

Market Update – Fixed Income Trading Liquidity For the Week Ended 24 December 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.

Sector	Liquidity Trading Comment	Bid-Ask Spreads
US Treasuries	 Key themes during the week ended December 24: Positive momentum around vaccine distribution is serving as a positive catalyst for risk assets. Domestic equities are making new highs and government bond yields are moving higher as the signing of the latest covid-19 fiscal stimulus measure by President Trump also removed uncertainty. From a liquidity standpoint, trading volumes in US Treasuries are running at 50-60% of their 10-day averages as holiday liquidity and thin trading has taken hold. From a price action standpoint, the trend higher in yield and steeper in curve is how the market has been positioned so there has been little in terms of "pain trades" or "stop outs" Federal Reserve bond purchases stand at \$80 billion US Treasuries and \$60 billion MBS per month. 	Bid-Ask Spreads Bid-Offer spreads for 2 to 10-year maturities are running at their recent averages, but the 30-year point is 2-3x more expensive to transact given the poor liquidity
Investment Grade (IG) Corporates	 US IG Flows quieted down materially during the holiday-shortened week ended December 24, with volumes well below recent averages. Despite the lower volumes the tone was constructive with the IG index closing a touch better to +99 bp. In a trend similar to the prior week, dealers sold ~\$4bn in IG bonds during the week, for a month-to-date total of \$9.5bn bonds sold. As expected, liquidity continues to thin as dealer appetite remains light heading into year end. The technicals remain supportive, as the market saw inflows of \$2.53bn and supply is expected to remain muted until January 4. Additionally, dealer balance 	US IG spreads are generically 1-1.5x wider vs normal market conditions AT1/Preferreds are 1-1.5x wider vs normal market conditions

For Investment Professional use only. Not for inspection by, distribution or quotation to, the general public.

Sector	Liquidity Trading Comment	Bid-Ask Spreads
3330.	sheets remain light given the amount of bonds they have sold over the past few weeks. • Bid/ask spreads remain wider than pre-crisis levels.	
	 European IG During the week ended December 24, liquidity was very thin as the holiday period caused more muted market trading over Brexit and US stimulus headlines. Overall technicals remain decent. 	
	 REIT Preferreds 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	During the week ended December 24, the US HY market was flat on very light trading as the holidays approached. No new issues priced during the week. The HY index spreads were 2 bp wider to 378 bp. This compares to March 23 wide levels of 1100 bp and pre-covid-19 tight levels of 341 bp on Feb 13. Euro HY During the week ended December 24, liquidity was very thin as the holiday period caused more muted market trading over Brexit and US stimulus headlines. Overall technicals remain decent. CDX HY CDX HY traded a touch softer during the week ended December 24, in line with the broader macro tone. Trading volumes continued to drop as the traditionally slow holiday period began. Bid/ask spreads have declined but remain elevated relative to pre-crisis levels.	Bid/ask spreads vary by issuer but generically: BB-rated securities: 1 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: 1.5 points which is in line with normal market conditions CCC and below: 1.5 points which is in line with normal market conditions CDX HY bid/ask is 1-2x vs normal conditions.
Emerging- Market Debt (EMD)	 Hard Currency EM EM credit index spreads closed the week ~4bp wider during the week ended December 24. Holiday illiquidity – in terms of significantly reduced trading volumes – is in full swing as many market 	EM IG and HY sovereigns and EM IG and HY corporates are back to

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	participants have begun their holiday breaks after a	normal market
	tumultuous year.	conditions
	Local Currency EM	
	Liquidity is close to normal.	
Asia	Asia Hard Currency	Asia IG credit is ~1.5 to
	Asia hard currency credit spreads ground tighter in	2x wider vs. normal
	thin liquidity during the week ended December 25;	market conditions
	the index spread squeezed by a modest 1bp.	A 1 107 101 4 5 1
	The primary market was quiet, with only one high	Asia HY credit is ~1.5 to
	yield deal pricing.	2x wider vs. normal
	Liquidity deteriorated due to the largely absent	market conditions
	primary market supply and year-end vacations taken	A. C. Landa and A.
	by a number of dealers in the market.	Asia local currency debt
		is ~1.5 to 2x wider vs.
	Asia Local Currency	normal market
	Liquidity in Asia local currency markets thinned during the area of a deal Research and 25 are traditions.	conditions
	during the week ended December 25, as trading	
	activity subsided into the year-end.	
	China government bonds rallied ~3 to 8bp as the PROC not injected CNV 370bp into the system via	
	PBOC net injected CNY 370bn into the system via	
	daily open market operations in an effort to keep	
Securitized	funding conditions loose into the year end.	
Securitizea	 CMBS As expected, both CMBS and CMBX traded sideways 	
	on light volume during the holiday-shortened week	
	ended December 24. There were no new CMBS	
	deals and only \$611mn of bonds were presented to	
	the market for bid, \$2.1bn fewer than the previous	
	week.	
	Anemic volumes combined with little desire to take	
	risk before year end resulted in CMBS bid/offer	
	spreads remaining unchanged throughout the	
	capital stack. Bid/offer spreads for AAA to A-rated	
	classes have retraced their post-covid-19 widening,	
	while bid/offer spreads for BBB-rated classes remain	
	approximately 2x their pre-covid-19 levels.	
	CMBX behaved much like its cash bond counterpart.	
	Trading volume was light, and prices traded in a	
	narrow band, leaving bid/offer spreads unchanged.	
	CMBX A.6, BBB6, and BB.6 bid/offer spreads	
	remain approximately 2x their historical averages.	
	. S. Harris approximately 2x their historical averages.	
	ABS	
	ABS new issuance is finished for the year, with no	
	new deals pricing during the week ending December	
	24. ABS year-to-date supply now stands at \$175.3	

