AllianceBernstein®

April 2020

Market Update – Daily Fixed Income Trading Liquidity Update 24 April 2020

In the current markets, volatility is at an extreme level and liquidity has become significantly reduced across many fixed income instruments including government bond markets. Liquidity management has been a heightened focus for AllianceBernstein for years, as we recognized the reduced liquidity in the marketplace after the 2008-2009 financial crisis. We view liquidity management as a business imperative.

In an effort to provide timely updates for our clients on fixed income market trading liquidity, we have developed the following update, aggregated from our traders towards the end of the New York trading day.

Sector	Liquidity Trading Comment	Bid-Ask Spreads
US Treasuries	• The open-ended bond purchase program enacted by the US Federal Reserve (Fed) is having a positive effect on liquidity and market functionality. The Fed has reduced their purchases of US Treasuries to $10bn per day during the week of April 27 (from $15bn per day the week of April 20). • The big recent improvement has been in Treasury market depth, which had fallen by as much as 90+% in the worst of the crisis in March but has recovered to 55-65% of the average depth over the last year. • Rate volatility continues to fall and there continues to be good "two-way" trading in the market. • While still relatively liquid in most contracts, depth in the Treasury futures market is also much lower vs historical averages. Trading in "ultra" contracts is challenging. • The TIPS market found support on Thursday following a $17bn new 5-year TIPS auction that provided a lift to breakevens and erased the oil-driven weakness from earlier in the week. But liquidity remains worse due to the oil selloff and Fed tapering—on-the-run 10-year TIPS can be moved at 2-3 tick wide bid/offer spreads but liquidity in off-the-run bonds and longer-maturity bonds can be 3-6x as wide.	Bid-offer spreads for on-the-run benchmark 2- through 10-year US Treasury notes has improved significantly and are in line with pre-crisis conditions. For the 30-year note, bid/ask is ~2.5x wider vs pre-crisis. Off-the-run Treasury bonds still trade significantly wider than on-the run bonds, but bid/offer has compressed.
Investment Grade (IG) Corporates	**US IG** • As the week ended on April 24, US IG cash bonds had recovered some of the move wider from earlier in the week. Performance was mixed on a week-over-week basis and higher-beta issuers slightly outperformed.	US IG spreads are generically 4-5x wider vs normal market conditions AT1/Preferreds are 4-5x

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<tr><th>Sector</th><th>Liquidity Trading Comment</th><th>Bid-Ask Spreads</th></tr>
<tr><td></td><td>New issue supply picked up at the end of the week, but this week's supply was lighter than what we've seen in the past 4-5 weeks. A good amount of supply this week was from US banks ($12.5bn out of $35bn). Demand was less robust for high-quality deals, but remained very strong for high-beta issuers.
Credit curves, in particular the 5-year part of the curve and in, continue to normalize across the quality spectrum.
Bid/ask spreads remain wider than pre-crisis levels. Odd-lot liquidity is still improving, but not back to normal conditions yet.
European IG
Supply remained light in the European IG market as many companies approached their blackout period. Issuance was predominantly focused on more niche/inaugural and off-the-run issuers tapping the market for liquidity.
In the secondary market, off-the-run names which have had poor liquidity since the selloff began in earnest are gaining investor focus and are becoming tradeable with primary volumes dropping.
Liquidity in the AT1 (subordinated financial) market remains incredibly technical and very bond-/issuer-specific. In spots such as core high-quality issuers, bid/offer spreads were back to pre-selloff levels, but in more niche and second-tier names where dealers have no agenda, it remains wide.
REIT Preferreds
Liquidity in the REIT preferred market is limited under more normal conditions and has become significantly challenged amid the current crisis.
Dealers are not providing balance sheet capacity to support the market and so trades must be done on an agency basis; trading is therefore limited.
On April 24, trading volume continued to be very light.</td><td>wider vs normal market conditions</td></tr>
<tr><td>High Yield (HY) Corporates</td><td>US HY
The tone of high yield in recent weeks has been tied to equities—with high yield closely following equity market moves.
On April 24, the US high yield market was generically quoted down 0.25 to 1 point, depending on the issuer. Trading was light but saw some selling of higher-quality bonds to fund new issues or expected</td><td>Spreads are 1 points wider than normal times for BB-rated securities

