.0	27.5
4.5	2011	21,588	4.81	292	62	151,825	692	95	24.4	26.1	24.5	28.0	26.0
4.5	2010	23,909	4.87	281	73	169,616	702	94	23.9	26.0	25.0	28.5	27.0
4.5	Jun-Dec 2009	10,317	4.90	270	83	166,835	696	94	25.2	25.8	25.0	28.5	27.0
5.0	2010	17,129	5.30	278	75	146,340	681	94	25.1	26.1	25.0	28.0	26.5
5.0	Jun-Dec 2009	10,577	5.36	272	81	146,578	679	94	26.2	26.6	25.0	28.0	26.5
							Mortgage Rate		3.64	3.61	3.55	3.40	3.35

Source: Ginnie Mae, Nomura Securities International

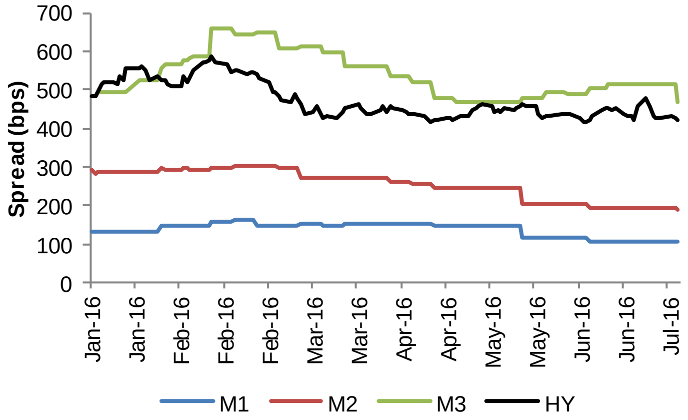
Mortgage Credit

Market Overview

In the legacy market, supply was light this week, with a mix of hedge fund and real money sellers. There was a continued pickup in Countrywide supply, and post-settlement bonds were well absorbed by the market, trading in line with other shelves. Spreads were slightly tighter on the week and demand remained broad-based.

In CRT, there was a sharp tightening across the board, especially in LCF tranches, as demand remained robust and dealer inventories were light. Spreads for LCF bonds were 20-30bp tighter on the week and for MCF tranches, 10bp tighter.

Fig. 1: CRT vs. HY spreads over time



Source: Nomura

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Mortgage Litigation

ACE deals proposed R&W settlement: This week, HSBC as trustee notified bondholders about a revised proposed settlement from Deutsche Bank to resolve the R&W claims against the sponsor. The revised settlement amount, net of fees/expenses, is slightly lower than the previously proposed settlement. The trustee will accept the revised settlement if it is directed to do so by bondholders representing 25% of voting rights in the deal.

The revised settlement seeks to reimburse the directing certificate holder and the group 1 certificate holders for costs incurred related to fees and expenses related to breach reviews, pre-suit notices, and litigation. Additionally, the settlement amount includes a $1mn indemnity account (for each deal) for the trustee to reimburse itself for any costs/fees.

The deadline to accept the proposed settlement is September 29, and bondholders are required to submit their direction by August 24.

At least one bondholder is objecting to the initial settlement agreement for the ACE 2007-WM2 deal. According to the bondholder, the proposed settlement payout of around 24¢ of the group's losses is low, considering the high breach rates uncovered during the re-underwriting process and the strength of the deal's litigation. Additionally, the proposed payout is similar to what GEWMC 2006-1 received despite two adverse court rulings on the repurchase price for liquidated loans and exclusion of a large share of loans from the re-underwriting process. The bondholder believes those adverse court rulings would not be applicable in the ACE litigation.

Although the objection could increase the timeline to a payout, we expect the settlement agreement to be accepted, considering (1) the directing bondholder is currently supporting the settlement and (2) the trustee may seek indemnification from objecting bondholders to reject the revised settlement and continue litigation.

Figure 2 shows the net payout to bondholders under the revised settlement agreement:

Fig. 2: Proposed R&W settlement payout to bondholders under the revised agreement

Deal	Revised proposal	Net payout to bondholders	Initial proposed payout
ACE 2007-HE1	$64.9	$58.3	$63.2
ACE 2007-HE3	$48.0	$43.0	$48.0
ACE 2007-HE4	$81.4	$76.7	$79.2
ACE 2007-HE5	$24.7	$20.5	$24.0
ACE 2007-WM2	$64.4	$59.7	$62.6

*All figures in $mn

Source: HSBC Trustee, Nomura

Lehman R&W update: The trustees have completed the loan file review process within the stipulated deadline set by the court set in its December 2014 order. According to the status report, 218K loans had been reviewed and breach claims on 93K loans were filed, indicating an average breach rate of 43%.

However, the estate has rejected the vast majority of such claims, accepting only 1.3% of the breaches as valid. Around one-third of the rejections were due to insufficient documentation. The trustees have submitted their rebuttals for most of the rejected claims, and, should both parties continue to have differing views, the process likely moves over to a claims facilitator.

Separately, the bankruptcy court released reserves of $250mn against the SASCO estate, leaving $4.75bn of reserves against the LBHI estate to cover potential R&W claims. The court ordered the release following a hearing wherein the estate had argued that claims not submitted under the breach-review protocol within the deadline would be expunged and covers all RMBS loans.

We continue to expect a two- to three-year timeline to any potential payout, given the contentious nature of the proceedings and uncertainty around the success rate of breach claims.

CWL 2006-12 update: Investors in the CWL 2006-12 have submitted differing views on the interpretation of the PSA and application of the settlement amount for CWL 2006-12. The Institutional Investor group is seeking that the settlement amount be treated as a subsequent recovery, in line with the settlement agreement and consistent with the methodology followed in other deals with similar PSA language.

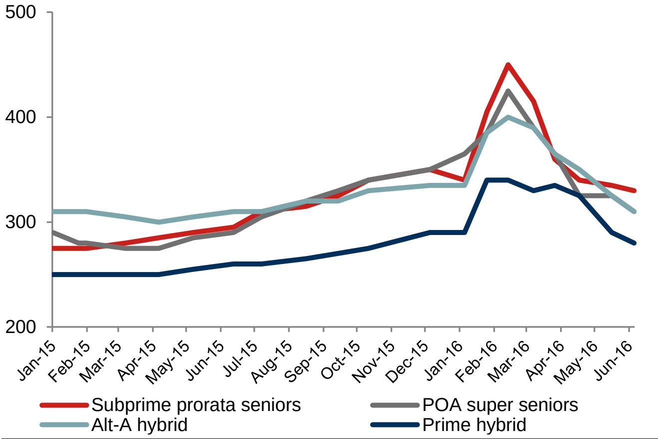
However the objecting bondholder is seeking that the settlement payout be distributed as “Excess Cashflows,” which would be primarily allocated to the subordinate/mezz tranches. According to the objecting bondholder’s motion, the PSA’s terms don’t allow for any amendment regarding the distribution of P&I without the consent of bondholders, which was never obtained. Additionally, the term Subsequent Recovery in the PSA pertains to liquidated loans only and the settlement agreement does not explicitly allocate proceeds for such loans.

RMBS 2016 H1 Review

Total returns and spreads for outstanding RMBS

Over the first half of 2016, spreads in the legacy RMBS sector have tightened by 10-40bps overall, after widening slightly in Feb, and are roughly in line with the move in the HY market. Figure 3 shows legacy RMBS spreads over time and Figure 4 shows total returns for 2016 H1 across sectors.

Fig. 3: Legacy RMBS spreads over time



Source: Nomura

Fig. 4: Estimated 2016 H1 returns across deals

Sector	Estimated 2016H1 returns
Legacy RMBS	
Subprime pro-rata seniors	4.9%
POA Super seniors	6.5%
Alt-A floaters	3.5%
Prime Floaters	5.1%
CRT	
STACR M1	0.9%
STACR M2	3.4%
STACR M3	5.5%

Source: Nomura

Market technicals

Figure 5 shows the estimated ownership structure for legacy RMBS. We expect money managers and insurance companies to continue to reinvest a large share of their paydowns into RMBS holdings, and supply should remain limited from hedge funds, overseas investors, and the GSEs. Non-agency holdings at primary dealers have reduced meaningfully from $12.5bn at 2015 year-end to $8.5bn at June-end.

