ALLIANCEBERNSTEIN®

March 2021

Market Update – Fixed Income Trading Liquidity
For the Week Ended 26 March 2021

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 at the end of each week.

Sector	Liquidity Trading Comment	Bid-Ask Spreads
US Treasuries	• During the week ended March 26, the global rates markets staged a modest 5-8 bp rally. This occurred amid a backdrop that included relatively low trading volumes, risk assets trading well, wider inflation breakevens and oil holding above $60 per barrel. • Treasury Secretary Janet Yellen and FOMC Chair Jerome Powell appeared in joint congressional testimony, with the two officials striking a familiar tone highlighting how uneven the economic recovery has been for many workers, especially those in the hard-hit services economy. • The other focus on the week was Treasury auctions, with the 7-year auction coming with a 2.6bp tail (difference between average and lowest bids) and tepid end user demand vs. 12-month averages. • Liquidity in terms of market depth in on-the-run cash 5-year and 10-year Treasuries has improved by 80-90% from the worst levels on February 26. Market depth in the 30-year part of the curve has improved 70-80% since February 26. Liquidity around economic data and auctions has been challenging at times given the recent backdrop. • The observable bid-offer spread is in line with historical averages in on-the-run bonds. Transaction costs in off-the-run bonds remain wider vs. historical averages, but there has been meaningful improvement in bid-offer spreads in the past several weeks. • Federal Reserve bond purchases continue at $80 billion US Treasuries and $40 billion MBS per month.	
Investment Grade (IG) Corporates	**US IG** • The technicals in the US investment-grade cash bond market remained supportive during the week ended March 26. • Supply picked up relative to the prior week and new deals were multiple times oversubscribed. Concessions ticked up a touch compared to a few weeks ago, as supply has overwhelmed expectations for the month of March with ~$200bn pricing so far (5yr average is ~$157bn).	Bid/ask conditions in the IG market are back to normal

<table>
<tr><th>Sector</th><th>Liquidity Trading Comment</th><th>Bid-Ask Spreads</th></tr>
<tr><td></td><td>Similar to the latter half of the prior week, Asian investors were net buyers of 10-year and 30-year maturity bonds during the week, supporting the long end of the market.
One-third of new issue supply during the week came from the Oracle deal that priced on Monday across 6 tranches. The $15bn deal was absorbed well and it was bid 10-20 bp tighter in secondary markets as of Friday, a sign of the positive technicals in the market.
The positive momentum on flows continued with another $3.26bn inflow.
Looking ahead, supply is expected to slow down over the next few weeks as companies head into their earnings blackout period.
Supply for the week ending April 2 is expected to be $20-25bn.
Euro IG
The euro IG market saw light trading activity during the week ended March 26. Focus was on the primary market. Euro IG did not react meaningfully to the move tighter in interest rates; the theme of stable technicals continued and overall spreads were 2bp wider. The curve saw some modest steepening pressure – ranging from 1-5bp depending on liquidity.
Within sectors, tobacco found a clearing level after widening almost 15bp during the month and the auto sector was ~2-5 bp wider due to ongoing supply chain issues related to chip shortages.
New issue supply was modestly heavy with ~15bn EUR and 1bn GBP coming to market during the week. Technicals felt better than the prior week, with larger order books and most deals performing well in the secondary market.
REIT Preferreds
Liquidity in the REIT preferred market is typically limited under more normal conditions given the retail nature of the investor base.
Dealers are only providing balance sheet capacity on select issuers, so for many issuers, trades must be done on an agency basis; trading is therefore limited.</td><td></td></tr>
<tr><td>High Yield (HY) Corporates</td><td>US HY
The US high yield market was firm during the week ended March 26. Higher-quality and interest rate sensitive bonds were supported as rates stabilized.
Investor focus continued to be on new issue market activity, with ~$11.6bn of new issuance pricing across 16 deals. Amid outflows and interest-rate volatility, there has been more selective participation in new issuance as evidenced by book oversubscription. Books were mainly 2-3x oversubscribed, compared to 3-5x seen through January and February.
Last week brought YTD issuance to $142bn, marking the highest quarterly new issuance volume on record, topping 2Q 2020. Approximately 77% of new issuance YTD has been refinancing.</td><td>Bid/ask spreads vary by issuer but generically:

BB-rated securities: 1 point, which is in line with normal market conditions

B-rated securities: 1 point, which is in line with</td></tr>
</table>

<table>
<tr><th>Sector</th><th>Liquidity Trading Comment</th><th>Bid-Ask Spreads</th></tr>
<tr><td></td><td>High yield spreads were 13bp tighter to 323 bp. The spread between CCC and BB-rated bonds was 4bp wider to 313 bp. Energy has continued to underperform the broader index as the underlying commodities sold off. The sector was quoted lower on light volumes. CDX HY CDX HY traded better along with the macro tone during the week ended March 26. The positive tone in CDX HY continued to be driven by the arbitrage flows between CDX and single names. As the market heads into the roll period, the on-the-run series is expected to come under pressure as positioning is net long in that series.
Trading volumes were below recent averages.
Bid/ask spreads have declined to pre-crisis levels.</td><td>normal market conditions

CCC-rated and below: 1.5points which is in line with normal market conditions

CDX HY bid/ask is in line with normal conditions.</td></tr>
<tr><td>Emerging-Market Debt (EMD)</td><td> Hard Currency EM EM credit faltered a bit during the week ended March 26 as the JPM EMBI Global Diversified Index widened 8bp following global macro volatility and the EM local rate selloff. Under the hood, beta decompressed as high yield widened ~18bp driven by Turkey and Sub-Saharan Africa oil exporters, while investment-grade spreads were generically unchanged as Asian investor demand continued apace.
Volumes picked up as developed market interest rates had their best week in months which, coupled with crude oil volatility, seemed to have unstuck market participants.
Turkey was the focal point this week following President Erdogan's replacement of the central bank governor late the prior Friday. CDS closed the week 165 bp wider while cash bonds traded down 5-10 points with curves bear flattening as low dollar priced, longer-maturity bonds outperformed higher dollar priced, short- and intermediate-maturity bonds. The Turkish lira sold off versus the US dollar and Turkish local currency bonds sold off ~450bp but markets stabilized somewhat in the latter half of the week. Local Currency EM There was significant volatility in the local EM rates market following Turkish President Erdogan's replacement of the central bank governor which sent shock waves through the market as described above. Outside of Turkey, Mexican government bonds remained under pressure as sporadic liquidity has led to volatile price action even as the central bank decided to leave rates unchanged, signaling to the market that the recent rate cutting cycle is likely over.
Local markets are expected to remain volatile with a focus on DM and EM interest rates. Also causing unease is the fact that markets are approaching the period where inflation base effects will kick in</td><td>EM IG and HY sovereigns and EM IG and HY corporates are back to normal market conditions</td></tr>
</table>

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	and the reaction function of central banks will be heavily scrutinized. • Liquidity is below historical average due to the volatility in developed market interest rates, idiosyncratic risk factors, and increased central bank action.	
Asia	**Asia Hard Currency** • Primary market activity was again healthy in Asia credit during the week ended March 26, with $5.3bn in issuance. • There was mixed performance in investment-grade with sovereigns and quasi-sovereigns outperforming, rallying 5-10 bp with China IG lagging, retracing 5bp from the previous week's strong performance. • In High Yield, the China property sector faced a spate of profit warnings, poor results and downgrades impacting performance. Benchmark bonds were down 2-3 points, with certain idiosyncratic issuers down 6-20 points. • Indonesia high yield bonds also sold off significantly during the week, mainly in textiles (down up to 35 points). Investors looked to reduce bonds with near-term refinancing requirements. **Asia Local Currency** • Asian interest rates saw consolidation over the course of the week with stable US Treasuries. • Investors were awaiting the decision by FTSE on whether China would be included in the WGBI index and whether Malaysia would stay on watch for removal. • Liquidity in Asia markets is largely back to normal, but duration remains susceptible to volatility.	Asia hard currency IG and HY credit is back to normal conditions. However, interest rate volatility may cause pressure points to appear. Asia local currency debt is back to normal market conditions
Securitized	**CMBS** • During the week ended March 26, CMBS spreads were wider week-over-week. 10-year AAA-rated classes were 3-5bp weaker, while single A-rated classes widened by 10-15 bp. • One new issue priced during the week, which needed to be discounted to place all the bonds. The weakness in the primary market spilled over into the secondary market causing a short-term buyers' strike. However, by the end of the week, investors emerged to take advantage of the cheaper levels. • Bid-offer spreads remain unchanged with AAA to A-rated CMBS classes having retraced their post-covid-19 widening, while bid/offer spreads for BBB-rated classes remain approximately 2x their pre-covid-19 levels. • Similar to the past few weeks, CMBX performance was mixed. Recent vintage series generally outperformed seasoned vintages. Volumes were modest at all parts of the capital stack. Finding liquidity can be challenging, yet on average, CMBX bid/offer spreads remain unchanged, with CMBX A.6, BBB-.6, and BB.6 bid/offer spreads approximately 2x their historical averages.	

