ALLIANCEBERNSTEIN

September 2021

Market Update – Fixed Income Trading Liquidity
For the Week Ended 3 September 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	• The global developed market interest rate complex sold off again during the week ended September 3, with European Government bonds yields leading the way higher. 10-year UK gilts were the worst performer, selling off 14bp on the news that Hew Pill – who is understood to be hawkish – was named Bank of England Chief Economist. • In the US, markets shrugged off a disappointing non-farm payroll number, deeming it not substantial enough to alter the Fed's tapering plans. • Markets are still pricing in the first full 25 bp rate hike by the FOMC in February-March 2023. • Heavy sovereign supply weighed on markets coming out of month end during a period of summer-worsened liquidity and lower volumes. • Liquidity in terms of market depth in on-the-run cash 5-year and 10-year Treasuries has improved 80-90% from the challenges seen in February 2021. Market depth in the 30-year part of the curve has improved ~80% since February. • 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. • 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 ~3-4 ticks wide; longer-maturity TIPS are trading 6-8 ticks wide. • Federal Reserve bond purchases continue at $80 billion US Treasuries and $40 billion MBS per month.	
Investment Grade (IG) Corporates	**US IG** • US IG was quiet in both primary and secondary markets during the week ended September 3. The market traded mostly sideways through the week, with index spreads closing unchanged week-over-week.	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>In the primary market only 3 issuers tapped the market and brought $3.75 bn of supply. Secondary market flows remained light and dealers were lifted on ~$1.2 bn of bonds throughout the week (following $4.6bn the prior week).
Asia flows remained light heading into month end, but continued to be net buyers of long-maturity bonds.
The positive momentum on flows continued with another $2 bn inflow this week. Looking ahead, supply is expected to pick up after the Labor Day weekend.
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
Once again, a summer mindset was in effect in the HY market during the week ended September 3. Secondary activity was extremely quiet.
US HY index spreads ended the week 11 bp tighter week-over-week to 283 bp. The CCC-BB spread difference was 7 bp wider to 328 bp.
No new issues priced during the week. Expectations for September issuance are in the $40-45 billion range.
CDX HY
CDX HY was unchanged during the week ended September 3, slightly underperforming stocks. Looking at a longer time horizon, CDX HY performance seems to be capped; while stocks have made new highs, CDX HY hasn't gotten back to the YTD high yet.
Trading volumes were below the 30-day average heading into the end of summer.</td><td>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: 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 continued its post-Powell positive momentum with index spreads tightening 5bp during the week ended September 3. Beta compressed further with HY outperforming IG by 10 bp.
Flows were quiet with many market participants on vacation. Supply is expected to pick up after the US Labor Day holiday. Flows swung back to positive (per EPFR).</td><td>EM IG and HY sovereigns and EM IG and HY corporates are back to normal market conditions</td></tr>
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<tr><td>Asia</td><td>Asia Hard Currency
Asia credit primary market issuance began to pick during the week ended September 3, with 5.3 bn in issuance, up from 3.2bn the prior week.
Sovereign bonds continue to be well-supported and corporate IG bond spreads continued to grind tighter.
Huarong bonds finished the week only 150-200bp wider vs historical average as concerns were alleviated amid a capital injection.
China property remained the focus in Asia HY with Evergrande bonds dropping further and taking other property bonds with them.
Asia Local Currency
Liquidity continues to function normally.</td><td>Liquidity conditions are normal for Asia hard currency IG credit. HY liquidity is more challenging with spreads 1.5x wider than normal.

