



Market Update – Fixed Income Trading Liquidity
For the Week Ended 30 October 2020

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.

Table with 3 columns: Sector, Liquidity Trading Comment, and Bid-Ask Spreads. The 'Sector' column lists 'US Treasuries'. The 'Liquidity Trading Comment' column contains a bulleted list of market observations. The 'Bid-Ask Spreads' column contains text describing bid-offer spreads for on-the-run and off-the-run US Treasuries, and TIPS bid/ask levels.

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	<p>using the top 3 bids and offers in 10-year Treasury notes, averaged between 8:30 and 10:30am daily (Sourced from BrokerTec)—has recovered to levels last seen before the covid-19 crisis.</p> <ul style="list-style-type: none"> • Deep off-the-run US Treasuries are nearly back to their pre-covid bid/ask spread levels. Bonds that have less than 70% of Federal Reserve System Open Market Account ownership have deeper liquidity, as they can be offered into the Fed purchase programs. 	
Investment Grade (IG) Corporates	<p style="text-align: center;">US IG</p> <ul style="list-style-type: none"> • US IG cash bond spreads leaked wider during the week ended October 30, but outperformed equities with the index closing the week 2 bp wider week-over-week. • Dealers lightened balance sheets further during the week as several portfolio trades (block trades of multiple securities) were executed by investors buying risk or moving down in quality. Investor buying out of Asia slowed relative to the previous week ahead of month end and the upcoming US election. Technicals remain supportive as supply remained light (\$20bn pricing during the week), with continued inflows, and dealers remaining light on risk. Engagement levels remain low and liquidity is expected to continue to be thin heading into the US election and year end as both dealers and investors want to preserve the solid performance achieved YTD. • Fed purchases under the secondary market purchase program (SMCCF) remained light as they bought only \$99mn (\$19.8mn/day) over the past week. • Bid/ask spreads remain wider than pre-crisis levels. <p style="text-align: center;">European IG</p> <ul style="list-style-type: none"> • Despite the macro tone, the technical picture remained reasonable in the Euro IG market during the week ended October 30, with cash bonds outperforming CDS index on the softer days. • Generally, the macro weakness did not cause substantial outflows and as such, most supply that came for sale was able to be recycled with certain exceptions - such as the euro peripheral AT1 market which felt “unloved”. • Liquidity was thinner as the US election approached as it seemed many investors were 	<p>US IG spreads are generically 1-1.5x wider vs normal market conditions</p> <p>AT1/Preferreds are 1-1.5x wider vs normal market conditions</p>

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	<p>positioned for their perceived outcome prior to this week, so activity and conviction levels to transact further were low.</p> <p style="text-align: center;">REIT Preferreds</p> <ul style="list-style-type: none"> • Liquidity in the REIT preferred market is typically limited under more normal conditions given the retail nature of the investor base. Current liquidity is better than in March and April but is still not back to normal. • 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. • Trading volume is trending low since valuations continue to recover. 	
High Yield (HY) Corporates	<p style="text-align: center;">US HY</p> <ul style="list-style-type: none"> • The US high yield market outperformed stocks during the week ended October 30, supported largely by a bid from “real money” investors, particularly in the higher-quality part of the market. • In the secondary market, the only real supply during the week came from ETFs which were better sellers as HYG was persistently cheap to NAV. • In the new issue market, 13 deals priced for a total of \$7.45bn, despite the equity volatility – including 3 deals on Wednesday when stocks were off 3.5%. Deals remain “one off” and “storied” situations requiring multiple day roadshows. Markets are receptive to these transactions if they come at the right valuation. New issue volume is expected to drop off as many deals were pulled forward ahead of the US election. • The HY index moved 41 bp wider to 505 bp. Recent tight levels of 460 bp were set on October 13. This compares to March 23 wide levels of 1100 bp and pre-covid-19 tight levels of 341 bp on Feb 13. • The CCC-BB spread was 21 bp wider to 563 bp. This compares to April 6 wide levels of 1139 bp and pre-covid-19 tight levels of 613 bps on February 13. <p style="text-align: center;">Euro HY</p> <ul style="list-style-type: none"> • During the week ended October 30, the Euro HY market trended weaker on ETF selling, but saw 	<p>Bid/ask spreads vary by issuer but generically:</p> <p>BB-rated securities: 1 point, which is in line with normal market conditions</p> <p>B-rated securities: 1 point, which is in line with normal market conditions</p> <p>CCC-rated and below: 1.5points which is in line with normal market conditions</p> <p>CDX HY bid/ask is 1-2x vs normal conditions.</p>

