

Market Transparency Report

Monthly Guide to the U.S. Retail Fixed Income Markets

August 2021

www.tradeweb.com

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Overview

About the Market Transparency Report

The data and analysis contained in this monthly report are intended to provide transparency into the dynamics of the U.S. Fixed Income markets for retail investors. The report presents the important trends in the market, including trade volumes, most active issuers, yield/spread movements and buy/sell ratios. Retail trades are defined as odd-lot transactions under 100 bonds (i.e. less than \$100,000 par value). The retail market is much smaller than the institutional market on a par value basis, but it accounts for more than 2/3 of the trades that occur in the marketplace.

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Market Commentary

Monthly Change Table for August 2021

	Median Yield (bps)	Daily Trade Volume	Buy/Sell Ratio
Agency	3	-37.4%	0.5
CD	0	3.0%	-0.1
Corp	-1	-1.4%	0.1
Municipal	2	-0.1%	0.0
Treasury	2	-1.6%	0.1

For monthly security trend data, see slides 5, 6 and 7

Yield Matrix

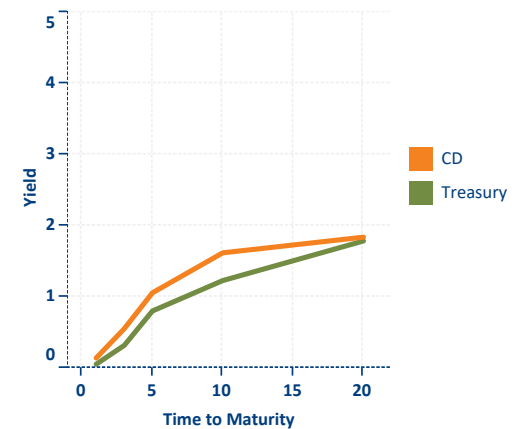
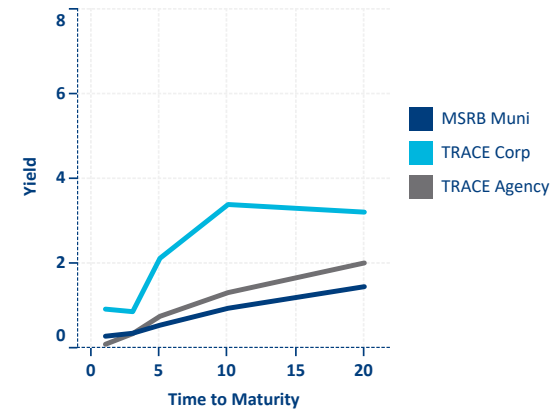
Average Yield, % for August 2021

Market	TTM					Median Maturity (Years)
	1	3	5	10	20	
MSRB Muni	0.3	0.4	0.6	1.0	1.5	9
TRACE Corp	0.9	0.9	2.1	3.4	3.2	4
TRACE Agency	0.1	0.4	0.8	1.3	2.0	5
CD	0.1	0.6	1.1	1.6	1.8	1
Treasury	0.1	0.3	0.8	1.2	1.8	1

Asset Class

Market	Category (Filtered)	Rating Key	1	3	5	10	20	Median Maturity (Years)	
TRACE Corp	Financial	AA	0.2					1	
		A	0.2	0.6	1.1	1.9	3.0	3	
		BBB	0.5	1.1	1.5	2.5	3.2	3	
		HY	1.5	2.1	5.0	5.8		7	
	Non-Financial	AAA	0.2					2.3	8
		AA	0.4	0.5	1.4	1.6	2.6		9
		A	0.2	0.9	1.1	1.7			5
		BBB	0.5	1.1	1.7	2.8	3.3		6
		HY	1.2	3.2	6.8	5.2	4.2		6
MSRB Muni	GO	AAA	0.3	0.3	0.4	0.8	1.4		7
		AA	0.3	0.3	0.5	0.9	1.6		9
		A	0.3	0.4	0.6	0.9	1.3		7
		BBB	0.6	0.6	0.9	1.2	1.4		8
	Revenue	HY		0.3	0.3		1.0		19
		AAA	0.3	0.3	0.5	0.8	1.3		9
		AA	0.3	0.3	0.5	0.9	1.4		10
		A	0.3	0.4	0.6	0.9	1.2		11
		BBB	0.5	0.8	0.9	1.4	1.5		12
		HY	2.3	3.9	3.4	4.8	3.7		10

Average Yield, %



WA Yield = "Weighted Average Yield"

Source: TRACE, RTRS (MSRB's Real-time Transactional Reporting System) and Tradeweb Direct

-The yields in each cell for Corporate/Agency/Municipal are the weighted average yield based on odd-lot customer buy transactions reported in TRACE/MSRB.

