

Market Transparency Report

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

February 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 February 2021

	Median Yield (bps)	Daily Trade Volume	Buy/Sell Ratio
Agency	7	2.5%	0.0
CD	-2	-3.0%	-0.3
Corp	5	0.8%	0.0
Municipal	1	4.7%	0.1
Treasury	-2	-6.5%	0.0

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

Yield Matrix

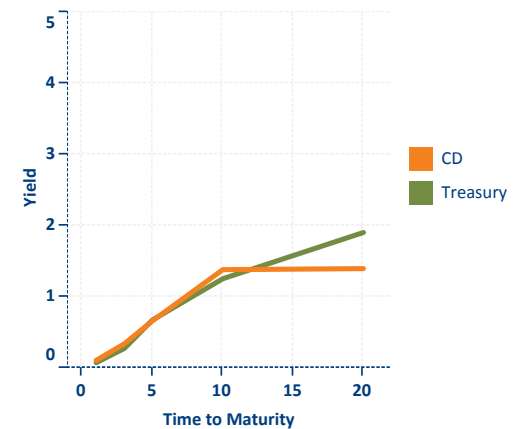
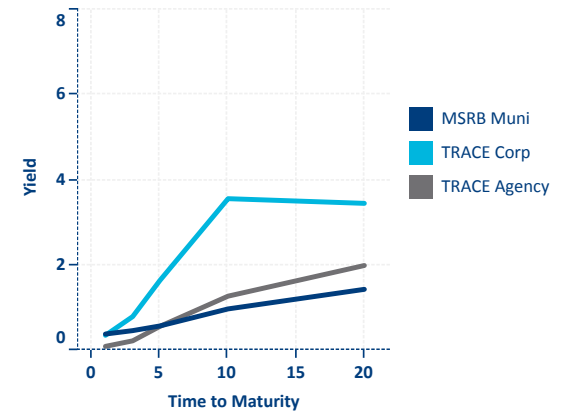
Average Yield, % for February 2021

Market	TTM					Median Maturity (Years)
	1	3	5	10	20	
MSRB Muni	0.4	0.5	0.6	1.0	1.4	9
TRACE Corp	0.4	0.8	1.6	3.6	3.5	4
TRACE Agency	0.1	0.2	0.6	1.3	2.0	4
CD	0.1	0.3	0.7	1.4	1.4	1
Treasury	0.1	0.3	0.7	1.3	1.9	0

Asset Class

Market	Category (Filtered)	Rating Key	TTM					Median Maturity (Years)
			1	3	5	10	20	
TRACE Corp	Financial	AA	0.1	0.2	1.0			1
		A	0.2	0.4	0.9	1.8	3.0	3
		BBB	0.5	0.8	1.2	2.3	3.5	4
		HY	2.7		6.1	6.7	4.5	8
		AAA		0.2		1.2	2.4	9
	Non-Financial	AA	0.3	0.3	1.1	2.0	2.5	9
		A	0.2	0.3	0.9	1.9	2.7	3
		BBB	0.3	1.0	1.6	3.0	3.5	8
		HY	1.1	4.3	5.1	5.2	4.7	6
MSRB Muni	GO	AAA	0.3	0.3	0.4	0.8	1.1	6
		AA	0.3	0.4	0.5	0.9	1.4	8
		A	0.4	0.5	0.7	1.0	1.6	7
		BBB	1.0	1.3	1.5	1.7	2.3	9
		HY	2.5	5.8	3.0	1.2	1.2	19
	Revenue	AAA	0.4	0.4	0.5	0.9	1.2	7
		AA	0.4	0.4	0.5	0.9	1.3	9
		A	0.4	0.5	0.7	1.0	1.4	11
		BBB	1.0	1.1	1.4	1.8	1.8	15
		HY	3.8	4.4	3.6	4.2	4.2	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.

