ALLIANCEBERNSTEIN®

March 2021

Market Update – Fixed Income Trading Liquidity
For the Week Ended 12 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 12, global rates were mixed, with German bunds unchanged after a dovish ECB meeting where officials decided to significantly increase the pace of bond purchases in response to the recent rise in bond yields. In contrast, UK gilts and US Treasuries sold off in a bear steepening move by 5-6 bp. • Financial markets remain optimistic on the reopening trade. The S&P500 index was higher week-over-week, commodities remain at elevated levels and 5-year US inflation breakevens widened by 10 bp on the week. • Treasury supply was a major focus during the week. Both the 10- and 30-year auction results came in line with the 12-month end user demand averages. This was a healthy result for the market, given how chaotic interest rates have been. These auctions are expected to quell some of the anxiety around US Treasury market liquidity. • Liquidity in terms of market depth in on-the-run cash 5-year and 10-year Treasuries has improved by ~30% over the last 3 trading sessions and 70% from the worst levels on February 26. Market depth in the 30-year part of the curve improved by ~20-25% over the last 3 sessions (55-60% 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, particularly following the recent 10-year Treasury auction. Transaction costs in off-the-run bonds remain wider vs. historical averages. But there has been some improvement in bid-offer spreads vs the prior week - from 12-13 ticks at the February 26 wide levels to 4-5 ticks on March 5 and 3-4 ticks currently compared with just 2 ticks prior to the current liquidity deterioration earlier in February (a tick is 1/32 of a point). Deep off-the-run high coupon bonds have moved from 24-32 ticks wide on February 26 to 6-7 ticks wide currently.	

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	• Federal Reserve bond purchases continue at $80 billion US Treasuries and $40 billion MBS per month.	
Investment Grade (IG) Corporates	**US IG** • The US investment-grade cash bond market began the week ended March 12 with a weaker tone following $67bn of supply that priced the previous week. There were signs of supply indigestion with deals pricing with higher concessions and lower book coverages. The LQD ETF traded at a discount to NAV for 4 straight days which hurt odd lot liquidity. There was a “buyers strike” in shorter-maturity bonds following a large amount of supply. As the macro tone improved in the latter half of the week, demand improved (the Verizon “jumbo” deal set a record for the largest order book in the IG primary market), LQD returned to trading with a small premium to NAV and Asia investors returned as net buyers of longer-maturity bonds on Friday. • The index closed 2bp wider week-over-week and the market saw an inflow of $3.3bn. • Supply was $57bn during the week. Supply for the week ending March 19 is expected to slow relative to the past 2 weeks with $30-35bn expected. **Euro IG** • The euro IG market was once again focused on interest rates during the week ended March 12, although flows were fairly benign and remained orderly in both directions. • Good news seems priced into the cash bond market. For example, there was limited positive reaction in cash bonds after the supportive ECB rhetoric. Similarly, when Verizon issued their “jumbo” deal, diminishing the probability of euro supply, Verizon spreads moved wider +2bp. • Preferreds/AT1s held in well into the rate volatility at the end of the week, both in terms of absolute spread levels and relative to IG/HY index spreads. **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 high yield market traded in line with the interest rate move to start the week ended March 12 before trading firm on Thursday as rates stabilized. Index spreads ended the week little changed at 326 bp. • The new issue calendar remained active with $15.6bn pricing across 16 deals. New issues continue to serve as the primary mechanism for investors to maintain risk. Order books continue to be	Bid/ask spreads vary by issuer but generically: BB-rated securities: 1 point, which is in