-The yields in each cell for Treasury/CD are the weighted average yield based on buy transactions on the Tradeweb Direct Platform.

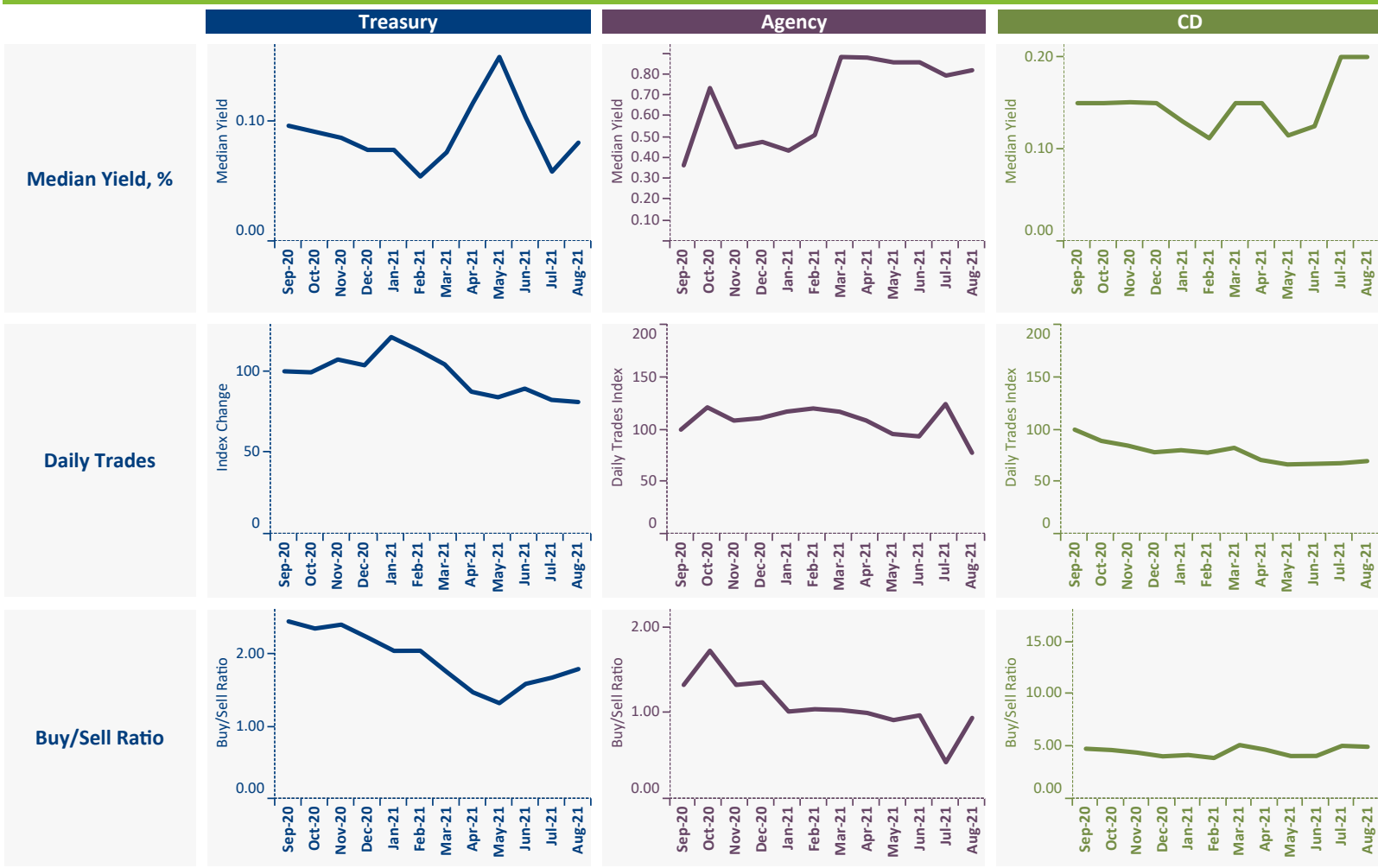
-The weights are based on transaction size.

-Yield summaries for Corporate and Agency exclude transactions in callable or floating-rate coupon bonds.

-Yield summaries for Municipal exclude transactions in taxable bonds.

-See appendix for the definition of maturity and rating buckets.