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	<p>few “real money” investors raising cash ahead of the US election. Dealers were reluctant to bid for risk by the end of the week amid equity market volatility and consistent ETF selling, but real money investors looked to buy at the lower levels in select credits.</p> <ul style="list-style-type: none"> • Issuers more directly exposed to covid-19, such as gaming, travel and leisure, underperformed as lockdowns rolled out across Europe. However even those issuers seemed supported at lower price levels as risk positioning among investors seemed on the lighter side relative to the spring. • The primary market saw only a single BB-rated issuer in the market for a refinancing. This deal priced at the tight end of initial price guidance and traded up on the break. • Overall the Euro HY market continues to trade in line with the broader macro environment, but outflows appear not material enough to deplete cash balances and investors seem relatively conservatively positioned in the face of the many unknowns (US elections Brexit, covid-19 vaccine/lockdowns) <p style="text-align: center;">CDX HY</p> <ul style="list-style-type: none"> • CDX HY traded weaker during the week ended October 30 and continued to underperform cash bonds. • Trading volumes picked up on the back of heightened volatility. Bid/ask spreads have declined but remain elevated relative to pre-crisis levels. 	
Emerging-Market Debt (EMD)	<p style="text-align: center;">Hard Currency EM</p> <ul style="list-style-type: none"> • During the week ended October 30, the JPMorgan EMBI Global Diversified index spreads were ~5 bp wider, but volumes continued to be well below average. • Technicals continue to improve with investors positioned light in below investment grade, and below-investment-grade vs investment-grade valuations hovering around multi-year wide levels. Anecdotally, cash balances across “real money” and “hedge fund” investors have crept up as inflows remain robust and investors are unwilling to increase beta with elevated uncertainty surrounding a vaccine and the US election. • Sub-Saharan Africa oil exporters underperformed during the week, down 3-4 points as Brent crude 	<p>EM IG sovereigns are back to normal market conditions</p> <p>EM HY sovereigns are back to normal market conditions</p> <p>EM IG corporates are back to normal market conditions</p> <p>EM HY corporates are back to normal market conditions</p>

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	<p>prices dipped below \$37 during Wednesday's global macro selloff.</p> <ul style="list-style-type: none"> Supply continued to be quiet outside of the Asia-Pacific region where a handful of investment-grade corporate issues were well-received, with books 7-10x oversubscribed on average, deals coming inside initial price guidance, and trading tighter on the break. <p style="text-align: center;">Local Currency EM</p> <ul style="list-style-type: none"> Liquidity is close to normal. 	
Asia	<p style="text-align: center;">Asia Hard Currency</p> <ul style="list-style-type: none"> Asia hard currency credit spreads tightened 1bp during the week ending October 30, defying the broader selloff in risk assets led by US equities. The primary market remained active with 18 issuers raising close to USD 7bn. Asia debt funds saw inflows of USD 500mn over the week, notable considering the overall macro weakness. Real money investors were not aggressively selling to pare down risk. There were some private bank buyers on dips and hedge fund short covering which supported the lower end of the region's credit quality spectrum. <p style="text-align: center;">Asia Local Currency</p> <ul style="list-style-type: none"> Liquidity in Asia local currency markets was generally supportive despite coming under pressure from a global rates selloff. Korea Treasury bonds largely tracked US Treasuries lower, as the curve sold off ~5 bp on the week, but other Asian local rates were broadly unchanged. 	<p>Asia IG credit is ~1 to 1.5x wider vs. normal market conditions</p> <p>Asia HY credit is ~1.5 to 2x wider vs. normal market conditions</p> <p>Asia local currency debt is ~1 to 1.5x wider vs. normal market conditions</p>
Securitized	<p style="text-align: center;">CMBS</p> <ul style="list-style-type: none"> Both CMBS and CMBX widened in sympathy with other risk asset markets during the week ended 30 October. AAA-rated CMBS and CMBX widened 3-6 bp; BBB-rated CMBS widened 10 bps; BBB- CMBX was cheaper by 25-75bp depending on the series. CMBS trading volume was light with only 914mn of bonds out for the bid, 130mn fewer than the prior week. With little trading volume in both CMBS and CMBX, bid/offer spreads remain unchanged from the prior week. Liquidity varies within quality tranches based on several factors including performance and collateral characteristics. In CMBS, AAA-rated bid/offer spreads have retraced the post-covid-19 	