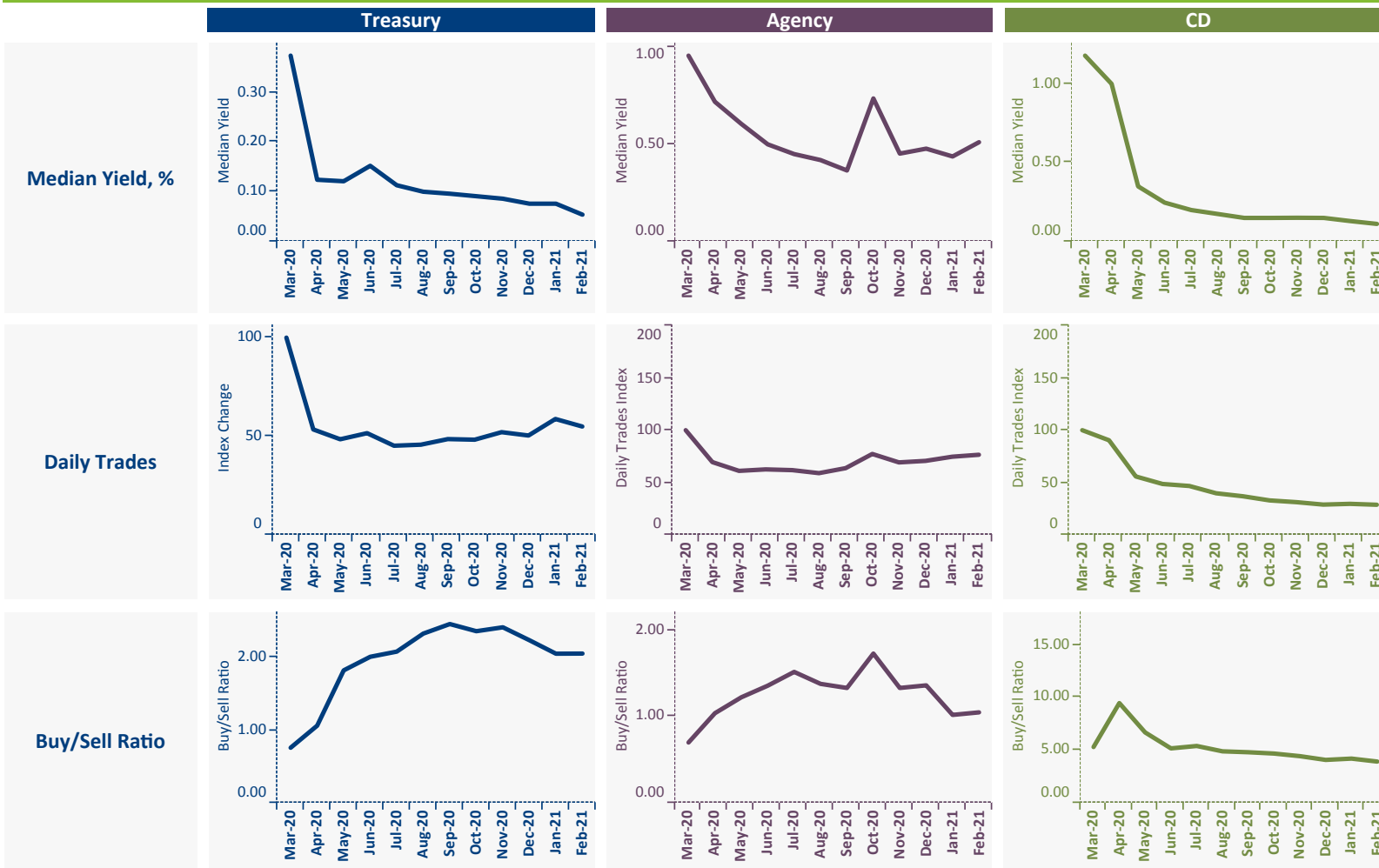
-The weights are based on transaction size.

-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.

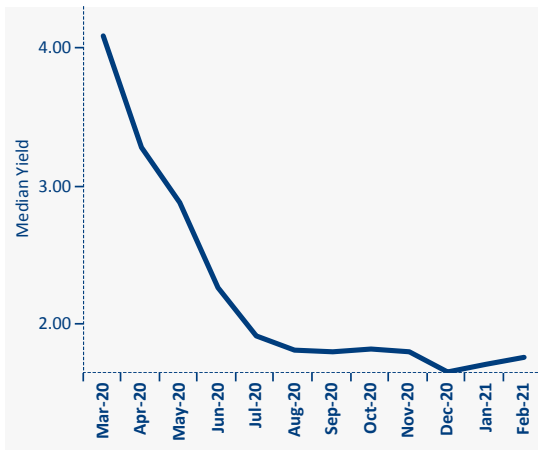
-Agency is based on odd-lot customer transactions (<100M) reported in TRACE. Median yields are based on all odd-lot customer buy transactions.