Treasury, Agency, CD Transaction Trend Summary



Daily Trades: First month = 100

Source: TRACE and Tradeweb Direct

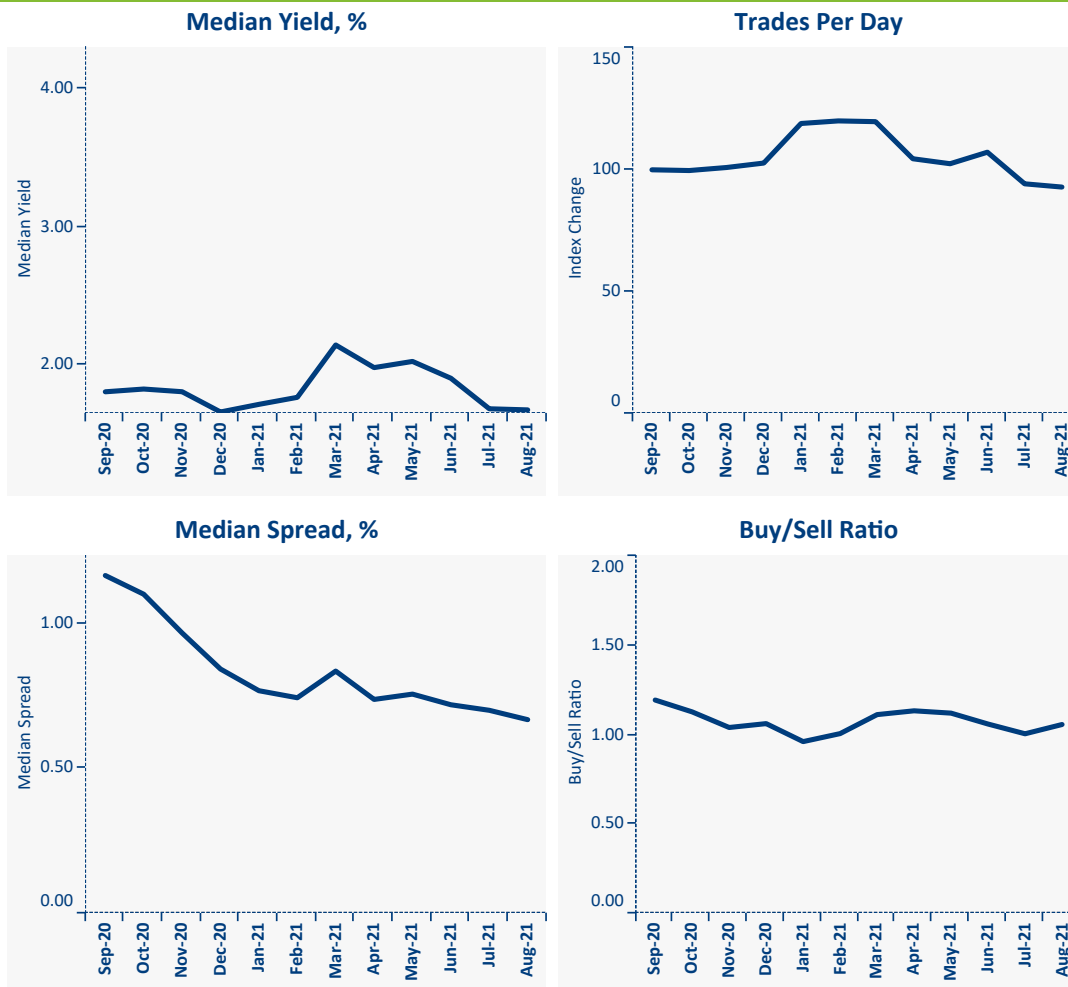
-Treasury and CD are based on transactions on the Tradeweb Direct Platform. Median yields are based on all customer buy transactions.

-Agency is based on odd-lot customer transactions (<100M) reported in TRACE. Median yields are based on all odd-lot customer buy transactions.

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Corporate Bonds: Odd-Lot Customer Transaction Trend Summary

