

**Avoid Negative Yields****p. 2**

The most pressing risk in the MBS market in the current environment is a negative yield profile on a noticeable percentage of assets in the market. The FOMC has stated that it is not in the current policy mix to produce negative lending rates, but its purchases of MBS securities have created a negative yield profile for a surprisingly high percentage of assets in the MBS market. This analysis presents these results using a broad sample of the market and lays out options for investors to avoid pitfalls.

– Walt Schmidt

**Evolving Servicer Focus on Prepays****p. 10**

The composition of the loans that printed faster-than-expected speeds in the May prepayment report signal that the market may be entering phase two of the refi wave. The report contains evidence that originators are shifting their attention away from more recent issuance to seasoned loans. Investors should consider a possibility of increased prepayment risk in seasoned, premium loans in the near term.

– Alexis Vilimas

**Market Update****p. 17**

Month-to-date, conventional 30yr lower coupons outperformed versus UST hedges with the upper wing underperforming, 15yr production coupon MBS mostly outperformed UST. Conventional 30yr outperformed swaps on the wings while the middle coupons underperformed, 15yr outperformed against swaps across the stack. 2-4yr CMO spreads are 7-16 bps tighter since May. Hybrid spreads are 10bps tighter. The payups for loan balance specified pools 2.5s-4.5s increased by 11 – 25 ticks since the end of last month. 100% NY specified pools payups were mixed. Fixed-rate prepayment speeds increased in May by 0.9%. Despite one less business day month-over-month and lower readings on the Refinance Index, speeds came in faster than consensus. The effects of social distancing and forbearance on prepayment speeds continue to be offset by lower primary rates during the refi window. For more details, please see our published prepayment reports.

– Dylan White

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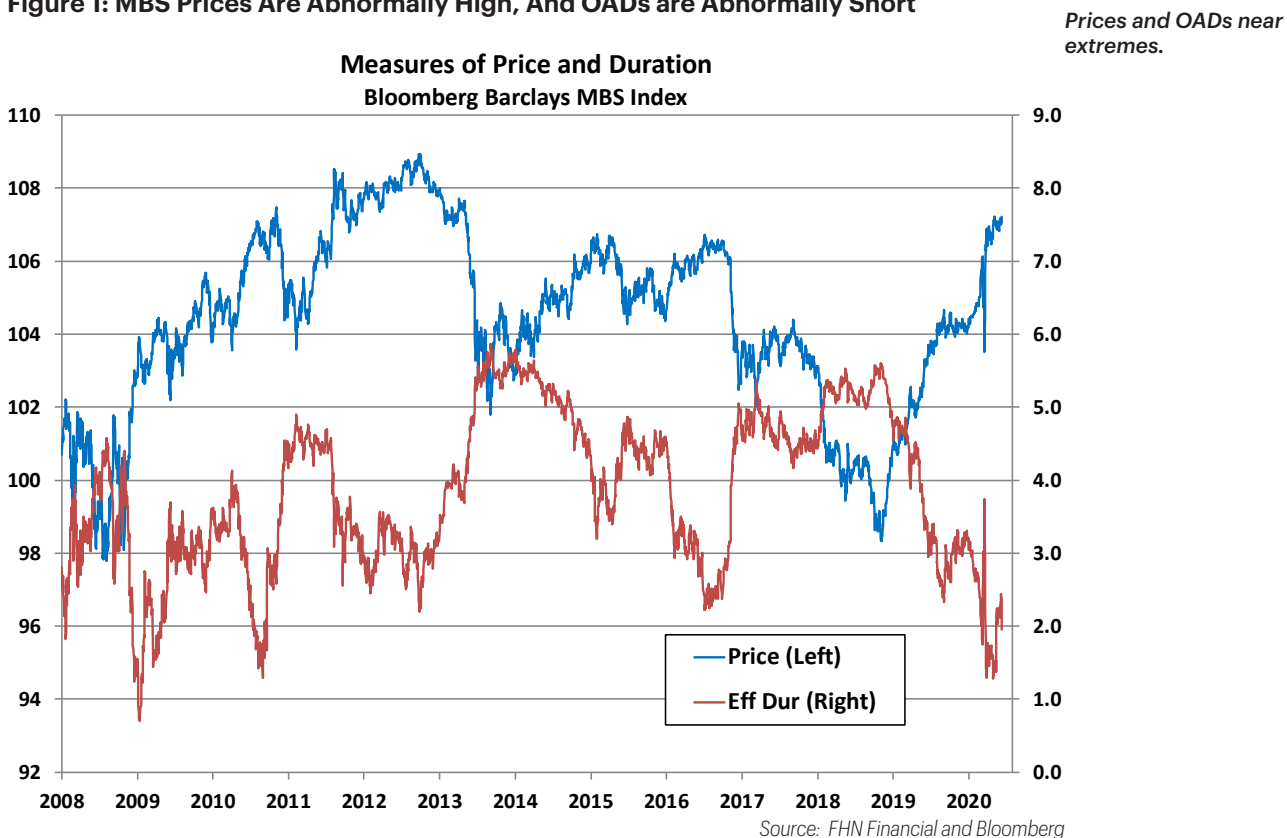
**Executive Summary:** The most pressing risk in the MBS market in the current environment is a negative yield profile on a noticeable percentage of assets in the market. The FOMC has stated that it is not in the current policy mix to produce negative lending rates, but its purchases of MBS securities have created a negative yield profile for a surprisingly high percentage of assets in the MBS market. This analysis presents these results using a broad sample of the market and lays out options for investors to avoid pitfalls.

FOMC Chair Powell noted during a moderated discussion at the Peterson Institute for International Economics in May that, “The committee’s (i.e. the FOMC) view on negative rates really has not changed. This is not something we’re looking at.” At the post-FOMC press conference last week, the Chair stated that, “we’ve now said that we don’t go any lower than this”, referring to the policy FOMC rate.

At the same press conference, the Chair also stated that, “we’re using our...lending tools to an unprecedented extent.” The result of that in the MBS market is an abnormally high dollar price profile and an abnormally flat coupon stack.

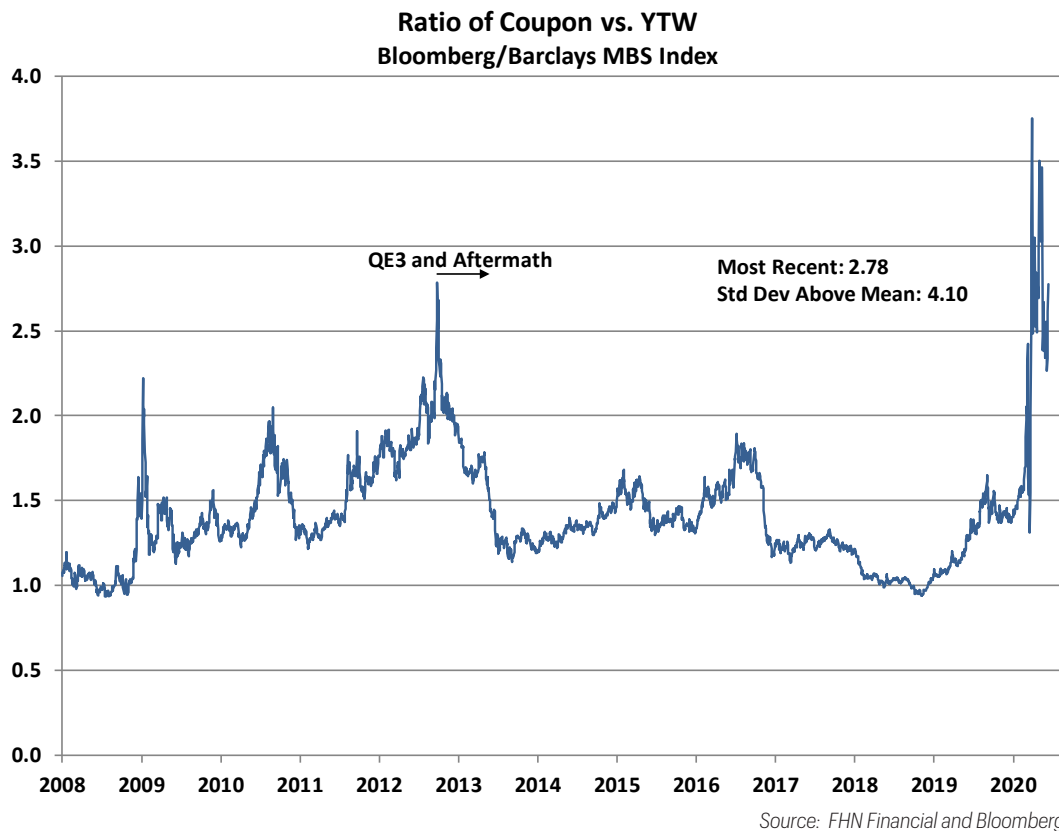
The data in Figure 1 below displays a good view of both the dollar price and the OAD of the MBS index (Bloomberg/Barclays index) going back to the beginning of the financial crisis in 2008/2009.

**Figure 1: MBS Prices Are Abnormally High, And OADs are Abnormally Short**



The dollar price of the MBS market was slightly higher in 2012 than it is now, and the OAD of the market was briefly shorter in 2009, both periods of initial QE response by the FOMC. However, the yield of the overall MBS index is very low currently. More importantly, as displayed in Figure 2 below, the ratio of the average MBS coupon to the model-projected yield is still near the highest on record after three months of Covid-induced volatility. In other words, the actual premium risk in the MBS market is very high.