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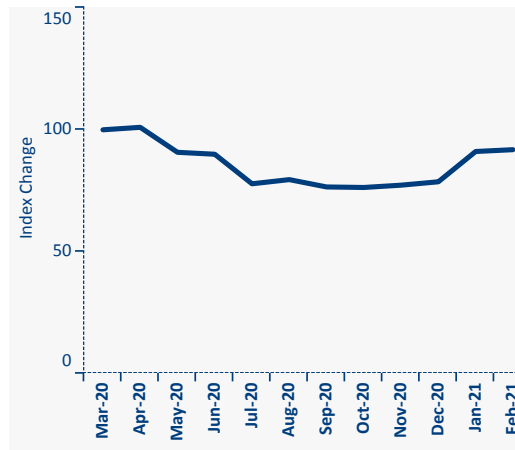


Corporate Bonds: Odd-Lot Customer Transaction Trend Summary

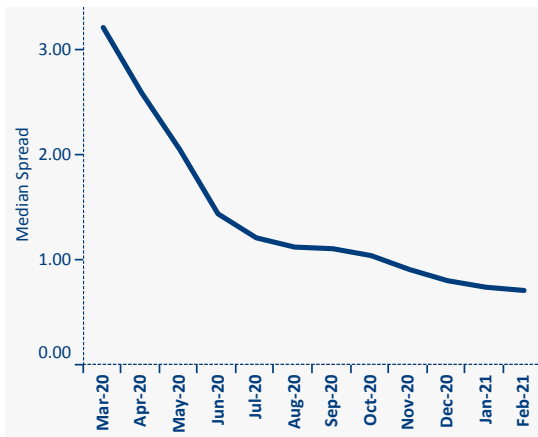
Median Yield, %



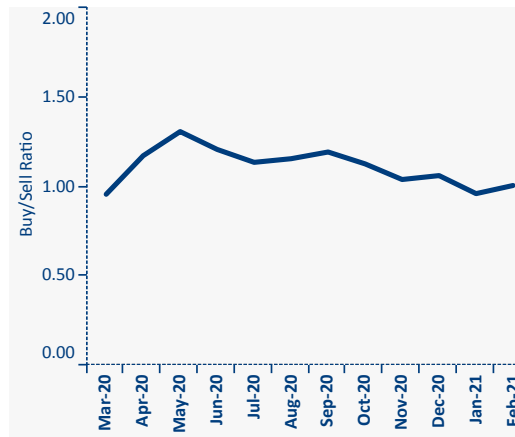
Trades Per Day



Median Spread, %



Buy/Sell Ratio



Daily Trades: First month = 100

Source: TRACE and Tradeweb Direct

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

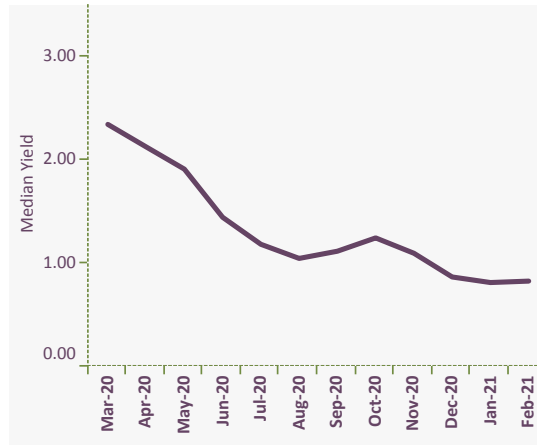
-Median yields and spreads are based on all odd-lot customer buy transactions...

