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North America Credit Research
08 April 2022

MBS relative value 101 for corporate investors

QT is making MBS a more competitive alternative to Corps. We explain how a Corp investor should look at MBS

- The FOMC minutes this week brought to the fore again the prospect of MBS sales, putting further pressure on mortgage spreads. This is a theme we discussed earlier this year here as being a threat to HG spreads in the sense that it should put a floor on high quality, shorter duration bonds where MBS could be a viable alternative.
- In this note, we take a more practical approach to how a corporate investor can assess relative value between the two markets. In particular, we highlight that the traditional manner of comparing MBS OAS spreads to Corporate OAS spreads is perhaps a flawed comparison in a period of sustained rising rates. A more apt comparison is to compare Zero Volatility spreads (or ZV spread) on the MBS side to the Z-spread on the corporate side.
- Looked at in this manner the spread gap between MBS and Corporates shrinks dramatically. Put another way, if you assume a 1-year holding period time horizon and make the admittedly simplistic assumption that rates are highly unlikely to drop materially over that time period then the yield on current-coupon MBS is quite comparable to the yield on offer for similar duration 5-10yr corporates and thus it is logical that the spreads should be too.
- Looked at through this prism, selling HG Corps to buy MBS is to trade credit risk (that credit spreads widen) for rate risk (that rates go lower). After the significant recent rally in HG and staring into an acceleration of Fed tightening, this trade makes a lot of sense to us from a tactical perspective. We lay out how to compare the two markets on a practical level and show a number of relative value trades along these lines.

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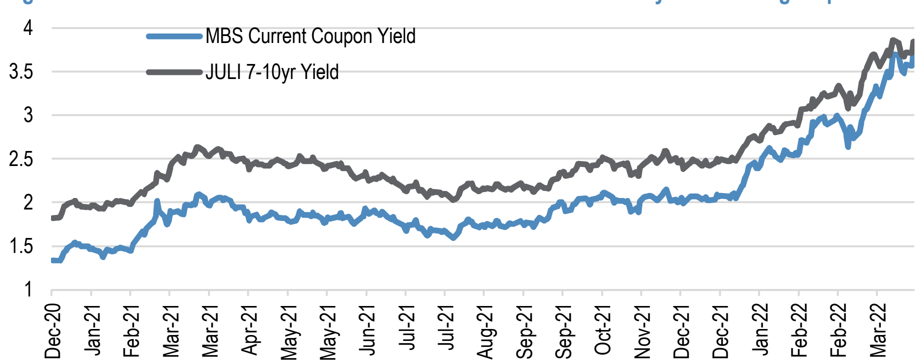
Figure 1: Never the Twain Shall Meet? First time since 2007 that MBS yield has caught up to HG



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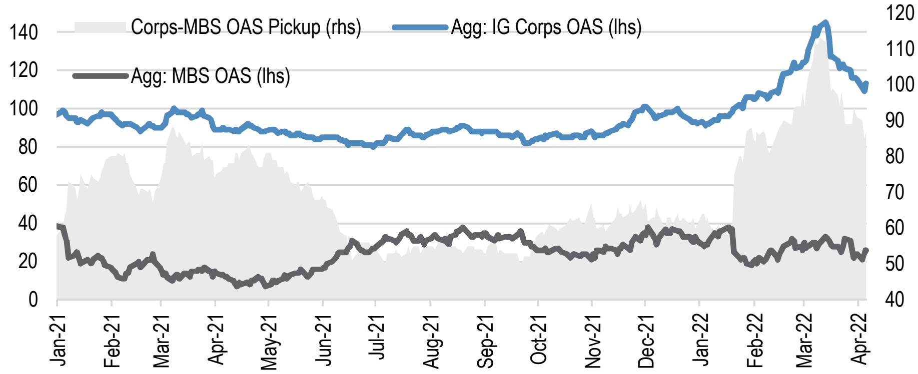
All spreads are not created equal in MBS-land

Historically, many investors who invest amongst Agg-centric asset classes (e.g. Treasuries, securitized and corporate debt) have come to rely on option-adjusted spreads (OAS) as the spread of choice to compare the various products. Judging by this metric, IG Corps still offer a nearly 90bps pickup versus MBS at the index level (Figure 2). Thus, judging by this differential it's hard to make the case that one should be moving from Corps to MBS and quite easy to make the case that an investor who is long corporates and short MBS is likely to outperform the Agg on an excess return basis.