We expect very few other sources of supply other than hedge funds looking to reduce holdings due to less attractive returns and GSE selling at a continued slow pace. The number of active buyers in the market has increased since the volatile period earlier this year, and we expect reinvestment demand to outweigh any sales, giving spreads a tightening bias. **We expect RMBS spreads to compress by 10-15bps through year-end, assuming there is no marketwide riskoff event.**

Fig. 5: Estimated ownership structure for legacy RMBS

Institution	Bal ($bn)
Money managers	200
Hedge funds	65
Banks/savings inst/credit unions	77
Insurance	140
GSE/FHLB	41
Overseas	17
Dealers	10
REITs	20
Total	570

Source: Company filings, SNL, NY Fed, Nomura

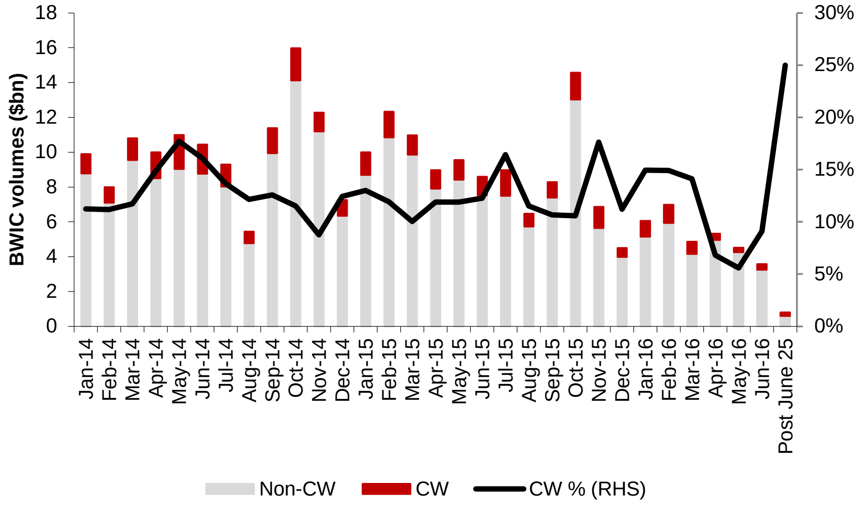
BWIC volumes in the RMBS market have declined meaningfully from the levels seen last year. For instance, the average monthly BWIC volume in 2016 has been $5bn compared with $9bn in 2015.

At least some of the decline is attributable to a decline in supply from the GSEs, which have been meeting their portfolio reduction targets through NPL sales, and a perceived lack of supply from overseas investors.

Post-Countrywide technicals: The share of Countrywide bonds on BWICs has ticked up recently, to 21% of BWICs after the June payment from 6-7% over the previous quarter and average of 14% over the past two years. We expect continued elevated sales of Countrywide bonds over the next few months, as some investors previously held an overweight of CW bonds in expectation of the settlement payment, although such supply of CW bonds is likely to be capped, given lack of other investment alternatives and overall lack of RMBS supply.

We expect reinvestment demand to outweigh any increased sales of CW bonds; spreads across legacy sectors have remained unchanged over the past two weeks despite the increase in market volatility.

Fig. 6: Monthly legacy BWIC volumes over time and share of CW bonds on BWICs



Source: Nomura

Issuance update

Figure 7 shows 2016 YTD and 2015 issuance of 2.0 RMBS deals and our projections for this year. Issuance of jumbo 2.0 deals has declined meaningfully this year, due to weaker securitization economics and strong bank portfolio demand for jumbo loans. This year marked the issuance of the first RMBS deal based on the FDIC safe harbor rule, CHASE 2016-1. The securitization resulted in a reduction of capital charges on the portfolio of mortgage loans held on the bank's books with the deal's subordinate tranches being offered to the market and the bank retaining the senior portion.

The issuance of NPL/RPL deals declined, given wider spreads in the market and a decline in deal redemption activity (and subsequent re-securitization of the collateral).

Total CRT issuance YTD has been $6.9bn, and we expect total issuance for the year to be $12.5-14.0bn with risk to the upside.

Fig. 7: RMBS issuance and 2016 projection

Sector	2015	2016 YTD	Projection for 2016
NPL	18	6	18-20
RPL	12	2.6	
Prime 2.0	12	2.0	5-6
Non-QM	0.4	0.2	1
CRT	13	7	12.5-14

*All figures in $bn

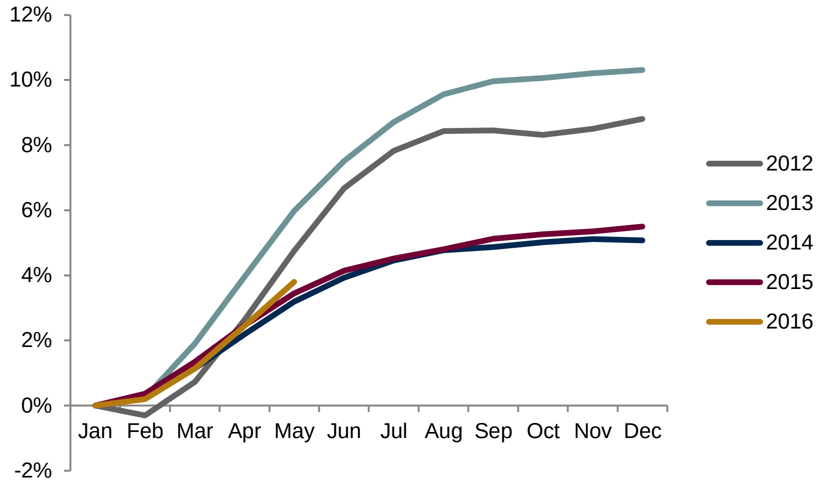
Source: Nomura

Housing

Home price growth has been above trend based on 2014 and 2015 observations and YTD HPI has been around 3.8%. **We expect national home price growth to be 6% for 2016 and 4.5% for 2017** on the back of limited supply; improved affordability due to nearly all-time lows in mortgage rates and a continued expansion of the credit underwriting box.[1]

Figure 8 shows HPA by month over the past five years.

Fig. 8: YTD national home price growth by calendar month



Source: CoreLogic, Nomura

Update on June remits

The Countrywide settlement payout for 512 deals, amounting to $7.9bn, was remitted to bondholders in June remits. Despite the broader macro volatility for the past few days, legacy RMBS bonds have held firm, as the housing sector is expected to remain resilient and at least a portion of the payout would be reinvested back into the sector.

At least 15 legacy RMBS deals were called this month, primarily from the BOAA and BOAMS shelf, which had BofA as the Master Servicer. Separately, expenses in Lehman deals continue to decline and trustees have completed their loan file reviews.

In collateral trends, prepays increased across the board, particularly for the credit-dented sectors, due to positive housing seasonals and marginally lower driving mortgage rates. In CRT, delinquency roll rates increased marginally across the board, particularly for high-LTV loans in Texas.

Deal redemptions

At least 15 legacy RMBS deals were called this month from the BOAA and BOAMS shelf, with BofA as the Master Servicer. Additionally, four NPL/RPL deals were called, including those from the USROF shelf. Figure 9 shows the characteristics of deals called in June remits.

[1] See our previous publication for more details on our outlook for Housing and a detailed review on certain MSAs.

Fig. 9: Deals redeemed in June remits

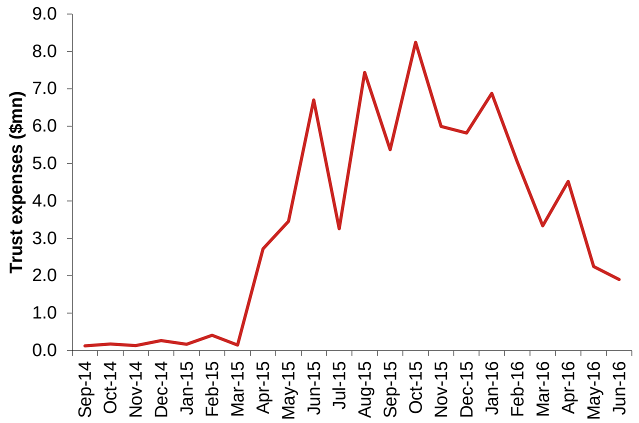
Deal	Balance ($mn)	WAC	DQ %	Estimated Updated LTV
BOAA 2003-1	23	6.4	5%	38
BOAA 2003-2	47	6.2	7%	37
BOAA 2003-3	27	6.1	6%	37
BOAA 2003-4	36	6.0	7%	33
BOAA 2003-5	35	5.9	5%	33
BOAMS 2003-10	17	5.6	12%	37
BOAMS 2003-3	21	5.8	6%	33
BOAMS 2003-4	24	5.7	6%	34
BOAMS 2003-5	37	5.7	6%	33
BOAMS 2003-6	40	5.7	17%	34
BOAMS 2003-7	5	5.3	3%	8
BOAMS 2003-8	34	5.6	10%	33
BOAMS 2003-9	27	5.8	16%	37
BOAMS 2004-6	33	5.5	8%	46
BOAMS 2004-8	22	5.8	7%	47
NPL/RPL deals				
BOMFT 2014-13RP	132	4.6	21%	
USROF 2015-1II	74		56%	
USROF 2015-1III	593		75%	
USROF 2015-1IV	188		75%	

Source: Intex, Loan Performance, Trustee reports, Nomura

Lehman expenses

Extraordinary trust expenses in Lehman deals continued to decline, as trustees have completed their loan review process. According to the latest status report, reviews on 218K loans have been completed and the average breach rate was found to be around 43%. The estate, however, has accepted only 1.3% of the breach claims; one-third of the rejections were attributed to insufficient documentation.