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	billion compared to \$228.5 billion recorded in 2019	-
	over the same time period.	
	Secondary market volumes are significantly below	
	average, and spreads were unchanged.	
	CRTs	
	During the week ended December 24, the CRT	
	market was fairly quiet from a volumes perspective.	
	Those investors that did trade continued to add,	
	reaffirming previous week levels. There was some	
	profit-taking from the street before quarter end.	
	Secondary market liquidity remains robust.	
	Legacy Non-Agency RMBS	
	Legacy RMBS have recovered back to pre-crisis	
	levels. After having widened to the 1000-1200 bp	
	range in March, spreads are currently trading inside	
	200 bp discount margin currently.	
	CLOs	
	The week ended December 24 was quiet in the CLO	
	market. Spreads on the week were unchanged to	
	slightly tighter. Volumes week-over-week were	
	down, given the holiday.	
	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 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	The repo rate is in the 0.08-0.09% range. The T-bill	
	curve was unchanged week-over-week.	
	1-month LIBOR set at 0.145%, while 3-month LIBOR	
	set at 0.24%.	
	Government money market funds saw \$21bn of Subflaces in the 7 days and ad December 34. Drives	
	outflows in the 7 days ended December 24. Prime	
LIC Municipals	funds were flat over the same period.	
US Municipals	The municipal market was quiet during the week and od Dosember 24, as expected. There was no	
	ended December 24, as expected. There was no	
	new issuance calendar to speak of and a large number of market participants were on vacation.	
	Despite some interest rate volatility, municipal	
	benchmark yields were unchanged over the week.	
	There was better dealer selling vs buying in the	
	busier first half of the week, as technicals remain	
	strong for municipals into the end of the year.	

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	 Expectations are that the market will remain quiet until January. Odd lot liquidity remains decent, with haircuts to round-lot bidside evaluations just over one point for small size (5k-15k) and around 0.25 point for larger odd lots (50k+). 	
Canadian Market	 Federal 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 should support liquidity at the 30-year part of the yield curve. The BOC has purchased C\$184 billion to support liquidity in Government of Canada markets since the purchase program started on March 27 through December 16. Government of Canada bonds are the most liquid securities in capital markets in Canada as seen in the latest (November) Bank of Canada research. 	Federal: bid/ask typically 5 cents in the 10-year area, 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 outstanding size in these securities. Liquidity and activity are reduced with calendar year end.
	 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\$14.2 billion in par value year to date through December 16 within their provincial buying program to support liquidity. Liquidity is affected by reduced personnel during the year end and holiday period and dealers' lack of appetite for increasing their provincial aggregates. 	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. Liquidity and activity are reduced with calendar year end.
	 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 	BBB- corporates are trading by appointment, particularly in the energy sector. Inventories are

Sector	Liquidity Trading Comment	Bid-Ask Spreads
	maintaining low balance sheet inventories, so will	reduced and dealers are
	not provide bids in many sectors.	not looking to increase
	 Trading on an agency basis for high-beta issuers. The 	their BBB- exposure.
	market has improved in sectors such as banks and	Dealers may refuse to
	telecom companies.	bid in a risk off market
	The Bank of Canada's buying program (focused on	with gaps in spreads.
	securities of 5-years or less) should support liquidity	Liquidity and activity are
	for corporate bonds rated BBB and higher.	reduced with calendar
	However, the central bank has bought a relatively	year end.
	small amount of corporate securities to date (C\$180	
	million par), indicating the impact is limited. The	
	central bank has not bought bonds since November	
	(as of December 16). BBB- bonds are trading by	
	appointment unless there is a new issue.	
	Real Return Bonds (RRBs)	
	The program to purchase Government of Canada	Provincial RRBs trading
	securities in the secondary market – the	by appointment only.
	Government Bond Purchase Program or GBPP –	Dealers do not hold
	should help liquidity since it includes RRBs. The last	these securities on their
	auction was held on December 2 with the FTSE index	balance sheet.
	duration extending by a historical amount of over	
	1.6 years. On that day, the BOC bought a total of	
	C\$434mn with a target of C\$75 million per line of	
	the 7 Canada RRBs from 2021 to 2047. Even with the	
	central bank buying net C\$34 million of Canada RRBs	
	in December, liquidity remains challenging as	
	dealers hold very limited inventories of these RRB	
	securities. It is noteworthy to underline that the	
	central bank was not able to reach its target	
	purchases in RRBs 2047 and only bought \$59 million.	
	Trading in Canada RRBs continues to show a chronic	
	lack of liquidity. 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 is general in nature and does not take into account any person's objectives, financial situation or needs.

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