Figure 2: The usual way of comparing MBS to Corps: OAS vs. OAS - Is this wrong nowadays?



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Corporate investors will tend to refer to OAS and Z-spreads (to the swap curve) or G-spreads (to the UST curve) somewhat interchangeably given that the vast majority of corporates are bullet maturities and thus the only option that in many cases needs to be accounted for is the 3m/6m par call just prior to maturity, which inherently has very little value in spread terms. As such, the OAS is almost entirely driven by the credit risk component and not interest rate risk which in turn makes it easily comparable to other spread measures. <u>However, this couldn't be further from the truth in MBS-land</u>: An MBS investor is selling a series of daily options from the time of purchase until maturity that the mortgage holder will prepay their mortgage either when they move or refinance at a lower rate. The MBS OAS attempts to model for this behavior given a distribution of potential interest rate paths and the ensuing effect on prepays or essentially what is your excess spread once the investor accounts for interest rate risk.

But what if you assume that rates are very unlikely to go sharply lower over the extent of a set holding period, for example 1 year? In other words, unlikely to deviate from the path set out by the current forward curve. In this case, the OAS is a highly imperfect measure of the risk you are in fact taking since the vast majority of the options the MBS holder sold are worthless. Perhaps in this case a fairer, but still imperfect comparison, is pitting corporate spreads against mortgage ZVs. This implicitly assumes that the future state of the world turns out rosily for both products; a benign credit environment leads to no defaults or downgrades and interest rate volatility doesn't occur. Below, we show this comparison; as you would expect, the difference between these two measures is quite stark in MBS when you compare OAS to ZV spreads versus quite similar in Corps when you compare OAS to Z-spread to the same UST curve as ZV is calculated to (which is otherwise known as the G-spread too):

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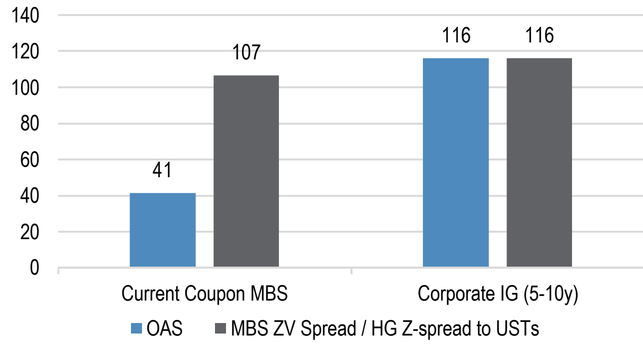
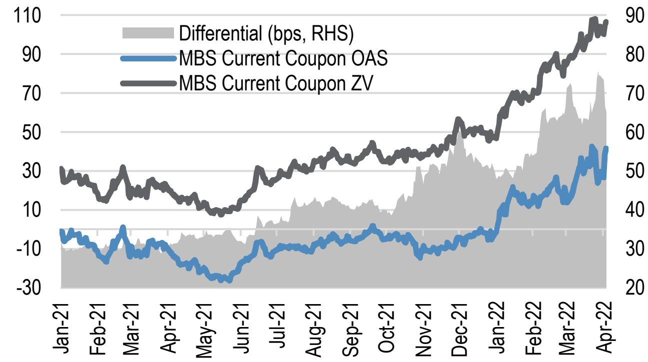
Figure 3: Z Spread vs. OAS: Doesn't matter for bullet-bond HG vs. quite 'spread' apart for MBS



Source: J.P. Morgan.