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	ABS • The ABS primary market priced four deals for the week ending March 26 totaling $2.085bn across PACE, credit card, container and prime auto lease sectors. Year-to-date ABS supply now stands at $60bn compared to $47bn and $57bn recorded over the same period in 2020 and 2019 respectively. • Indicative benchmark ABS spreads remained unchanged on the week on the back of low primary market supply and solid secondary two-way flows. Heading into quarter end, there is no issuance currently in the market, and one issuer (prime auto lease) that is expected to begin pre-marketing the first week of April. **CRTs** • The week ended March 26 was relatively uneventful in the CRT market. The market was largely unchanged, but the technical picture seemed more solid as sellers were harder to find, leaving dealers to chase what few bonds there were. • Secondary market liquidity improved as dealers were more likely to position bonds than seen in several weeks. • Bid/ask spreads widened a bit but remain around pre-covid levels. **Legacy Non-Agency RMBS** • Legacy RMBS continue to trade well. After having widened to the 1000-1200 bp range in March 2020, spreads are currently trading inside 200 bp discount margin. **CLOs** • The CLO market during the week ended March 26 was unchanged from a spread perspective. The new issue market continued to see new deals as well as refinancings and resets. • Levels on the week remained unchanged. AAA-rated spreads for top-tier managers are in the 107-108 bp area; AA-rated spreads are around 155bp; A-rated are 175bp; BBB-rated are 305-310bp; and BB around 650-675bp. • Liquidity remains robust in the CLO market. Bid/ask spreads remain at or around pre-crisis levels. **Agency MBS** • Bid/ask spreads in Agency MBS remain well supported, given the Fed purchases of $40bn per month. Bid/offer spreads improved during the past week, with current coupon bonds trading at 0.5-1 tick wide and the rest of the coupon stack is wider by 2-3 ticks.	
Money Market	• During the week ended March 26, the repo floor was resilient despite repo (general collateral) trading negative on various occasions. Most dealers are offering repo at 0% for relationship purposes, losing money on the trades. Usage of the Fed Reverse repo facility (RRP) has increased to $20-30bn per day. A short-lived	