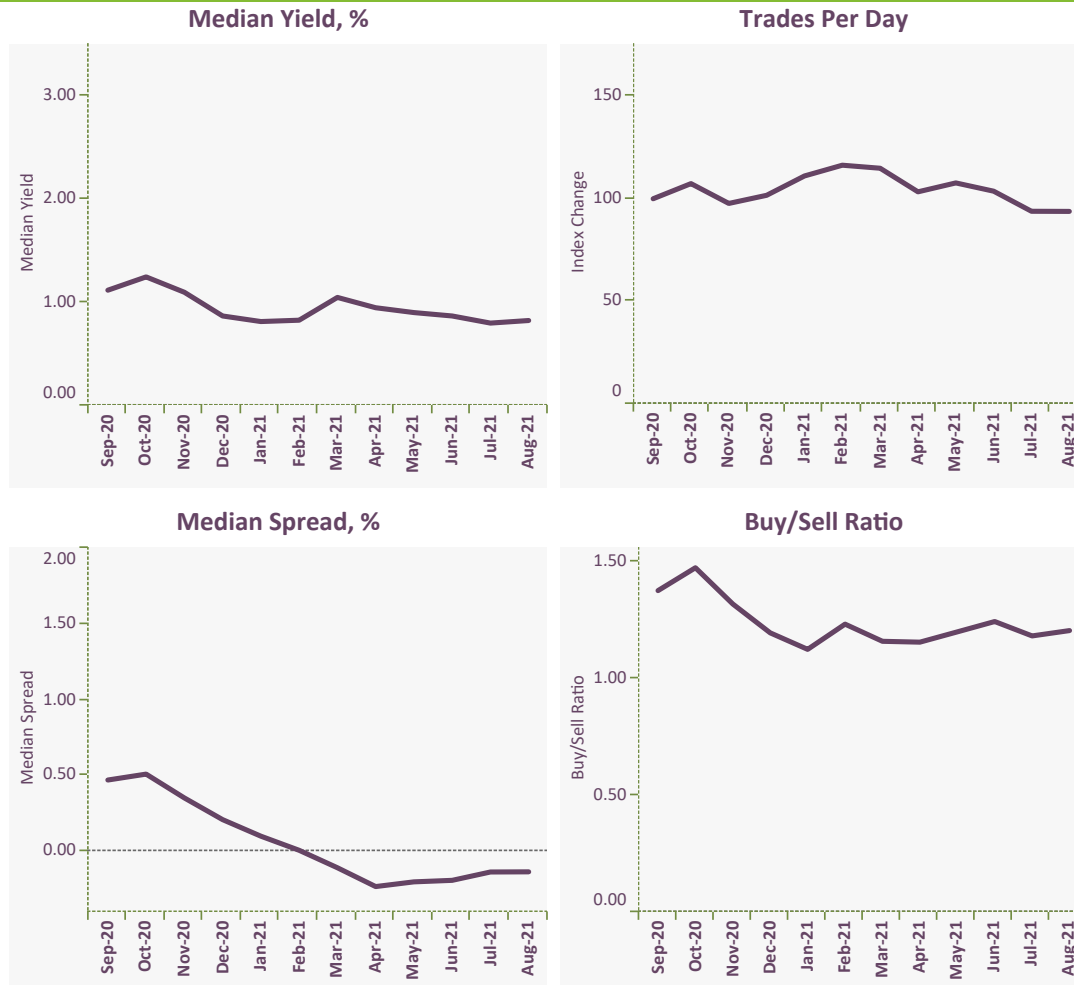


Daily Trades: First month = 100
 Source: TRACE and Tradeweb Direct
 -Based on odd-lot customer transactions (<100M) reported in TRACE.
 -Median yields and spreads are based on all odd-lot customer buy transactions...

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Municipal Bonds: Odd-Lot Customer Transaction Trend Summary



Daily Trades: First month = 100

Source: RTRS (MSRB's Real-time Transaction Reporting System) and Tradeweb Direct

-Based on odd-lot customer transactions (<100M) reported in MSRB.

-Median yields and spreads are based on all odd-lot customer buy transactions.

-Spread for each transaction is calculated against the Treasury yield for the same maturity.

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Corporate Bonds: Top 20 Most Active Issuers