Spreads are 1-2 points wider than normal times for B-rated securities</td></tr>
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	new issues. • By the end of the week, there was some fatigue from recent deals. There were $8.5 bn in deals that priced on April 23, bringing the week to date total to $16.4 bn. **European HY** • Daily sentiment continues to follow equities and the iTraxx Crossover index, but cash bonds continue to outperform the iTraxx index. In periods of softness in equities/iTraxx there have still generally been buyers of cash bonds. • Markets continue to see better two-way flow. Fallen angels that have been some of the best performers of the last two-weeks came off the highs and there was some profit taking in the highest-quality, best-trading credits. However, underlying technicals still broadly feel intact, with limited outflow-related selling and generally investors with high cash balances waiting to deploy at better valuations into weakness or new issue when it comes. • Light dealer inventories have exacerbated the positive technical in the market as equities/macro products have generally been supported and “real money” investors have looked to spend cash. • Investors are becoming more discriminating among lower-quality issuers, as dispersion increases and restructuring headlines begin to appear. • Bid/ask spreads are still wide, but there is no more panic in the market. Sellers are primarily opportunistic, selling on strength in relative outperformers or rotating out of more challenged issuers. Outflow-driven sellers have not been prominent in the past several sessions. • So far this week (as of April 24), the market is priced lower but technicals have not significantly changed. We are beginning to see a buyer strike. **CDX HY** • CDX HY underperformed macro tone on April 24, which was mainly due to the news overnight that Hertz was considering restructuring options. Heavy cash bond issuance also put pressure on CDX. • Bid/ask spreads declined a bit but remain elevated relative to pre-crisis levels.	Spreads are 2-4 points wider than normal times for CCC-rated and below securities CDX HY bid/ask is 4-5x vs normal conditions.
Emerging-Market Debt (EMD)	**Hard Currency EM** • EM opened the week of April 20 under pressure as the dramatic decline in oil prices drove the EMBIGD	EM IG sovereigns are 1.5x wider vs normal

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<tr><td></td><td>index 30bps wider by the end of Tuesday. Over the following three days, the market was relatively flat, closing the week at a 635bp sovereign spread, about 50bp wide of the 4/14 crisis tights of 587bp and 85bp inside the 3/23 crisis wide level of 721bp.
• The new issue market continued to churn as syndicates shifted their focus to lower-quality sovereign and corporate issuers with $9bn of sovereign and $2bn of corporate bonds printing with average concessions of 35bp on the 3 sovereign deals and 85bp on the 1 corporate deal
• Liquidity and price transparency were relatively unchanged week over week in sovereigns and quasi sovereigns, albeit still below average.
• Profit takers finally surfaced in the high yield corporate market, which had been nearly offer-less for the better part of the prior 2 weeks. The selloff was exacerbated by negative headlines out of Brazil, which pushed Brazilian corporates down 3 to 5 points.

Local Currency EM
• Local EM rates continue to track macro risk and the moves in currencies.
• Liquidity is close to normal</td><td>market conditions

EM HY sovereigns are 2.5x wider vs normal market conditions

EM IG corporates are 2.5x wider vs normal market conditions

EM HY corporates are 3.5x wider vs normal market conditions</td></tr>
<tr><td>Securitized</td><td>CMBS
• The CMBS/X markets slowed to a crawl as the week ended on April 24. The number of bid-wanted lists decreased and general trading volume seemed to slow dramatically.
• Spreads stabilized, especially in CMBX series 6, where volume was nonexistent. Market participants appeared to reach a point of indifference in series 6, where there is less upside for short sellers and investors have yet to appear to buy the dip.
• The first new CMBS issue since early March will likely be announced next week. This will give the market some much-needed direction and be a signal of demand especially in mezzanine tranches.
• Bid/offer spreads are 20bps for 10-year AAA-rated bonds or approximately one quarter point. This is 4x the normal of ~5 bps. Illiquidity persists below the single A-rated level and bid/offer spreads remain stretched at the BBB-rated level at 5x pre-COVID levels.
• Bid/offer spread for CMBX A.6 is ~2x, BBB-.6 is ~3 x and BB.6 ~5x the normal bid/offer spread.</td><td></td></tr>
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	ABS • The surge in primary market supply continued during the week ended April 24, as six transactions totaling $5.9bn priced across prime auto and equipment ABS. This brings the year-to-date issuance to $55bn compared to $77.3bn recorded over the same time period last year. • Benchmark ABS spreads were largely flat on the week, with 5-10bp of tightening across credit card and prime auto floaters and 10-25bp tighter in private credit student loan. ABS spreads are also showing a steeper credit curve and more issuer tiering for BBB classes from established sponsors in prime and non-prime auto loan and equipment ABS. These securitizations have printed in the 500-560bp range over the past two weeks. BBB initial pricing spreads on 2H19 transactions from these the same issuers were in the 110-125bp range. • American Car (ACC) priced a subprime auto lease ABS last Friday (April 17) with senior BBB and subordinated BB- (only KBRA rated) tranches at 7.0% and 13.5% yield, respectively. This compares to ACC 2019-2 new issue spreads at 200bp and 365bp in November and rated by both Moody's and KBRA. The contrast between the two transactions highlights the heightened credit and liquidity risks currently in off-the-run issuers and sectors. **CRTs** • In the CRT market, spreads/prices vary based on seasoning, LTV, seniority in the capital structure but nearly every segment was tighter week over week ending April 24. • One exception was fixed severity M2 bonds, which have continued to widen over uncertainty about the language of these deals being potentially modified/supported by the FHFA. • With increased two-way flow and some dealers inclined to take positions in bonds again, bid/ask spreads continue to shrink. **Legacy Non-Agency RMBS** • Legacy RMBS continues to trade through the recent crisis. Since January spreads have widened from ~ 200bps to now in the 1000 bps range, but demand for the sector never really faded. **CLOs** • The entire CLO capital stack remains well bid,	

