ALLIANCEBERNSTEIN®

May 2021

Market Update – Fixed Income Trading Liquidity
For the Week Ended 28 May 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 May 28, global developed market government bonds staged a modest bull flattening rally for the second week, with bonds moving 3-5bp lower on the week. German bunds were the best performer. A large month end extension and index buying seemed to be the largest driver of yields on the holiday-shortened week where volumes were low. Developed market yields moved lower despite the better tone in risk assets. Peripheral spreads were also tighter on the week as ECB officials indicated no notion of slowing the pace of PEPP in the near term. • Interest rate volatility, as measured by the MOVE index, continued to move lower. • The US Treasury issued $183bn in new notes for auction last week, resulting in $107bn in net new cash raised for the government. Each auction showed strong end user demand stats, higher than 1-year averages. • Interest in inflation as an asset class continued to expand. Real yields were broadly unchanged on the week. Despite the interest in inflation measures and flows into inflation products, the depth of liquidity for TIPS has not improved very much. Full bid-offer for liquid on-the-run bonds is 4 ticks wide, in line with historical averages; large block trades are best done on days of Fed purchase operations, indicating that central bank support is still very much needed for liquidity in this market. • 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. • Observable bid-offer spreads are in line with historical averages in on-the-run bonds. Transaction costs in off-the-run bonds are wider vs historical averages but have improved meaningfully since late February.	

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	• Federal Reserve bond purchases continue at $80 billion US Treasuries and $40 billion MBS per month. There has been discussion and debate in the market on whether the Fed may look to taper MBS purchases first given valuations in MBS and in the housing market.	
Investment Grade (IG) Corporates	**US IG** • US IG cash bond market was relatively quiet during the week ended May 28 heading into the long holiday weekend. The index was set new post-covid tight levels on Friday of +84 bp, a level not seen since 2007 (2bp tighter week-over-week). • $38 billion in new deals priced during the week, ahead of expectations and pricing with little concession. Demand remains strong with deals 3.6x oversubscribed on average (YTD average is 3x). • Positive momentum on flows continued during the week with a $911mn inflow – but has slowed over the past few weeks. There was a pickup in overnight buying of longer-maturity bonds from Asia mid-week, but slowed in the latter half of the week. • In the week ahead, supply is expected to be $15-20 billion. **Euro IG** • Euro IG spreads were unchanged during the week ended May 28 with flows skewed toward better sellers. GBP IG corporates were also unchanged, while euro hybrids were a couple bp wider on average following new issues from EDF and Citycon. • Despite the short week in some regions, supply was reasonably heavy at approximately €13 bn and £2.75 bn, with low book coverage between 1x and 3x. A significant amount of the supply (35%) was ESG related. New issue premia were generally between 0-5bp. Performance was mixed – with shorter-maturity/higher-spread bonds outperforming, illustrating the compression trade is still in play. **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.	Bid/ask conditions in the IG market are back to normal
High Yield (HY) Corporates	**US HY** • The US high yield market was uneventful during the week ended May 28. • New issues of $9.64bn priced across 10 deals, ending the month at $46.135 total. Demand technicals for new issues remained strong and most traded up in the secondary market. • The secondary market was largely quiet apart from some month-end rebalancing. • US HY market spreads were 7 bp tighter week-over-week to 296 bp.	Bid/ask spreads vary by issuer but generically: BB-rated securities: 0.75 point, which is in line with normal market conditions

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<tr><th>Sector</th><th>Liquidity Trading Comment</th><th>Bid-Ask Spreads</th></tr>
<tr><td></td><td>Euro HY
• The Euro HY market was characterized by spreads grinding tighter on light volumes during the week ended May 28, as the primary market all but shut down and investors spent down cash balances on the margin into the long holiday weekend.
• Liquidity conditions were normal in terms of bid/offer spreads, but as volumes become subdued into the summer, the market will be more technical around specific names.
• The earnings calendar is heavy which is keeping investor focus, but at a high level, earnings have been strong and supportive of the already positive technical backdrop.
• The primary market is expected to get busier again later in June.

CDX HY
• CDX HY ground higher during the week ended May 28, largely tracking the positive macro tone.
• Trading volumes were below recent averages, particularly towards the latter half of the week ahead of the holiday weekend in the US.
• Bid/ask spreads have declined to pre-crisis levels.</td><td>B-rated securities: 1 point, which is in line with 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 traded sideways during the week ended May 28, despite seeing a pickup in inflows. The new issue calendar remained quiet but is expected to pick up in coming weeks.
• Latin American elections, IMF developments and commodity prices were the key areas of focus during the week.

Local Currency EM
• The local EM rates market mostly tracked US Treasuries. Liquidity remains adequate but volatility is to be expected.</td><td>EM IG and HY sovereigns and EM IG and HY corporates are back to normal market conditions</td></tr>
<tr><td>Asia</td><td>Asia Hard Currency
• Asian primary issuance picked up to 7.3 bn with China high yield property developers coming to market.
• Sovereigns and quasi sovereigns remained well bid.
• Huarong continued to drive sentiment among Chinese asset management companies which were weaker.
• China high yield and India investment-grade were both higher on the week.