August 2021

Index	Ticker	Company	Rating Key (Med)	Issues Traded	% of Total Trades	Trades	Buy/Sell Ratio	Dollar Vol. Traded (MM)	1Y Yield (Buy)	3Y Yield (Buy)	5Y Yield (Buy)	10Y Yield (Buy)	20Y Yield (Buy)
1	JPM	JP MORGAN CHASE	A	665	3.2%	13,609	1.1	297	0.2	0.9	1.3	1.8	2.8
2	GS	GOLDMAN SACHS	A	895	2.8%	12,066	0.8	236	0.3	0.9	1.4	2.4	3.3
3	BAC	BANK OF AMERICA	A	266	2.6%	10,857	1.2	216	0.3	1.0	1.3	2.2	3.1
4	C	CITIGROUP	BBB	489	2.3%	9,653	0.9	212	0.3	1.0	1.4	2.0	2.9
5	MS	MORGAN STANLEY	A	718	1.6%	6,646	0.7	154	0.4	0.8	1.4	2.1	2.9
6	WFC	WELLS FARGO	A	152	1.5%	6,269	0.9	129	0.2	0.8	1.4	1.6	3.1
7	BKNG	Null	A	7	1.4%	6,111	1.0	41		0.9	1.1	2.0	
8	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	BBB	272	1.4%	5,946	0.9	123	0.4	0.9	1.5	2.8	3.0
9	VZ	VERIZON	BBB	139	1.4%	5,896	1.1	117	0.4	0.7	1.2	2.1	2.8
10	T	AT&T	BBB	115	1.4%	5,827	0.8	129	0.3	0.6	1.4	2.1	3.3
11	AAPL	APPLE INC	AA	56	1.1%	4,883	1.0	104	0.2	0.7	1.0	1.7	2.6
12	ORCL	ORACLE CORP	BBB	36	1.1%	4,770	1.1	94	0.4	0.9	1.3	2.2	3.1
13	GM	GENERAL MOTORS FINANCIAL COMPANY INC	BBB	86	1.1%	4,653	1.0	111	0.4	1.0	1.6	2.4	3.7
14	CMCS	COMCAST	A	61	1.1%	4,471	0.9	91	0.1	0.6	1.1	2.0	2.7
15	CVS	CVS CAREMARK CORP	BBB	47	0.9%	3,924	1.0	80	0.3	0.9	1.3	2.1	2.9
16	AXP	AMERICAN EXPRESS	BBB	25	0.8%	3,313	1.4	66	0.3	0.4	1.3		2.7
17	BA	BOEING CO	BBB	58	0.8%	3,299	1.5	85	0.4	1.3	1.6	2.6	3.5
18	ABBV	ABBVIE INC	BBB	31	0.8%	3,254	1.5	70	0.4	0.9	1.4	1.9	3.0
19	BRK	BERKSHIRE HATHAWAY	AA	146	0.7%	3,179	0.7	80	0.2	0.5	1.0	1.9	2.8
20	F	FORD	BB	177	0.7%	3,165	1.1	81	1.1	2.1	2.5	3.7	4.2

Source: TRACE and Tradeweb Direct

-Based on odd-lot customer transactions (<100M) reported in TRACE.

-Issuer ratings are based on median rating of traded bonds from each issuer. Bond ratings are from Moody's and S&P.

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Corporate Bonds: Top 20 Issuers with Highest Buy/Sell Ratio

August 2021

Index	Ticker	Company	Rating Key (Med)	Issues Traded	% of Total Trades	Trades	Trades (Buy)	Trades (Sell)	Buy/Sell Ratio	Dollar Vol. Traded (MM)	1Y Yield (Buy)	3Y Yield (Buy)	5Y Yield (Buy)	10Y Yield (Buy)	20Y Yield (Buy)
1	EIX	EDISON MISSION	BB	47	0.6%	2,528	2,184	344	6.4	55	0.6	1.0	3.0	2.2	3.4
2	PCG	PACIFIC GAS & ELEC CO	BBB	36	0.4%	1,814	1,483	331	4.5	41	1.7	2.2	2.6	3.7	4.4
3	PSEC	PROSPECT CAP CORP INTERNOTES BOOK ENTRY	BBB	110	0.3%	1,233	982	251	3.9	25	1.7	3.0	2.9	3.5	3.4
4	SVC	Null	BB	13	0.3%	1,293	930	363	2.6	23	1.9	3.9	4.7	5.2	
5	TEVA	TEVA PHARMACEUTICAL FIN CO B V	BB	10	0.3%	1,395	993	402	2.5	34	2.2	3.4	3.9		
6	ALLY	ALLY FINANCIAL	BB	40	0.3%	1,210	838	372	2.3	29	0.3	1.0	2.0	2.9	
7	CS	CREDIT SUISSE	N/R	228	0.3%	1,259	872	387	2.3	20	0.1	0.6	1.6	2.3	3.1
8	DAL	DELTA AIR LINES INC DEL	BB	13	0.3%	1,068	716	352	2.0	25	1.0	2.3	2.9	3.8	
9	PSX	PHILLIPS 66	BBB	18	0.3%	1,171	746	425	1.8	21	0.3	1.1	1.3	2.2	3.3
10	MO	ALTRIA GROUP INC	BBB	24	0.4%	1,774	1,110	664	1.7	51	0.3	1.0	1.3	2.4	3.7
11	MRK	MERCK & CO INC NEW	A	23	0.3%	1,090	668	422	1.6	18	0.1	0.7	0.9	1.6	2.5
12	PEMX	PETROLEOS MEXICANOS	BB	40	0.6%	2,633	1,606	1,027	1.6	78	2.1	3.1	5.2	6.2	7.5
13	CTL	CENTURYLINK	BB	27	0.5%	2,183	1,328	855	1.6	44	1.2	2.4	2.6	5.6	6.5
14	TM	TOYOTA	A	64	0.5%	2,210	1,326	884	1.5	38	0.2	0.5	1.0	1.7	
15	BA	BOEING CO	BBB	58	0.8%	3,299	1,957	1,342	1.5	85	0.4	1.3	1.6	2.6	3.5
16	SLM	SLM CORP	B	123	0.3%	1,259	748	511	1.5	27	1.7	2.8	3.9	6.0	6.1
17	ABBV	ABBVIE INC	BBB	31	0.8%	3,254	1,925	1,329	1.5	70	0.4	0.9	1.4	1.9	3.0
18	RY	ROYAL BANK OF CANADA	A	169	0.4%	1,600	947	653	1.5	34	0.3	0.4	1.2	0.8	
19	TFC	Null	BBB	42	0.7%	2,800	1,656	1,144	1.5	51	0.2	0.6	1.3	1.8	
20	AXP	AMERICAN EXPRESS	BBB	25	0.8%	3,313	1,943	1,370	1.4	66	0.3	0.4	1.3		2.7