Figure 4: This distinction is important: MBS ZV vs OAS differential has been growing

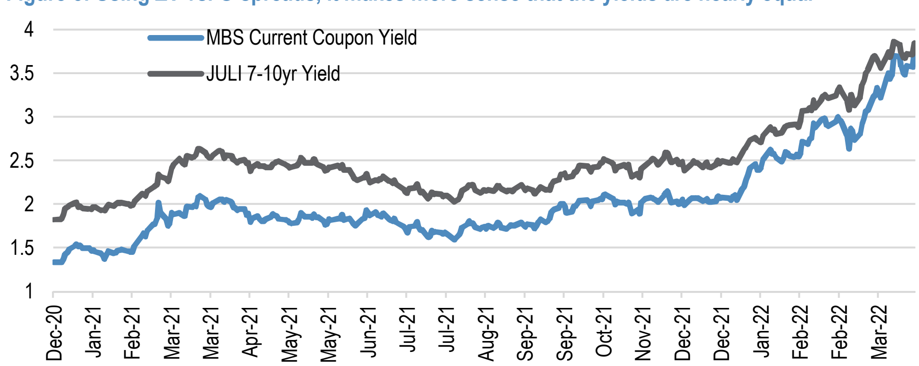


Source: J.P. Morgan.

Not only is this differential quite wide now but it has also grown a fair bit having more than doubled from 31bp a year ago to 66bp today. This is a direct result of the flatter UST curve and higher interest rate volatility all serving to increase the mortgage option cost that OAS accounts for and ZV does not. What this means for a HG corporate investor is that compensation on offer for taking interest rate risk in MBS has increased significantly since the Fed began its rapid march towards tighter policy.

Thus, tying it all together, that yields on current coupon MBS are now essentially equal to that of 7-10yr HG is far more sensible when thinking about it in terms of ZV vs Z-spreads rather than in OAS terms. We chose to compare Current Coupon MBS to 7-10yr Corps in this instance because if we are to assume the 'ZV path' is more likely than the 'OAS path' then the duration of the MBS is going to be moderately longer, with a strong risk of further extension if UST yields were to rise further (e.g. as yields rise, prepays go down and people are less likely to move as well). This is another way of saying that convexity is negative for MBS versus positive for Corps so choosing longer-dated corps as the starting point for our comparison is fairer than the 3-5yr corps MBS are typically compared to if we are assuming that rates follow the path set out by the forward curve rather than the random-walk implicit in OAS.

Figure 5: Using ZV vs. G-spreads, it makes more sense that the yields are nearly equal



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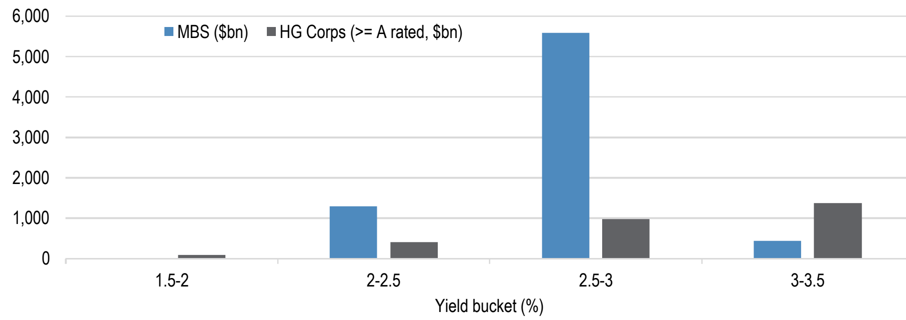
A mini primer on looking at MBS from a HG perspective

Firstly, when looking at the MBS index relative to corporates we note that the mortgage market is somewhat bifurcated in that the vast majority of existing outstandings are by definition not current coupon. As well, as a result of QE there is a decent sized yield gap between current coupon and off-the-runs. Below we show the distribution of the full MBS index relative to the A and above segment of the HG market. We exclude BBBs from this analysis given that MBS is treated as though it is AAA-rated since agency MBS is either implicitly or explicitly backed by the full faith and credit of the US government. While most of the MBS index yields between 2.5% and 3% currently, there is still about $450bn worth of MBS yielding >3%, which is the part of the market that is obviously most in competition with high-quality HG at the moment.