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	consistently oversubscribed through the week and deals were well-supported off the break. • The spread between CCC and BB-rated bonds was 7bp tighter to 300 bp. **Euro HY** • During the week ended March 12, the primary market was in focus in euro HY. There were 4 new issues, each with above-index yields, that priced through initial price guidance and traded up on the break with strong demand. • Secondary markets saw healthy two-way flow across the credit spectrum as investors sold B-rated bonds to buy BB-rated (first sign of decompression this year). The lower-quality, higher-yielding part of the market had no problem being digested and performing well, despite some deciding to take the other side of the trade. • Flows are trending to outflow, but this has not materially weighed on the market and technicals seem solid despite the continued developed market interest rate volatility. **CDX HY** • CDX HY was unchanged during the week ended March 12. In line with the dominant YTD theme, CDX HY underperformed stocks and HY cash bonds. 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 at average levels, as volatility trended down during the week. • Bid/ask spreads have declined to pre-crisis levels.	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.
Emerging-Market Debt (EMD)	**Hard Currency EM** • EM Credit found its footing during the week ended March 12 as the JPM EMBI Global Diversified Index closed 6bp tighter and 16 bp off the widest levels seen early in the week. IG and HY components of the index performed in line with each other. • EPFR flow data reported the largest outflow since March 2020 with $2.4bn from hard currency, bringing the two-week outflows to ~$4.3bn. • Interest rate volatility remains top of mind, but the technical backdrop appears to be firming up highlighted by the fact that the index was able to close with tighter spreads on the week despite the headline outflow number. • Of note, the market heads into the peak principal and interest period of the year during the next 6 weeks. The new issue calendar is not expected to be heavy in weeks ahead, since the market has already seen over 50% of total expected supply for the year. **Local Currency EM** • The local EM rates market mostly tracked US Treasuries. Liquidity remains adequate but volatility is to be expected.	EM IG and HY sovereigns and EM IG and HY corporates are back to 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>Brazil remains in the crosshairs of the market as next week's central bank rate decision approaches, where the bank will need to navigate across rising inflation expectations, weak growth and the always-scrutinized fiscal trajectory.</td><td></td></tr>
<tr><td>Asia</td><td>Asia Hard Currency
Primary market activity remained steady in Asia credit during the week ended March 12, with most issuance in high-grade credit. There was better performance in the new issue market during the week with roughly half of all new issues trading "above water" by the end of the week.
It was a volatile investment grade secondary market, with spreads whipsawing +/-20bp intraday with investor hesitation on US Treasuries and flows giving way to thinner liquidity and "gappy" moves in spreads.
Asia HY began the week with selling pressures, but recovered from Tuesday onward to finish the week 1-1.5pt lower in in China property, 0.75-1pt lower in Indonesia and 1pt lower in India.
Asia Local Currency
Asian market makers have rarely paid so much attention to US Treasury auctions, with the 10-year and 30-year bid-to-cover and potential "tails" (difference between average and lowest bids) leading to speculation and hesitation among Asia duration positions.
Indonesia suffered early in the week but there was onshore buying "on the dip", so the market closed only 5-7bps higher week-over-week. There was further debate on Indonesia's draft financial sector reform bill and a possible tilt away from the central bank's current currency stability mandate to include growth/employment.</td><td>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</td></tr>
<tr><td>Securitized</td><td>CMBS
During the week ended March 12, both the CMBS and CMBX markets were quiet. Despite a pickup in secondary market activity, spreads levels were little changed.
The new issue calendar is slowly picking up. One conduit deal is currently being marketed while another is expected to be announced shortly. The technical backdrop remains positive, as supply remains manageable and demand remains robust.
Liquidity remains robust for AAA to A-rated CMBS classes while bid/offer spreads for BBB-rated classes remain approximately 2x their pre-covid-19 levels. 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.
ABS
The ABS primary market priced thirteen deals for the week ending March 12 totaling $7.5bn across solar, unsecured consumer loan, private credit student loans and non-prime auto loan sectors. Year-</td><td></td></tr>
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	to-date ABS supply now stands at $53.3bn compared to $47bn recorded over the same period in 2020. • Heavy supply pushed spreads slightly wider on the week, off their cyclical tights. Benchmark ABS spreads widened +2bp across the credit card sector, +1 to +5bp on stranded assets, equipment, and auto loan, +5bp on FFELP, and +10bp across AAA-rated private credit student loan. Subordinated private credit student loan ABS outperformed and was the only segment that saw tightening on the week, by -5bp, reflecting exceptionally strong oversubscription levels on new issue. • There are six ABS deals totaling $3.7bn that are in pre-marketing for the week ahead. **CRTs** • The week ended March 12 started off as a continuation of the previous week without much of a footing or support from investors. But by the middle of the week, investors began to return to the market. 2018/2019 last cash flow bonds saw some large trades. Dealers still seem hesitant, only positioning bonds if they are sure there is an outlet for them. • Genworth was looking to place a small MI deal with a select group of investors but decided to pull the deal based on less attractive pricing levels. Arch is also premarketing a deal currently. Demand for new issue MI bonds is less certain in this environment. • Secondary market liquidity remained challenged last week. Dealers having limited inventory creates a positive technical for the market but the interest rate volatility may keep them on the sideline for the time being. Select profiles are trading well but B1 and MI bonds are not. • 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 was fatigued during the week ended March 12. New issues remain abundant and investors are stretched thin. Subscriptions in new issues have gotten to roughly 1x and some classes are pricing wider. • AAA-rated spreads for top-tier managers are in the 105 bp area; AA-rated spreads are around 150-160bp; A-rated are 175-85bp; BBB-rated are 300-310bp; and BB around 675-700bp. • Secondary market spread levels are widening more than the primary market. • Even in the midst of the widening spreads, liquidity remains robust in the CLO market for those that want to transact. Bid/ask spreads remain at or around pre-crisis levels.	