Source: TRACE and Tradeweb Direct

-Based on odd-lot customer transactions (<100M) reported in TRACE.

-The top 20 issuers are selected among the top 100 most active issuers in odd-lot TRACE.

-Issuer ratings are based on median rating of traded bonds from each issuer. Bond ratings are from Moody's and S&P.

Corporate Bonds: Top 20 Issuers with Lowest Buy/Sell Ratio

August 2021

Index	Ticker	Company	Rating Key (Med)	Issues Traded	% of Total Trades	Trades	Trades (Buy)	Trades (Sell)	Buy/Sell Ratio	Dollar Vol. Traded (MM)	1Y Yield (Sell)	3Y Yield (Sell)	5Y Yield (Sell)	10Y Yield (Sell)	20Y Yield (Sell)
1	HBC	HSBC	N/R	345	0.3%	1,148	375	773	0.49	32	0.3	1.6	1.9	3.3	3.0
2	BCS	BARCLAYS	N/R	561	0.3%	1,398	508	890	0.57	32	1.2	1.4	1.9	2.6	
3	BMO	BANK MONTREAL MEDIUM TERM SR NTS BOOK EN	A	79	0.3%	1,419	552	867	0.64	29	0.3	0.6	2.4	2.9	
4	HCA	HCA INC	BBB	26	0.2%	1,021	406	615	0.66	27		1.6	1.6	2.5	3.0
5	RDS	SHELL	AA	26	0.4%	1,707	676	1,031	0.66	33	0.3	0.8	1.2	1.8	2.9
6	KMI	KINDER MORGAN ENERGY PARTNERS L P	BBB	57	0.3%	1,466	608	858	0.71	32	0.5	0.8	2.3	2.7	3.6
7	PNC	PNC FDG CORP	A	30	0.3%	1,410	585	825	0.71	28	0.3	0.5	1.1	1.8	
8	BRK	BERKSHIRE HATHAWAY	AA	146	0.7%	3,179	1,333	1,846	0.72	80	0.4	0.5	1.0	1.7	3.0
9	DELL	DELL	BBB	24	0.3%	1,482	620	862	0.72	42	0.5	1.0	1.7	2.3	4.0
10	EXC	EXELON GENERATION CO LLC	BBB	68	0.2%	998	420	578	0.73	27	0.5	1.1	1.3	2.0	4.2
11	MET	METLIFE	A	18	0.3%	1,180	499	681	0.73	27		0.5	0.9	1.9	2.8
12	MS	MORGAN STANLEY	A	718	1.6%	6,646	2,813	3,833	0.73	154	0.4	0.9	1.4	2.3	2.9
13	MSFT	MICROSOFT CORP	AAA	33	0.6%	2,428	1,024	1,404	0.73	49	0.3	0.3	1.0		2.5
14	ETP	ENERGY TRANSFER PARTNERS L P	BBB	35	0.3%	1,253	536	717	0.75	30	0.7	1.5	2.1	2.6	4.2
15	T	AT&T	BBB	115	1.4%	5,827	2,497	3,330	0.75	129	0.4	0.9	1.5	2.2	3.3
16	PEP	PEPSICO	A	38	0.4%	1,658	716	942	0.76	36	0.2	0.6	0.9	1.6	2.6
17	CAT	CATERPILLAR	A	67	0.3%	1,460	641	819	0.78	33	0.2	0.5	0.9	1.7	2.6
18	GS	GOLDMAN SACHS	A	895	2.8%	12,066	5,383	6,683	0.81	236	0.4	1.0	1.4	2.4	3.4
19	NEE	FPL GROUP CAP INC	BBB	51	0.3%	1,246	557	689	0.81	30	0.4	0.9	0.9	2.0	2.6
20	USB	U S BANCORP MEDIUM TERM NTS- BOOK ENTRY	A	25	0.4%	1,688	766	922	0.83	32	0.2	0.6	1.1	1.8	

Source: TRACE and Tradeweb Direct

-Based on odd-lot customer transactions (<100M) reported in TRACE.