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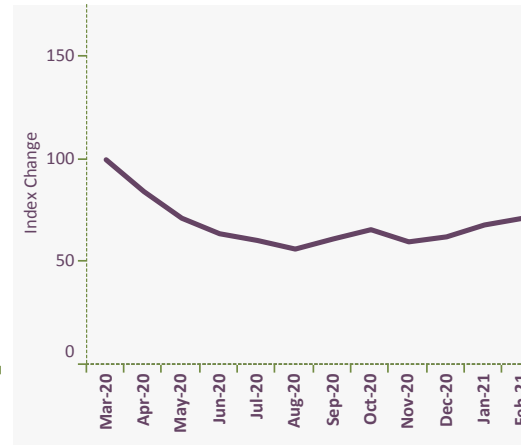


Municipal Bonds: Odd-Lot Customer Transaction Trend Summary

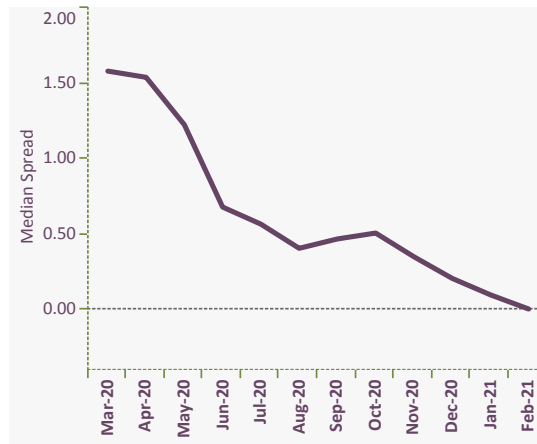
Median Yield, %



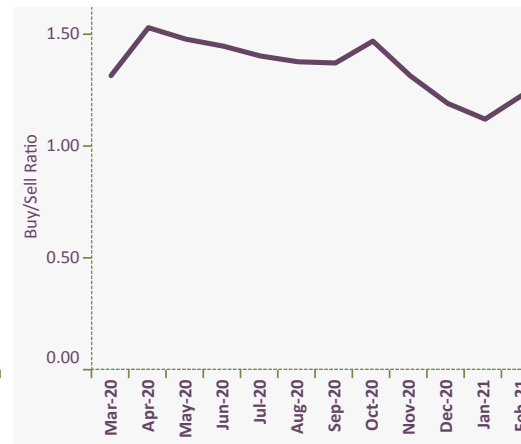
Trades Per Day



Median Spread, %



Buy/Sell Ratio



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

February 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	818	2.8%	13,404	1.0	306	0.1	0.5	1.0	1.6	2.8
2	GS	GOLDMAN SACHS	A	981	2.8%	13,178	1.1	290	0.3	0.7	1.1	2.1	3.5
3	C	CITIGROUP	BBB	523	2.5%	11,998	1.1	266	0.2	0.5	1.2	2.0	2.9
4	BAC	BANK OF AMERICA	A	312	2.2%	10,530	1.0	225	0.2	0.8	1.0	2.2	3.2
5	WFC	WELLS FARGO	A	203	2.0%	9,641	1.0	206	0.2	0.6	1.0	1.7	3.3
6	MS	MORGAN STANLEY	A	753	1.7%	7,827	0.7	180	0.2	0.6	1.1	2.2	2.9
7	VZ	VERIZON	BBB	134	1.6%	7,600	1.1	144	0.4	0.6	1.1	1.9	2.8
8	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	BBB	282	1.5%	7,103	1.2	165	0.4	0.7	1.4	3.0	3.5
9	AAPL	APPLE INC	AA	55	1.4%	6,806	1.2	148	0.1	0.3	0.8	1.6	2.7
10	T	AT&T	BBB	111	1.4%	6,760	1.1	148	0.3	0.6	0.9	2.2	3.4
11	GM	GENERAL MOTORS FINANCIAL COMPANY INC	BBB	97	1.2%	5,566	1.0	139	0.4	1.1	1.4	2.3	3.6
12	CMCS	COMCAST	A	63	1.1%	5,387	1.1	113	0.4	0.4	0.8	1.8	2.8
13	BA	BOEING CO	BBB	59	1.1%	5,087	4.1	117	0.6	0.9	2.0	2.6	3.7
14	CVS	CVS CAREMARK CORP	BBB	49	1.0%	4,901	1.0	102	0.3	0.4	0.9	2.0	3.0
15	F	FORD	BB	228	0.9%	4,493	0.8	112	1.0	2.3	2.8	4.0	4.6
16	BP	BP	A	53	0.9%	4,430	1.0	76	0.3	0.6	1.0	1.9	
17	ORCL	ORACLE CORP	A	31	0.9%	4,343	1.0	87	0.2	0.3	0.9	1.8	2.9
18	BRK	BERKSHIRE HATHAWAY	A	147	0.8%	3,692	0.7	96	0.1	0.2	0.9	2.1	2.9
19	KO	COCA COLA CO	A	32	0.7%	3,358	1.1	63	0.1	0.2	0.7	1.7	2.5
20	MSFT	MICROSOFT CORP	AAA	33	0.7%	3,293	0.9	68	0.1	0.2	0.8		2.4

