

Market Transparency Report

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

January 2023

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 January 2023

	Median Yield (bps)	Daily Trade Volume	Buy/Sell Ratio
Agency	5	6.9%	1.3
CD	-8	1.1%	-0.9
Corp	-11	-0.1%	0.5
Municipal	-17	-25.8%	0.1
Treasury	20	13.9%	0.8

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

Yield Matrix

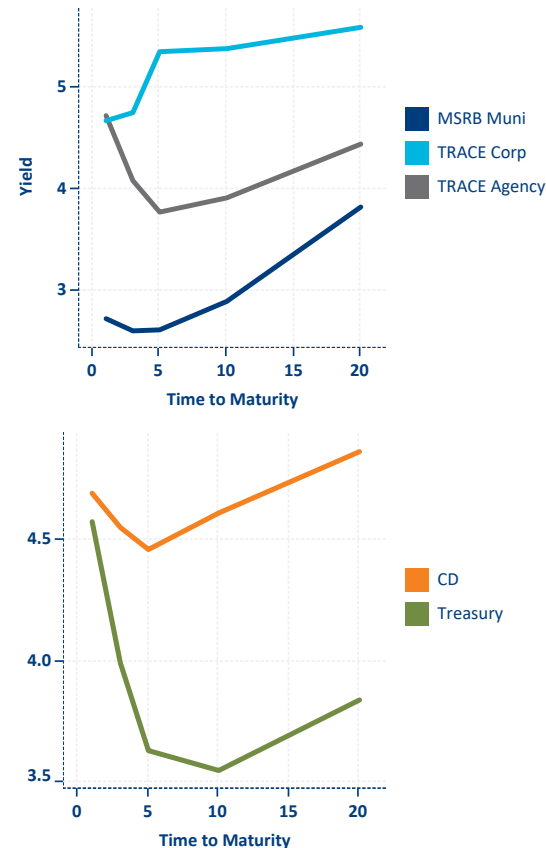
Average Yield, % for January 2023

Market	TTM					Median Maturity (Years)
	1	3	5	10	20	
MSRB Muni	2.7	2.6	2.6	2.9	3.8	10
TRACE Corp	4.7	4.8	5.4	5.4	5.6	3
TRACE Agency	4.7	4.1	3.8	3.9	4.4	1
CD	4.7	4.6	4.5	4.6	4.9	1
Treasury	4.6	4.0	3.6	3.6	3.8	0

Asset Class

Market	Category (Filtered)	Rating Key	1	3	5	10	20	Median Maturity (Years)
TRACE Corp	Financial	AA	4.1	4.6	4.4			6
		A	4.6	4.5	4.3	4.7	5.1	2
		BBB	4.9	4.8	4.8	5.5	5.7	3
		HY	5.5	7.6	8.4	9.2		5
		AAA	1.8	2.0		4.2		18
	Non-Financial	AA	4.5	4.2	3.6	3.7	4.5	7
		A	4.4	4.4	4.3	4.4	5.6	5
		BBB	5.0	4.8	4.9	5.4	6.0	4
		HY		7.3	19.5	7.3	7.1	6
MSRB Muni	GO	AAA	2.6	2.5	2.5	2.7	3.5	7
		AA	2.7	2.5	2.6	2.9	3.7	9
		A	2.8	2.8	2.8	3.1	3.9	7
		BBB	3.3	3.3	3.5	4.0	4.5	11
		HY		4.0		4.8	5.2	13
	Revenue	AAA	2.6	2.5	2.5	2.7	3.7	10
		AA	2.7	2.6	2.6	2.8	3.7	11
		A	2.9	2.8	2.8	3.1	3.9	14
		BBB	3.6	3.5	3.6	4.0	4.6	18
		HY	24.7	5.0	6.5	5.3	5.6	16

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.