-The top 20 issuers are selected among top 100 most active issuers in odd-lot TRACE.

-Issuer ratings are based on median rating of traded bonds from each user. Bond ratings are from Moody's and S&P.

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Corporate Bonds: Top 20 Most Bought Issues

August 2021

Index	Ticker	Company	Maturity	Rating Key (Med)	Coupon	Trades (Buy)	Trades (Sell)	Trades	Dollar Vol. Traded (MM)	Yield (Buy)	Yield (Sell)	Price (Buy)	Price (Sell)
1	BKNG	Null	May-25	A	0.750	3,003	42	3,045	20			139.8	144.0
2	EIX	EDISON MISSION	Aug-50	BB	5.375	1,168	27	1,195	25			101.8	101.5
3	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Aug-50	BBB	3.449	1,022	575	1,597	35	3.5	3.5	98.4	97.3
4	BAC	BANK OF AMERICA	Null	BBB	5.200	702	55	757	6	5.0	5.0	104.3	103.8
5	BAC	BANK OF AMERICA	Oct-22	A	2.503	667	86	753	12	0.3	0.4	100.3	100.4
6	AXP	AMERICAN EXPRESS	Aug-50	BBB	3.550	631	63	694	16			101.9	101.6
7	JPM	JP MORGAN CHASE	Null	BBB	3.650	569	39	608	18			102.0	101.4
8	TFC	Null	Aug-50	BBB	5.100	556	70	626	6			115.7	115.0
9	ABBV	ABBVIE INC	Nov-22	BBB	2.900	552	183	735	12	0.4	0.4	103.1	103.0
10	THS	TREEHOUSE FOODS INC	Sep-28	B	4.000	547	30	577	11	4.3	4.5	98.1	96.9
11	MOH	MOLINA HEALTHCARE INC	Nov-22	BB	5.375	523	20	543	7	1.3	1.4	103.9	103.8
12	SVC	Null	Jan-28	BB	3.950	486	89	575	6	4.9	4.9	94.9	94.9
13	CTL	CENTURYLINK	Jun-36	BB	7.995	430	128	558	12	7.2	7.3	107.1	105.9
14	CAKE	Null	Jun-26	N/R	0.375	414	10	424	3	2.6	2.1	90.0	92.0
15	DISH	DISH DBS CORP	Aug-26	B	3.375	397	40	437	3	2.8	2.7	102.9	103.0
16	CS	CREDIT SUISSE	Apr-22	A	2.800	394		394	1	0.1		101.6	
17	RILY	Null	Aug-28	N/R	5.250	393	76	469	3			25.0	25.0
18	DOW	DOW CHEM CO	Nov-30	BBB	2.100	389	21	410	5	2.0	2.0	100.8	100.8
19	JPM	JP MORGAN CHASE	Sep-24	BBB	3.875	388	139	527	9	0.9	1.0	108.8	108.7
20	PXD	Pioneer Natural Res Expl Inc	May-25	BBB	0.250	385	41	426	3			141.9	150.0

Source: TRACE and Tradeweb Direct

-Based on odd-lot customer transactions (<100M) reported in TRACE.

-Ratings (AAA, AA, A, BBB, BB, B, C) are based on aggregate ratings from Moody's and S&P (when available).