Liquidity conditions are normal for Asia local currency debt</td></tr>
<tr><td>Securitized</td><td>ABS
The ABS primary market priced two transactions for the week ended September 3 totaling $0.6 bn across prime and non-prime auto loan sectors. ABS year-to-date supply now stands at $171.6 bn compared to $113.4 bn and $154 bn recorded over the same period in 2020 and 2019, respectively.
The forward calendar has six deals pre-marketing and a surge of issuance is expected heading into quarter end. Indicative benchmark spreads continue to remain at or near cyclical tight levels, although there was some cheapening in Esoteric spreads (+3 to +10bp across AAA to BB) and Private Credit Student Loans (+7 to +10bp across AAA to BBB).
CMBS
As expected, both the CMBS and CMBX markets were quiet during the week ended September 3, as the US Labor Day holiday weekend approached. AAA-rated CMBS were 1 basis point tighter, while BBB rated bonds tightened by 3-5 bps, albeit on light trading volumes. There were no new issues to price, however supply is expected to pick up materially next week.
CMBS 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 price action mirrored that of the cash market. Series 8-14 tightened throughout the capital stack. As in the CMBS market, trading volume was also muted. CMBX bid/offer spreads remain unchanged and have retraced all the post-COVID widening.</td><td></td></tr>
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	CRTs • The technicals in the CRT market continued to improve during the week ended September 3, with spreads tightening on the margin due to a lack of supply in the secondary market. Volumes are expected to pick up after the US Labor Day holiday. • 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** • Generic primary market clearing levels on the week stood roughly at 116-120 bp for AAA-rated spreads; AA-rated spreads at around 160-165 bp; A-rated at 200-205 bp; BBB-rated at 295-310 bp; and BB at 600-650 bp. • 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 trading at 0.5-1 tick wide and the rest of the coupon stack is wider by 2-2.5 ticks.	
Money Market	• The Fed Reverse Repo facility (RRP) usage was around $1.1 trn. • 1-month LIBOR set at 0.083%; 3-month LIBOR set at 0.116%. • SOFR set at 0.05%. The Effective Federal Funds Rate set at 0.08%. • There was still some concern around late October/early November US Treasury maturities as investors believe the government will run out of "extraordinary measures" and potentially default on its debt. Congress must raise or suspend the debt ceiling to avoid default. • Government money market funds had $41 billion of outflows in the week ended September 3. Prime funds had $1bn of outflows over the same period.	
US Municipals	• The week ended September 3, saw municipal benchmark yields 1-2bp wider in short maturities and unchanged in long maturities. • Municipal investors continue to hold high cash balances, with start-of-the-month coupons and calls hitting on September 1. • Longer-maturity bonds remain weak, particularly in mid-grade A-rated issuers.	

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<tr><td></td><td>During the week a $900mn New York City Transitional Finance Authority bond deal came to market, which was mostly shorter maturities, but longer maturity bonds had to be cheapened to get the deal done. At wider spread levels, demand was healthy at 3-4x oversubscribed.
Liquidity for odd-lots remained unchanged. Bid side levels are approximately 1 point for small odd lots (5-15k) and .025 for larger odd lots (100k+).</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, 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 September 1).
The Government Bond Purchase Program (GBPP) has resulted so far in $277.55 in net buying (assets minus liabilities minus position at the start of the QE in March 2020). As expected, there was a reduction of QE bond buying to $2bn per week after the July BOC meeting.
According to the latest BOC research, Federal debt is the most liquid sector within the Canadian fixed income markets.
Looking ahead, markets expect the central bank to have an unchanged policy in September.
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) has ended. 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 should increase trading activity in coming weeks.
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</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 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. For example – the latest ultra-long Canada 2064 bid-ask is at 35 cents, reflecting its liquidity issues given this is not a benchmark.

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</td></tr>
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Sector	Liquidity Trading Comment	Bid-Ask Spreads
	sheet inventories, so will not provide bids in some sectors such as telecommunications, pipelines, and transportation. • 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. • Dealers expect a busier new issue calendar in September which is expected to bring higher trading volumes and improved liquidity. **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 continued lack of liquidity. Trading a block can only be done on an appointment basis. • 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 $300mn RRB auction on September 1 was a re-opening of RRB Canada 2054 bond which indicated once again a lack of liquidity. The central bank was not able to complete its $280mn RRB target purchase program again 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.	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.