**Figure 2: A Second Look at Premium Risk in the MBS Market**

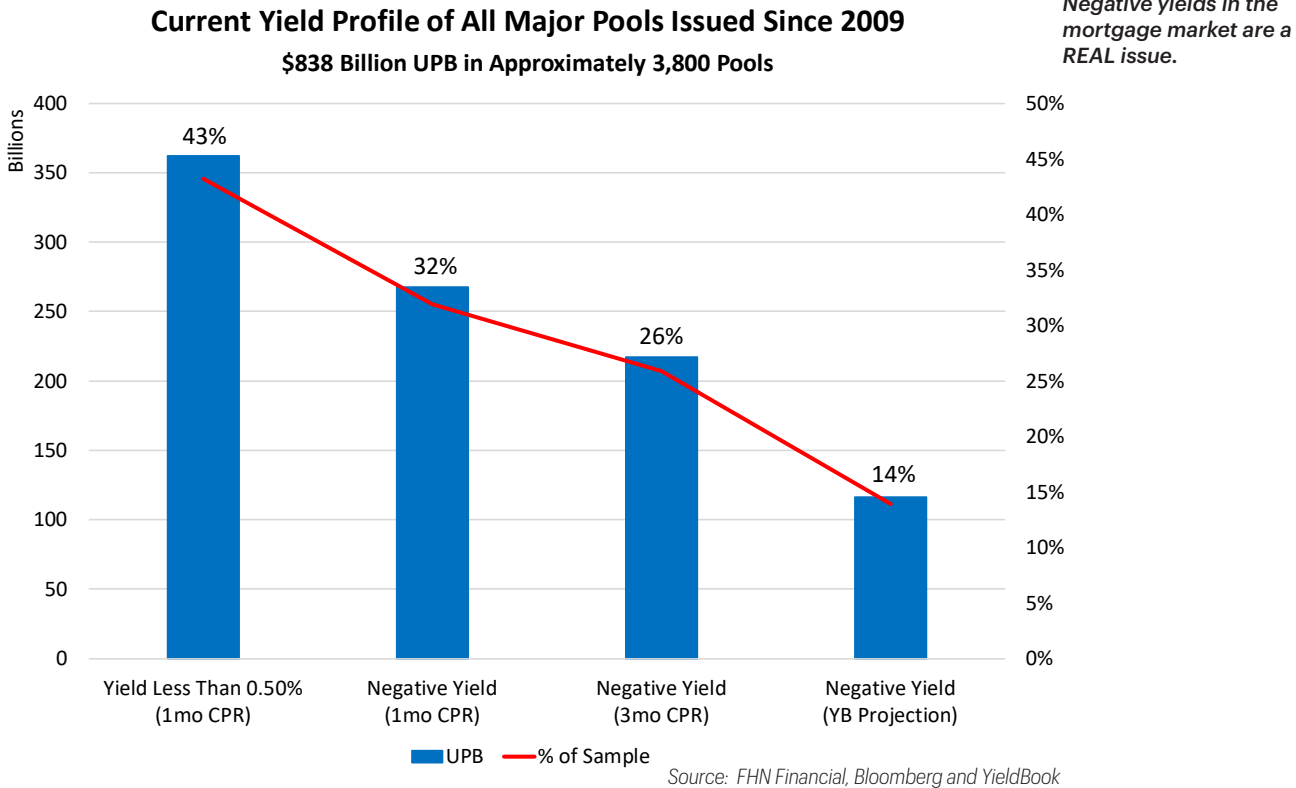


These views of the overall market are a good starting point, but investors do not typically buy the “entire” market. They invest in individual cusips or TBA transactions. To that end, we performed a quick study of almost 4,000 different cusips that represent all of the Fannie Major pools that have been issued since 2009. We did not limit the study to just the 30yr Majors, although those dominate due to their larger pool sizes. Rather we looked at all four amortization types (30yr, 20yr, 15yr and 10yr) as well as the major CK/CJ and LTV cohorts.

This produced a useable data set of just under 3,800 pools with an unpaid balance of around \$838 billion. Coupons range from 2.00% to 7.00%, but the data are dominated by the 2.00% through 4.00% coupons across the various program types.

It was obvious going into this analysis that there would be certain pools and cohorts that were displaying a negative yield profile, based on both historical and model projected speeds. However, we were not prepared to see just how much of the market has been affected. We start with the overall summary data in Figure 3 below.

Figure 3: A High Percentage of the Fannie Major Pool Market Produces a Negative Yield



We used Bloomberg pricing as of Friday's close and ran simple yield calculations for all of the pools in the \$838 billion data set and then established four breakpoints:

- Yield less than 50 basis points at the 1mo CPR historical speed.
- Negative yield using the 1mo CPR historical speed.
- Negative yield using the 3mo CPR historical speed.
- Negative yield using the YieldBook (v99) projected speed.

The results are quite clear. Between 14% and 32% of the Fannie Major Pool market is producing a **negative yield** at current prices, on the basis of current unpaid balance. And almost half of the market is producing a yield below 50 basis points. A further breakdown of the data at the program and coupon level is presented in the Appendix at the end of this article. This shows that, generally speaking, the longer the am schedule, the better, and high LTV cohorts look especially compelling.

Of course, this analysis is skewed and NOT representative of the overall MBS market. In fact, the Major Pool market, which was once considered a higher-quality, multi-servicer, diversified pool sector, has largely turned into a worst-to-deliver market (or at least very close to that).

The fact that this analysis is a bit skewed is actually good news. Investors do not need to simply buy "the market" when they invest in MBS and CMOs. Rather, investors have the ability to choose assets based on a range of program, coupon, vintage, collateral and structure types that can help to protect against the possibility of realizing negative yield outcomes.

Every cusip in the mortgage market is different, and this is certainly a cusip-specific market. In other words, it is not enough to like a sector, or even a coupon within the sector. EVERY bond is unique and must be judged on its own merits.

The analysis in Table 1 below is fairly extensive, but it does a nice job of highlighting the risk/reward profile of assets in the mortgage sector. When investors look at a mortgage bond, they tend to think of a bond in term of the Bloomberg Yield Table. In other words, how does a bond look in the base case and then in rates up and down 300 bps scenarios. Leaving aside the debate about efficacy of the prepay assumption (i.e. street consensus vs. model speeds), this is a typical first look at most mortgage assets, particularly in the agency CMO and MBS sectors.

The data in Table 1 below is essentially this sort of analysis, but it is done in a much more comprehensive manner. It looks at both static and dynamic results, all using the v99 version of the YieldBook prepayment model.

**Table 1: Risk/Reward Profiles for a Sample of Mortgage Assets**

A sample of assets to highlight risk/reward along the dimensions of yield and total return.

## Security Analysis

as of 6/16/2020

Security	Mtg Description	Price	Age	WAM	Current Coupon	WAC	# of Loans	YTM	Avg Life	Libor OAS	Eff Dura	Eff Convx	YB Projection 1yr CPR	Historical LT CPR	1mo CPR	3mo CPR	FICO	Curr Ln Size	Curr LTV
FNR 2020-41 E	2/2 Front Seq	101-18	1	357	2.00	3.04	28,731	-0.05	0.83	16.9	-0.39	-1.91	22.67	19.42	0.42	NA	771	345,636	70
FN MA3685	FNCL	105-12	14	344	3.00	4.04	7,999	0.40	2.17	1.4	0.48	-0.49	48.56	36.57	53.97	56.50	760	312,826	71
FN MA3709	FNCL	104-63	14	164	2.50	3.46	1,419	0.19	2.08	-17.7	0.71	-0.51	43.92	34.47	53.81	47.54	757	236,980	59
FN BP8590	FNCL	103-16	1	180	2.00	2.81	188	0.76	2.99	9.1	1.44	-2.50	27.22	23.41	NA	NA	782	283,996	62
FR RB5065	FNCL	102-28	1	239	2.00	3.03	3,850	0.98	3.04	17.9	2.14	-2.85	27.74	25.15	NA	NA	771	296,028	66
FR RA2893	FNCL	104-04	1	358	2.50	3.42	175	1.46	4.39	48.9	3.50	-2.39	15.95	18.60	NA	NA	757	328,401	94
FNR 2020-45 HB	HLTV PAC	102-05	0	360	1.75	3.39	NA	1.25	4.81	20.0	3.64	-2.45	13.10	18.94	NA	NA	756	343,845	94
FNR 2017-105 N	100% NY PT	106-03	34	318	3.00	4.96	150	1.58	4.76	81.9	4.16	-0.67	19.13	16.86	22.06	8.13	709	270,054	59

Price Shock: Immediate Rate Shock									
Security	dn300	dn150	dn100	dn50	base	up50	up100	up150	up300
FNR 2020-41 E	0.43	-0.11	-0.25	-0.28	0.00	-0.11	-0.84	-2.00	-6.92
FN MA3685	2.92	1.05	0.57	0.22	0.00	-0.36	-1.23	-2.99	-12.08
FN MA3709	2.60	1.10	0.68	0.32	0.00	-0.45	-1.26	-2.61	-8.66
FN BP8590	2.09	0.76	0.59	0.44	0.00	-1.05	-2.73	-4.86	-12.30
FR RB5065	3.16	1.56	1.18	0.76	0.00	-1.43	-3.53	-6.15	-15.35
FR RA2893	6.68	3.50	2.56	1.47	0.00	-2.07	-4.77	-8.00	-19.28
FNR 2020-45 HB	8.36	4.57	3.27	1.72	0.00	-2.08	-4.66	-7.65	-18.05
FNR 2017-105 N	11.87	5.90	3.96	2.01	0.00	-2.17	-4.60	-7.33	-16.91

YTM: Immediate Rate Shock									
dn300	dn150	dn100	dn50	base	up50	up100	up150	up300	
-0.98	-0.98	-0.98	-0.77	-0.05	1.22	1.34	1.40	1.51	
-0.45	-0.45	-0.45	-0.26	0.40	1.19	1.79	2.11	2.35	
-0.40	-0.40	-0.40	-0.28	0.19	0.73	1.12	1.36	1.55	
-0.10	-0.10	-0.10	0.13	0.76	1.15	1.28	1.31	1.37	
0.27	0.27	0.27	0.46	0.98	1.37	1.53	1.56	1.59	
0.97	0.97	0.97	1.11	1.46	1.75	1.91	1.97	2.06	
1.01	1.01	1.01	1.08	1.25	1.39	1.40	1.41	1.47	
1.43	1.43	1.43	1.47	1.59	1.72	1.86	1.99	2.23	