Corporate Bonds: Top 20 Most Sold Issues

August 2021

Index	Ticker	Company	Maturity	Rating Key (Med)	Coupon	Trades (Buy)	Trades (Sell)	Trades	Dollar Vol. Traded (MM)	Yield (Buy)	Yield (Sell)	Price (Buy)	Price (Sell)
1	BKNG	Null	Sep-21	A	0.900	25	2,907	2,932	17			109.5	102.9
2	GS	GOLDMAN SACHS	Aug-50	BB	-1.000	173	697	870	9	4.0	4.0	99.4	99.1
3	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Aug-50	BBB	3.449	1,022	575	1,597	35	3.5	3.5	98.4	97.3
4	PBI	PITNEY BOWES	Mar-24	B	4.625	52	486	538	6	2.8	2.9	104.2	103.9
5	CVS	CVS CAREMARK CORP	Mar-28	BBB	4.300	347	430	777	12	1.7	1.7	115.4	115.2
6	GS	GOLDMAN SACHS	Null	BB	0.000	42	414	456	5			99.9	98.6
7	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Null	BBB	4.000	33	386	419	3	4.3	4.4	93.7	91.8
8	WEC	WISCONSIN ENERGY CORP	May-67	BBB	2.237	62	374	436	5			95.8	94.1
9	MCHP	MICROCHIP TECHNOLOGY INC	Feb-25	N/R	1.625	8	372	380	6			331.4	314.5
10	DXCM	Null	Dec-23	N/R	0.750	5	370	375	4			302.0	309.6
11	IONS	Null	Nov-21	N/R	1.000	13	368	381	1		2.6	101.0	99.7
12	APLS	Null	Sep-26	N/R	3.500	11	349	360	1			183.0	187.6
13	CMCS	COMCAST	Oct-28	A	4.150	246	345	591	13	1.7	1.7	116.1	115.9
14	VZ	VERIZON	Nov-24	BBB	3.500	259	324	583	6	0.7	0.7	108.1	108.0
15	AAPL	APPLE INC	May-23	AA	2.400	123	292	415	8	0.3	0.3	103.6	103.6
16	VZ	VERIZON	Mar-27	BBB	4.125	131	290	421	9	1.5	1.5	113.9	113.8
17	BAC	BANK OF AMERICA	Jan-23	A	3.300	138	286	424	8	0.3	0.3	104.2	104.1
18	WDC	WESTERN DIGITAL CORP	Feb-26	BBB	4.750	117	282	399	10	1.9	1.9	111.5	111.4
19	BA	BOEING CO	Feb-26	BBB	2.196	279	264	543	12	1.6	1.7	100.9	100.7
20	C	CITIGROUP	Jul-28	BBB	3.668	160	264	424	5			110.6	110.5

Source: TRACE and Tradeweb Direct

-Based on odd-lot customer transactions (<100M) reported in TRACE.

-Ratings (AAA, AA, A, BBB, BB, B, C) are based on aggregate ratings from Moody's and S&P (when available).

Appendix

Maturity

We consider the following maturity ranges for maturity buckets. TTM is Time to Maturity in years.

1Y: $0.5 \leq TTM \leq 1.5$
 3Y: $2 \leq TTM \leq 4$
 5Y: $4 < TTM \leq 6$
 10Y: $7.5 \leq TTM \leq 12.5$
 20Y: $15 \leq TTM \leq 25$

Rating

Rating buckets (AAA, AA, A, BBB, HY) in yield matrix are based on aggregate ratings from Moody's and S&P (when available).

For Corporate, we only consider transactions in bonds that are rated by both rating agencies.

-Corporate AAA: Bonds rated AAA by both rating agencies.

-Corporate AA: Bonds rated AA by both rating agencies.

-Corporate A: Bonds rated A by both rating agencies.

-Corporate BBB: Bonds rated BBB by both rating agencies.

-Corporate High Yield: Bonds rated High Yield by both rating agencies.

(Transactions in corporate bonds that are rated as AA by one agency and as A by another agency are excluded.)

-Municipal AAA: Bonds rated AAA by both rating agencies, or AAA by one agency and not rated by another agency.

-Municipal AA: Bonds rated AA by both rating agencies, or AA by one agency and not rated by another agency.

-Municipal A: Bonds rated A by both rating agencies, or A by one agency and not rated by another agency.

-Municipal BBB: Bonds rated High Yield by both rating agencies, or BBB by one agency and not rated by another agency.

-Municipal High Yield: Bonds rated High Yield by both rating agencies, or High Yield by one agency and not rated by another agency.

(Transactions in municipal bonds that are rated as AA by one agency and as A by another agency are excluded.)

(Transactions in municipal bonds that are rated as AA by one agency and not rated by the other agency are included.)

Disclosures

This report represents certain customer trades in securities that have been reported by dealers to FINRA's Trade Reporting and Compliance Engine ("TRACE"), and the Municipal Securities Rulemaking Board ("MSRB"). The report does not necessarily reflect all transactions that were effected on dates noted. There is the possibility of errors or delays in the trade submission process. Prices for transactions vary with market conditions and can be affected by trade size and other factors. The information provided has been obtained from sources deemed to be reliable, however Tradeweb Direct does not guarantee the accuracy of the information contained in this report.

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