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	<p>widening. Below the AAA-rated credit quality level, those deals perceived as “top-tier” have also seen their bid/offer spreads normalize, while “lower-tier” classes remain approximately 2x their pre-covid-19 levels.</p> <ul style="list-style-type: none"> • Within CMBX, bid/offer spreads remain wider than their pre-covid-19 levels, with A.6, BBB-.6, and BB.6 at approximately 2x their historical averages. <p style="text-align: center;">ABS</p> <ul style="list-style-type: none"> • The ABS primary market priced eight transactions for the week ending October 30 totaling \$3.2bn across servicer advances, device payment, whole business, solar, equipment, private credit student loan, FFELP and non-prime auto loan ABS deals. ABS year-to-date supply now stands at \$164bn compared to \$207bn recorded in 2019 over the same time period. • ABS spreads were unchanged on the week, as the primary market continued to churn out deals ahead of an anticipated lull around US election day. • In the week ahead, one student loan deal is announced and set to price ahead of the US election. The remainder of the year is expected to see opportunistic year-end ABS funding transactions, though the volume is expected to fall short of the \$23.9bn issued during October. <p style="text-align: center;">CRTs</p> <ul style="list-style-type: none"> • There were no new issues during the week ended October 30 and so focus was on the secondary market. Dealers’ inventory coming into the week was fairly heavy, and so took the lull in new issue supply to sell down their inventory bonds. Sales were generally done at meaningful concessions to prior week levels. Spreads ended the week roughly 75 to 100 bp wider. • Liquidity has begun to show signs of some stress. Depth of bid remains robust, but dealer markets are now for smaller size blocks (2mn vs 5mn previously), making it challenging to trade larger sized blocks away from Bid-Wanted-In-Competition (BWIC) lists. <p style="text-align: center;">Legacy Non-Agency RMBS</p> <ul style="list-style-type: none"> • Legacy RMBS have recovered back to pre-crisis levels. After having widened to the 1000-1200 bp range in March, spreads are currently trading at or around 200 bp discount margin currently. 	

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	<p style="text-align: center;">CLOs</p> <ul style="list-style-type: none"> • Spreads continued to drift wider during the week ended October 30. The primary market leaked marginally wider with AAA-rated deals coming in the 137-142bp spread range. The secondary market saw a leveling off on fairly low volumes before the election. Top-tier issuers trade in the 140-150bp spread range. The bottom part of the capital stack (BB-rated) are trading in the 700 to 800 bp spread range. • Liquidity remains robust in the CLO market. Bid/ask spreads remain at or around pre-crisis levels. <p style="text-align: center;">Agency MBS</p> <ul style="list-style-type: none"> • Bid/ask spreads in Agency MBS have returned to pre-crisis levels, driven tighter by the combination of Fed buying and increased investor interest. Bid/offer for lower coupon bonds is just ½ of a tick wide. 	
Money Market	<ul style="list-style-type: none"> • Government money market funds saw inflows of \$18bn in the 7 days ended October 30. Prime funds flows were flat over the same period. • T-bills tightened 1-2bp week-over-week. Repo has been trading at the upper bound of 0.09%. • 1-month LIBOR set at 0.14% and 3-month LIBOR set at 0.22%. SOFR set at 0.09%. The CP spread to T-Bills remains around 10 bp. 	
US Municipals	<ul style="list-style-type: none"> • Municipal bonds were mostly quiet during the week ending October 30, aside from primary issuance which remained high. • The past 2 weeks saw high new issuance ahead of the US election as issuance was pulled forward. • MTA priced a new issue and drove the market tighter by 30-50bp. • Odd lot liquidity remained stable, but volumes were definitely lower than historical averages. Discounts to round lot bid side evaluations averaged 1 to 1.25 points on odd lots of 5k-15k size, while larger lots of 100k to 1mn are 0.25 to 0.5 points. 	
Canadian Market	<p style="text-align: center;">Federal</p> <ul style="list-style-type: none"> • Liquidity is best in benchmark issues for block sizes of <=CAD25 million; liquidity has improved in off-the-run, high coupon bonds with Bank of Canada (BOC) bond buying. 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 	Federal: bid/ask typically +0.5 bp but for the long end of the curve, it can be more depending on volatility (risk off markets) and size outstanding. Off the run Canadas can have a wide bid-ask given small