Fig. 10: Trust expenses over time in Lehman deals



Source: Trustee reports, Nomura

Collateral trends

CRT remittances

CRT prepays: Prepays on STACR deals generally increased this month, due to housing seasonality and marginally lower driving mortgage rates. Prepays on CAS deals increased for lower WAC deals and were generally lower m-o-m for high-WAC deals, similar to the trend observed on STACR deals last month.

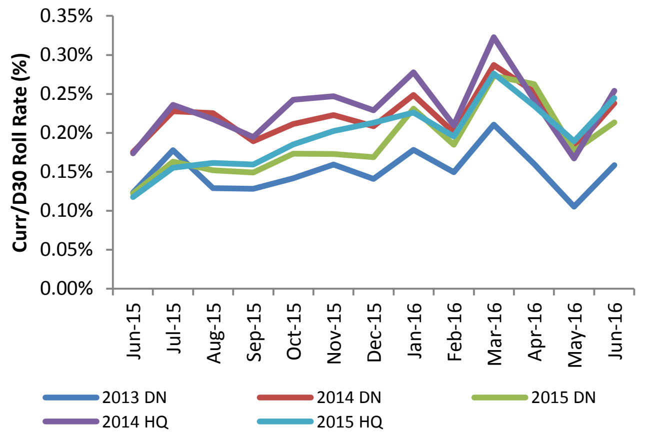
CRT roll rates: After decreasing for two months, delinquency (Curr/D30) roll rates increased marginally across CAS/STACR cohorts. While the delinquency roll rates increased across geos, the increase was higher for high-LTV loans in Texas.

Fig. 11: Prepays across CRT deals

	WAC/WALA	Apr	May	Jun		WAC/WALA	Apr	May	Jun
STACR 2013-DN1	3.82/46	10.7	11.2	12.5	CAS 2013-C01	3.83/45	7.4	11.5	11.8
STACR 2013-DN2	3.59/40	8.7	9.2	10.5	CAS 2014-C01	3.63/42	6.6	9.6	9.3
STACR 2014-DN1	3.71/37	9.3	10.3	11.8	CAS 2014-C02 Group 1	3.58/39	5.8	9.2	9.3
STACR 2014-DN2	3.96/34	14.4	13.8	15.2	CAS 2014-C03 Group 1	3.74/36	6.8	10.1	10.8
STACR 2014-DN3	4.53/31	22.4	22.0	22.1	CAS 2014-C04 Group 1	3.96/34	8.5	13.9	13.7
STACR 2014-DN4	4.56/28	23.2	23.4	23.7	CAS 2015-C01 Group 1	4.54/31	13.7	22.1	22.7
STACR 2015-DN1	4.51/24	24.4	22.8	23.1	CAS 2015-C02 Group 1	4.6/27	14.4	25.4	24.2
STACR 2015-DNA1	3.66/43	9.1	9.8	11.4	CAS 2015-C03 Group 1	4.51/22	12.5	23.7	23.0
STACR 2015-DNA2	4.37/21	23.8	20.0	20.0	CAS 2015-C04 Group 1	4.41/19	12.1	24.0	21.0
STACR 2015-DNA3	4.11/16	21.7	16.7	17.3	CAS 2014-C02 Group 2	3.57/39	6.5	11.4	11.8
STACR 2014-HQ1	4.54/31	24.9	24.8	24.8	CAS 2014-C03 Group 2	3.72/36	7.9	14.2	14.0
STACR 2014-HQ2	3.78/36	14.3	14.2	15.9	CAS 2014-C04 Group 2	4.01/34	9.9	17.8	16.8
STACR 2014-HQ3	4.55/28	28.8	26.2	25.8	CAS 2015-C01 Group 2	4.58/31	16.7	27.0	26.3
STACR 2015-HQ1	4.53/24	26.0	23.9	24.5	CAS 2015-C02 Group 2	4.6/27	15.6	27.6	27.2
STACR 2015-HQ2	3.78/37	14.3	14.3	16.2	CAS 2015-C03 Group 2	4.52/22	12.9	23.2	23.4
STACR 2015-HQA1	4.41/21	22.7	19.5	20.7	CAS 2015-C04 Group 2	4.43/19	11.7	23.4	20.1
STACR 2015-HQA2	4.19/17	21.4	16.8	18.3					
Driving Mortgage Rate		3.70	3.70	3.64			3.87	3.70	3.70

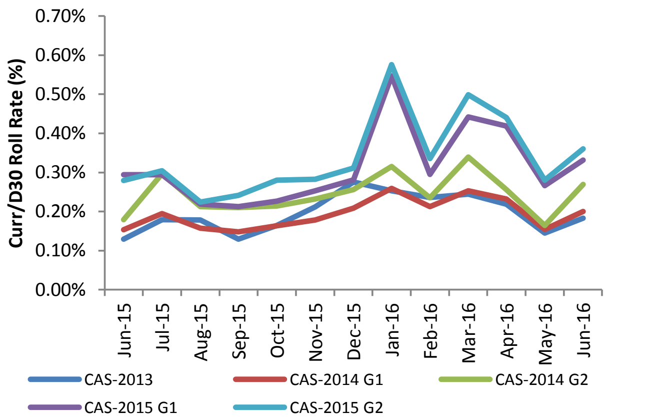
Source: Intex, Bloomberg, Remit reports, Nomura

Fig. 12: C/D30 roll rates across STACR deals



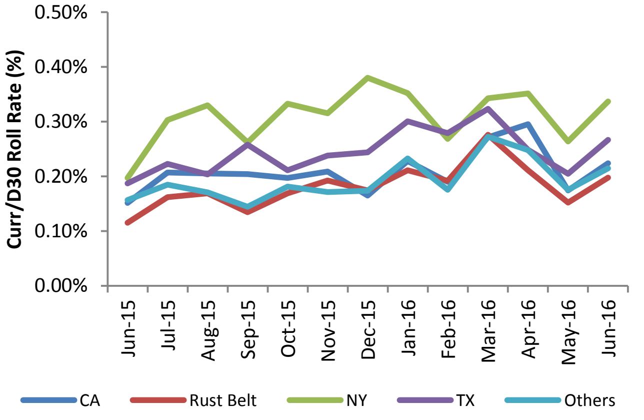
Source: Loan Performance, Nomura

Fig. 13: C/D30 roll rates across CAS deals



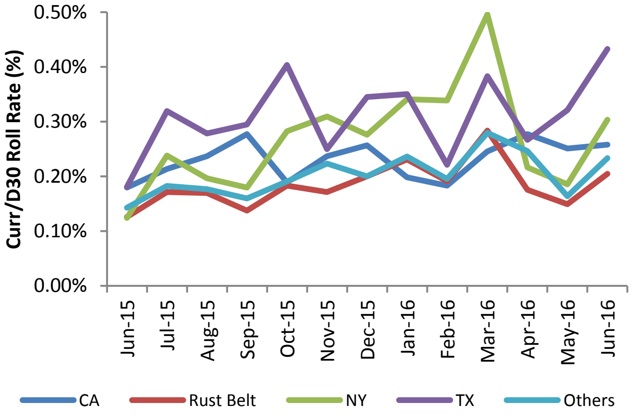
Source: Loan Performance, Nomura

Fig. 14: C/D30 roll rates on Low-LTV STACR deals (2014-15)



Source: Loan Performance, Nomura

Fig. 15: C/D30 roll rates on High-LTV STACR deals (2014-15)



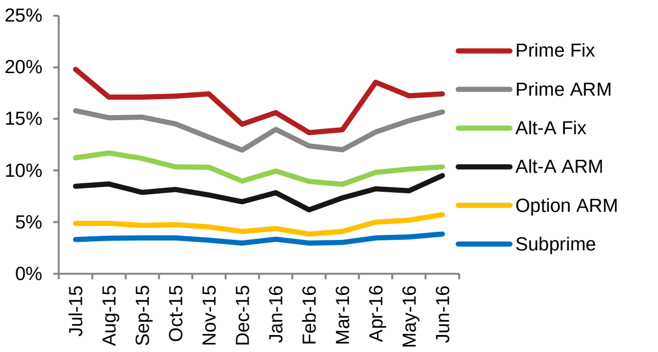
Source: Loan Performance, Nomura

Legacy RMBS

Based on available data, the following trends were observed in June remittances:

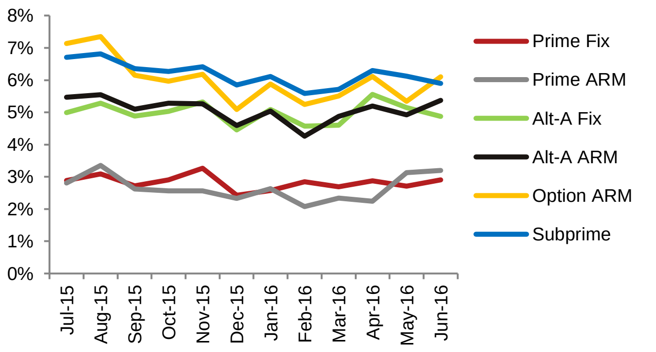
- **Prepays** increased marginally across the board, as driving mortgage rates were slightly lower and positive housing seasonals.
- **Liquidation speeds** increased marginally in POA and declined slightly in subprime. In POA, the increase was mainly driven by Nationstar and AHM/Ocwen.
- **Liquidation loss severities** were slightly higher in subprime and Alt-A. **Liquidation timelines** extended across all geos.
- **Early delinquency roll rates** increased by 1-2bps in POA/Alt-A and remained flat in subprime. In subprime, always current-D30 roll rates are now 29% lower than the levels seen a year ago.
- **Stop advance rates** were unchanged across the board. In subprime, stop advance rates increased marginally in GMAC/Ocwen-serviced loans and decreased slightly in BOA/N.Star-serviced loans.
- **Modification rates** in all sectors remained relatively flat over the month and the share of principal modifications increased slightly in POA. Across servicers, modification rates increased in SPS- and JPM-serviced loans.

Fig. 16: CPR



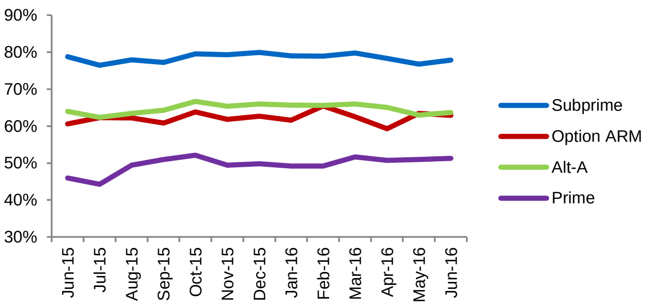
Source: Loan Performance, Nomura

Fig. 17: CDR



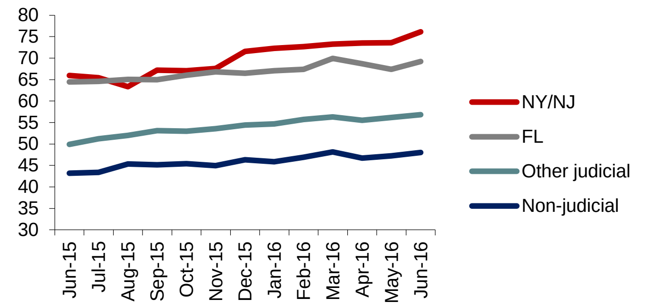
Source: Loan Performance, Nomura

Fig. 18: Liquidation loss severities



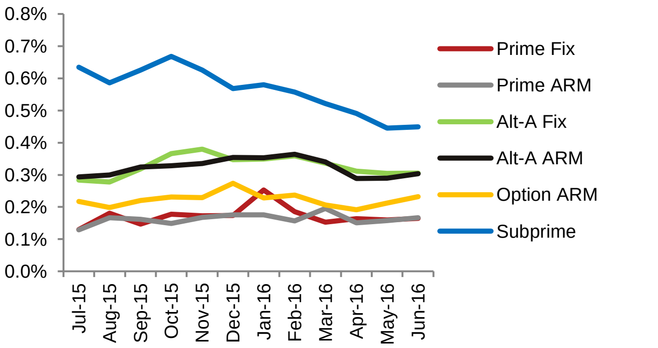
Source: Loan Performance, Nomura

Fig. 19: Liquidation timeline by geography



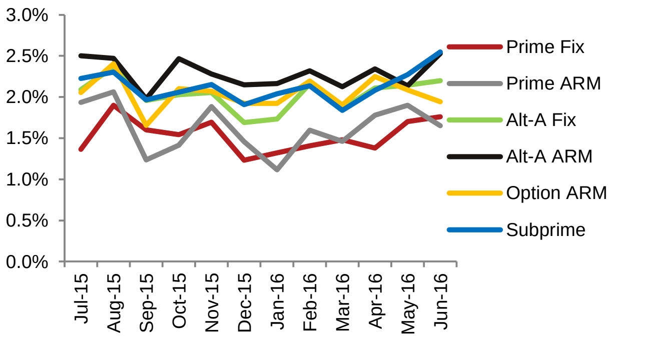
Source: Loan Performance, Nomura

Fig. 20: Always current-D30 roll rates



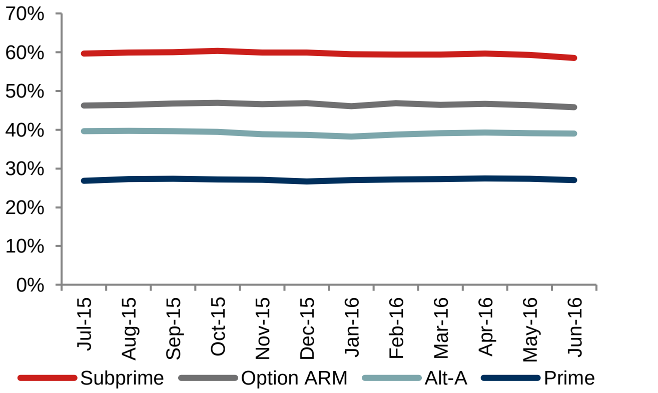
Source: Loan Performance, Nomura

Fig. 21: FCL-REO roll rate



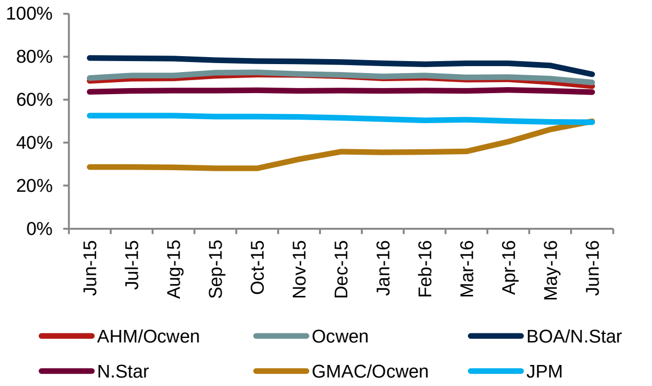
Source: Loan Performance, Nomura

Fig. 22: Stop advance rates by sector (% of dq balance)



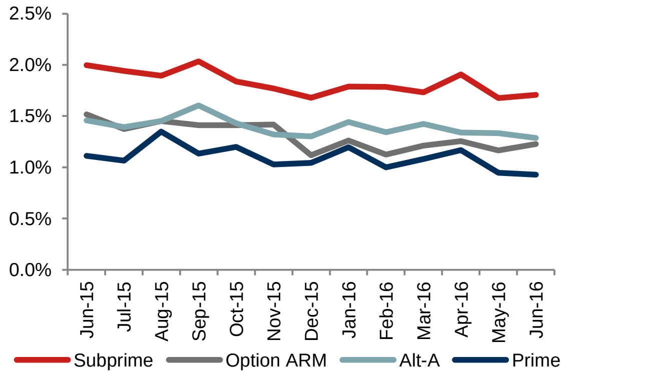
Source: Loan Performance, Nomura

Fig. 23: Stop advance rates by servicer, subprime (% of dq balance)



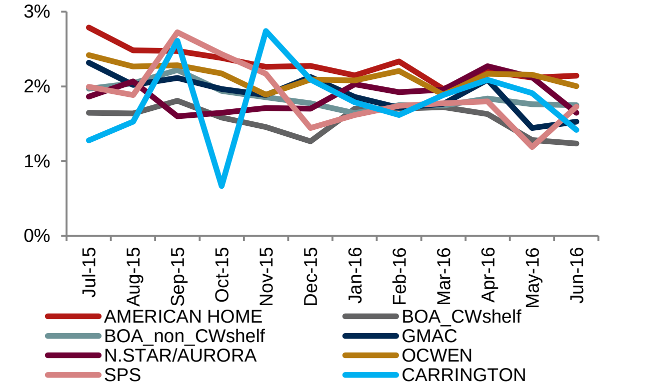
Source: Loan Performance, Nomura

Fig. 24: Modification rate by sector (% of dq balance)



