ALLIANCEBERNSTEIN

October 2021

Market Update – Fixed Income Trading Liquidity
For the Week Ended 15 October 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 October 15, risk assets traded higher for the second straight week. Energy markets continued to trade higher, with Brent crude up by 3% and higher energy costs in the UK and Europe fueling investor anxiety about inflation. Inflation breakevens in both the US and UK expanded by 5 and 8bp respectively. • The Bank of England confirmed a more aggressive rate hike path. The market is now pricing in a BOE policy rate of 1% by August 2022, with 15-20 bp of hikes priced into the November meeting. • In addition, New Zealand CPI came in at 4.9% vs 4.2% expected, its highest print since 2009, causing 2-year rats to sell off by 35bp. • The bear flattening momentum continued in US Treasuries with 5s30s more than 10bp flatter. Volumes in the US futures market are running at nearly twice recent averages, although price action remains choppy. Physical Treasuries are experiencing a similar dynamic. • Transaction costs as measured by bid-to-offer spreads have widened in the long end of the US Treasury curve from 1 tick wide to 1+ ticks wide amid recent volatility. Importantly, this widening is not due to dealer balance sheet constraints. • Observable bid-offer spreads are in line with historical averages in the most liquid bonds. Transaction costs in off-the-run bonds are wider but have improved meaningfully since late February. Nominal Treasury bid-ask spreads are trading in line with recent historical averages of 3/8 to 1/2 tick wide in 5-year notes, 1/2 tick wide in 10-year notes, and between 1/2 to 1 tick wide in 30-year notes depending on the size (a tick is 1/32 of a percent). • Liquidity in terms of market depth in on-the-run 5-year and 10-year Treasuries has improved 80-90% from the challenges	

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	seen in February 2021. Market depth in the 30-year part of the curve has improved ~80% since February. • In TIPS, on-the-run bond bid-offer spreads are 1-2 ticks wide during the most liquid parts of the day; off-the-run bonds in 5-10 year maturities are ~2-3 ticks wide; longer-maturity TIPS are trading 6-7 ticks wide. • Federal Reserve bond purchases continue at $80 billion US Treasuries and $40 billion MBS per month.	
Investment Grade (IG) Corporates	**US IG** • The US IG credit market started the holiday-shortened week ended October 15 with a softer tone, but the market firmed in the latter half of the week, and the index closed 1 bp tighter week-over-week at 85 bp. • Only $15bn in new issue supply priced across 6 issuers during the week – of which $8.25bn was issued by two of the US big six banks. Demand for new issues was less robust than seen in September, but deals continued to price with low new issue premia on average. • Technicals have weakened but the market remains orderly. Despite the moves in Treasuries during the week, dealers were net lifted of $1.1bn as there was strong buying of long-maturity bonds by Asia investors, along with some domestic insurance investor buying. The positive momentum on flows returned with a relatively small inflow of $882mn. **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** • It was a relatively uneventful week in the US HY market during the week ended October 15. The primary market remained in focus with $9.03 bn pricing across 11 deals. New issues were skewed toward secured, lower-rated bonds. Deals were generally met with strong demand, with deals 2-3x over-subscribed and most trading up 0.625-1 points off the break. • Secondary markets were relatively quiet during the week and directionally followed equity markets. Most volume was driven by “fast money” and ETF arbitrage investors • The index ended the week 6 bp tighter, with spreads at 289 bp. The CCC-BB spread difference was 8 bp wider to 329 bp. **CDX HY** • CDX HY traded stronger, in line with the macro tone during the week ended October 15th. Flows were two-way as	Bid/ask spreads vary by issuer but generically: BB-rated securities: 0.75 point, which is in line with normal market conditions B-rated securities: 0.75 point, which is in line with normal market conditions CCC-rated and below: 1.25 points which is in