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.

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

February 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	BA	BOEING CO	BBB	59	1.1%	5,087	4,093	994	4.1	117	0.6	0.9	2.0	2.6	3.7
2	PSEC	PROSPECT CAP CORP INTERNOTES BOOK ENTRY	BBB	169	0.3%	1,650	1,306	344	3.8	32	2.7	2.9	3.6	4.5	4.0
3	MUR	MURPHY OIL CORP	BB	10	0.3%	1,359	1,020	339	3.0	26	2.4	5.8	5.7	6.7	7.0
4	MO	ALTRIA GROUP INC	BBB	26	0.5%	2,598	1,947	651	3.0	71	0.3	0.5	1.1	2.3	3.7
5	JWN	NORDSTROM INC	BBB	7	0.3%	1,572	1,110	462	2.4	33	0.9			4.3	5.2
6	CCI	CROWN CASTLE INTL CORP	BBB	22	0.3%	1,190	825	365	2.3	21		0.5	1.2	2.2	3.2
7	GEO	GEO GROUP INC	B	4	0.4%	1,850	1,231	619	2.0	20	7.4	11.0	12.9		
8	SCHW	SCHWAB CHARLES CORP NEW	BBB	27	0.5%	2,449	1,570	879	1.8	61	0.2	0.4	0.8	1.8	
9	TEVA	TEVA PHARMACEUTICAL FIN CO B V	BB	12	0.4%	1,706	1,086	620	1.8	42	1.7	2.9	3.7		4.9
10	PSX	PHILLIPS 66	BBB	19	0.2%	1,140	687	453	1.5	23	0.4	0.5	1.0	2.3	4.2
11	ETP	ENERGY TRANSFER PARTNERS L P	BBB	40	0.5%	2,383	1,420	963	1.5	59	0.6	1.1	1.5	3.0	4.8
12	FITB	FIFTH THIRD BANCORP	BBB	19	0.2%	1,139	671	468	1.4	27	0.3	0.5	1.1		3.0
13	BMY	BRISTOL MYERS SQUIBB CO	A	56	0.3%	1,254	732	522	1.4	36	0.3	0.4	0.8	1.7	2.6
14	SLM	SLM CORP	B	132	0.3%	1,275	737	538	1.4	25	2.0	3.8	4.9	6.8	7.1
15	USB	U S BANCORP MEDIUM TERM NTS- BOOK ENTRY	A	31	0.5%	2,459	1,407	1,052	1.3	52	0.2	0.4	0.9	1.7	
16	CNP	CENTERPOINT ENERGY INC	BBB	32	0.3%	1,362	773	589	1.3	35	0.2	2.4	1.1	3.9	5.1
17	TD	TORONTO DOMINION BK SR MEDIUM TERM BK NT	AA	99	0.3%	1,344	763	581	1.3	34		0.4	0.8		
18	JNJ	JOHNSON & JOHNSON	AAA	31	0.3%	1,270	716	554	1.3	32	0.1	0.2	0.7	1.5	2.4
19	CS	CREDIT SUISSE	N/R	295	0.2%	1,157	647	510	1.3	28	3.7	0.6	1.0	2.1	3.1
20	LOW	LOWES COS INC	BBB	28	0.3%	1,395	773	622	1.2	29	0.2	0.4	0.9	1.9	3.2

