AllianceBernstein

March 2020

Market Update – Daily Fixed Income Trading Liquidity Update 24 March 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 08-09 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 Fed are having a positive effect on liquidity and market functionality. The Fed is buying $75bln per day across the curve all week. This is allowing dealers to reduce their bloated balance sheets. • In our view, the worst of the levered investor unwind may be behind us. • Today (March 24) saw cash Treasury volumes well below the elevated levels of the past 2-3 weeks. There was good "two-way" trading in the market, compared with the heavy skew toward selling long end bonds of the past several weeks. • Liquidity in 30-year bonds is facilitated primarily by the Fed; liquidity in long bonds is much reduced after their operations end at 2pm in NY. • Depth in the US Treasury cash bond market remains poor, down by 80-90% over the last few weeks in on-the-run bonds vs. normal market conditions. The Fed purchases are beginning to work, as off-the-run bonds tightened vs. on-the-run bonds for the first time in 3 weeks. Moving large blocks of Treasuries takes more time than usual. • 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.	Bid-offer spreads in the most liquid on-the-run benchmark cash US Treasuries have widened by 2-3x vs normal market conditions. Off-the-run Treasury bonds may trade significantly wider than on-the run bonds.
Investment Grade (IG) Corporates	**US IG** • On March 24, liquidity in the US IG corporate bond market was the best it has been in about a month, as several headwinds eased: 1. New issue supply did not push prices lower in the secondary market. Instead	US IG spreads are generically 5-6x wider vs normal market conditions AT1/Preferreds are 5-6x

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	we saw new issues reprice with tighter spreads. New issue concessions averaged 10 bps vs 50 bps last Friday, and was in some cases negative amid solid demand 2. Odd lot liquidity has been significantly challenged in the past several weeks. While liquidity is still not where it was pre-coronavirus, it was the best we have seen in a month 3. Credit curves remain flat to inverted but short-maturity bonds saw much more "two-way" flow today on the heels of the Fed's corporate purchase programs. Lower quality and financials remain more challenged vs higher quality. **European IG** • Central bank action from both the European Central Bank (ECB) late March 18 and Bank of England (BoE) March 19 helped stabilize the euro denominated markets—particularly intermediate- and longer-maturity bonds eligible for QE purchase. • ETF selling is a presence in the market but the magnitude to which it is creating distortions is less significant than in the US. • In the UK, sentiment improved with BoE action, although details are still unknown about how much bond buying will be credit. • Shorter maturity bonds in both markets remain under selling pressure. • In the AT1 market (subordinated financials), while still weak, there has been a bit better tone	wider vs normal market conditions
High Yield (HY) Corporates	**US HY** • The tone of high yield in recent weeks has been tied to equities—with high yield closely following equities moves. • As equities rallied on March 24, so did high yield, as there seemed to be minimal outflow-related selling, and buyers came to market with interest primarily in higher-quality high-yield bonds **European HY** • Daily sentiment follows equities and the iTraxx Crossover index • Dealer liquidity is minimal and not likely to improve as participants continue to shift to work from home/disaster recovery locations.	High yield spreads are 2 to 3x wider than normal times for BB and B securities and 3 to 5x wider for CCC CDX HY bid/ask is 4-5x vs normal conditions.

<table>
<tr><th>Sector</th><th>Liquidity Trading Comment</th><th>Bid-Ask Spreads</th></tr>
<tr><td></td><td>Larger-sized blocks have regularly traded below the “screen context”, particularly during the most volatile equity sessions. But it is worth highlighting that the tone has begun to improve, particularly in higher quality bonds. A more stable macro environment and announcement of the ECB’s asset purchases helped.
Sellers are primarily funding outflows or building up cash balances/reducing risk in the anticipation of further outflows/volatility. Buyers have had selective interest in higher-quality issuers. Where there are shorts or issuers with active CDS, there have been more consistent bids for bonds, as hedge funds have been actively looking for arbitrage opportunities.
CDX HY
CDX HY was stronger on March 24 amid the broader HY and equity rally</td><td></td></tr>
<tr><td>Emerging-Market Debt (EMD)</td><td>Hard Currency EM
Following global macro risk sentiment, the JP Morgan EMBIGD index spread rallied on March 24, closing ~670 bps, still more than 2x January levels (tights of sub 300) and approaching levels seen in the 2008 Global Financial Crisis.
ETF selling, which has plagued the market for weeks, abated on March 24 as more 2-way trading emerged.
There was increased risk taking via CDX index, another bullish signal
Liquidity and price transparency has improved in sovereigns and quasi sovereigns, albeit still significantly below average. Liquidity in EM corporates remains very challenged; most trading has been in sovereigns and quasi-sovereigns
Local Currency EM
For the most part, Local EM prices are tracking macro risk and the moves in currencies.
CEEMEA rates tracked global risk tighter with bid-ask spreads narrowing and liquidity slightly improving
Across Latin America, local Primary Dealers continue to work remotely, which has dramatically limited liquidity provision, making trading in certain markets almost impossible</td><td>EM IG sovereigns are 2.5x wider vs normal market conditions