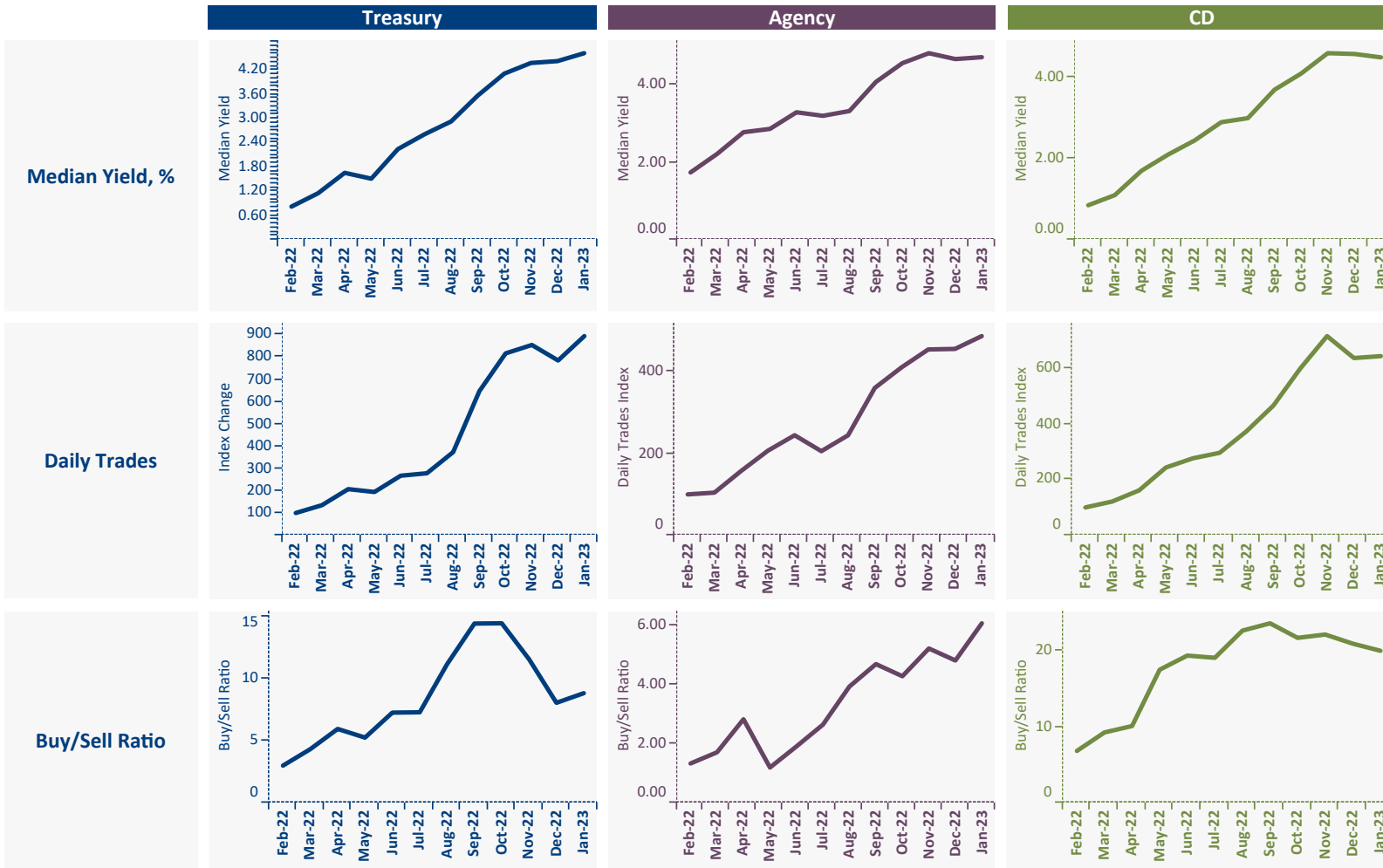
-The weights are based on transaction size.