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

February 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	HON	HONEYWELL INTL INC	A	18	0.3%	1,243	228	1,015	0.22	20	0.2	0.4	0.6	1.6	2.8
2	HBC	HSBC	N/R	435	0.3%	1,616	392	1,224	0.32	38	0.4	1.0	1.6	3.1	3.2
3	BBBY	BED BATH & BEYOND INC	B	3	0.2%	1,143	331	812	0.41	23		3.4			5.9
4	BCS	BARCLAYS	N/R	604	0.4%	1,980	675	1,305	0.52	44	0.3	1.4	1.4	2.2	3.3
5	PYPL	Null	BBB	8	0.2%	1,166	424	742	0.57	18		0.5	0.8	1.8	
6	PNC	PNC FDG CORP	A	29	0.3%	1,324	504	820	0.61	27	0.3	0.4	0.9	1.7	
7	BNS	BANK NOVA SCOTIA B C	A	142	0.3%	1,434	550	884	0.62	31	0.3	0.4	1.1	4.1	
8	DAL	DELTA AIR LINES INC DEL	BB	17	0.3%	1,518	589	929	0.63	43	1.7	2.7	3.6	3.9	
9	BRK	BERKSHIRE HATHAWAY	A	147	0.8%	3,692	1,457	2,235	0.65	96	0.3	0.3	1.0	1.8	3.0
10	TM	TOYOTA	A	61	0.4%	2,085	823	1,262	0.65	44	0.3	0.4	0.8	1.7	
11	MS	MORGAN STANLEY	A	753	1.7%	7,827	3,129	4,698	0.67	180	0.3	0.6	1.1	2.3	3.0
12	RDS	SHELL	AA	27	0.4%	1,957	785	1,172	0.67	42	0.3	0.3	0.9	1.7	3.0
13	FLR	FLUOR CORP NEW	BBB	2	0.3%	1,469	599	870	0.69	23		3.5		4.0	
14	KSS	KOHL'S CORP	BBB	8	0.3%	1,227	502	725	0.69	31		1.4	2.0	4.5	4.7
15	AMZN	AMAZON COM INC	AA	19	0.6%	2,610	1,087	1,523	0.71	51	0.3	0.4	0.7	1.6	2.5
16	COF	CAPITAL ONE FINL CORP	BBB	22	0.5%	2,507	1,088	1,419	0.77	52	0.3	0.8	1.3		
17	CTL	CENTURYLINK	B	26	0.4%	1,720	756	964	0.78	41	1.8	2.6	3.1	6.2	5.7
18	AXP	AMERICAN EXPRESS	BBB	28	0.6%	2,888	1,272	1,616	0.79	61	0.3	0.5	0.8		2.7
19	INTC	INTEL CORP	A	28	0.4%	1,934	864	1,070	0.81	40	0.3	0.4	0.8	1.7	2.9
20	KMI	KINDER MORGAN ENERGY PARTNERS L P	BBB	58	0.3%	1,586	711	875	0.81	38	0.5	0.7	1.0	3.2	4.0