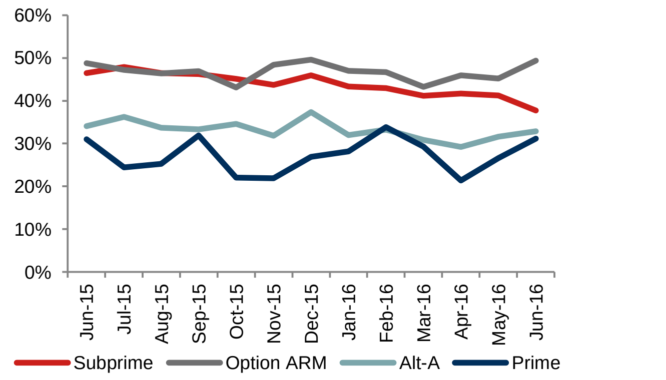
Source: Loan Performance, Nomura

Fig. 25: Modification rate by servicer, subprime (% of dq balance)



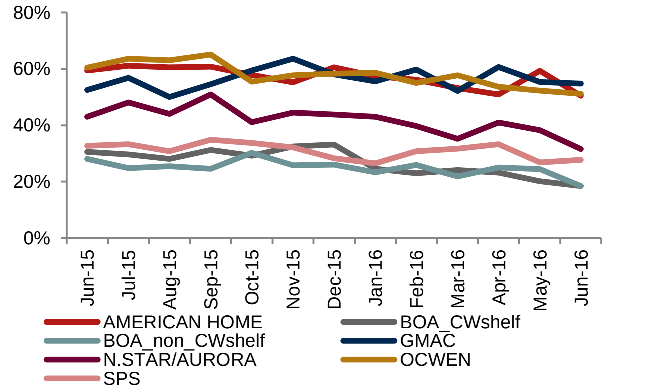
Source: Loan Performance, Nomura

Fig. 26: Principal modification rate by sector (% of modifications)



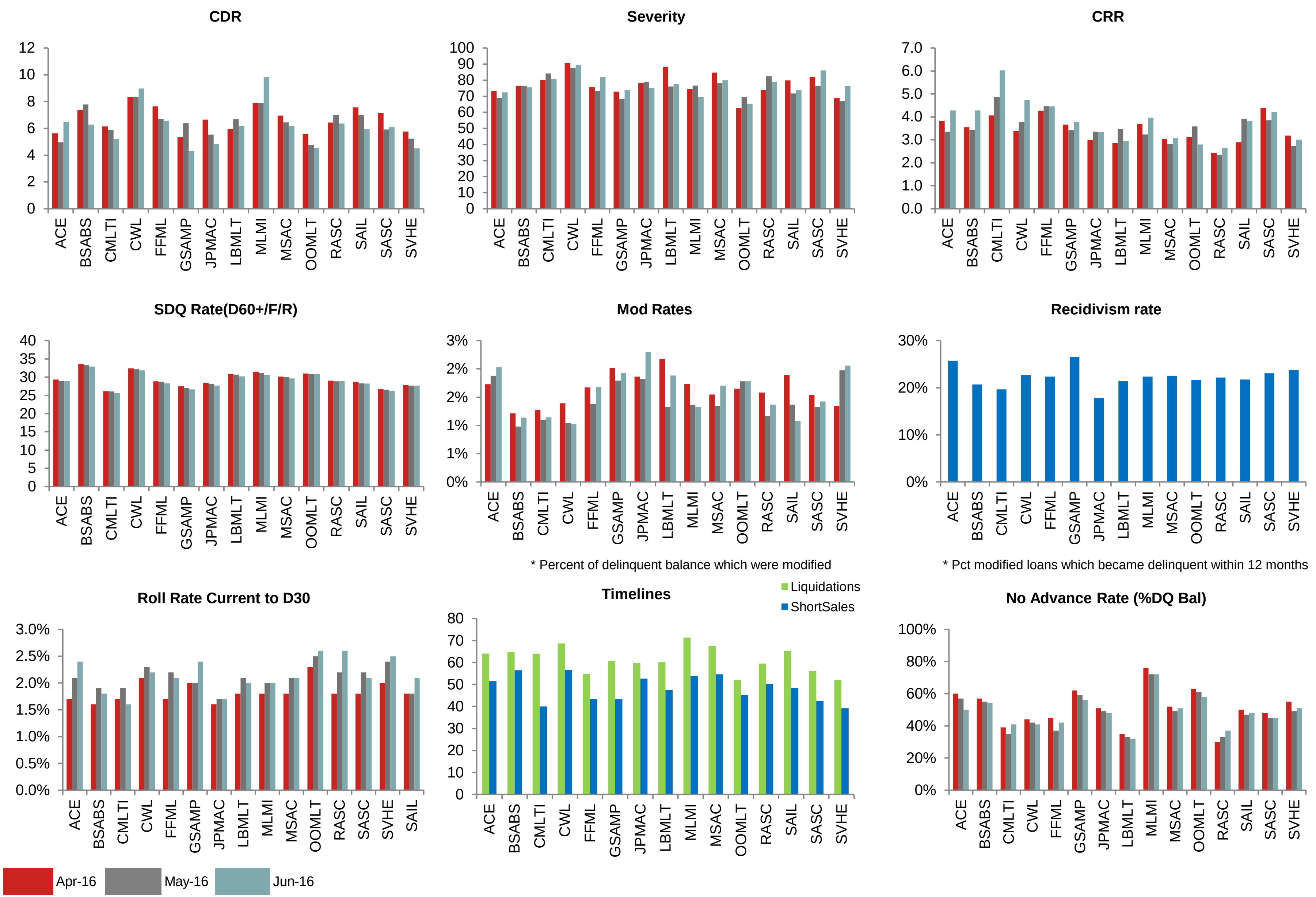
Source: Loan Performance, Nomura

Fig. 27: Principal modification rate by servicer, subprime (% of modifications)