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	<p>should support liquidity at the 30-year part of the yield curve.</p> <ul style="list-style-type: none"> The BOC has purchased C\$154 billion to support liquidity in Government of Canada markets since the purchase program started on March 27 through October 28. In coming weeks liquidity could be negatively impacted by the US election. <p style="text-align: center;">Provincial</p> <ul style="list-style-type: none"> 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\$10.5bn in par value year to date through October 28 within their provincial buying program to support liquidity. <p style="text-align: center;">IG Corporates</p> <ul style="list-style-type: none"> Limited liquidity, particularly during risk-off trading days 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 market has improved in sectors such as banks and telecom companies. The Bank of Canada's 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\$160 million par), indicating the impact is limited. The central bank did not purchase additional bonds in recent weeks (as of October 28). BBB- bonds are trading by appointment unless there is a new issue. It should be noted that corporate traders are unlikely to increase their inventories ahead of the November 3 US election, which could also lead to dislocations in liquidity. <p style="text-align: center;">Real Return Bonds (RRBs)</p> <ul style="list-style-type: none"> The C\$400 million RRB auction of the long Canada 0.5% Dec. 2050 on September 2 provided liquidity in the benchmark RRB bond for a limited period in the benchmark RRB bond. 	<p>outstanding size in these securities.</p> <p>Provincial: concession of +1 bp and more 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.</p> <p>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 estimate bid/ask could be as high as +20 to +25bp on BBB-. Dealers may refuse to bid in a risk off market with gaps in spreads.</p> <p>Provincial RRBs trading by appointment only. Dealers do not hold these securities on their balance sheet.</p>

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	<ul style="list-style-type: none"> <li data-bbox="428 241 1101 657">The next auction will be held on December 2. 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. The program began on May 27. The BOC bought a total of C\$700mn with C\$100mn per line of the 7 Canada RRBs from 2021 to 2047. Even with the central bank buying net C\$400mn of Canada RRBs, liquidity remains challenging as dealers hold very limited inventories, if any, of these RRB securities. Trading a block can only be done on an appointment basis. 	

The above is provided for informational purposes only. All information is unaudited and subject to change. Nothing provided herein is intended to be used for the purposes of making investment decisions.

The information contained here reflects the views of AllianceBernstein L.P. or its affiliates and sources it believes are reliable as of the date of this publication. AllianceBernstein L.P. makes no representations or warranties concerning the accuracy of any data. There is no guarantee that any projection, forecast or opinion in this material will be realized. **Past performance does not guarantee future results.** The views expressed here may change at any time after the date of this publication. This document is for informational purposes only and does not constitute investment advice. AllianceBernstein L.P. does not provide tax, legal or accounting advice. This information should not be construed as sales or marketing material or an offer or solicitation for the purchase or sale of any financial instrument, product or service sponsored by AllianceBernstein or its affiliates.

Note to US Mutual Fund Readers: Investors should consider the investment objectives, risks, charges and expenses of the Fund/Portfolio carefully before investing. For copies of our Prospectus or summary Prospectus, which contain this and other information, visit us online at www.alliancebernstein.com or contact your AB representative. Please read the Prospectus and/or summary Prospectus carefully before investing. AllianceBernstein Investments, Inc. (ABI) is the distributor of the AB family of mutual funds. ABI is a member of FINRA and is an affiliate of AllianceBernstein L.P., the manager of the funds.

Note to Readers in Canada: AllianceBernstein provides its investment-management services in Canada through its affiliates Sanford C. Bernstein & Co., LLC and AllianceBernstein Canada, Inc.