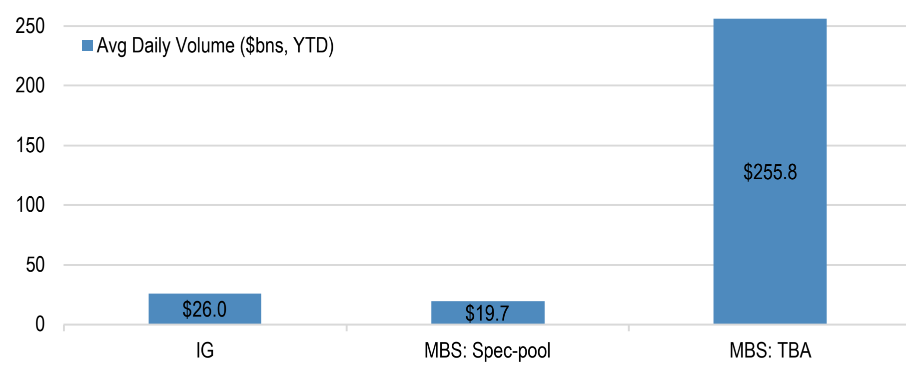
Figure 6: The yield overlap between both markets is set to grow further



Source: J.P. Morgan.

Secondly, in thinking about MBS as a tactical trade for HG investors to toggle in and out as a function of spreads and rates, liquidity becomes a key consideration. MBS liquidity is far superior to HG, with an average of $20bn and $256bn trading per day YTD across spec-pools and TBAs, respectively, vs. $26bn/day in the entire HG corporate market. Spec-pool liquidity is obviously far more concentrated in current coupons since for now the Fed and banks own the vast majority of off-the-runs.

Figure 7: HG Corporate and Spec Pool liquidity is comparable, but dwarfed by TBAs



Source: J.P. Morgan.

Given this liquidity profile, we believe there is room for HG corporate investors to tactically utilize the MBS market at the moment as an alternative investment. This is especially true if one is of the view that a) interest rates are very unlikely to go materially lower over the holding period b) that corporate spread may widen over this same holding period. A good example of this is of course the YTD period:

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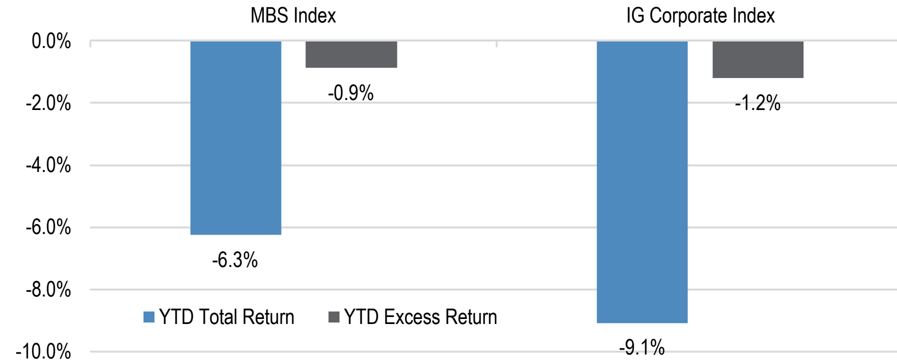
Figure 8: YTD Returns: MBS has outperformed Corps



Source: J.P. Morgan estimates, Bloomberg Finance L.P.