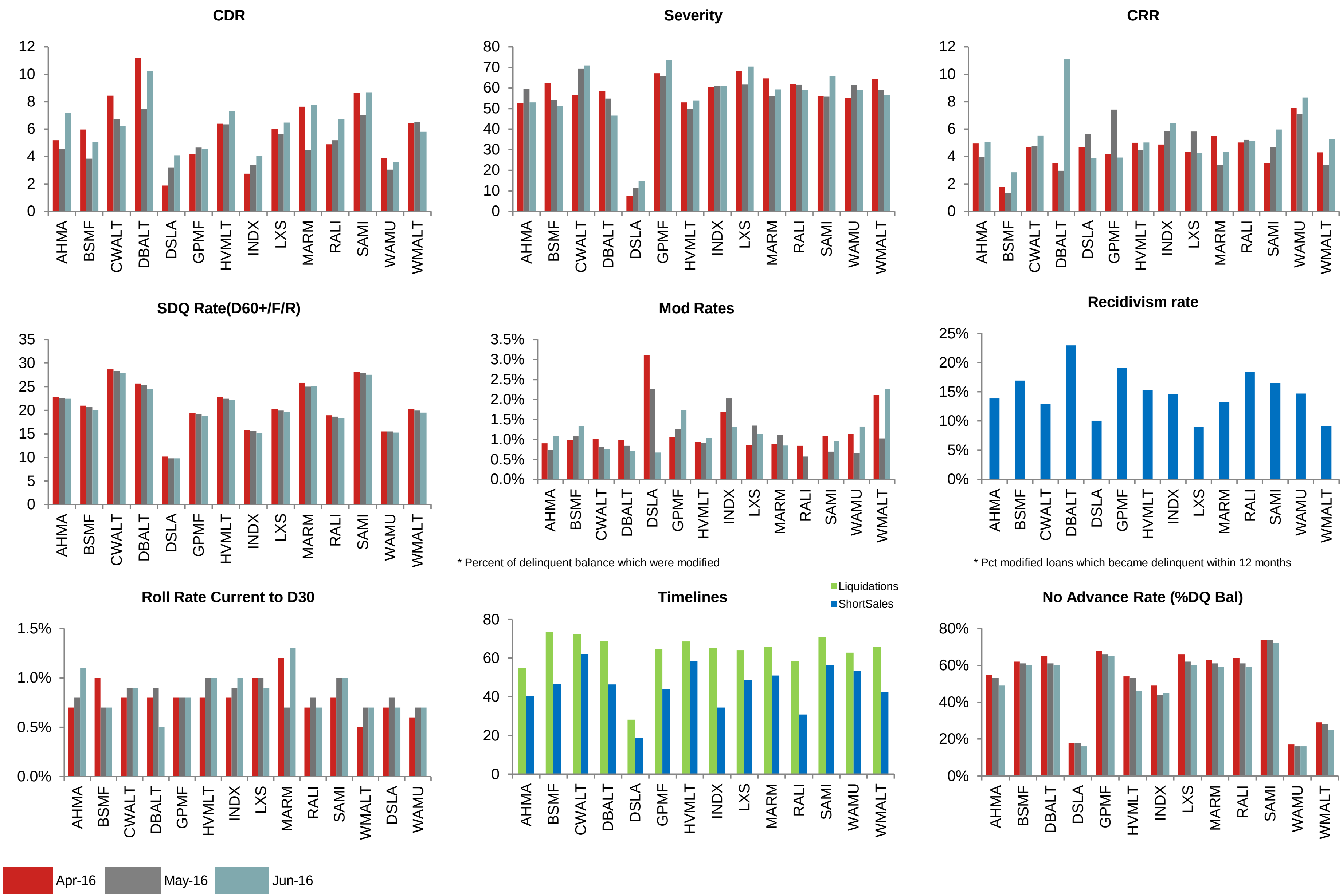
Source: Loan Performance, Nomura

Fig. 28: Shelf collateral summary, subprime



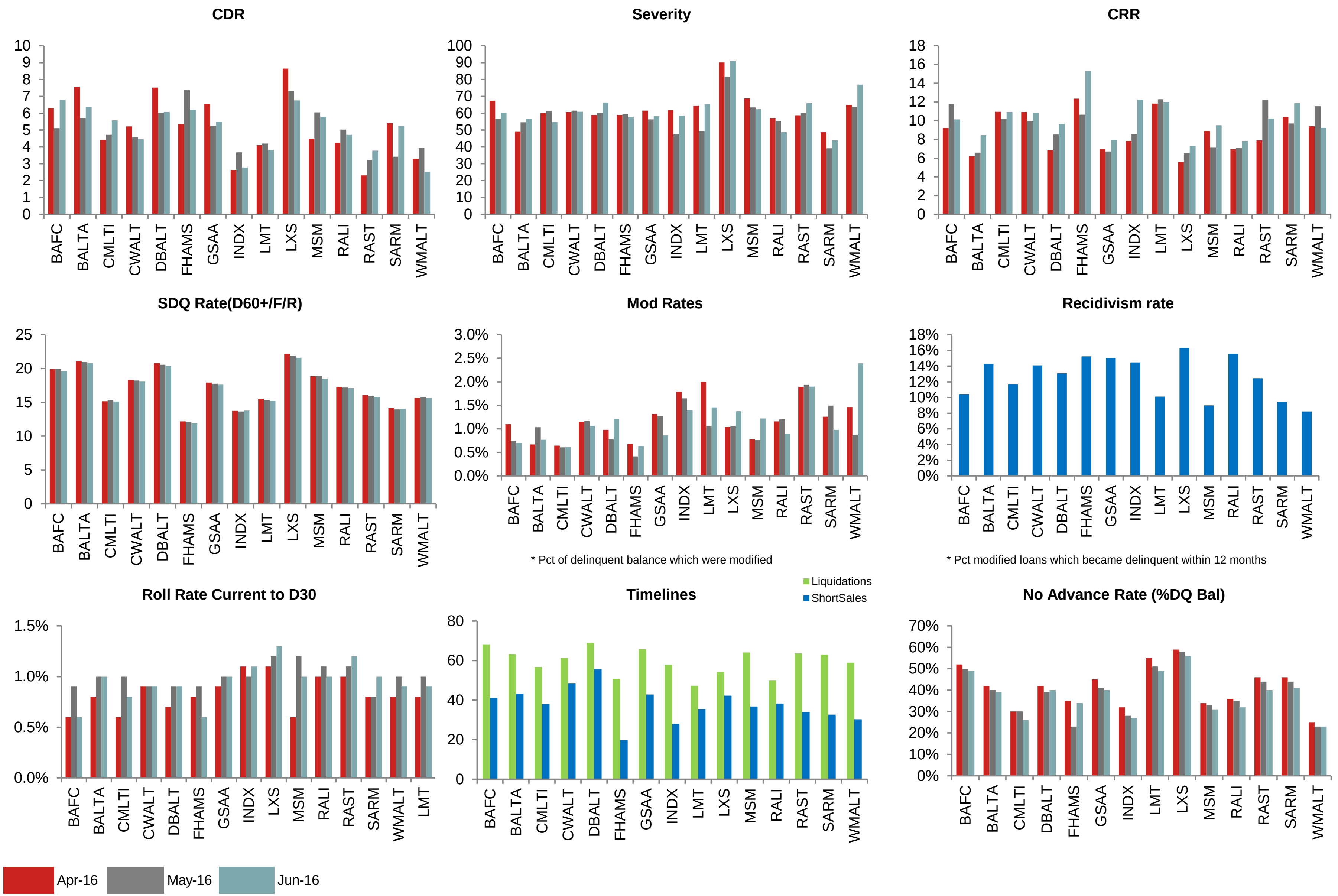
Source: Loan Performance, Nomura

Fig. 29: Shelf collateral summary, POA



Source: Loan Performance, Nomura

Fig. 30: Shelf collateral summary, Alt-A



Source: Loan Performance, Nomura

CLO: Review of 1H 2016 and UK/EU Risk

Market Overview

In the secondary market, supply was light this week, with 130mn of BWIC volumes, a large portion of which traded on Thursday. Mezz bonds were at least 1 point higher on the week due to broad-based investor demand for a variety of bond profiles.

The LSTA leveraged loan index increased by 0.1% over the week to 93.29 (Thursday-Thursday close). According to Lipper, loan funds saw outflows of $18mn and HY funds had $1.8bn of net inflows. Year to date, loan fund outflows are $5.7bn and HY fund inflows are $5bn.

Over the past two weeks, three new issue CLOs priced for a total of $1.2bn and three CLO refinancing's priced for a total of $498mn. US CLO issuance YTD is $26.9bn, which is 44% of the $61bn issued over the same period last year.

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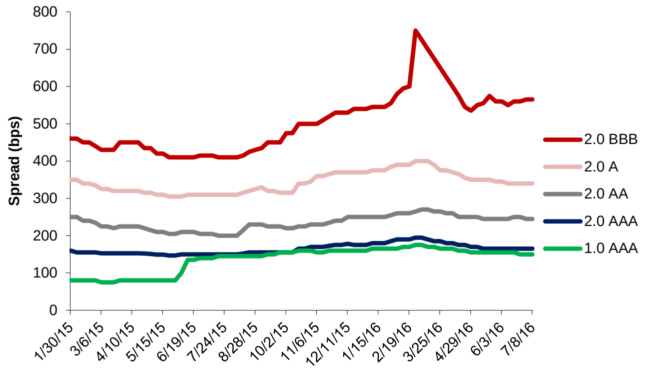
Fig. 1: Recently issued US CLOs

Deal Name	Pricing Date	CLO Manager	Orig Deal Bal ($mn)	Non-Call Period (yrs)	Reinv Period (yrs)	AAA Coupon
JFIN 2016-1	7/8/2016	Apex Credit Partners	354	2	4	L+175
Monroe Capital MML 2016-1	7/1/2016	Monroe Capital	305	2	4	L+225
Mariner CLO 2016-3	6/30/2016	Mariner	503	1	2	L+159
Ares XXXIX	6/23/2016	Ares	510	2.8	4.8	L+153
Anchorage Capital CLO 8	6/22/2016	Anchorage Capital	409	2	4	L+165
Goldentree Loan Opp. XII	6/22/2016	Goldentree	411	2	4.5	L+153
1828 CLO	6/17/2016	Guggenheim	410	2	4	L+160
Benefit Street CLO IX	6/17/2016	Benefit Street Partners	404	2	4	L+161
Venture XXIII CLO	6/16/2016	MJX	411	2	4	L+165
Seven Sticks CLO	6/15/2016	Guggenheim	401	2	4	L+170
Galaxy XXII CLO	6/13/2016	PineBridge	400	2	4	L+158

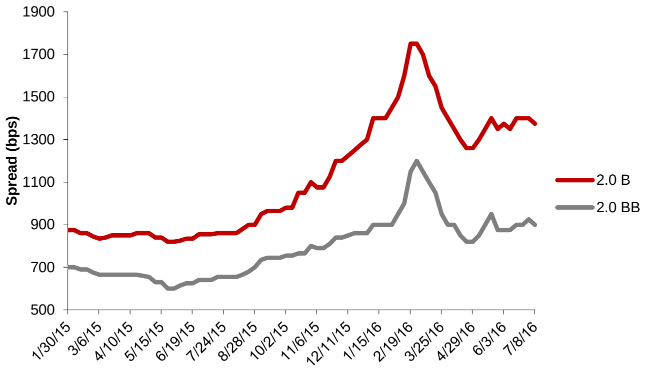
Source: LCD, Nomura

Fig. 2: Historical CLO IG secondary spreads



Source: Nomura

Fig. 3: Historical CLO non-IG secondary spreads



Source: Nomura

Evaluating UK/EU risk in US CLO portfolios

The results of the June 24 UK referendum have led to a meaningful decline in the GBP/USD exchange rate and expectations of a recession in the UK. This could have implications for earnings for certain issuers in CLO deals that derive a meaningful share of revenue from these regions.