WAL Change: Immediate Rate Shock (Except Base Case)									
Security	dn300	dn150	dn100	dn50	base	up50	up100	up150	up300
FNR 2020-41 E	-0.3	-0.3	-0.3	-0.2	0.8	1.4	1.8	2.1	2.7
FN MA3685	-0.6	-0.6	-0.6	-0.5	2.2	1.1	2.8	4.9	7.8
FN MA3709	-0.4	-0.4	-0.4	-0.4	2.1	0.7	1.5	2.3	3.2
FN BP8590	-1.3	-1.3	-1.3	-1.0	3.0	1.4	2.3	2.6	3.1
FR RB5065	-1.3	-1.3	-1.3	-1.1	3.0	2.0	3.7	4.2	4.9
FR RA2893	-1.5	-1.5	-1.5	-1.2	4.4	1.9	3.7	4.7	6.7
FNR 2020-45 HB	-1.6	-1.6	-1.6	-1.3	4.8	2.0	2.1	2.4	3.8
FNR 2017-105 N	-0.5	-0.5	-0.5	-0.4	4.8	0.5	1.3	2.1	4.7

Life CPR: Immediate Rate Shock									
dn300	dn150	dn100	dn50	base	up50	up100	up150	up300	
43.1	43.1	43.1	35.9	19.4	9.1	6.8	5.7	4.2	
46.9	46.9	46.9	44.7	36.6	25.5	16.1	10.5	5.8	
43.3	43.3	43.3	41.6	34.5	25.2	17.4	12.2	7.5	
41.7	41.7	41.7	37.2	23.4	13.0	8.9	7.7	5.8	
42.6	42.6	42.6	38.3	25.2	13.3	7.7	6.5	5.0	
28.3	28.3	28.3	25.6	18.6	12.3	8.6	7.1	4.6	
28.5	28.5	28.5	25.9	18.9	12.4	8.5	6.9	4.5	
19.1	19.1	19.1	18.5	16.9	14.8	12.7	10.6	6.2	

Total Rate of Return: 12mo Horizon (Gradual Shock)									
Security	dn300	dn150	dn100	dn50	base	up50	up100	up150	up300
FNR 2020-41 E	-0.23	-0.23	-0.28	-0.23	0.01	0.85	0.34	1.38	-3.61
FN MA3685	0.56	0.56	-0.06	0.03	0.13	0.30	-0.23	-0.28	-8.16
FN MA3709	0.51	0.51	-0.07	0.03	0.02	0.04	-0.43	-0.23	-5.36
FN BP8590	0.73	0.73	0.07	0.45	0.69	0.41	-0.54	-1.40	-9.21
FR RB5065	1.33	1.33	0.66	0.90	0.89	0.33	-0.65	-2.57	-12.29
FR RA2893	3.06	3.06	2.51	2.17	1.42	0.07	-1.04	-4.22	-16.09
FNR 2020-45 HB	6.78	4.15	3.30	2.38	1.03	-0.55	-2.44	-5.04	-14.60
FNR 2017-105 N	4.05	4.05	4.87	2.98	1.47	-0.17	-1.11	-3.51	-12.95

Projected Principal Paydown (%): 1st 12 Months (Gradual Shock)									
dn300	dn150	dn100	dn50	base	up50	up100	up150	up300	
100.0	100.0	100.0	100.0	81.2	35.7	18.6	15.5	13.1	
53.9	53.9	53.9	52.9	49.5	43.7	37.8	31.6	21.7	
50.9	50.9	50.9	50.2	47.2	41.9	36.4	31.5	22.9	
42.9	42.9	43.0	40.6	31.2	19.5	13.0	10.8	8.9	
41.6	41.6	41.6	39.1	30.4	17.3	9.2	7.2	5.9	
24.8	24.8	24.8	23.0	17.6	10.6	6.4	5.1	3.8	
8.6	8.6	8.6	6.8	4.9	4.9	4.9	4.7	4.2	
21.8	21.8	21.8	21.5	20.6	19.3	17.9	16.4	13.3	

All analytics performed on the Yield Book using the v99 prepayment model.  
Total Return analytics assume constant-OAS pricing.

Security	Mtg Description	% Investor Location	1st State	2nd State	Retail	Broker TPO	Corr. TPO	First Servicer	% 1st Servicer	Second Servicer	% 2nd Servicer
FNR 2020-41 E	2/2 Front Seq	0.2	2.7	CA 20.8	TX 6.0	68.44	11.31	20.24 LESS THAN 1%	59.99	PENNYMAC CORP	6.69
FN MA3685	FNCL	0.7	3.7	CA 23.5	TX 7.7	37.71	26.21	36.08 PENNYMAC CORP	14.04	WELLS FARGO BANK, NATIONAL ASSOCIATION	12.11
FN MA3709	FNCL	0.4	3.4	CA 17.7	TX 10.9	66.31	15.12	18.56 QUICKEN LOANS INC.	32.94	JPMORGAN CHASE BANK, NATIONAL ASSOCIATION	11.67
FN BP8590	FNCL	0.0	2.7	MN 12.9	WA 9.1	98.43	NA	1.57 U.S. BANK NATIONAL ASSOCIATION	100.00	NA	NA
FR RB5065	FNCL	0.3	1.2	CA 13.8	TX 5.1	76.10	11.00	12.90 LESS THAN 1%	46.23	QUICKEN LOANS, LLC	14.96
FR RA2893	FNCL	0.0	NA	MD 13.5	CA 12.7	72.39	11.54	16.07 LESS THAN 1%	26.91	AMERIHOM MORTGAGE COMPANY, LLC	7.68
FNR 2020-45 HB	HLTV PAC	0.0	0.0	CA 8.3	TX 7.8	76.97	7.32	15.71 NA	NA	NA	NA
FNR 2017-105 N	100% NY PT	56.7	1.1	NY 100.0	NA NA	41.15	28.80	30.06 NATIONSTAR MORTGAGE LLC	31.13	LAKEVIEW LOAN SERVICING, LLC	9.25

Source: FHN Financial and YieldBook

The Fed's current policy of holding the policy rate at near the lower bound through 2022 and announcing its plans to buy both Treasuries and MBS well into the future tells mortgage investors one thing: **it is safe to ignore the left side of the yield table.**

To be sure, **we do not advocate ignoring any risk**, but that Fed is essentially telling investors that it wants rates to remain very low for a very long period of time. It is also telling investors that it will keep the prices of mortgage assets very inflated. The only logical conclusion is that the risk of negative yields will only be greater, not less, in the months ahead.

If that is the case, the **main portfolio strategy must be to simply maintain a yield profile that is greater than the cost of funds.** Most investors' risk parameters look at performance in both a higher and lower rate environment, and that is as it should be. In fact, many investors still hold to the old up/down 300 bps view of risk management, even though that has not been the official view of the Federal regulators since 1998. But even though the potential for a higher rate environment should not be completely ignored, **the much bigger risk to the portfolio in the current environment is yield/carry erosion based on too-fast prepayments and too-high dollar prices.**

The analysis in Table 1 looks at all of the bonds in all of the scenarios, including the highly unlikely (in the US) outcome of negative policy and Treasury rates. But negative MBS and CMO yields are currently a fact of life. The job of the PM is to avoid those situations, if at all possible. Therefore, the analysis color coordinates the outcomes for OAS, convexity and yield in the dn50, base case and up50 scenarios to give investors a good idea of starting places.

Some of the bonds that perform well from a yield standpoint perform poorly in an up300 parallel state of the world that many investors are used to looking at. The bonds that would "fail" an FMED test (based on the YieldBook prepay model, in this case) are highlighted in dark red in the price and average life sections of the analysis. But investors need to ask themselves a VERY important question: **In the current state of the world, which is the greater risk over the next 6-12 month horizon? A 300 bps parallel shift higher in rates, or negative yields on my MBS and CMO assets?** We would argue that it is likely the latter.

Managing the portfolio to avoid negative yields is not something that most investors away from the derivatives markets are used to dealing with. However, that is the current reality. Investing in mortgage assets is **always** about understanding and putting a price on options that are sold back to the borrower. Due in large part to the actions of the Fed to spur economic growth during a time of global pandemic, mortgage investors are faced with familiar risks, but on a new level. This requires new ways of thinking about those risks.