How to keep an eye on MBS levels in real-time?

Below, we show how a HG corporate investor who is unfamiliar with the mortgage market can easily track current MBS yield and spread levels to make informed relative value trading decisions.

The first step is to determine what the current coupon MBS level is. For this, we suggest using the MTGEFNCL Index on Bloomberg. The current value of 3.79% implies that current coupon MBS is either 3.5% or 4%.

The simplest way to observe real-time yield/spread levels for the current coupons is via the TBA market. The TBAs are futures contracts that accept delivery of any bond of a particular agency/term/coupon combination. For example, only Fannie/Freddie issued 30yr 3.5s are good delivery for the FNCL 3.5 contract. The market figures out the value of that contract by assuming that the seller will find the bond with the most unfavorable characteristics, or the 'worst-to-deliver.' Bloomberg then estimates the yield/OAS/etc. of that deliverable assumption.

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Figure 9: TBPF monitor for TBA pricing across the MBS coupon stack

Agency FN · Settle G0 · View Yield/Spread

30yr TBAs	Bid	Ask	Chg	Swap	Treas	W/W/W	Prepay	Yield	WAL	I	A	N
FNCL 1.5	87-12+	14+	- 05¾	+ 02¼	+ 03	2.49(345)12	98 PSA	3.11	9.75	46.12	46.40	42.55
FNCL 2.0	90-25	27	- 12¼	- 03⅜	- 02¼	2.95(356)2	104 PSA	3.13	10.17	47.88	48.55	44.77
FNCL 2.5	93-23+	25	- 07+	+ 00⅛	+ 00⅞	3.37(357)1	118 PSA	3.30	9.77	65.14	65.38	61.54
FNCL 3.0	96-17+	18+	- 04	+ 02¼	+ 03⅜	3.79(358)1	140 PSA	3.47	9.06	80.42	82.37	78.33
FNCL 3.5	99-01+	03	- 01¾	+ 03⅛	+ 03⅞	4.21(359)1	180 PSA	3.63	7.91	93.83	91.60	93.80
FNCL 4.0	101-01	02+	- 00¼	+ 04⅜	+ 05⅜	4.89(322)33	256 PSA	3.72	5.19	102.64	102.90	98.91
FNCL 4.5	102-25+	27	+ 02	+ 06	+ 06⅝	5.32(314)40	305 PSA	3.71	4.45	103.30	102.14	95.69
FNCL 5.0	104-13+	16	- 02¼	+ 00⅛	+ 00⅝	5.75(312)42	334 PSA	3.69	4.10	101.44	99.54	91.81
15yr TBAs						W/W/W	Prepay	Yield	WAL	I	A	N
FNCI 1.5	93-06	13	+ 01+	+ 06⅞	+ 07⅝	2.25(178)2	129 PSA	2.76	5.88	6.11	7.26	4.75
FNCI 2.0	95-17	18	- 03¾	+ 00+	+ 01¼	2.64(178)1	143 PSA	2.85	5.79	14.95	15.99	13.27
FNCI 2.5	97-18+	20	- 03+	- 00⅞	- 00¼	3.05(177)1	177 PSA	2.97	5.43	27.73	28.31	24.83
FNCI 3.0	99-22	24	+ 00	+ 01¾	+ 02¼	3.56(126)47	200 PSA	3.04	3.75	37.42	39.18	26.12
FNCI 3.5	101-11	12	+ 00+	+ 00⅞	+ 01¼	4.11(130)42	216 PSA	3.05	3.74	38.15	39.88	26.78
FNCI 4.0	102-11	12	- 00+	- 00¼	+ 00⅜	4.66(130)42	266 PSA	3.17	3.41	51.62	52.65	38.88
FNCI 4.5	100-04	05	+ 02+	+ 01¾	+ 01⅝	4.88(31)145	389 PSA	4.11	1.12	227.73	239.49	195.15
FNCI 5.0	99-21	22	+ 02¼	+ 02⅜	+ 02	5.53(20)158	376 PSA	5.01	.80	349.50	328.55	316.75

