



Market Update – Daily Fixed Income Trading Liquidity Update 14 April 2020

In the current markets, volatility is at an extreme level and liquidity has become significantly reduced across many fixed income instruments including government bond markets. 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 towards the end of the New York trading day.

Sector	Liquidity Trading Comment	Bid-Ask Spreads
US Treasuries	<ul style="list-style-type: none"> Markets traded with a “liquidity on” theme on April 14 as rates, credit and equities all rallied in tandem. Risk assets have largely ignored weak economic data in favor of the Fed’s “whatever it takes” strategy. The open-ended bond purchase program enacted by the US Federal Reserve (Fed) is having a positive effect on liquidity and market functionality. The Fed has reduced their purchases of US Treasuries to \$30bn per day during the week of April 13-17 (from \$50bn per day the week of April 6). Treasury curves have steepened so far in April as large cash balances continue to be put to work in the 0- to 2-year part of the curve. The big recent improvement has been in Treasury market depth, which had fallen by as much as 90+% in the worst of the crisis in March but has recovered to 55-65% of the average depth over the last year. Rate volatility continues to fall and there continues to be good “two-way” trading in the market. While still relatively liquid in most contracts, depth in the Treasury futures market is also much lower vs historical averages. Trading in “ultra” contracts is challenging. The TIPS market, which sold off significantly in March, has stabilized in April with 10-year breakevens recovering much of their losses. TIPS bid/offer is very dependent on size but is ~2-3x pre-covid-19 crisis levels for normal size. 	<p>Bid-offer spreads for on-the-run benchmark 2- through 10-year US Treasury notes has improved significantly and are in line with pre-crisis conditions.</p> <p>For the 30-year note, bid/ask is ~2.5x wider vs pre-crisis.</p> <p>Off-the-run Treasury bonds still trade significantly wider than on-the run bonds, but bid/offer has compressed.</p>
Investment Grade (IG)	<p style="text-align: center;">US IG</p> <ul style="list-style-type: none"> US IG cash bonds traded mostly sideways on April 	US IG spreads are generically 4-5x wider vs

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Corporates	<p>13-14 after a strong week the prior week. BBB-rated bonds continued to outperform.</p> <ul style="list-style-type: none"> • New issue supply picked up after the long weekend, with \$25.5 billion in new deals coming to market on April 13 and 14. Demand stayed strong with deals 5.4x oversubscribed on average. • Credit curves, in particular the 5-year part of the curve and in, continue to normalize across the quality spectrum. • Bid/ask spreads remain wider than pre-crisis levels. Odd-lot liquidity is still challenged, but not to the same extent seen a couple weeks ago. <p style="text-align: center;">European IG</p> <ul style="list-style-type: none"> • The European IG market continues to see heavy supply. Concessions for high quality/ECB eligible bonds have trended down, while lower-quality issuers continue to see larger concessions. Broadly, subscription levels remain high. • As more niche / lower quality issuers bring new deals to the primary market, this continues to improve secondary market liquidity as a new clearing level for risk is re-struck. • Similar to European high yield, conviction levels are waning from the dealer community in the AT1 (subordinated financial) market, given the decent bounce in prices off the lows, particularly in light of the cheap senior bank supply that has come to market. Bid/offer spreads have widened—more so on the offered side. Liquidity on the offered side remains challenging; technicals are solid as the dealer community has lightened up their balance sheets and many clients are sitting on high cash balances. <p style="text-align: center;">REIT Preferreds</p> <ul style="list-style-type: none"> • Liquidity in the REIT preferred market is limited under more normal conditions and has become significantly challenged amid the current crisis. • Dealers are not providing balance sheet capacity to support the market and so trades must be done on an agency basis; trading is therefore limited. • On April 14, trading volume continued to be very light. 	<p>normal market conditions</p> <p>AT1/Preferreds are 4-5x wider vs normal market conditions</p>
High Yield (HY) Corporates	<p style="text-align: center;">US HY</p> <ul style="list-style-type: none"> • The tone of high yield in recent weeks has been tied to equities—with high yield closely following equity market moves. 	<p>High yield spreads are 2 to 3x wider than normal times for BB and B securities and 3 to 5x</p>