Asia Local Currency
• Moves in the Chinese renminbi were the main talk in Asia currency markets as the 6.4 level was broken.
• The resumption of Indonesia's government bond auctions after a 1-month hiatus saw robust demand with 78trn of bids and 32.55 trn awarded. Despite the improvement, there was little secondary market follow through and yields remained relatively flat throughout the week.</td><td>Liquidity conditions are normal for Asia credit

Liquidity conditions are normal for Asia local currency debt</td></tr>
<tr><td>Securitized</td><td>CMBS</td><td></td></tr>
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	• As expected, CMBS and CMBX activity was limited prior to the holiday weekend. $1.5bn bonds were presented to the market for bid and traded well. • Spreads at the top of the capital stack tightened two basis points, while BBB- rated bonds tighten 5 bps. CMBX performed in a similar manner. The top of the stack was unchanged to a bp tighter, while BBB- rated tranches were 1-7 bps tighter. • Liquidity conditions remain unchanged. Bid/offer spreads in AAA to A rated tranches have retraced their post-COVID widening, while BBB rated classes remain 2x the historical average. • CMBX bid/offer spreads remain unchanged, with CMBX A.6, BBB-.6, and BB.6 bid/offer spreads approximately 2x their historical averages. **CRTs** • The week ended May 28 saw the same themes extend from previous weeks in the CRT market. Levels were flat week over week with strong investor demand in the sector. Approximately $1 billion traded in the secondary market. • No new issues priced during the week. Arch (BMIR) has been hosting pre-deal roadshows and timing for the deal is expected to be the week of June 7 • Secondary market liquidity is robust and bid/ask spreads remain tight, 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 new issue market remained the focus of the CLO market during the week ended May 28. Spreads continue to move marginally tighter in the primary market but remain off the post-covid tight levels seen earlier this year. • The CLO secondary market continues to trade well. Any supply, across in the capital stack, is being met with very strong demand. Secondary market spread levels continue to trade inside the primary market clearing levels. • Generic primary market clearing levels on the week stood unchanged at 110 bp for AAA-rated spreads; AA-rated spreads at around 155 bp; A-rated at 185 bp; BBB-rated at 280bp; and BB around 595 bp/par. • 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. Current coupon bonds are	

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	trading at 0.5-1 tick wide and the rest of the coupon stack is wider by 2-2.5 ticks.	
Money Market	• The T-bill curve is trading negative on the offer out to 3-month maturities. 1-month LIBOR set at 0.089%; 3-month LIBOR set at 0.129%, a new record low. • SOFR set at 0.01%. The Effective Federal Funds Rate set at 0.05%. Repo rates were pinned at 0%. • Usage of the Fed Reverse Repo facility (RRP) increased to a record high of $485bn per day. • Government money market funds had $46bn of inflows in the 7 days ended May 27. Prime funds had $10bn of inflows over the same period.	
US Municipals	• The municipal market was quiet during the week ended May 28. • A heavier high yield calendar was well received, with books multiple times oversubscribed and performing well on the break. • Technicals remain strong with inflows continuing and the expectation of negative net issuance over the summer months. • Odd lot discounts to round-lot bid-side evaluations remain compressed.	
Canadian Market	**Federal** • Liquidity is best in benchmark issues for block sizes of <=CAD25 million. • The BOC purchases of at least $3 billion of Canadian government bonds per week until the recovery is well underway should continue to support market liquidity in Canadian markets. The central bank continued its buying program, now holding $380.7bn of Government of Canada bonds (as of May 26th). The Government Bond Purchase Program (GBPP) is the only active buying program or QE. • Market participants will be watching economic data and statements from BOC officials to gauge whether or not the BOC will continue to reduce its QE in coming quarters. • According to the latest BOC research, Federal debt is the most liquid sector within the Canadian fixed income markets. **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 favor agency trades. • The Bank of Canada's Provincial Bond Purchase Program (PBPP) has ended. BOC bought a total of $17.6b in their provincial buying program to improve liquidity. Therefore, the central bank does not provide a back stop to the provincial sector anymore. **IG Corporates**	Federal: bid/ask was at 5 cents in the 10-year area, but for the long end of the curve, it remains relatively wider at up to 15 cents given the recent higher volatility. Off the run, high coupon Canadas were reported to have limited liquidity in volatile periods 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

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	• 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 some sectors. • Trading on an agency basis for high-beta issuers. • The Bank of Canada had a $10bn buying program (focused on securities of 5-years or less) to support liquidity for corporate bonds rated BBB and higher. As expected, the BOC has end this Corporate Bond Purchase Program (CBPP) on May 25, 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. • In the aftermath of the feral budget there were indications that Canada will issue only C$1 billion in RRBs in the current fiscal year. This will result in net negative supply (BOC buying program plus maturities less new supply). The next RRB auction will be a new $400mn RRB Canada 2054 bond on June 2. There is expected to be temporary liquidity related to the auction on that specific day. Liquidity remains challenging as dealers hold very limited inventories in RRB securities.	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.