Treasury · FNMA to Govt/Swap Spread · Swap Rates

Tsy	Price	Chg	Yld	Chg	/Govt	Chg	/Swap	Chg	Swap	Chg	Sprd	Chg
2y	99-19+	0-01	2.46	-.01	-40.49	2.12	-9.96	.31	2.70	-.01	23.38	.38
3y	97-16	0-01	2.64	-.01	-11.97	-.55	-19.13	-.76	2.80	-.02	14.71	-.58
5y	99-04+	-0-00+	2.69	.00	.10	-.97	-7.88	.47	2.74	.00	4.51	-.40
10y	93-12	-0-12	2.64	.05	22.74	-1.28	18.25	-.27	2.68	.04	3.94	-.38
30y	91-00	-1-08	2.69	.06	.00	.00	20.10	.12	2.50	.08	-19.43	1.36

Source: J.P. Morgan estimates, Bloomberg Finance L.P.

From the TBPF screen, one can click through to the Bloomberg's representative 'worst-to-deliver' assumption, and then load the OAS1 screen, which allows for an easy comparison of OAS vs. ZV spreads. This 'generic' is not a tradeable security, but has the characteristics of real securities that could plausibly be delivered into the TBA. An investor can also load up real tradeable spec pools with CUSIPs in this OAS1 screen. In many cases, MBS investors will pay a price above TBA (a 'pay-up') to get a particular CUSIP, or specified pool, instead of exposing themselves to the adverse selection of the TBA contract.

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Figure 10: OAS1 for the Current Coupon TBA

Source: J.P. Morgan estimates, Bloomberg Finance L.P.

To close, we show below ten illustrative matched-duration swaps out of lower yielding A-rated and above HG corps into spec-pool MBS where an investor can pick up yield and spread in ZV vs. G terms:

Table 1: Illustrative trade ideas out of HG Corps and into MBS

MBS Spec-Pool	Yield	Modified Duration	ZV-Spread	OAS	HG Corp Bond	Yield	Modified Duration	G-Spread	OAS	MBS Pickup ZV vs. G.	MBS Pickup OAS vs. OAS
FN MA4580	3.64%	6.5	96	24	PEP 2 5/8 07/29/29	3.22%	6.5	45	44	**51**	**-20**
FN MA4600	3.64%	6.5	96	22	HON 2.7 08/15/29	3.29%	6.6	53	52	**43**	**-30**
FN CB3411	3.63%	6.7	95	23	WMT 2 3/8 09/24/29	3.22%	6.7	46	45	**49**	**-22**
FR RA7191	3.62%	7.2	93	33	CAT 2.6 04/09/30	3.24%	7.1	50	48	**43**	**-15**
FN CB3412	3.47%	7.2	78	30	PFE 1.7 05/28/30	3.24%	7.4	50	49	**28**	**-19**
FN MA4644	3.79%	5.1	112	28	V 0 3/4 08/15/27	2.8%	5.2	4	3	**108**	**25**
FN CB3318	3.65%	6.5	96	40	CVX 3 1/4 10/15/29	3.32%	6.5	56	54	**40**	**-14**
FN CB3382	3.73%	7.6	103	45	JNJ 1.3 09/01/30	3.11%	7.8	38	37	**65**	**8**
FN CB3380	3.8%	5.7	112	33	TGT 3 3/8 04/15/29	3.22%	5.9	45	42	**67**	**-9**
FN CB3381	3.74%	6.2	105	35	WMT 3 1/4 07/08/29	3.14%	6.2	37	35	**68**	**0**

Source: J.P. Morgan estimates, Bloomberg Finance L.P.

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Completed 08 Apr 2022 11:13 AM EDT Disseminated 08 Apr 2022 11:21 AM EDT
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