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	<ul style="list-style-type: none"> • On April 14, the market was firm. Focus remains on the primary market with 2 new deals announced. Demand remained strong with books 4-10x oversubscribed and deals pricing at the tight end of initial price talk. • Bid/ask spreads remained unchanged. <p style="text-align: center;">European HY</p> <ul style="list-style-type: none"> • Daily sentiment continues to follow equities and the iTraxx Crossover index, but cash bonds continue to outperform the iTraxx index. In periods of softness in equities/iTraxx there have still generally been buyers of cash bonds. • Some hedge funds expressed a more bearish view in recent days, setting shorts with the expectation for weaker equity/macro markets as the US moves into an expected peak of virus spread. • Light dealer inventories have exacerbated the positive technical in the market as equities/macro products have generally been supported and “real money” investors have looked to spend cash. • Investors are becoming more discriminating among lower-quality issuers, as dispersion increases and restructuring headlines begin to appear. • Dealer liquidity is minimal and has deteriorated as more participants shift to work from home locations. Dealer balance sheet usage is increasingly restricted with most trades >2million needing to be done on an agency basis. • Overall liquidity remains challenged, but trading is happening. in the wake of last week’s Fed actions, the market has had a very firm tone, where it is easy to sell and hard to buy risk. Since the Euro HY market has still had no new issuance, it is challenging to put cash to work. However, we expect the new issue pipeline to slowly build with higher-quality issuers if the macro picture remains more stable. The first new issue deals are expected to come during this week (week of April 13), which should bring more two-way flow to the market. • Bid/ask spreads are still wide, but there is no more panic in the market. Sellers are primarily opportunistic, selling on strength in relative outperformers or rotating out of more challenged issuers. Outflow-driven sellers have not been prominent in the past several sessions. <p style="text-align: center;">CDX HY</p> <ul style="list-style-type: none"> • CDX HY has given up all the gains from last 	<p>wider for CCC</p> <p>CDX HY bid/ask is 4-5x vs normal conditions.</p>

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	<p>Thursday's Fed announcement.</p> <ul style="list-style-type: none"> Flows were muted and trading volumes were at the lowest levels we've seen since the beginning of the selloff Bid/ask spreads declined a bit 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"> Hard currency EM debt traded with a firm tone on limited volume as investors eased back from a long weekend. The new issue market was active on April 14 as 2 new deals priced—one quasi-sovereign and one corporate—both of which were well received. Liquidity and price transparency continue to improve in sovereigns and quasi sovereigns, albeit still below average. Liquidity in EM corporates has shown slight improvement but remains very low. Offers were hard to find in EM corporates as private banks and retail investors put cash to work and dealer balance sheets remain light on risk. <p style="text-align: center;">Local Currency EM</p> <ul style="list-style-type: none"> Local EM rates continue to track macro risk and the moves in currencies. Liquidity is close to normal 	<p>EM IG sovereigns are 1.5x wider vs normal market conditions</p> <p>EM HY sovereigns are 2x wider vs normal market conditions</p> <p>EM IG corporates are 2x wider vs normal market conditions</p> <p>EM HY corporates are 3x wider vs normal market conditions</p>
Securitized	<p style="text-align: center;">CMBS</p> <ul style="list-style-type: none"> CMBS and CMBX traded mostly sideways on April 14. AAA-rated CMBS bonds remain well supported, especially those that are TALF eligible. TALF eligible bonds are those issued prior to March 23, 2020, with AAA ratings by all rating agencies and only contain collateral with credit risk exposure tied to real property located in the US. Mezzanine tranches still lack sponsorship and will likely remain so until remittance data is fully digested. Bid/offer spreads remain wide and are 4x normal in the AAA-rated space. BBB-rated bonds are roughly 5x wider vs normal conditions, and BB-rated are roughly 7x wider. Bid/offer spread for CMBX A.6 is ~2x, BBB-.6 is ~3 x and BB.6 ~5x the normal bid/offer spread. <p style="text-align: center;">ABS</p> <ul style="list-style-type: none"> ABS had a moderate start to the week as dealers traded ~\$1.3bn compared to the 20-day daily average of ~\$1.95bn. Primary issuance has returned with two auto 	