Our economists are forecasting a recession of 2% peak to trough in the UK and have revised their EU GDP growth forecast down to 1.4% in 2016 and 1.7% in 2017, given the increased uncertainty around investment and consumption growth.

The overall risk of this event to US CLOs is relatively small and not easily quantified; in the next section, we analyze various sources of data to estimate the potential exposure to the UK and broader Europe.

We attempt to quantify issuer risk to the UK/EU region using the following factors: (1) issuers publicly reporting a percentage of their revenue stream attributable to those regions; (2) issuers having a sterling- or euro-denominated loan likely indicating some business exposure to that region; and (3) issuers domiciled in the UK or EU.

However, certain issuers may have hedged their forex exposure as well, mitigating the impact of the pound's decline in the near term.

Companies reporting a share of revenue stream from the UK/Europe

To quantify the risk of such issuers, we look at issuers in CLO 2.0 deals that publicly report the geographic breakdown of their revenue stream from Europe and/or UK.

- Around 7% of the top 200 issuers in CLO 2.0 deals report a non-zero revenue share from the UK, with the average share being around 8%. One particular issuer, Virgin Media, reported 35% of its revenue share from UK.
- Around 15% of the top 200 issuers in CLO deals report the revenue share from Europe, with the average revenue share being around 25%, and for certain issuers, northward of 90%.

Companies that issued sterling- or euro-denominated loans

Certain issuers in US CLO deals have sterling- and/or euro-denominated loans that may have been issued due to a portion of their revenue stream in GBP or euro that would require them to face less currency-risk exposure and/or lower funding costs in that region after adjusting for any forex hedge.

At least 10% of the top 200 issuers in US CLOs have exposure to UK and 30% to Europe either because they publicly report a share of their revenue stream from those regions or have sterling/euro-denominated loans.

Issuers domiciled in the UK/Europe

We also look at loans that are domiciled in the UK or Europe based on trustee-reported data. However, this methodology may not be entirely accurate, as many issuers have multiple countries for different loans. Across 2.0 deals, around $2.2bn of loans (~0.7%) have UK or Ireland as the domicile country. Overall, $16bn (~5%) of term loans in US 2.0 CLOs are domiciled in the Euro region.

We think an issuer could have risk from the UK and the Europe region if it satisfies one of the three conditions:

- The UK (or Europe) comprises at least 10% of the revenue stream for the issuer (in certain cases where there is lack of data we use the parent company's financials).
- The company has issued sterling- or a euro-denominated loan.
- The issuer is domiciled in the UK or Europe as the case maybe.

Based on the above methodology, we estimate the balance of loans with potential risk from any downturn is around $8bn (~2.5% of loan balance in CLOs) in UK and $69bn (21% of loan balance in CLOs) in Europe.

Review of 1H 2016 trends

Since the start of the year, spread volatility in the CLO has been very high, amplified by distress in the energy/commodity sectors and broader macro volatility. Since then, spreads have recovered most of the widening in the first two months of the year and are in line with late-2015 levels. On a price basis, most CLO tranches are similar to the start of the year (or slightly higher). Total returns are in the 2-4% range for non-IG mezz and average 18% for equity over the first half, although they vary meaningfully by portfolio quality/manager.

CLO mezz tranches underperformed high yield by 2-4 points in the first half of the year: High yield is up 2.8 points for the first half of the year while CLO tranches are flat or up only slightly. Figure 4 shows average returns for 2.0 tranches. There is wider bifurcation in returns across equity tranches, given the dispersion in portfolio quality, and the median return is around 18%, primarily from carry.

Performance vs. other sectors

Figure 4 shows 2016 YTD returns of other rated securitized credit sectors. CLO BBB bonds have outperformed CMBS BBB tranches and have delivered similar returns to other BBB-rated securitized credit sectors over the past six months.

CMBS (fixed-rate) AAA performance this year has been driven by the meaningful rate rally, strong insurance demand, and limited primary supply from the primary market.

Fig. 4: Estimated YTD return for CLO 2.0 tranches vs. HY, Loans and other securitized credit sectors

Tranche	CLO 2.0	CMBS (10yr fixed)	Single Family Rental (5yr)	Prime Auto (3-4yr)	Risk-transfer deals (2-8yr)
AAA	1.8%	9.4%	2.0%	2.4%	
AA	2.1%				
A	2.1%				0.9%
BBB	3.8%	-4.6%	2.5%	3.0%	3.4%
BB	2.5%				5.5% (B-rated)
Equity*	18%				
LSTA Index	**4.6%**				
HY	**9.0%**				

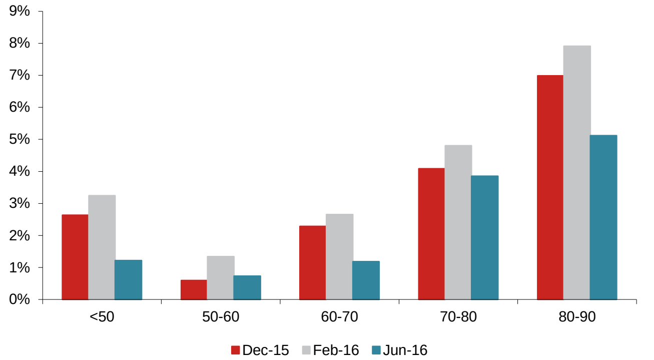
**Varies widely by deal/manager*

Source: LCD, Nomura

Default assumptions: The price distribution of the CLO market has changed meaningfully, due to the volatility in loan prices, and this has affected the implied default assumptions used by CLO investors. Figure 5 shows the distribution in price bucket of the LSTA index in Dec 2015 vs. Feb 2016 and now.

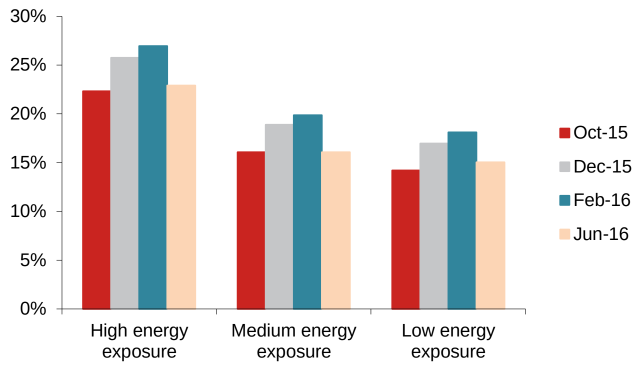
Figure 6 shows the change in implied default assumptions for CLO 2.0 deals based on loan prices since late 2015, using a framework based on loan prices benchmarking to the 2001 experience. For a typical 2.0 deal with median energy/commodity exposure, we expect base case cum default projections have dropped by 3-4% since February, due to improving loan prices. Many investors use loan prices as a guide for pricing CLO tranches; therefore, this is one of the factors driving improved CLO pricing since February.

Fig. 5: Histogram of loan price buckets in the LSTA index over time (performing loans only)



Source: LCD, Nomura

Fig. 6: Market-implied cum default projections for sample CLOs with varying energy exposure



Source: Intex, Nomura

Issuance

YTD CLO issuance is $26.9bn, tracking at 44% of 2015 issuance over the same period. We are projecting $45-50bn total issuance for 2016. Some of the challenges to the market include a less-compelling equity arbitrage, given that liability spreads remain wide and asset spreads for the high-quality names have tightened, and secondary equity still trades wide of primary equity. Leveraged loan issuance has been $128bn YTD, tracking

90% of last year's issuance over the same period, although a large share of it has come from refinancing's/repricings, which does not add to net new issuance.

We expect overseas demand for US CLOs to increase as Euro CLO issuance declines post-Brexit vote. Additionally, managers continue to work on risk-retention solutions, and, according to LCD, at least 65% of CLOs issued this year have been risk-retention compliant.