### Appendix: Fannie Mae Major Pool Yield Analysis by Program and Coupon

Sector/Coupon	UPB	WAC	WAM	WALA	1mo CPR	3mo CPR	Price	Yield At	
								1mo CPR	YB Projection
FNCL	565,808,380,886	4.01	338	18	30.4	27.9	105.67	0.51	0.62
	2.00 14,883,728,085	3.03	357	1	0.6	0.0	102.44	1.81	1.23
	2.50 130,312,958,256	3.44	352	4	6.7	5.3	104.18	1.94	0.56
	3.00 180,224,062,897	3.83	337	19	26.0	23.2	105.79	0.94	0.28
	3.50 123,278,352,297	4.22	328	27	46.0	43.1	106.03	-0.36	0.81
	4.00 89,411,478,203	4.68	330	26	52.8	49.3	106.74	-1.10	0.93
	4.50 24,003,837,686	5.20	330	26	46.6	43.5	108.37	-0.83	0.87
	5.00 3,488,784,644	5.75	327	29	39.0	39.3	110.29	-0.35	0.77
	5.50 186,501,876	6.15	303	51	29.5	31.0	112.43	0.07	1.28
	6.00 15,429,284	6.51	270	78	11.9	18.5	116.73	0.75	0.87
FNCL	6.50 2,926,275	7.02	215	136	4.1	1.9	123.52	3.05	0.95
	7.00 321,383	7.46	213	135	0.4	0.2	121.81	4.29	2.23
FNCL	98,972,855,825	3.32	157	19	21.7	19.1	105.17	0.65	0.30
	2.00 16,198,269,236	2.74	172	7	3.4	2.0	103.70	1.36	0.31
	2.50 40,911,393,361	3.09	159	18	16.6	13.9	105.05	0.94	0.10
	3.00 27,811,920,888	3.54	150	26	29.1	26.4	105.81	0.34	0.38
	3.50 11,598,471,195	4.08	153	23	43.3	39.6	105.92	-0.44	0.69
	4.00 2,330,555,165	4.61	145	28	42.7	41.1	106.23	-0.18	0.99
	4.50 115,694,275	4.97	100	73	19.5	21.9	106.96	1.05	1.10
	5.00 5,500,159	5.45	49	127	6.2	18.4	105.92	1.48	1.22
	5.50 753,392	6.01	43	133	8.4	10.3	105.91	1.69	1.32
	6.00 264,154	6.46	42	136	2.8	2.5	106.11	2.25	1.61
FNCL	6.50 34,000	6.83	43	137	0.5	0.7	103.69	4.22	3.74
FNCT	90,674,595,899	3.86	191	45	23.5	20.9	106.44	0.76	0.75
	2.00 1,932,990,537	3.03	239	1	0.2	0.0	103.20	1.66	0.69
	2.50 14,860,165,400	3.34	224	14	9.5	7.7	104.37	1.63	0.39
	3.00 36,454,954,240	3.66	188	47	23.8	20.9	106.24	0.74	0.68
	3.50 20,906,743,184	4.07	180	55	29.9	26.5	107.09	0.39	0.93
	4.00 13,799,591,309	4.52	183	52	32.3	29.9	107.95	0.29	1.02
	4.50 2,413,273,894	4.99	139	93	21.4	20.3	109.95	0.72	0.90
	5.00 299,631,061	5.45	124	109	14.6	15.9	110.79	1.50	1.14
	5.50 6,640,411	5.95	118	116	7.4	10.3	111.61	1.94	1.52
	6.00 521,563	6.53	95	133	1.8	1.9	110.37	3.18	2.25
FNCL	6.50 84,300	7.00	74	138	3.0	2.9	109.23	3.22	2.52
FNJMCK	44,640,452,425	4.00	315	40	37.3	35.7	104.39	0.85	0.77
	2.00 163,519,192	3.06	359	1	0.4	0.0	102.44	1.82	1.22
	2.50 3,658,952,318	3.42	351	7	4.9	4.7	102.97	2.11	0.10
	3.00 22,453,954,382	3.78	313	41	35.6	33.3	104.48	0.77	0.35
	3.50 12,416,245,462	4.20	310	45	47.5	46.4	104.22	0.63	1.36
	4.00 4,721,241,702	4.72	314	42	45.9	44.5	104.86	0.78	1.57
	4.50 1,041,796,102	5.23	300	55	34.2	36.8	106.70	0.96	1.39
	5.00 177,526,870	5.49	271	83	21.1	22.4	110.12	0.95	1.06
	5.50 6,804,661	5.82	212	131	0.6	6.0	113.42	3.79	1.01
	6.00 411,736	6.38	228	132	0.0	0.0	111.67	4.62	2.71



Sector/Coupon	UPB	WAC	WAM	WALA	1mo CPR	3mo CPR	Price	Yield At	
								1mo CPR	YB Projection
FNCN	14,788,461,339	3.29	72	44	19.5	17.1	105.19	-0.14	-0.35
2.00	1,391,345,750	2.68	66	51	13.6	12.3	103.87	-0.24	-0.64
2.50	6,835,367,903	3.03	71	46	17.4	14.8	105.20	-0.36	-0.69
3.00	4,412,246,819	3.50	70	45	20.7	18.5	105.40	-0.02	-0.18
3.50	1,872,093,449	4.02	81	33	27.2	24.4	105.50	0.36	0.53
4.00	274,910,598	4.59	89	25	28.1	27.7	106.13	0.66	0.85
4.50	2,496,820	4.99	88	32	5.7	9.5	106.45	2.35	1.39
FNHLCQ	11,393,691,923	4.44	261	85	19.0	17.7	109.71	1.17	1.30
2.50	484,782	3.44	230	85	14.0	5.1	105.70	1.22	1.37
3.00	543,878,226	3.72	261	83	13.6	12.3	107.08	1.41	1.26
3.50	4,712,013,989	4.10	262	85	17.7	16.0	108.71	1.28	1.28
4.00	3,935,993,647	4.57	263	82	20.1	19.0	109.79	1.18	1.41
4.50	1,742,780,045	5.03	259	88	20.8	19.5	111.84	1.00	1.26
5.00	422,764,620	5.44	241	107	23.3	22.1	114.30	0.29	0.81
5.50	35,776,614	5.88	230	120	22.2	21.2	116.55	-0.65	0.44
FNHLCR	9,439,210,445	4.34	263	85	16.5	15.9	109.35	1.44	1.46
2.50	487,267	3.25	270	89	0.0	46.7	105.32	2.00	1.29
3.00	506,834,940	3.78	263	85	11.5	13.1	107.18	1.58	1.31
3.50	4,852,036,074	4.12	262	87	16.5	15.5	108.79	1.37	1.37
4.00	3,119,281,637	4.55	262	84	17.0	16.7	109.85	1.52	1.55
4.50	895,127,872	5.06	268	78	18.3	16.9	111.67	1.41	1.70
5.00	65,277,597	5.54	275	76	12.2	14.0	112.22	2.40	2.32
5.50	165,058	6.25	279	81	0.0	0.0	112.29	4.30	3.30
FNJMCJ	1,445,670,407	3.05	122	53	18.0	17.2	103.85	0.95	0.48
2.00	69,834,102	2.65	119	57	9.8	8.0	103.84	0.84	-0.24
2.50	1,163,985,016	2.97	125	50	19.7	18.2	103.85	0.91	0.41
3.00	148,528,697	3.48	114	61	13.7	16.1	104.07	0.79	0.87
3.50	54,400,797	3.96	92	83	5.9	10.4	103.29	2.29	1.59
4.00	8,115,362	4.59	118	60	21.1	15.3	103.67	0.79	1.81
4.50	806,433	4.85	48	127	3.1	2.7	103.27	2.65	1.90
FNHLCV	561,862,731	3.69	99	76	13.0	12.0	105.77	0.96	0.89
2.00	1,546,824	2.84	94	84	0.8	1.6	103.83	0.98	0.64
2.50	82,009,019	3.04	90	85	12.7	10.9	105.00	0.57	0.55
3.00	304,933,595	3.59	99	76	12.5	11.9	105.54	1.01	0.88
3.50	161,318,941	4.16	103	72	14.1	13.3	106.55	1.04	1.05
4.00	12,054,352	4.72	96	77	12.0	8.5	106.61	1.32	1.42
FNHLCW	405,318,313	3.70	93	81	13.3	12.8	106.03	0.83	0.79
2.50	44,487,383	3.08	88	86	4.0	9.6	104.95	0.98	0.56
3.00	230,549,300	3.54	92	82	15.5	13.1	105.90	0.67	0.70
3.50	113,574,453	4.12	97	76	11.6	12.7	106.52	1.18	1.01
4.00	16,707,177	4.73	98	76	19.5	18.0	107.37	0.42	1.23
<b>Grand Total</b>	<b>838,130,500,193</b>	<b>3.91</b>	<b>292</b>	<b>25</b>	<b>28.5</b>	<b>26.0</b>	<b>105.71</b>	<b>0.58</b>	<b>0.60</b>

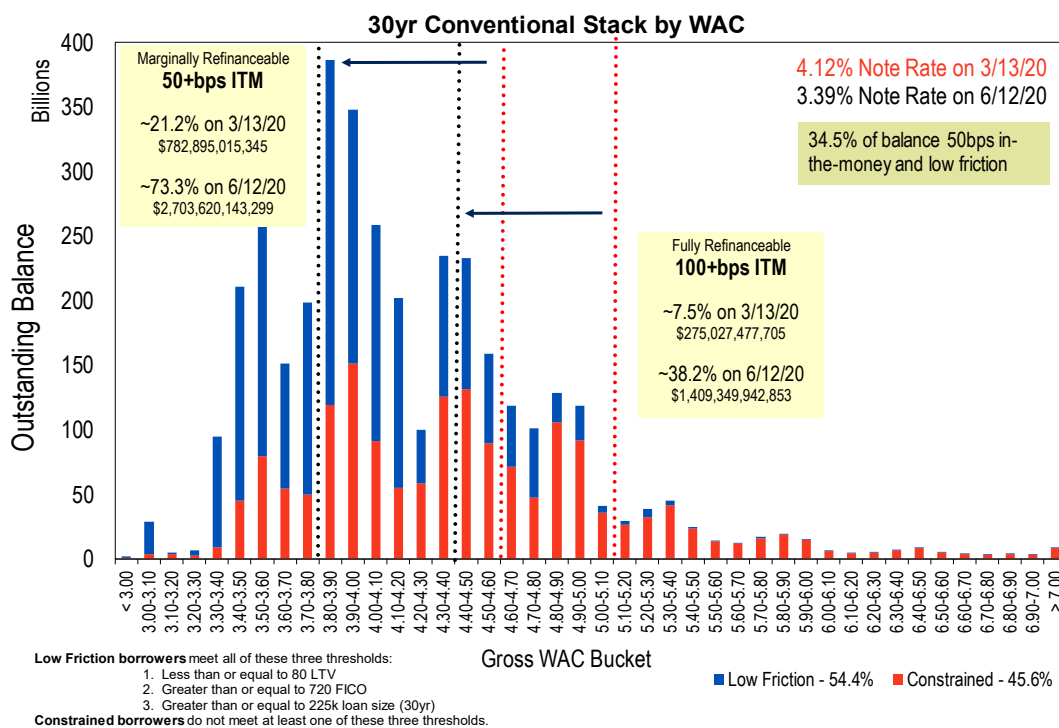
**Executive Summary:** The composition of the loans that printed faster-than-expected speeds in the May prepayment report signal that the market may be entering phase two of the refi wave. The report contains evidence that originators are shifting their attention away from more recent issuance to seasoned loans. Investors should consider a possibility of increased prepayment risk in seasoned, premium loans in the near term.

The 30yr primary mortgage rate according to Bankrate.com peaked this year at 4.12% on March 13<sup>th</sup>, just before the various Covid-19 state-level stay-at-home orders went into effect across the country. Since then, primary mortgage rates have fallen over 70bps to an average of 3.39% and \$1.8 trillion UPB in 30yr MBS have moved into-the-money.

Figure 1 illustrates that almost the entire current 30yr market is in-the-money (ITM). Each bar on the graph represents how much UPB is outstanding in each 10 basis-point Gross WAC bucket. **Currently, 73% of the universe is at least 50bps ITM. Most importantly, 34.5% of 30yr borrowers are able to refinance after taking into account potential sources of friction such as loan balance, LTV, and FICO.**

**Figure 1- Refi Landscape Before Stay-at-Home Orders vs. Today**

73% of 30yr MBS has at least 50bps of incentive.