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

February 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	BA	BOEING CO	Feb-26	BBB	2.196	1,396	29	1,425	25	2.0	2.0	100.4	100.3
2	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Jan-70	BBB	3.512	1,352	568	1,920	45	3.7	3.7	96.9	95.5
3	MO	ALTRIA GROUP INC	Feb-61	BBB	4.000	1,187	19	1,206	32	4.1	4.2	98.5	96.1
4	BP	BP	Null	BBB	4.875	1,021	34	1,055	9			111.3	109.9
5	QUAD	Null	May-22	C	7.000	935	190	1,125	10	9.1	9.4	97.6	97.3
6	VZ	VERIZON	Mar-30	BBB	3.150	877	76	953	16	1.9	2.0	110.3	109.6
7	WFC	WELLS FARGO	Null	BBB	3.900	874	69	943	29			102.3	100.9
8	KO	COCA COLA CO	Mar-30	A	3.450	810	64	874	15	1.7	1.7	114.8	114.6
9	C	CITIGROUP	Aug-70	BB	4.676	784	232	1,016	13	4.7	4.7	100.7	100.3
10	NRG	NRG ENERGY	May-26	BB	7.250	690	28	718	9	2.2	2.7	104.6	104.6
11	PSEC	PROSPECT CAP CORP INTERNOTES BOOK ENTRY	Jan-26	BBB	3.706	684	10	694	15	3.6	3.7	100.7	100.1
12	BBY	BEST BUY INC	Oct-28	BBB	4.450	623	19	642	4	1.8	1.9	118.5	117.7
13	SQ	Null	May-23	N/R	0.500	576	40	616	8			356.8	304.1
14	CNK	CINEMARK USA INC	Dec-22	B	5.125	575	8	583	5	5.7	6.1	99.1	98.3
15	SCHW	SCHWAB CHARLES CORP NEW	Null	BBB	5.375	511	144	655	15			112.0	111.1
16	GEO	GEO GROUP INC	Apr-23	B	5.125	491	245	736	7	10.4	10.4	90.1	90.1
17	CCI	CROWN CASTLE INTL CORP	Apr-31	BBB	2.100	488	5	493	5	2.4	2.5	99.8	97.0
18	WFC	WELLS FARGO	Apr-26	A	3.000	469	70	539	6	1.0	1.2	109.9	109.1
19	CVS	CVS CAREMARK CORP	Mar-28	BBB	4.300	462	497	959	16	1.6	1.7	117.3	116.6
20	SCHW	SCHWAB CHARLES CORP NEW	Null	BBB	4.000	462	101	563	17			104.7	103.6

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

February 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	VZ	VERIZON	Mar-27	BBB	4.125	87	1,006	1,093	20	1.2	1.1	117.3	117.5
2	KO	COCA COLA CO	Mar-28	A	1.000	159	798	957	17	1.2	1.3	98.5	98.3
3	HON	HONEYWELL INTL INC	Jun-25	A	1.350	57	779	836	9	0.6	0.6	103.0	103.0
4	FLR	FLUOR CORP NEW	Dec-24	BBB	3.500	380	766	1,146	16	3.2	3.5	101.0	100.0
5	WFC	WELLS FARGO	Aug-70	BBB	5.570	216	728	944	22	5.6	5.6	100.3	100.1
6	WPG	Null	Aug-24	C	6.450	202	668	870	10	23.1	23.1	62.0	61.6
7	BP	BP	Mar-21	A	4.742	19	652	671	6	0.3	1.0	100.3	100.3
8	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Jan-70	BBB	3.512	1,352	568	1,920	45	3.7	3.7	96.9	95.5
9	WFC	WELLS FARGO	Mar-22	A	3.500	40	559	599	7	0.2	0.3	103.5	103.5
10	TDOC	Null	Dec-22	N/R	3.000	15	540	555	10			622.5	657.5
11	AMZN	AMAZON COM INC	Jun-27	AA	1.200	127	538	665	10	1.0	1.1	101.3	100.3
12	V	VIVENDI	Dec-25	AA	3.150	354	524	878	15	0.6	0.6	111.4	111.4
13	PYPL	Null	Jun-25	BBB	1.650	72	499	571	6	0.8	0.8	103.7	103.7
14	CVS	CVS CAREMARK CORP	Mar-28	BBB	4.300	462	497	959	16	1.6	1.7	117.3	116.6
15	VZ	VERIZON	Sep-23	BBB	5.150	137	420	557	10	0.4	0.5	112.2	111.8
16	TSLA	TESLA MTRS INC	Mar-22	BB	2.375	10	409	419	12			1,288.2	1,173.0
17	CCL	CARNIVAL CORP	Jan-28	B	6.650	101	408	509	5	5.8	5.8	104.6	104.7
18	AAPL	APPLE INC	May-23	AA	2.400	217	398	615	13	0.2	0.3	104.8	104.7
19	DAL	DELTA AIR LINES INC DEL	Jan-26	BB	7.375	69	381	450	18	3.5	3.6	117.1	116.6
20	BBBY	BED BATH & BEYOND INC	Aug-34	B	4.915	117	355	472	8	5.4	5.6	95.5	93.2

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 rates 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 ones 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

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