Relative value going forward: We maintain a neutral view on the overall CLO market at current spread levels: the sector remains fair relative to CMBS and cheap vs. other SP asset classes. Across the capital stack, we prefer BBB and higher-quality BB tranches. CLO performance should continue to track leveraged loan prices, and loans should be supported by a strong technical environment, due to limited issuance and continued CLO formation and reinvestment demand. However, given the bifurcated price distribution in the loan market, upside is relatively capped for better-quality names.

Primary/Secondary: Primary vs. secondary 2.0 spreads appear to be fairly priced after widening out earlier this year. At the mezz level, the primary/secondary basis is fair, as primary issuance has cleaner portfolios while secondary bonds have better credit convexity due to the discount dollar price and shorter WAL.

Fig. 7: Relative value comps

						Rich(+) / cheap(-) vs 6m history (in bps)		
CLO	Primary	Secondary	YTD Change	Past 1y primary issuance ($bn)	Percentile of 1y range*	vs CMBS	vs IG/HY	Comps: other spread products
2.0 AAA	153-175	145-170	5	39	25%	2	7	CMBS: 115bp/85bp (7yr/5yr), SFR: 140bp (5yr)
2.0 AA	210-240	205-280	-15	7	41%	4	7	CMBS: 215bp (10y), SFR: 190bp (5y)
2.0 A	290-340	295-390	-15	4	25%	13	17	CMBS: 330bp (10y), SFR: 245bp (5y)
2.0 BBB	450-515	450-700	95	3	75%	1	16	CMBS: 630bp (10y), SFR: 390bp (5y)
2.0 BB	800-1000	800-1050	225	3	63%	-9	-13	HY: 345bp (5y), Loans: 385bp (5y)

*Current level relative to 6-month historical range (0% indicates at the tight end of the range)

Source: LCD, Bloomberg, Nomura

Economics and rates update

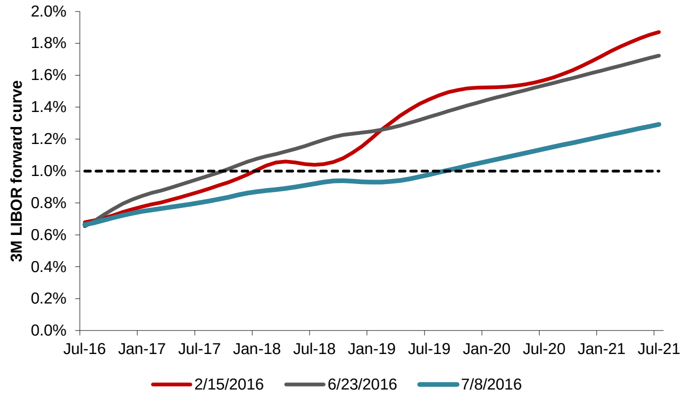
Today's strong payrolls print (+287k in June) was viewed as a good trend but nothing spectacular, and it quells concerns of a broader economic slowdown in the US. Our economists expect 2H 2016 GDP growth to be about 2.0% and expect the probability of recession to be relatively low at approximately 20% based on financial conditions. They expect the next rate hike in December and the subsequent hike in June 2017. Although today's strong employment report marginally increased the likelihood of a September hike, they expect that it will take some time for the effects of the Brexit vote to be seen in the US economy, and the rate differentials between the US and the rest of the world would suggest increased risk of a stronger dollar with a near-term hike.

The major economic consequence of the UK referendum is heightened uncertainty. Our colleagues abroad see this hurting growth globally through various channels, such as weaker trade activity, financial instability, and weaker consumer and business confidence. They expect the UK economy to be affected the most, with recessionary-like conditions over the next several quarters. But in light of the Brexit news, we should also see easier monetary policy by major foreign central banks.

For the US, we see a similar story evolving. The heightened uncertainty has tightened financial conditions somewhat. The dollar has appreciated and credit spreads have widened. But some of this was offset by persistent declines in US treasury yields, notably in term premia. This, coupled with lower global growth, should slow the US economy modestly, primarily through a lower path of business investment.

With the continued flattening of the forward curve, interest coverage ratios will come under less pressure and the LIBOR floor benefit for CLO equity investors is extended (Figure 8).

Fig. 8: Evolution of the 3m LIBOR forward curve



Source: Bloomberg, Nomura

Default rates in CLO deals increased meaningfully in 2016, largely driven by the energy and metals/mining sectors. Figure 6 shows a list of issuers in CLO 2.0 deals that have filed for reorganization under Chapter 11 or restructured their debt this year. Figure 7 shows the balance and count of loans in the LSTA index that have defaulted over time.

Additionally, certain CLOs have classified loans as defaulted should the rating agency classify the issuer as SD or LD. The rating change typically occurs when the issuer engages in subpar debt buyback and is typically revised within a week, although for certain issuers the revision may take a longer time (for instance, Murray Energy was rated as SD for three months).

This week, Frac-Tech International ($208mn exposure in 2.0 deals), an E&P company, was downgraded to SD by S&P following a tender offer to buy back its term loans at a price of around $40. Junior OC ratios could thus be affected based on the timing of such downgrades and the determination date for CLO deals and whether indentures include SD as a criteria to classify the asset as defaulted.

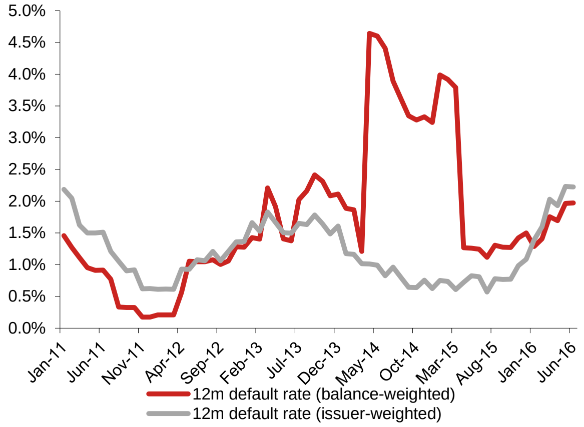
Figure 8 shows median junior OC-ratios vs. equity NAVs over time for post-crisis CLO deals. Equity NAVs have increased meaningfully since the February lows this year as loan prices rallied, although junior OC ratios have continued to decline over this period due to defaults, downgrades, and as managers crystallized losses by rotating out of lower-priced loans.

Fig. 9: Issuers that defaulted in CLO 2.0 deals

Issuer	Sector	Default date	Estimated Balance in CLOs at the beginning of the year ($mn)
RCS Capital	Business Services	1/6/16	228
Arch Coal	Metals & Mining	1/11/16	207
Sports Authority	Retail	1/20/16	73
Verso/New Page	Forest Products	1/22/16	102
Noranda Aluminum	Metals & Mining	2/8/16	167
Paragon Offshore	Oil & Gas	2/12/16	255
Aspect Software	Computers & Electronics	3/9/16	105
Foresight Energy	Metals & Mining	3/17/16	99
Templar Energy	Oil & Gas	3/23/16	259
Southcross Holdings	Oil & Gas	3/28/16	217
Vertellus	Oil & Gas	4/12/16	25
Peabody Energy	Metals & Mining	4/13/16	326
Fairway Food Market	Retail	5/3/16	97
Atlas Iron	Metals & Mining	5/9/16	45
Linn Energy	Oil & Gas	5/12/16	7
Breitburn Energy	Oil & Gas	5/16/16	2
Dex Media	Printing & Publishing	5/17/16	8
Seventy Seven Operating	Oil & Gas	5/19/16	217
C&J Energy Services	Oil & Gas	7/1/16	192

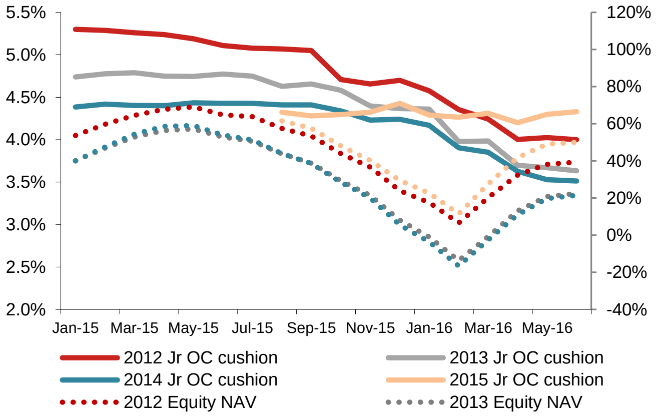
Source: LCD, Intex, Nomura

Fig. 10: Loan default rate (12m-rolling) over time



Source: LCD, Nomura

Fig. 11: Median Junior OC ratios vs. Equity NAV for post-crisis deals



Source: Markit, Intex, Nomura

Appendix A-1

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