-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

January 2023

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	GS	GOLDMAN SACHS	A	1,057	3.7%	30,377	2.7	446	4.9	4.9	5.4	4.9	5.3
2	JPM	JP MORGAN CHASE	A	810	3.0%	24,375	1.8	444	4.8	4.5	4.6	5.2	5.1
3	C	CITIGROUP	BBB	727	2.7%	22,088	1.9	375	4.7	4.8	5.0	5.3	5.3
4	BAC	BANK OF AMERICA	A	372	2.5%	20,185	2.4	396	4.7	4.8	4.5	5.0	5.1
5	MS	MORGAN STANLEY	A	756	2.0%	16,583	1.9	277	4.7	4.7	4.9	5.0	5.0
6	CI	CIGNA CORP	BBB	36	1.9%	15,207	10.0	75	4.8	4.6	4.7	4.6	5.1
7	WFC	WELLS FARGO	A	162	1.8%	14,780	1.6	231	4.8	4.7	4.6	5.4	5.4
8	GM	GENERAL MOTORS FINANCIAL COMPANY INC	BBB	93	1.7%	13,880	4.1	298	5.0	5.2	5.3	5.9	6.4
9	VZ	VERIZON	BBB	141	1.4%	11,585	1.5	159	4.8	4.7	4.5	4.6	5.0
10	AAPL	APPLE INC	AA	52	1.2%	10,115	2.0	174	4.5	4.3	4.0	4.1	4.5
11	CMCS	COMCAST	A	60	1.2%	10,086	1.4	148	4.6	4.4	4.4	4.9	4.9
12	T	AT&T	BBB	106	1.0%	8,534	1.6	127	4.9	4.6	4.5	4.9	5.3
13	ORCL	ORACLE CORP	BBB	37	1.0%	8,293	1.6	136	4.9	4.7	4.6	5.1	5.6
14	DUK	DUKE ENERGY	BBB	120	0.9%	7,487	2.3	115	4.9	4.6	4.5	4.8	5.2
15	AMZN	AMAZON COM INC	AA	37	0.9%	7,313	2.2	121	4.5	4.3	4.2	4.3	4.6
16	CVS	CVS CAREMARK CORP	BBB	41	0.9%	7,264	1.6	99	4.6	4.6	4.7	4.7	5.2
17	RY	ROYAL BANK OF CANADA	A	235	0.9%	7,002	2.5	125	4.8	4.7	4.7	5.0	
18	COF	CAPITAL ONE FINL CORP	BBB	30	0.9%	6,976	2.5	107	4.9	5.0	4.7		
19	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	BBB	231	0.8%	6,397	2.1	118	4.9	5.6	5.2	5.4	5.2
20	USB	U S BANCORP MEDIUM TERM NTS- BOOK ENTRY	A	28	0.8%	6,176	1.8	81	4.6	4.3	4.3	4.4	

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

January 2023

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	NEM	NEWMONT MINING	BBB	8	0.4%	3,404	3,269	135	24.2	17				5.1	5.1
2	FB	Null	AA	8	0.3%	2,603	2,493	110	22.7	43			4.5	5.0	
3	CI	CIGNA CORP	BBB	36	1.9%	15,207	13,829	1,378	10.0	75	4.8	4.6	4.7	4.6	5.1
4	CE	CELANESE US HLDGS LLC	BBB	7	0.4%	3,468	3,114	354	8.8	67	5.6	5.8	5.9	6.3	
5	LNC	LINCOLN NATL CORP IND	BBB	17	0.2%	1,852	1,564	288	5.4	38	5.0	4.7	4.9	5.5	5.9
6	BX	APRIA HEALTHCARE GROUP INC	BBB	30	0.4%	3,180	2,684	496	5.4	67	5.1	6.2	6.7	5.6	4.2
7	CNC	CENTENE CORP DEL	BBB	7	0.2%	1,998	1,682	316	5.3	22			5.3	5.3	
8	VIA	VIACOM INC NEW	BBB	28	0.4%	3,399	2,860	539	5.3	65	5.0	5.1	5.2	6.1	6.8
9	ALLY	ALLY FINANCIAL	BBB	45	0.7%	5,460	4,575	885	5.2	104	5.2	5.9	6.0	6.8	
10	MAR	MARRIOTT INTL INC NEW	BBB	19	0.2%	1,928	1,589	339	4.7	41	5.1	4.9	4.8	5.2	
11	GM	GENERAL MOTORS FINANCIAL COMPANY INC	BBB	93	1.7%	13,880	11,180	2,700	4.1	298	5.0	5.2	5.3	5.9	6.4
12	ICE	IntercontinentalExchange Group Inc	A	15	0.3%	2,133	1,661	472	3.5	27		4.3	4.3	4.7	4.8
13	DE	DEERE JOHN CAP CORP MEDIUM TERM NTS-BOOK	A	62	0.5%	4,154	3,224	930	3.5	86	4.3	4.4	4.3	4.3	4.3
14	AVGO	Null	BBB	23	0.3%	2,120	1,639	481	3.4	41	5.0	4.8	5.0	5.3	
15	TRP	TRANSCANADA PIPELINES LTD	BBB	31	0.2%	1,873	1,446	427	3.4	33	4.9	4.8	4.7	5.1	5.3
16	MO	ALTRIA GROUP INC	BBB	23	0.4%	3,089	2,383	706	3.4	68	5.0	4.6		5.5	6.1
17	TMO	THERMO FISHER SCIENTIFIC INC	A	12	0.2%	1,817	1,402	415	3.4	23	4.8		4.3	4.2	4.5
18	ENB	ENBRIDGE INC	BBB	36	0.3%	2,079	1,598	481	3.3	41	5.0	5.0	4.7	4.9	5.8
19	LOW	LOWES COS INC	BBB	39	0.6%	5,265	4,043	1,222	3.3	72	4.7	4.4	4.5	4.8	5.2
20	TD	TORONTO DOMINION BK SR MEDIUM TERM BK NT	A	159	0.7%	5,891	4,487	1,404	3.2	96	4.9	4.7	4.7	4.6	