EM HY sovereigns are 3x wider vs normal market conditions

EM IG corporates are 4x wider vs normal market conditions

EM HY corporates are 10x wider vs normal market conditions</td></tr>
<tr><td>Securitized</td><td>CMBS
The last new issue in the CMBS market priced March 11th. In the secondary market, finding liquidity</td><td></td></tr>
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	remains challenging, even in the AAA part of the capital structure. There is minimal liquidity for mezzanine classes. • Bid/ask spreads remain elevated: A-rated and BBB-rated bonds are roughly 5x wider vs normal conditions, and BB-rated are roughly 7x wider. • Liquidity exists in the CMBX market, volumes are elevated. Bid/ask spreads moderated somewhat today (March 24) on more balanced flows but remain elevated. **ABS** • Secondary market activity has been limited to higher-quality, shorter-average life, ABS with limited trading in lower-quality tranches across rentals, student loans, prime and subprime autos, unsecured consumer loans and credit cards. • Secondary market selling was reduced on March 24, and combined with the Fed's money market facility coming online, the market liquidity for AAA-rated bonds improved somewhat. • New issues have been sidelined by the market volatility. Top tier issuers are likely to sit out and wait given their lack of funding urgency and availability of cheaper funding alternatives. • The Fed is trying to break the cycle, announcing the Term Asset-Backed Securities Loan Facility (TALF) on March 23. Substantively similar to the '08-09 program, the Fed offers non-recourse, non-mark-to-market lending on auto, card, student, equipment, and floorplan ABS. Like TALF 1.0, the program is only for primary new issue and does not address the congested secondary market. The Structured Finance Association is asking the Fed and Treasury to expand the program to the secondary market. **CRTs** • Trading in the CRT market is significantly challenged, partly because of the challenges in the commercial paper market. • Prices have declined meaningfully as fears about the mortgage market escalated. • Spreads are around +2000 discount margin. • Bonds are trading infrequently but generic bid/ ask could be estimated at 5-7 points.	
Money Market	• The Fed has thrown everything at this market's liquidity issues. Most recently, the Fed expanded eligible securities under the Money Market Lending	

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	Facility to include CDs, floaters, and certain munis. It also expanded the Commercial Paper Funding Facility to include A2/P2 issuers and adjusted pricing to OIS + 110bps for A1/P1 CP and OIS + 200bps for A2/P2 CP. • We continue to see industry flows out of prime funds. While there was not a risk of "breaking the buck", two fund managers stepped in to buy securities from their prime funds over the past weekend to improve liquidity and support NAVs. Flows continue into government funds. These investor inflows have tightened repo and government securities across the money market curve. T-Bills are being offered at negative yields - although the recent 6-month auction stopped at +8 bps • Repo is trading at or below zero. Intraday liquidity remains poor. • The Commercial Paper market is still clogged, as dealer balance sheets are at capacity and will need to be reduced going into quarter end. Bids in the secondary market are still limited. • LIBOR continues to move higher, a reflection of short-term funding stresses.	
US Municipals	• Liquidity in higher-quality municipal bonds has been significantly challenged amid industry outflows. • Liquidity in odd-lot and high yield municipals has been even more challenged and trading has been limited. • But the announcement of the Fed expanding its purchasing program to potentially include municipal securities (variable rate demand notes for now, potentially to include high-quality municipals as well) has helped to stabilize the market . • While the ratio of muni market yields to treasury yields remains significantly above its recent history, there seemed to be more buyers than sellers today (March 23). • Liquidity for investment-grade bonds, including odd-lots, continued to improve today (March 24) albeit still well below pre-crisis levels.	
Canadian Market	**Federal** • Liquidity is best in benchmark issues for block sizes of <=CAD15m; very limited liquidity in off-the-run, high coupon bonds **Provincial** • Liquidity is best in benchmark bonds from Quebec,	Federal: bid/ask typically +2 to +3bp; can be more depending on volatility Provincial: +12bp to +15bp or more on size <

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	Ontario and British Columbia, but concessions can be high; very limited liquidity in oil-generating provinces (Newfoundland, Alberta, Saskatchewan) **IG Corporates** • Very limited liquidity; many dealers forced to reduce balance sheet inventories, so unable to provide bids • Liquidity limited even in higher-quality, senior bank deposit notes **Real Return Bonds (RRBs)** • Trading "by appointment", similar to private placement market	CAD 10m

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