Source: Bloomberg, CPRCDR and FHN Financial

The last three prepayment reports, March, April, and May, have all printed faster-than-expected speeds, showing essentially no COVID-19 related slowdown. In May, overall speeds were 2% slower in 30yr and 15yr conventional paper. Although the headline number was essentially unchanged, speeds were faster than the market expected. Most market participants expected speeds to slow 10-15% due to the combination of lower Refi Index readings for the May window and one fewer business day month-over-month. **The**

**key takeaway from the report is that speeds on recently issued loans decreased while seasoned loans remained unchanged or increased month-over-month, surprising to the upside. This signals a potential shift in the refinance market.** Below is an excerpt from the May FHN Financial Fixed Rate Agency Prepayment Report.

**Figure 2- May Speeds by Coupon**

### Monthly Prepayment Summary

Factor Report: May 2020

#### 30 Year UMBS by Coupon

30 Year UMBS by Coupon										CPR							
UMBS	Cpn	WAC	WALA	WAM	Factor	Wtd Avg Size (000)	No. of Pools	Current Balance (M)	% in CMO	Curr 1mo.	Prev 1mo.	1 mo. Chg	% Chg	1mo. 3mo.	Historical 6mo.	12mo.	Life
	2.50	3.44	6	350	0.956	329	4,160	315,991	3	6.7	9.6	(2.9)	(30.0)	11.8	9.9	9.5	3.6
	3.00	3.77	34	320	0.694	271	33,929	884,477	3	22.9	23.8	(0.9)	(3.7)	22.1	17.6	14.9	9.6
	3.50	4.15	45	308	0.515	237	68,763	750,789	3	36.0	35.8	0.2	0.7	33.4	26.1	21.6	14.6
	4.00	4.60	46	307	0.392	217	76,689	540,568	11	39.5	38.2	1.3	3.3	36.5	30.2	27.6	18.9
	4.50	5.06	53	300	0.244	194	55,701	223,991	24	33.0	31.9	1.1	3.2	31.0	27.3	25.8	20.2
	5.00	5.57	86	266	0.087	161	47,805	72,646	37	25.2	24.1	1.1	4.5	24.0	22.2	20.9	20.3
	5.50	6.01	163	185	0.026	111	60,093	29,290	53	16.7	14.6	2.1	14.4	15.4	14.7	14.4	22.1
	6.00	6.53	174	174	0.019	100	59,995	17,242	63	13.9	12.4	1.5	11.5	13.1	12.8	12.6	23.3
	6.50	7.02	189	159	0.011	78	46,081	6,665	73	12.1	9.7	2.4	24.5	11.2	11.1	11.2	22.7
	7.00	7.59	204	145	0.009	64	26,459	2,302	67	11.0	9.2	1.8	20.5	10.1	10.2	10.4	21.7
Total	3.49	4.19	42	312	0.554	246	479,675	2,843,961	8	28.4	28.6	(0.1)	(3.0)	27.3	22.2	19.5	13.4

Source: CPRCDR and FHN Financial

Speeds for higher coupons increased while speeds for lower coupons decreased last month.

In our *FHN Mortgage Strategies 2020 Annual Outlook*, we concluded “prepayments in 2020 will remain elevated until the 2018 vintage begins to burnout. If there is another massive rally in Treasuries this year, the 2019 vintage could potentially print even faster speeds than the 2018 vintage performed last year. Originators may focus their attention on segments of the market that have not participated in the first stage of the refi wave such as loans in 200k Max and 225k Max pools. In other words, the unexpected risk to prepayments remains to faster, not slower, speeds.”

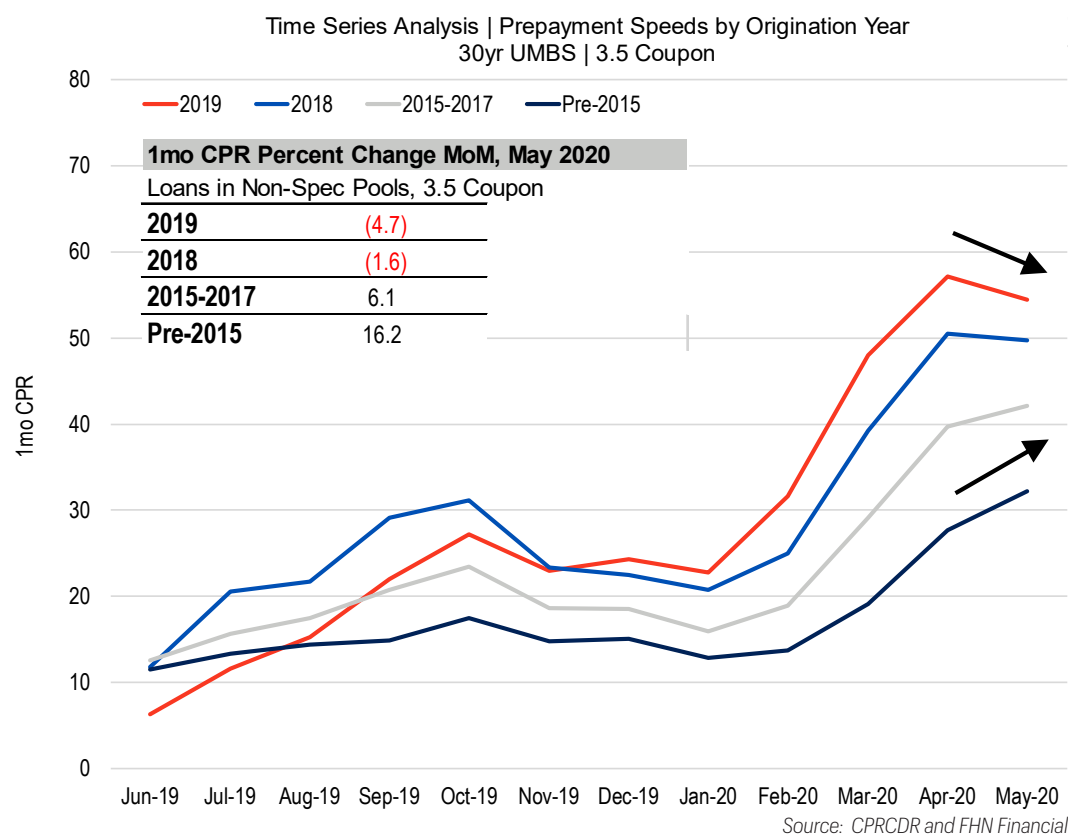
Six months later, in the aftermath of the truly unexpected, many of these points have materialized. Loans originated in 2018 are showing signs of burnout. Speeds for loans originated in 2019 are printing faster speeds than loans originated in 2018 ever did. Now, originators are shifting their focus to different segments of the market, specifically seasoned, premium loans.

Figures 3 and 4 display the 1mo CPR history for loans in non-spec, 3.5% and 4.0% pools. The four vintage categories displayed have very different collateral attributes. In general, 2018 and 2019 production have significantly higher WACs and worse convexity profiles than previous vintages. We predicted 2019 production would print even faster speeds than 2018 origination if primary rates decreased significantly, like they have. Loans issued in 2019 were especially responsive to rate changes due to their larger loan sizes, modestly higher LTVs, higher refi share, lower investor share, higher broker share, and higher appraisal waiver share.

Figure 3 displays the speed history for UMBS 30yr 3.5% pools. **Actual speeds for 2018 and 2019 production are still significantly faster than the other vintage categories due to the characteristics we reviewed. The month-over-month rate of change signals a potential shift in the refinance landscape.** Last month, speeds for loans originated in 2019 and 2018 decreased by 4.7%, and 1.6%, respectively. Speeds for seasoned loans originated between 2015 and 2017 increased by 6.1%. Significantly seasoned loans printed speeds

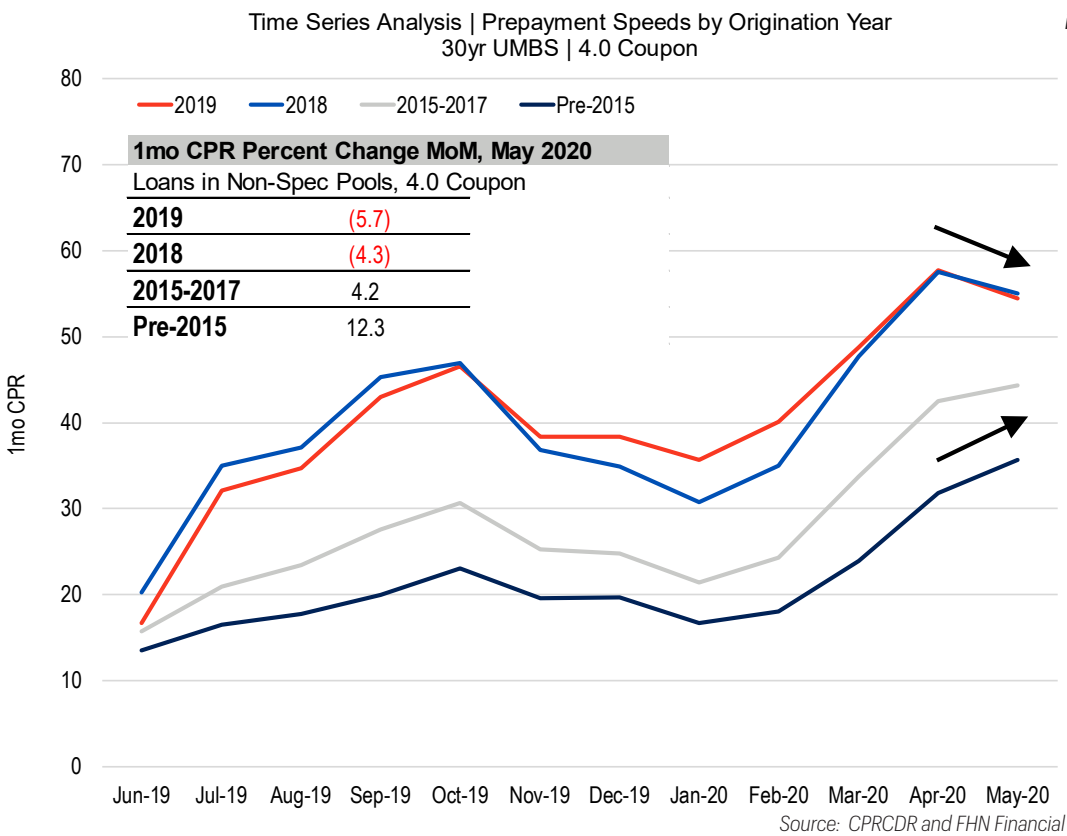
16.2% faster in May than in April. The initial surge in refinancing may be over for 2018 and 2019 production loans, which explains why the speeds decreased in line with one fewer business day in the month of May. Originators completed refinances for longer lag seasoned borrowers that locked in during March but did not close in April.