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	negative T-bill curve bounced back from the rally after investor demand dwindled. • SOFR continued to set at 0.01%. The Effective Federal Funds Rate set at 0.07%. 1-month LIBOR set at 0.109%, while 3-month LIBOR set at 0.203%. • The Fed Board of Governors decided to let the SLR exemption (an emergency measure put in place during the pandemic to unconstrain dealer balance sheets and improve liquidity by excluding cash and Treasuries from the SLR (supplementary leverage ratio) calculation) expire. In last week's testimony, Chair Powell announced that the Fed will "propose a long-term fix" to "address super-safe assets" to the "big-bank leverage ratio" relatively soon. Money market funds are expected to see further inflows from some of the deposits the banks may be turning away due to the expiration of the SLR exemption. • Government money market funds had $78bn of inflows in the 7 days ended March 26. Prime funds had $11bn of inflows over the same period.	
US Municipals	• Amid slow but steady inflows, municipal yields continued to grind tighter during the week ended March 26. Despite benchmark yields being lower by 5-7 bp across the curve, Municipal/Treasury ratios remain attractive in the front end: 105% for 2-year maturities vs. 66% for 10-year maturities. • Within the taxable municipal sector, given relative richness to IG corporates, there was a quieter tone throughout the week in the university and healthcare space. • In the primary market, deals were well-received and oversubscribed, with shorter maturities grossing larger subscriptions. The week ahead (ending 2 April), a holiday-shortened week, is expected to see only 5.6 billion in supply. • Odd-lot discounts to round-lot bid side evaluations are ~0.8 point for smaller-sized lots and 0.3 points for larger lots.	
Canadian Market	**Federal** • Liquidity is best in benchmark issues for block sizes of <=CAD25 million. Comments by central bank Governor Macklem that the BOC will buy at least $4 billion of Canadian government bonds per week until the recovery is well underway should continue to support market liquidity. The fact that the BOC will buy more bonds at the long end of the curve should support liquidity at the 30-year part of the yield curve. • The BOC has purchased C$229.9 billion to support liquidity in Government of Canada markets through March 24. Many dealers are expecting the Canada buying program could be reduced to $3bn per week at the next BOC meeting on April 21. According to the latest BOC research, Federal debt is the most liquid sector within the Canadian fixed income markets.	Federal: bid/ask was at 3 to 5 cents in the 10-year area, but for the long end of the curve, it remains relatively wider at 12 cents given the recent higher volatility. Off the run, high coupon Canadas were reported to have limited liquidity in this high volatility

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	Provincial • Liquidity is best in benchmark bonds from Quebec, Ontario and British Columbia. • Depending on market tone, concessions may be requested in order for dealers to take less-liquid positions. • Most dealers will not bid aggressively on off-the-run, high coupon provincial issues, they will do agency trades, even with the Bank of Canada's buying program of provincial debt. • The BOC has purchased C$17.2 billion in par value year to date through March 24 within their provincial buying program to support liquidity. The BOC has cut their maximum weekly take out to $350mn from $500mn and the buying program is done only once per week. Dealers expect this purchase program to mature on May 7, 2021. • A continued rise in crude oil prices from current levels could help liquidity in provinces where oil revenues will be pushed upward – Alberta, Saskatchewan and Newfoundland. **IG Corporates** • The latest Bank of Canada research highlights the lack of liquidity in Canadian corporate bond markets, which can impact pricing; 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. • The Bank of Canada's $10bn buying program (focused on securities of 5-years or less) should support liquidity for corporate bonds rated BBB and higher. However, the central bank has bought a relatively small amount of corporate securities to date (C$240 million par as of March 24), indicating the impact is limited. The BOC has announced that they will cut the maximum size of their tenders under the purchase program, reducing the max amount to C$50mn from C$100mn previously • Recent conversations with the deputy BOC governor indicated that they view the bond-buying program as a "back-up" facility. They do not see a current need to intervene to provide liquidity to the BBB- corporate market. Based on lack of intervention and deputy governor comments it is expected the program will be cancelled on May 7, 2021. **Real Return Bonds (RRBs)** • The program to purchase Government of Canada securities in the secondary market – the Government Bond Purchase Program or GBPP – should help liquidity since it includes RRBs. • Trading in Canada RRBs continues to show a lack of liquidity. Trading a block can only be done on an appointment basis. • Of note, the last $300mn auction of RRB 0.5% Dec 2050 was done on February 10. On that day the central bank was not able to buy its maximum of 6 Canada RRBs for a total of $450mn with a target of $75mn per line item (from 2026 to 2047 maturities). In	period with much wider bid-ask given small outstanding size in these securities. Provincial: concession reported to be above average on size > CAD 25 million, particularly at the longer end. In risk-off markets, liquidity is drying up and spreads can widen depending on market tone. BBB- corporates are trading by appointment, particularly in the energy sector. Inventories are reduced and dealers are not looking to increase their BBB- exposure. Dealers may refuse to bid in a risk off market with gaps in spreads. Provincial RRBs trading by appointment only. Dealers do not hold these securities on their balance sheet. Bid-ask is not a reliable indicator for trading.

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	December, the BOC bought net $34mn in RRBs compared with $122mn in February (BOC buying program less new supply). • The next RRB auction is expected to be in the late April-June time frame so supply remains limited in RRB markets in 2021. Liquidity remains challenging as dealers hold very limited inventories in RRB securities.	