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Better managers were able to bring deals to market. Each deal was oversubscribed and was able to tighten pricing from dealers’ initial price thoughts.
The capital stack for top-tier managers in the secondary market looks like the following:
<table>
<tr><th>Rating</th><th>Spread*</th><th>Price</th></tr>
<tr><td>AAA</td><td>h100s</td><td>h90s</td></tr>
<tr><td>AA</td><td>h200s</td><td>mh90s</td></tr>
<tr><td>A</td><td>mh300s</td><td>l90s</td></tr>
<tr><td>BBB</td><td>h500s</td><td>mh80s</td></tr>
<tr><td>BB</td><td>lm1000s</td><td>h70s</td></tr>
</table>
*h=high; mh=mid to high; l = low; lm= low to mid
Bid/ask spreads on AAA-rated bonds continue to be close to normal levels (~1 point); mezzanine bid/ask remains ~3x wider relative to typical levels as dealers remain defensive.

Agency MBS

Bid/ask spreads in Agency MBS have returned to pre-crisis levels, driven tighter by the combination of Fed buying and increased investor interest
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<tr><td>Money Market</td><td>
The week ended on quiet note in money markets on April 24. A snapshot of the Fed’s balance sheet shows that CPFF and MMLF usage has been immaterial. Nevertheless, they are still providing a backstop.
Repo is trading in the middle of the 0.0-0.1% range. Intraday liquidity has improved. The amount of government money market fund inflows relative to the amount of supply available has become more balanced in the past 2 days.
$105 bn in new cash management bill (CMB) supply is expected during the week of April 27, and more announcements to follow as Congress approved the second wave of fiscal stimulus (~$500 bn).
LIBOR continues to set lower as short-maturity markets stabilize. 1-month LIBOR set at 0.44 % and 3-month set at 0.89%.
The next FOMC meeting is April 29th. There is speculation that the Fed could make technical adjustments to the Fed RPP and/or interest on reserves by 0.05% to get front-end rates off the floor and trading in the middle of the 0-0.25% Fed corridor.
</td><td></td></tr>
</table>

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US Municipals	• Municipal market weakness persisted all week, continuing into the weekend on April 24. This was mostly due to new issue indigestion, and there is more to come. • There was significant issuance from California this week; it seems that it will be New York's turn the week of April 27. There was a high-quality California deal that struggled – being only 1 to 1.5x oversubscribed whereas all other high-quality deals have been in the 6x oversubscribed range. Next week MTA is looking to bring a $1bn deal and sold off ~50 bps in expectation of the deal. • There were a few transactions in the high yield market, at adjusted levels, but it is a healthy signal that there is interest. • Odd lot penalties ranged from 1 to 10 points as market weakness for round lots weighed on odd lot liquidity. For context, high grade odd-lots typically trade 0.10-1 points below round lot bid-side evaluations under more normal market conditions.	
Canadian Market	**Federal** • Liquidity is best in benchmark issues for block sizes of <=CAD25m; limited liquidity in off-the-run, high coupon bonds but the Bank of Canada buying program will help liquidity in the sector. **Provincial** • Liquidity is best in benchmark bonds from Quebec, Ontario and British Columbia • Concessions are requested so dealers will take less liquid positions. • Very limited secondary-market liquidity in oil-generating provinces (Newfoundland, Alberta, Saskatchewan) with Western Canadian Select oil price trading at low levels. • Most dealers will not bid on off-the-run, high coupon provincial issues, they will do agency trades. • The Bank of Canada's C$50bn buying program of provincial debt should support liquidity. **IG Corporates** • Limited liquidity; many dealers are maintaining low balance sheet inventories, so will not provide bids in many sectors. • Trading on an agency basis for high-beta issuers. However, the market has improved in telco and bank sectors. • The Bank of Canada's buying program of corporate	Federal: bid/ask typically +1 to +3bp but for the long end of the curve, it can be more depending on volatility Provincial: concession of +2 to +5bp and more on size > CAD 25m, particularly at the longer end

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	debt should support liquidity in the secondary markets for BBB and higher-rated securities; BBB- are trading by appointment. **Real Return Bonds (RRBs)** • Trading "by appointment", similar to private placement market	

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