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

January 2023

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	RDS	SHELL	AA	25	0.3%	2,816	1,376	1,440	0.96	40	5.0	4.4	4.2	4.5	4.9
2	UNP	UNION PAC CORP	A	53	0.2%	1,751	931	820	1.14	35	4.9	4.4	4.2	4.4	4.7
3	AIG	AIG	BBB	25	0.2%	1,965	1,057	908	1.16	21	5.0	4.7	4.7	5.0	5.2
4	NOC	NORTHROP GRUMMAN CORP	BBB	18	0.3%	2,343	1,273	1,070	1.19	30	4.5	4.7	4.4	4.9	4.9
5	ABT	ABBOTT LABS	AA	12	0.3%	2,244	1,259	985	1.28	29	4.9	4.1	4.1		4.6
6	DIS	DISNEY WALT CO NEW MEDIUM TERM NTS BOOK	A	72	0.7%	5,969	3,375	2,594	1.30	100	5.2	4.6	4.2	4.5	4.9
7	MRK	MERCK & CO INC NEW	A	26	0.3%	2,624	1,486	1,138	1.31	35	4.7	4.5	4.2	4.2	4.7
8	GILD	GILEAD SCIENCES INC	BBB	17	0.2%	2,016	1,155	861	1.34	37	4.8	4.8	4.4	4.3	4.9
9	MSFT	MICROSOFT CORP	AAA	29	0.5%	4,351	2,493	1,858	1.34	78	4.7	4.3	4.1	4.1	4.4
10	FISV	FISERV INC	BBB	9	0.4%	3,160	1,814	1,346	1.35	34	5.1	4.8	4.5		
11	ANTM	Null	A	30	0.4%	3,004	1,738	1,266	1.37	37		4.8	4.4	4.6	5.0
12	CMCS	COMCAST	A	60	1.2%	10,086	5,847	4,239	1.38	148	4.7	4.8	4.4	4.5	4.9
13	BMJ	BRISTOL MYERS SQUIBB CO	A	41	0.4%	3,405	2,034	1,371	1.48	49	4.6	4.3	4.1	4.2	4.7
14	TKPH	Takeda Pharmaceutical Co Ltd	BBB	10	0.2%	1,739	1,041	698	1.49	14	5.3	4.5	4.8		5.2
15	VZ	VERIZON	BBB	141	1.4%	11,585	6,933	4,652	1.49	159	4.9	4.8	4.6	4.8	5.4
16	EDP	ENTERPRISE PRODS OPER LLC	BBB	34	0.4%	3,495	2,103	1,392	1.51	45	5.0	4.7	4.8	5.0	5.4
17	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	BBB	39	0.6%	5,266	3,201	2,065	1.55	63		4.6	4.4	4.6	5.1
18	BNS	BANK NOVA SCOTIA B C	A	147	0.5%	4,059	2,476	1,583	1.56	59	4.9	4.8	4.7	4.7	
19	ORCL	ORACLE CORP	BBB	37	1.0%	8,293	5,069	3,224	1.57	136	5.1	4.8	4.7	5.2	5.6
20	SCHW	SCHWAB CHARLES CORP NEW	BBB	36	0.6%	4,784	2,925	1,859	1.57	89	4.9	4.6	4.2	4.5	