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	interest rate volatility brought out sellers of high yield, but the strong macro tone also brought out buyers. • Daily trading volumes were above average given a short trading week.	line with normal market conditions CDX HY bid/ask is in line with normal conditions.
Emerging Market Debt (EMD)	**Hard Currency EM** • Positive momentum in EM credit gathered steam during the week ended October 15. Index spreads were a few basis points tighter overall, with real buying across the beleaguered high yield issuers and for the first time in weeks, no supply coming in to fade moves higher. • In Turkey, President Erdogan removed 3 Monetary Policy Committee officials, leading USDTRY to hit new highs and credit spreads to move ~15-20bps wider before retracing roughly half the move as the sell-off was taken as an opportunity for some investors to cover underweights. • In Chile, the central bank hiked 125bp, which was ~25bps more than consensus expectations, driven by a spike in inflation, further pension withdrawals, and political noise surrounding next month's election. • Outflows continued to accelerate according to EPFR for the week ended Wednesday October 13, with inflows picking up in the latter half of the week. • On the supply front, several corporate deals priced with healthy new issue premia and book coverage. Deals traded up ~.25 to 1 point on the break.	EM IG and HY sovereigns and EM IG and HY corporates are back to normal market conditions
Asia	**Asia Hard Currency** • Asia credit spreads remained unchanged during the week ended October 15, and the index was flat after the market suffered the worst loss since the covid outbreak during the previous week amid escalating worries over rising bond yields and China property. • Primary market activity remained very quiet with only 4 deals pricing for a total of USD 2.2 billion, as sentiment remained fragile and Hong Kong was out for a couple days due to a typhoon and a holiday. • Selling in the China high yield sector abated, although the sector lost 0.9% on the week. In China property, BB-rated bonds were marked ~2% higher, outperforming the B-rated category which continued to struggle and dropped close to 5%. **Asia Local Currency** • Yield curves in Asia local currency bond markets bear flattened following an intense selloff in global interest rates, as markets started pricing in faster monetary policy normalization by regional central banks.	Liquidity conditions are normal for Asia hard currency IG credit. HY liquidity is more challenging especially in China HY with spreads 2x wider than normal. Liquidity conditions are normal for Asia local currency debt.

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	• China government bond yields also rose ~5-8bp on the week as markets were disappointed by the absence of RRR cuts in the latest communication by policy makers.	
Securitized	**ABS** • The ABS primary market priced nine transactions for the week ending October 15 totaling $6.5 bn across credit card, equipment, timeshare, franchise, FFELP student loans, unsecured consumer, and prime auto loan sectors. ABS year-to-date supply now stands at $208.8 bn compared to $153.3 bn and $190.4 bn recorded over the same period in 2020 and 2019, respectively. • Benchmark ABS spreads for credit card, auto and equipment softened 1-4bp on the week, reflecting supply pressure in the secondary market as well as new issue prints. • The Manheim Used Vehicle value index rose to 204.8 in September (vs. 194.5 in August), another record high and eclipsing the level it had previously peaked at in May this year (203.0). In terms of sales, the US Lightweight Vehicle SAAR for September tracked 12.2mn, and average transaction price rose +14.7% to a new record high of $42,160. The impact on sales and prices is growing more acutely due to the semiconductor shortage coupled with drawdown on inventory. **CMBS** • The dominant theme in the CMBS market continues to be new issue supply. While conduit issuance paused, the single asset/single borrower pipeline is robust, with multiple deals in various stages of the marketing process. A variety of property types are represented, including industrial, hotel/hospitality, and office. Conduit issuance is expected to accelerate in October, with up to 3 deals expected to price. The deluge of supply is giving investors some pricing power, resulting in a few deals pricing modestly wider than initial guidance. Despite the busy new issue calendar, investor demand remains strong. Bid/offer spreads have now retraced all post-COVID widening. • Recent vintage CMBX (Series 10-14) were unchanged to modestly tighter week-over-week. The outperformance was concentrated at the bottom of the credit stack, specifically the BBB- tranche, where spreads were 1-2bp tighter. Seasoned series struggled, led by Series 6, where A, BBB- and BB rated classes were wider 35/89/94bp respectively. While trading volume is moderate, bid/offer spreads remain unchanged and have retraced all the post-COVID widening.	