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	Agency MBS • Bid/ask spreads in Agency MBS remain well supported, given the Fed purchases of $40bn per month. Bid/offer spreads for current coupon bonds are trading at 1-1.5 ticks wide and the rest of the coupon stack is wider by 3-4 ticks.	
Money Market	• 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 expires March 31st. This has the market concerned about liquidity dislocations around quarter end. The market is waiting for the FOMC meeting next week for a possible extension of this SLR exemption • During the week ended March 12, repo continued to trade at the lower bound of the corridor. Cash in the system is putting pressure on the front end. SOFR continues to set at 0.01%. The Fed repo facility saw an uptake of $5-10bn on Thursday and Friday. Pressures are expected to persist as GSE cash enters the market and the Treasury General Account declines continue to play out. • Effective Federal Funds Rate set at 0.07% • 1-month LIBOR set at 0.108%, while 3-month LIBOR set at 0.182%. • Government money market funds had $32bn of inflows in the 7 days ended March 12. Prime funds had $15bn of outflows over the same period.	
US Municipals	• After the healthy selloff in the municipal market a few weeks ago, municipals are again trading firmly as investors seemed eager to put cash to work at higher, more attractive yield levels during the week ended March 12. This was evident in the new issue market, as deals were well-received. For example, the $1.8bn California GO deal was 15-20x oversubscribed and the $575mn NY Water deal was 13-20x oversubscribed. However, after municipal outperformance vs US Treasuries, the municipal/Treasury ratios are nearing levels that have typically been met with some resistance. In addition, the week ahead is expecting the largest tax-exempt calendar YTD at ~$11bn. • Odd-lot discounts to round-lot bid side evaluations continues to remain at improved levels with discounts in the $0.60 to $1 range depending on size.	
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$221.8 billion to support liquidity in Government of Canada markets through March 10. According to	Federal: bid/ask was at 5 to 7 cents in the 10-year area, but for the long end of the curve, it remains relatively wider at 15 to 20 cents given the recent higher

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	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 do agency trades, even with the Bank of Canada's buying program of provincial debt. • The BOC has purchased C$16.9 billion in par value year to date through March 10 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$210 million par as of March 10), 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.	volatility. Off the run, high coupon Canadas were reported to have limited liquidity in this high volatility 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

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	• 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 December, the BOC bought net $34mn in RRBs compared with $122mn in February (BOC buying program less new supply). • Liquidity remains challenging as dealers hold very limited inventories in RRB securities.	not hold these securities on their balance sheet. Bid-ask is not a reliable indicator for trading.

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