**Figure 3- 1mo CPR History, 3.5% Coupon**



The vintage-related directional trend holds up for all premium coupons. In 4.0% pools, speeds for recent issuance slowed down, by 5.7% for 2019 loans and 4.3% for 2018 loans. Seasoned loans increased by 4.2% and significantly seasoned loans increased by 12.3%. We did the same analysis for 4.5% and 5.0% pools and the changes month-over-month were similar. If this trend continues over the next few months, it would be a significant change for seasoned loans. During the past two years, investors preferred seasoned loans to new issuance due to its more stable speed profiles.

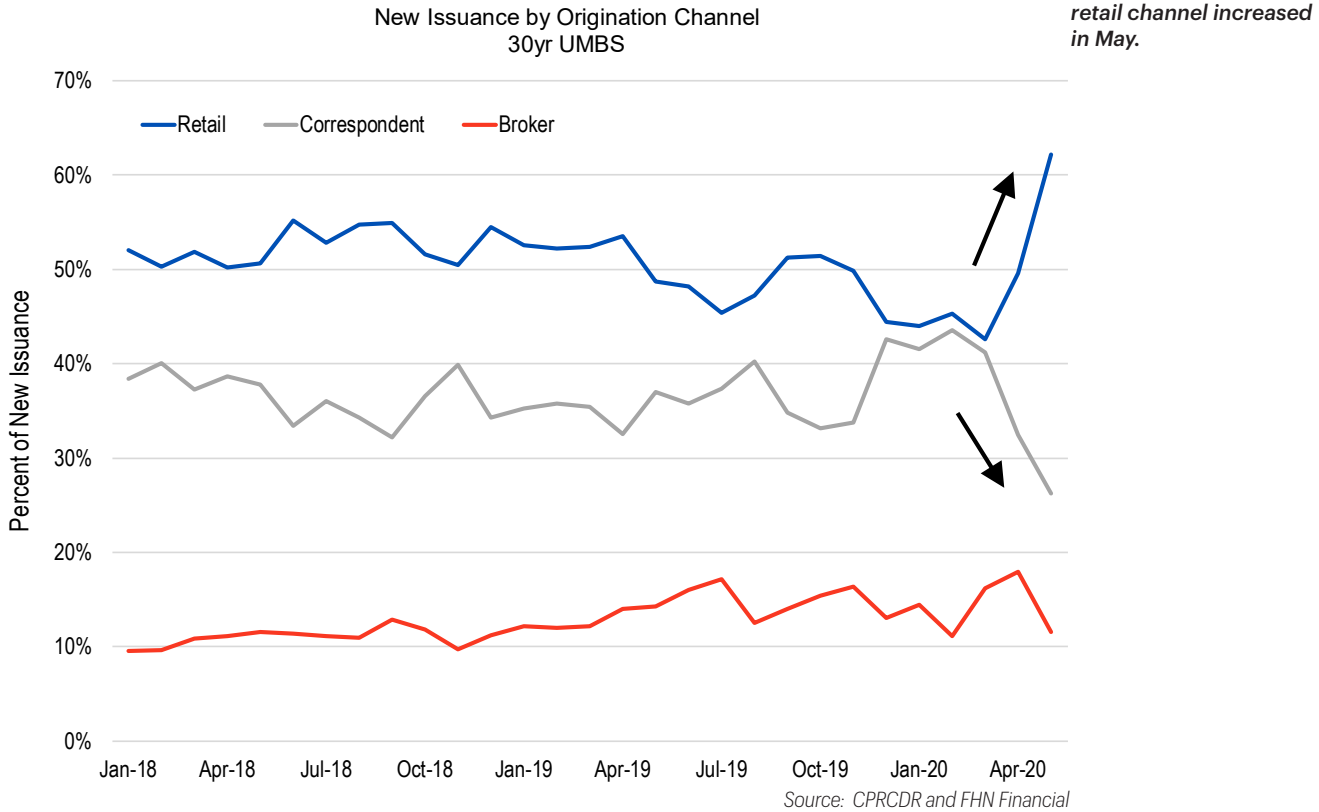
Figure 4- 1mo CPR History, 4.0% Coupon



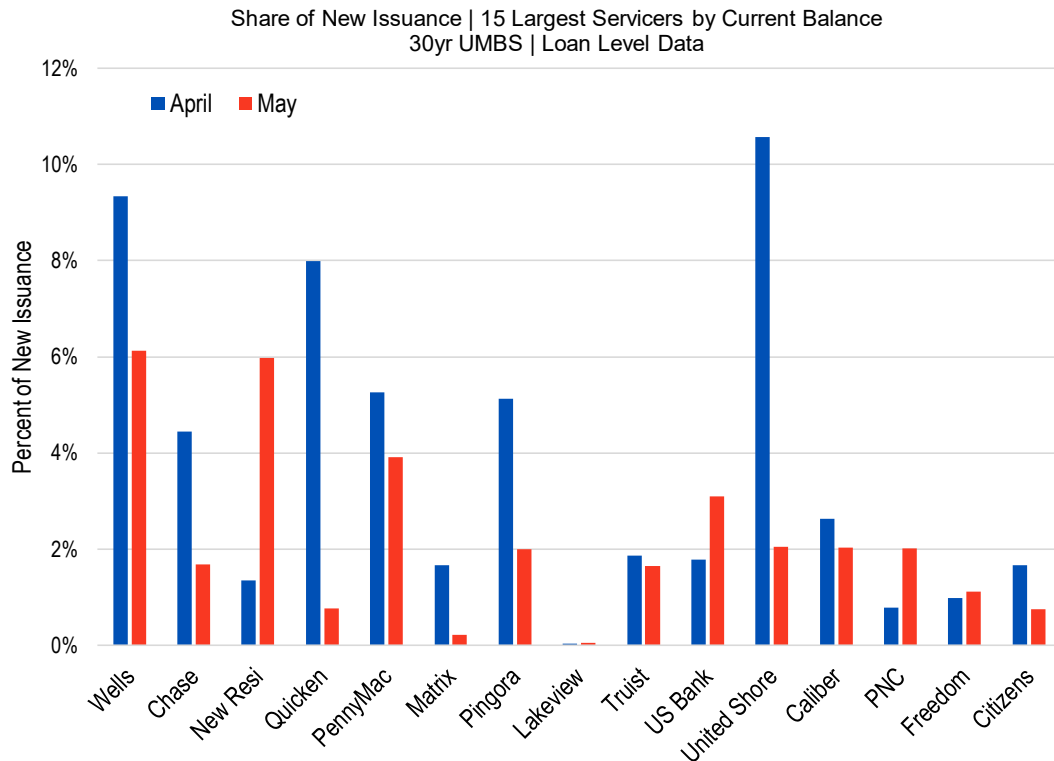
Last month as seasoned loan prepayments ticked higher, the retail channel surged in May to over 60% of new issuance. The increase in retail channel is likely a result of an increased media effect prompting seasoned borrowers to pursue a refi. The media affect might be a bigger factor in the current climate with more people working from home and the initial wave of Covid-19 in the rearview.

Typically, the retail channel produces slower life speeds, which would be a convexity advantage for loans issued in the 2H 2020 if the trend continues. On the other hand, loans issued in the 1H2020 have potentially the most negatively convex profile with the best credit profiles, highest levels of appraisal waivers, and large loan sizes.

Figure 5- Retail Channel Surged Last Month



The surge in the retail channel is not a result of traditional big banks, like Wells and Chase. Many of the big banks scaled back production due to economic uncertainty and credit concerns. Overall, gross issuance in May increased \$17b from April to \$254b, the highest level since 2009. Figure 6 shows that out of the fifteen largest servicers, ten lost significant market share in May. **In April, the fifteen largest servicers accounted for over 55% of all new issuance. In May, those servicers only accounted for 33% of new issuance.** Many smaller banks and non-banks incrementally increased their market share of monthly new issuance in May. For example, Regions Bank increased its new issuance market share from 0.4% in April to 2.2% in May.