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<tr><th>Sector</th><th>Liquidity Trading Comment</th><th>Bid-Ask Spreads</th></tr>
<tr><td></td><td>RMBS
RMBS primary markets had a relatively muted start to October due to the Vegas SFA Conference and the holiday. Thus far, $5.3bn has priced. The new issue supply, however, is set to meaningfully pick up by month end with October expected to be another record month of issuance.
Spreads moved wider across non-Qualified Mortgage (non-QM) and CRT sectors, as both tried to digest the most supply since pre-pandemic levels. A new issue non-QM deal, AOMT 21-6, priced at 88bp, 100bp, 113bp and 175bp across the A1, A2, A3 and M1 classes respectively, which was 8bp, 5bp, 3bp and 10bp wider than the deal priced in the first week of October. Non-QM spreads have widened since mid-September. On-the-run CRT M2, B1 and B2 indices were 14bp, 5bp and 15bp wider at 169 discount margin (DM), 288DM and 479DM, respectively.
Fannie Mae announced its upcoming Connecticut Avenue Securities (CAS) 2021-R01 transaction, the CAS REMIC, to transfer credit risk on a portion of its guarantee book to the private markets.
Agency MBS
Bid/ask spreads in Agency MBS remain well supported, given the Fed purchases of $40bn per month. Bid/offer spreads remain tight in the sector. Current coupon bonds are trading at 0.5-1 tick wide and the rest of the coupon stack is wider by 3-4 ticks. Higher coupons trade less frequently.</td><td></td></tr>
<tr><td>Money Market</td><td>During the week ended October 15, the Fed Reverse Repo facility (RRP) usage was ~$1.47 trn.
1-month LIBOR set at 0.086%; 3-month LIBOR set at 0.132%.
SOFR set at 0.05%. Effective Federal Funds Rate set at 0.08%.</td><td></td></tr>
<tr><td>US Municipals</td><td>During the week ended October 15, the municipal market held steady in the face of US Treasury market volatility, with the benchmark AAA curve unchanged in 2-9 year maturities, and lower 1bp in 1year and 10-30 year maturities – outperforming significantly in shorter maturities, but underperforming in longer maturities. The interest rate volatility and Fed taper talk have caused many municipal investors to “hide out” in short maturity bonds.
In terms of liquidity, odd-lot discounts widened slightly, but even the smallest lot sizes are generally still bid within 1 point of round lot evaluations.</td><td></td></tr>
<tr><td>Canadian Market</td><td>Federal
Liquidity is best in benchmark issues for block sizes of <CAD25 million. Bank of Canada (BOC) is “buying at least $2 billion of Canadian government bonds a week until the recovery is well underway.’’ It should continue to support market liquidity. “Purchases of longer-maturity bonds have a greater impact,</td><td>Federal: bid/ask was at 4 cents in the 10-year area, but for the long end of the curve, it remains relatively wider at up to 12 cents</td></tr>
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	dollar-for-dollar spent, by removing more term risk from markets and putting downward pressure on term premiums. Lower term premiums imply lower GoC bond yields, all other things equal.” • The latest BOC balance sheet shows that the central bank continued to support liquidity in Canadian markets (as of October 13). • The Government Bond Purchase Program (GBPP) has resulted so far in $280.947 in net buying (assets minus liabilities minus position at the start of the QE in March 2020). • The BOC was not able to get decent size in high-coupon Canadas in their buying program - they only bought only small size per security showing limited liquidity. Liquidity is better in on-the-run benchmark Canadas. According to the latest BOC research, Federal debt is the most liquid sector within the Canadian fixed income markets. • As expected, QE bond buying of $2bn per week was confirmed at the September BOC meeting (no cut). It is expected that at the next BOC meeting on October 27, QE could be cut by another $1bn per week. As the central bank reduces and eventually ends its QE program, liquidity in federal bonds across the yield curve could be impacted. **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 but will favor agency trades. • The Bank of Canada’s Provincial Bond Purchase Program (PBPP) ended in May. Therefore, the central bank does not provide a back stop to the provincial sector. • Given the large borrowing needs of provinces, the new issue calendar is expected to increase trading activity in October. Liquidity is better in on-the-run, current coupon bonds in the provincial sector (compared to off the runs). **IG Corporates** • The latest Bank of Canada research highlights the limited liquidity in Canadian corporate bond markets, which can impact pricing; many dealers are maintaining low balance sheet inventories, so may not provide bids in some sectors. • Trading is on an agency basis for issuers affected by mergers and acquisitions. • The Bank of Canada had a 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 ended this Corporate Bond Purchase Program (CBPP) in May 2021.	given its higher volatility. For example – the latest ultra-long Canada 2064 bid-ask is at 30 cents, reflecting its liquidity issues given this is not a benchmark. Off-the-run, high coupon Canadas were reported to have limited liquidity 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 generally 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 and activity is rare. Dealers do not hold these securities on their balance sheet. Bid ask is not a reliable indicator for trading.

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	• Dealers expect a busier new issue calendar in October which is expected to bring higher trading volumes and improved liquidity. However, smaller corporate issues trade only on an agency basis in the secondary markets. **Real Return Bonds (RRBs)** • The program to purchase Government of Canada securities in the secondary market – the Government Bond Purchase Program or GBPP – should provide some temporary liquidity since it includes RRBs. • Trading in Canada RRBs has shown a continued lack of liquidity. • Finance Department documents indicate that Canada will issue only C$1 billion in RRBs in the current fiscal year with four auctions. This will result in net negative supply (BOC buying program plus maturities less new supply). • The next RRB auction on December 1 will most likely be a re-opening of RRB Canada 2054 bond. The central bank was not able to complete its $280mn RRB target purchase program in September showing challenging liquidity in Canadian RRB markets from tenor of 2041 to 2050. • Liquidity remains challenging, trading by appointment, as dealers hold limited inventories in RRB securities.	

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