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	<p>transactions. GM Financial is marketing a prime auto transaction, and except for the A-rated tranche, the deal is oversubscribed (BBB-rated tranche is retained). Santander announced its benchmark subprime auto deal, with rated tranches from the AAA to BBB. In addition, American Credit Acceptance Auto may be on the near-term horizon and 15G's were filed yesterday by CarMax, Hyundai, Nissan, Toyota and OneMain (unsecured consumer loan).</p> <ul style="list-style-type: none"> • Spreads continued to grind tighter in secondary markets by 15-20bp across most on-the-run asset classes. Subordinated tranches continue to underperform, as most investors wait for tomorrow's remittance reporting. <p style="text-align: center;">CRTs</p> <ul style="list-style-type: none"> • The last several days have seen a steady march forward in the CRT market. The rally started with investment-grade bonds, moved into on-the-run last cash flow bonds late last week, and this week moved into more seasoned equity tranches. • Several OWICs (Offers wanted in competition) came to market over the past couple days which seems to have alerted the market to the attractive valuations • Bid/ask spreads remained elevated in equity tranches at half a point and were in the 4 to 8 tick range for last cash flow tranches. • Discount margin spreads are still several times their pre-crisis levels with investment-grade last cash flow bonds ~600-800dm, on-the-run last cash flow bonds ~800-1100dm and equity tranches >1000dm. <p style="text-align: center;">Legacy Non-Agency RMBS</p> <ul style="list-style-type: none"> • Legacy RMBS continues to trade through the recent crisis. Since January spreads have widened from ~200bps to now > 1000 bps, but demand for the sector never really faded. <p style="text-align: center;">CLOs</p> <ul style="list-style-type: none"> • Spreads on AAA-rated tranches are now <200 bps; AA-rated ~275 bps; A-rated in the low 400 bps range; BBB in the high 600 bps range and BB-rated ~1200bps. • Bid/ask spreads on AAA-rated bonds continue to be close to normal levels (~1 point); mezzanine bid/ask remains ~3x wider relative to typical levels as dealers remain defensive. <p style="text-align: center;">Agency MBS</p>	

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	<ul style="list-style-type: none"> Bid/ask spreads vary by coupon, with low coupon (2.5%) TBAs back to historical averages, and the rest of the coupon stack trading much wider, at 2-6x higher vs pre-crisis levels 	
Money Market	<ul style="list-style-type: none"> Another \$90 bn in cash management bills (CMB) were auctioned by the US Treasury on April 14, and they announced \$60bln in CMBs and \$160bln in rolls for the rest of the week. This brings the CMB total to \$765 bn. Repo moved above the lower bound in the morning of April 14 to 0.07%, but then returned to zero intraday. Sourcing same day liquidity was difficult in the afternoon. LIBOR continues to set lower as funding pressure subsides. 1-month LIBOR set at 0.794 % and 3-month set at 1.18%. Government money market funds saw a surprisingly large one-day inflow of \$60bn on April 13. 	
US Municipals	<ul style="list-style-type: none"> Municipal markets were again firm on April 14. The new issue market saw several deals coming with initial concessions of 10-20bps but tightening up to 10bps on reprice amid healthy oversubscriptions (6-9x, and notably 16x for the Harvard University 2030 maturity). The balance of trading was more dealer selling and offers seemed to be snapped up quickly. Oddlot liquidity remains less favorable than pre-crisis but has firmed up, with smaller investors and “bots” turned on, adding depth to the bids. For the smallest trades, we saw 3-5 points below bid side evaluations and 1-2 points below for 100k+ oddlots. For context, high grade odd-lots typically trade 0.10-1 points below bid-side evaluations under more normal market conditions. 	
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 <=CAD25m; very limited liquidity in off-the-run, high coupon bonds <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 There was a record day of provincial issuance on April 14 with C\$8.5bn in new deals. Concessions are requested so dealers will take less liquid positions. Very limited secondary-market liquidity in oil-generating provinces (Newfoundland, Alberta, Saskatchewan) with Western Canadian Select oil 	<p>Federal: bid/ask typically +1 to +2bp but for the long end of the curve, it can be more depending on volatility</p> <p>Provincial: concession of +2 to +4bp and more on size > CAD 25m, particularly at the longer end</p>

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	<p>price trading at low levels.</p> <ul style="list-style-type: none"> • Most dealers will not bid on off-the-run, high coupon provincial issues, they will do agency trades. <p style="text-align: center;">IG Corporates</p> <ul style="list-style-type: none"> • Limited liquidity; many dealers forced to reduce balance sheet inventories, so unable to provide bids in many sectors. • Trading on an agency basis for high-beta issuers. However, market has improved in telco and bank sectors. • Liquidity limited even in higher-quality, senior bank deposit notes • Despite liquidity issues, TD was able to fund a C\$3bn, 10-year non-call 5-year non-viable contingent capital (NVCC) issue at +255bps over 5-year Canadas, the largest corporate issue so far in 2020. <p style="text-align: center;">Real Return Bonds (RRBs)</p> <ul style="list-style-type: none"> • Trading “by appointment”, similar to private placement market 	

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