**Figure 6- Monthly Market Share of New Issuance**


*The 15 largest servicers accounted for only a third of the new issuance last month.*

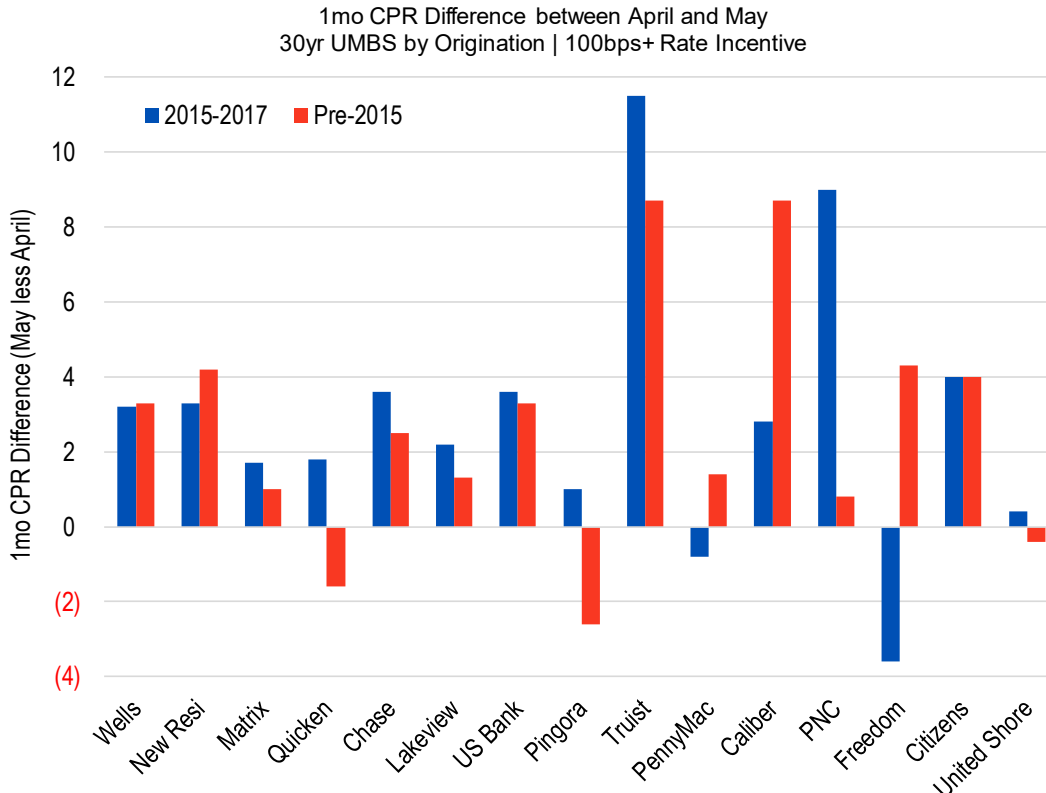
Source: CPRCDR and FHN Financial

### **Which servicers had the largest speed increases for premium, seasoned loans last month?**

The graph in Figure 7 shows the speed differences between April and May for seasoned loans with at least 100bps of incentive by servicer. The fifteen largest servicers are in order, largest current balance to smallest current balance, left to right. Wells servicers the largest balance of loans with 100bps+ incentive followed closely by New Residential. Bars that are above zero indicate that speeds were faster in May.

Speeds for loans serviced by Truist (BB&T and SunTrust) increased the most in May for both 2015-2017 issuance and pre-2015 issuance last month. Speeds picked up for pre-2015 loans serviced by Caliber and 201-2017 loans serviced by PNC.

**Figure 7- Monthly Market Share of New Issuance**



*Speeds on seasoned loans serviced by Truist, Caliber, and PNC increased the most in May.*

Source: CPRCDR and FHN Financial

In summary, we believe originators are shifting their focus to different segments of the market that have not participated in the first phase of the refi wave. Prepayment risk remains elevated due to exceptionally low interest rates and refi activity. If the vintage-specific speed changes identified in the May prepayment report become a trend, then seasoned, premium loans will carry slightly more prepayment risk in the near term. After originators work through the seasoned loans they will likely start to target the next most callable portion of the market, such as loans with lower loan balances.



## MBS Snapshot

			Change				52 Week		
		June 12, 2020	Z-Score*	Week	MTD	YTD	High	Low	Avg
<b>Prices</b>									
30 Year	3.0	105.39	1.8	0.19	0.19	6.47	105.84	100.28	102.39
	3.5	105.47	1.6	0.09	(0.06)	4.03	106.11	101.50	103.39
	4.0	106.34	1.5	(0.11)	(0.16)	3.47	106.94	103.11	104.53
	4.5	107.81	1.6	(0.13)	(0.47)	3.80	108.44	104.30	105.89
	5.0	109.63	2.2	0.00	0.22	4.33	109.63	105.33	107.33
	5.5	110.33	2.0	0.11	0.00	3.41	110.53	106.59	108.31
15 Year	2.5	104.84	2.0	0.33	0.19	3.91	105.05	100.34	101.85
	3.0	105.55	1.9	0.25	0.11	3.03	105.64	101.66	103.07
	3.5	105.56	1.7	0.09	0.02	1.75	105.73	102.88	104.09
	4.0	105.86	1.7	(0.39)	(0.09)	1.36	107.00	103.56	104.64
	4.5	105.72	2.2	(0.02)	0.56	2.91	105.86	101.89	103.50
	5.0	105.36	0.9	0.13	2.48	(0.41)	106.56	100.53	103.81
20 Year	5.5	110.20	1.4	(0.02)	0.00	3.36	112.00	98.25	104.82
	3.0	105.64	1.8	0.19	0.19	3.50	106.13	101.31	103.16
	3.5	105.72	2.6	0.09	0.00	1.80	106.13	101.31	103.16
	4.0	106.59	2.3	(0.11)	(0.09)	1.80	106.42	102.95	104.31
	4.5	108.06	2.6	(0.13)	(0.41)	1.95	107.03	104.14	105.27
	5.0	109.63	2.9	0.00	0.22	2.70	108.69	105.09	106.51
	5.5	110.33	3.0	0.11	0.00	2.52	109.63	105.42	107.30

<b>I-Spreads (UST)</b>									
30 Year	3.0	63.7	-1.6	(18.0)	(9.7)	-11.1	158.0	44.9	87.4
	3.5	87.3	-0.7	(11.0)	(1.4)	5.3	195.4	70.0	98.7
	4.0	89.4	-0.8	(8.6)	(0.5)	0.0	200.5	70.3	101.4
	4.5	80.5	-0.7	(6.1)	1.0	-3.6	212.1	60.8	93.7
	5.0	93.1	0.3	(6.4)	(8.2)	23.4	191.4	53.2	87.1
	5.5	143.1	1.2	3.1	(2.8)	55.5	174.5	51.0	102.6
	6.0	133.2	0.9	(5.5)	(5.2)	42.7	156.8	53.4	106.9
	6.5	201.7	0.8	4.0	(3.0)	69.3	226.2	96.0	174.2
15 Year	2.5	23.6	-1.8	(16.7)	(9.6)	-17.2	151.9	20.7	48.0
	3.0	38.0	-1.0	(12.5)	(7.4)	3.3	178.6	32.8	53.3
	3.5	62.4	0.5	(6.5)	(3.7)	23.5	175.3	27.4	52.7
	4.0	62.4	0.5	(3.2)	(0.3)	26.2	154.1	25.5	52.6

## Primary Market

<b>Mortgage Rates</b>							52 Week		
Conforming	30 Year	3.39	-2.6	(0.13)	(0.13)	(0.47)	4.12	3.37	3.72
	15 Year	2.85	-2.5	(0.02)	0.01	(0.56)	3.44	2.67	3.14
	5x1 Hybrid	3.14	-1.8	(0.05)	(0.11)	(0.35)	4.25	2.87	3.71

<b>Borrower Activity</b>							52 Week		
MBA Refinance Index		3,529	0.7	362	63	1,670	6,419	1,375	2,756
MBA Purchase Index		312	2.0	16	31	62	314	186	259

### Z-Score (12mo):

Green	1.0 standard deviation low price or high yield/spread
Yellow	Mean
Red	1.0 standard deviation high price or low yield/spread

## CMO Spreads

			Change				52 Week		
		June 12, 2020	Z-Score	Week	MTD	YTD	High	Low	Avg
<b>PACs</b>									
30 Year	2 yr	80	1.2	(6)	(8)	38	108	39	58
	3 yr	87	1.2	(5)	(7)	39	114	45	63
	4 yr	90	0.8	(14)	(16)	30	126	57	75
	5 yr	100	1.0	(11)	(13)	33	133	64	81
	7 yr	105	1.0	(8)	(11)	35	136	67	88
	10 yr	120	0.7	(10)	(13)	33	153	84	108
15 Year	2 yr	75	0.9	(11)	(13)	33	108	39	58
	3 yr	87	1.2	(5)	(7)	39	114	45	63
	4 yr	90	0.8	(14)	(16)	30	126	57	73
	5 yr	100	1.1	(9)	(11)	35	131	62	77
	7 yr	100	1.0	(8)	(11)	35	131	62	81
	10 yr	115	0.6	(13)	(16)	30	151	82	104

<b>Sequentials</b>									
30 Year	2 yr	80	1.2	(6)	(8)	38	108	39	58
	3 yr	87	1.2	(5)	(7)	39	114	45	63
	4 yr	90	0.8	(14)	(16)	30	126	57	75
	5 yr	100	1.0	(11)	(13)	33	133	64	81
	7 yr	105	1.0	(8)	(11)	35	136	67	88
	10 yr	120	0.7	(10)	(13)	33	153	84	108
15 Year	2 yr	75	0.9	(11)	(13)	33	108	39	58
	3 yr	87	1.2	(5)	(7)	39	114	45	64
	4 yr	90	0.8	(14)	(16)	30	126	57	73
	5 yr	100	1.1	(9)	(11)	35	131	62	77
	7 yr	100	1.0	(8)	(11)	35	131	62	81
	10 yr	115	0.6	(13)	(16)	30	151	82	104

<b>ARM (Z-spreads)</b>									
5x1 2/2/5	2.00	69	-0.2	(5)	(10)	15	124	50	74
	2.50	75	-0.2	(5)	(10)	15	130	56	80
	3.00	79	-0.2	(5)	(10)	15	134	60	84
	3.50	83	-0.2	(5)	(10)	15	138	64	88
7x1 5/2/5	2.00	77	-0.2	(5)	(10)	15	132	58	82
	2.50	83	-0.2	(5)	(10)	15	138	64	88
	3.00	93	-0.2	(5)	(10)	15	148	74	98
	3.50	101	-0.2	(5)	(10)	15	156	82	106
10x1 5/2/5	2.00	95	-0.2	(5)	(10)	15	150	76	100
	2.50	101	-0.2	(5)	(10)	15	156	82	106
	3.00	106	-0.2	(5)	(10)	15	161	87	111
	3.50	108	-0.2	(5)	(10)	15	163	89	113

\* YTM

\*\* Spreads calculated to 15 CPB.