Note to Readers in Europe: This information is issued by AllianceBernstein Limited, 50 Berkeley Street, London W1J 8HA, it is for marketing purposes. Registered in England, No. 2551144. AllianceBernstein Limited is authorised and regulated in the UK by the Financial Conduct Authority (FCA) FRN 147956. **Additional Note to Readers in Austria and Germany:** Local paying and information agents: Austria—UniCredit Bank Austria AG, Rothschildplatz 1, 1020 Vienna; Germany—ODDO BHF Aktiengesellschaft, Bockenheimer Landstrasse 10, 60323 Frankfurt am Main.

Note to Readers in Switzerland: This document is issued by AllianceBernstein Schweiz AG, Zürich, a company registered in Switzerland under company number CHE-306.220.501. AllianceBernstein Schweiz AG is authorised and regulated in Switzerland by the Swiss Financial Market Supervisory Authority (FINMA) as a distributor of collective investment schemes. Swiss Representative & Swiss Paying Agent: BNP Paribas Securities Services, Paris, Succursale de Zürich. Registered office: Selnaustrasse 16, 8002 Zürich, Switzerland, which is also the place of performance and the place of jurisdiction for any litigation in relation to the distribution of shares in Switzerland. The Prospectus, the KIIDs, the Articles or management regulations, and the annual and semi-annual reports of the concerned fund may be requested without cost at the offices of the Swiss representative.

Note to Readers in Japan: This document has been provided by AllianceBernstein Japan Ltd. AllianceBernstein Japan Ltd. is a registered investment-management company (registration number: Kanto Local Financial Bureau no. 303). It is also a member of the Japan Investment Advisers Association; the Investment Trusts Association, Japan; the Japan Securities Dealers Association; and the Type II Financial Instruments Firms Association. The product/service may not be offered or sold in Japan; this document is not made to solicit investments.

Note to Readers in Australia and New Zealand: This document has been issued by AllianceBernstein Australia Limited (ABN 53 095 022 718 and AFSL 230698). Information in this document is intended only for persons who qualify as “wholesale clients,” as defined in the Corporations Act 2001 (Cth of Australia) or the Financial Advisers Act 2008 (New Zealand), and should not be construed as advice.

Note to Readers in Hong Kong: This document is issued in Hong Kong by AllianceBernstein Hong Kong Limited (聯博香港有限公司), a licensed entity regulated by the Hong Kong Securities and Futures Commission. This document has not been reviewed by the Hong Kong Securities and Futures Commission.

Note to Readers in Singapore: This document has been issued by AllianceBernstein (Singapore) Ltd. ("ABSL", Company Registration No. 199703364C). ABSL is a holder of a Capital Markets Services Licence issued by the Monetary Authority of Singapore (MAS) to conduct regulated activity in fund management and dealing in securities. AllianceBernstein (Luxembourg) S.à r.l. is the management company of the portfolio and has appointed ABSL as its agent for service of process and as its Singapore representative. This document has not been reviewed by the Monetary Authority of Singapore.

Note to Readers in Vietnam, the Philippines, Brunei, Thailand, Indonesia, China, Taiwan and India: This document is provided solely for the informational purposes of institutional investors and is not investment advice, nor is it intended to be an offer or solicitation, and does not pertain to the specific investment objectives, financial situation or particular needs of any person to whom it is sent. This document is not an advertisement and is not intended for public use or additional distribution. AllianceBernstein is not licensed to, and does not purport to, conduct any business or offer any services in any of the above countries.

Note to Readers in Malaysia: Nothing in this document should be construed as an invitation or offer to subscribe to or purchase any securities, nor is it an offering of fund management services, advice, analysis or a report concerning securities. AllianceBernstein is not licensed to, and does not purport to, conduct any business or offer any services in Malaysia. Without prejudice to the generality of the foregoing, AllianceBernstein does not hold a capital markets services license under the Capital Markets & Services Act 2007 of Malaysia, and does not, nor does it purport to, deal in securities, trade in futures contracts, manage funds, offer corporate finance or investment advice, or provide financial planning services in Malaysia.

Note to UK Readers: For Investment Professional use only. Not for distribution to individual investors.

The [A/B] logo is a registered service mark of AllianceBernstein and AllianceBernstein® is a registered service mark used by permission of the owner, AllianceBernstein L.P.

© 2020 AllianceBernstein L.P