<b>CMO Floater (Discount Margins)</b>									
Passthru	6.5 Cap	39	-1.7	0	0	(2)	70	39	48
	7.0 Cap	39	-1.2	0	0	2	70	39	45
Support	5.0 Cap	90	-0.6	0	0	(25)	125	85	94
	5.5 Cap	85	-0.3	0	0	(20)	120	75	88
	6.0 Cap	80	-0.3	0	0	(15)	115	70	83

## Alternative Markets

			Change				52 Week		
June 12, 2020			Z-Score	Week	MTD	YTD	High	Low	Avg
CMBS Spreads									
New Issue	3y	130	1.2	(5)	(15)	87	175	40	72
	5y	140	1.0	(5)	(15)	68	190	62	93
	7y	150	1.1	0	(6)	63	200	73	106
	10y	160	1.0	0	(8)	65	225	79	117
ACMBS									
Fixed (N-Spread)	7y	47	-0.4	(2)	(6)	0	100	39	51
	10y	50	-0.8	(2)	(6)	(3)	115	45	59
Floating (DM)	7y	41	-1.0	(1)	(4)	(10)	70	40	47
	10y	49	-0.6	(1)	(4)	(8)	80	44	54
RMBS 2.0									
AAA CC Price Drop	15yr	(2.00)	(1.63)	0.25	0.25	(1.50)	(0.50)	(2.25)	(0.92)
	30yr	(2.50)	(1.71)	0.25	0.25	(1.56)	(0.94)	(2.75)	(1.39)
Sprd to Swaps	Front SEQ	125	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Agencies									
Bullets	2y	5.5	0.4	(0.2)	1.1	5.6	19.1	(0.5)	3.9
	3y	7.9	0.3	1.3	(1.6)	2.6	25.9	1.5	6.5
	5y	19.3	1.1	(0.9)	(0.8)	16.0	31.3	3.1	10.1
	10y	28.4	0.1	(3.8)	(5.8)	6.5	63.8	18.4	27.8
Callables	5NC1	40.9	-0.2	3.9	(1.3)	13.2	95.8	27.0	43.9
	7NC1	49.3	-0.8	5.3	(1.8)	10.4	111.7	38.9	60.9
	10NC1	67.9	-1.2	(3.0)	(8.0)	(3.9)	134.1	67.9	86.1
	15NC1	84.3	-1.0	3.8	1.0	(2.3)	159.2	80.6	102.6

## MBS Index

			Change			52 Week		
			Week	MTD	YTD	High	Low	Avg
Static								
Price	107.33	1.8	0.12	0.05	2.91	107.43	103.07	105.02
Coupon	3.47	-2.1	0.00	(0.03)	(0.11)	3.67	3.47	3.57
Yield	0.91	-2.0	(0.27)	(0.05)	(1.56)	2.87	0.80	2.12
WAL	3.09	-1.8	(0.35)	(0.01)	(1.76)	6.25	3.00	4.35
Option-Adjusted								
Effective Duration	1.42	-1.7	(0.28)	0.02	(1.63)	3.86	1.34	2.38
Effective Convexity	-0.42	1.9	0.55	0.06	1.34	-0.29	-2.10	-1.40
LOAS (bps)	35	-1.0	(7.08)	(8.30)	(2.98)	153	14	48
Mix								
30YR	90.0%	0.5	0.0%	0.0%	0.1%	90.0%	86.9%	89.8%
15YR	10.0%	-0.5	0.0%	0.0%	-0.1%	13.1%	10.0%	10.2%

## Nominal Return

5 Day	0.17%
10 Day	0.02%
MTD	0.02%
QTD	0.37%
YTD	3.59%
12 Month	5.95%

Source: MTGINDEX data from the Yield Book.

## Specified Pool Carry and Breakevens

As of 6/12/2020

Coupon	Specification	Payup (ticks)	Price	WAC	WALA	1-Month Proj CPR ^	Cohort Hist. CPR 1mo 3mo	Carry (ticks)	B/E Months	YTM	WAL	Libor OAS	Effective Duration	Effective Convexity
3.0	TBA (Cheapest to Deliver)		101.266	3.70	51	23.3	4.9 5.7	0.33		2.54	3.43	166.23	3.26	-2.10
3.0	LLB 85k	119.5	105.000	3.51	44	13.9	7.4 7.5	-0.16	n/a	2.07	6.21	126.39	4.88	-0.82
3.0	MLB 110k	105.0	104.547	3.57	46	14.6	6.7 7.3	-0.06	n/a	2.09	5.73	126.00	4.41	-1.09
3.0	HLB 150k	72.5	103.531	3.51	45	15.4	5.9 6.8	-0.11	n/a	2.18	4.96	131.19	3.69	-1.62
3.0	175k Max	57.0	103.047	3.67	48	17.4	5.7 6.6	-0.02	n/a	2.21	4.46	135.23	3.42	-1.67
3.0	200k Max	20.0	101.891	3.68	47	18.4	4.9 6.0	0.14	n/a	2.46	4.18	158.15	3.51	-1.75
3.0	New Wala	0.1	101.270	4.15	19	46.8	0.1 0.0	-1.33	n/a	2.38	2.50	153.78	2.60	-1.88
3.0	20yr	8.0	101.516	3.61	46	24.5	5.1 5.6	-0.02	n/a	2.42	3.15	177.33	2.84	-1.25
3.0	Conv. Jumbo (CK)	-55.0	99.547	3.77	47	37.6	3.8 4.0	0.49	n/a	3.15	2.18	215.18	3.42	-3.21
3.0	100% Investor	15.0	101.734	3.92	50	19.3	4.9 4.9	0.54	71.1	2.46	3.86	154.90	3.40	-2.26
3.5	TBA (Cheapest to Deliver)		102.469	4.07	40	32.7	7.3 8.0	-0.25		2.58	3.21	179.92	2.62	-1.41
3.5	LLB 85k	189.5	108.391	4.02	35	14.1	6.5 7.2	0.10	539.9	1.85	5.75	106.49	4.07	-0.98
3.5	MLB 110k	157.5	107.391	4.05	38	17.8	6.9 7.4	0.10	455.2	1.90	5.22	110.90	3.51	-1.19
3.5	HLB 150k	129.0	106.500	4.03	30	20.5	6.3 7.0	0.27	252.0	1.86	4.45	107.13	2.67	-1.36
3.5	175k Max	106.0	105.781	3.96	49	21.3	6.1 6.5	0.28	201.1	1.93	4.15	117.49	2.60	-1.32
3.5	200k Max	56.0	104.219	3.95	33	24.7	3.5 4.9	0.46	79.5	2.20	3.73	141.40	2.44	-1.50
3.5	New Wala	17.0	103.000	4.62	18	65.5	2.7 2.7	-4.79	n/a	1.17	1.42	81.77	0.53	0.52
3.5	20yr	8.0	102.719	3.99	41	32.0	5.5 6.2	-0.98	n/a	2.42	2.92	183.01	2.35	-0.78
3.5	Conv. Jumbo (CK)	-62.0	100.531	4.30	49	47.1	5.5 4.9	-0.64	n/a	3.15	2.28	239.21	2.80	-1.72
3.5	100% Investor	38.0	103.656	4.19	50	25.4	5.6 6.3	0.49	51.6	2.21	3.24	145.72	2.28	-1.58
4.0	TBA (Cheapest to Deliver)		103.672	4.48	35	35.4	6.6 7.1	-0.83		2.63	3.13	193.34	2.30	-0.85
4.0	LLB 85k	232.5	110.938	4.40	35	17.4	8.4 8.7	-0.07	307.5	1.73	5.38	98.71	3.53	-0.86
4.0	MLB 110k	195.5	109.781	4.39	33	21.0	7.4 8.3	-0.04	249.7	1.74	4.81	99.79	2.81	-1.06
4.0	HLB 150k	130.0	107.734	4.43	38	26.6	7.2 7.9	-0.45	344.8	1.86	4.04	115.84	2.24	-0.88
4.0	175k Max	99.0	106.766	4.38	49	23.5	7.0 7.7	-0.17	151.1	2.08	3.98	140.16	2.46	-0.91
4.0	200k Max	60.0	105.547	4.39	36	28.9	5.0 5.6	-1.04	n/a	2.11	3.32	146.21	1.90	-0.86
4.0	New Wala	19.0	104.266	4.91	19	45.5	3.6 3.4	-0.64	104.4	1.96	2.33	145.32	1.81	-0.04
4.0	20yr	8.0	103.922	4.40	37	33.6	7.3 8.3	-0.36	17.0	2.42	2.83	189.11	2.13	-0.38
4.0	Conv. Jumbo (CK)	-87.0	100.953	4.66	39	51.9	8.7 7.5	-1.23	n/a	3.39	2.11	272.34	2.27	-1.02
4.0	100% Investor	37.0	104.828	4.64	40	33.0	7.2 7.5	-0.95	n/a	2.07	2.82	148.26	1.60	-0.74
4.5	TBA (Cheapest to Deliver)		105.219	5.14	21	37.5	9.8 10.0	-1.14		2.42	2.87	185.08	1.83	-0.30
4.5	LLB 85k	250.0	113.031	4.93	33	21.7	8.1 9.1	-0.24	276.9	1.78	5.37	106.84	3.50	-0.70
4.5	MLB 110k	207.5	111.703	4.88	41	22.6	9.2 9.4	-0.91	906.1	1.73	4.69	104.81	2.63	-0.76
4.5	HLB 150k	132.0	109.344	4.94	40	23.7	8.3 9.3	-0.41	180.8	2.03	4.26	137.48	2.42	-0.71
4.5	175k Max	103.5	108.453	4.83	53	26.2	8.0 9.0	-0.48	155.6	2.11	3.97	150.10	2.44	-0.53
4.5	200k Max	60.0	107.094	4.88	37	30.9	12.8 4.6	-1.41	n/a	2.13	3.36	156.42	2.02	-0.33
4.5	New Wala	15.0	105.688	5.37	19	49.6	4.3 3.7	-1.26	n/a	1.79	2.31	134.87	1.74	0.29
4.5	Conv. Jumbo (CK)	-131.0	101.125	4.90	47	40.6	6.9 8.9	1.74	n/a	4.08	3.67	336.86	3.62	-0.70
4.5	100% Investor	28.0	106.094	4.84	49	33.5	8.8 9.4	-0.54	46.7	2.46	3.42	185.68	2.06	-0.69

^ Source: FHN Financial, Yieldbook

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