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

January 2023

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	CI	CIGNA CORP	Oct-28	BBB	4.375	12,292	453	12,745	28	4.7	4.6	98.6	98.7
2	NEM	NEWMONT MINING	Jul-32	BBB	2.600	3,167	70	3,237	13	5.1	4.8	81.2	83.4
3	GS	GOLDMAN SACHS	Nov-49	BB	3.800	2,597	171	2,768	7			88.9	86.6
4	GS	GOLDMAN SACHS	Feb-33	A	3.102	2,036	39	2,075	17			86.1	85.4
5	CVS	CVS CAREMARK CORP	Mar-28	BBB	4.300	1,998	1,195	3,193	27	4.7	4.7	98.3	98.3
6	BAC	BANK OF AMERICA	Jan-25	BBB	4.000	1,697	156	1,853	24	4.9	5.0	98.3	98.2
7	HPQ	HEWLETT PACKARD	Oct-25	BBB	4.900	1,616	481	2,097	16	4.9	4.9	100.0	99.9
8	AAPL	APPLE INC	Nov-27	AA	3.000	1,551	447	1,998	11	4.0	4.1	95.5	95.1
9	UTX	UNITED TECHNOLOGIES CORP	Aug-25	BBB	3.950	1,519	471	1,990	11	4.6	4.6	98.5	98.4
10	CMCS	COMCAST	Oct-28	A	4.150	1,512	793	2,305	21	4.4	4.4	98.7	98.5
11	MS	MORGAN STANLEY	Jul-25	A	4.000	1,477	157	1,634	15	4.6	4.8	98.7	98.2
12	GS	GOLDMAN SACHS	Feb-25	BBB	3.750	1,458	17	1,475	14	5.3	5.5	97.1	96.7
13	GS	GOLDMAN SACHS	Nov-24	A	5.700	1,420	22	1,442	28	4.8	4.9	101.5	101.4
14	LOW	LOWES COS INC	Apr-26	BBB	2.500	1,394	257	1,651	9	4.4	4.5	94.3	94.1
15	CNC	CENTENE CORP DEL	Dec-27	BBB	4.250	1,347	102	1,449	12	5.3	5.2	95.7	95.8
16	WFC	WELLS FARGO	Jul-27	BBB	4.300	1,292	638	1,930	22	4.6	4.7	98.7	98.6
17	GS	GOLDMAN SACHS	Mar-24	A	4.000	1,284	351	1,635	20	4.9	4.9	99.1	99.0
18	SCHW	SCHWAB CHARLES CORP NEW	Null	BBB	5.375	1,259	322	1,581	26			99.8	99.2
19	FB	Null	Aug-32	AA	3.850	1,236	14	1,250	19	5.0	4.8	91.5	92.6
20	BP	BP	Sep-27	A	3.279	1,234	474	1,708	9	4.2	4.3	96.0	95.7

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).

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Corporate Bonds: Top 20 Most Sold Issues

January 2023

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	CVS	CVS CAREMARK CORP	Mar-28	BBB	4.300	1,998	1,195	3,193	27	4.7	4.7	98.3	98.3
2	GS	GOLDMAN SACHS	Feb-26	A	3.750	1,033	891	1,924	17	4.6	4.6	97.5	97.6
3	JPM	JP MORGAN CHASE	Jul-25	A	3.900	1,001	883	1,884	20	4.5	4.6	98.5	98.3
4	DIS	DISNEY WALT CO NEW MEDIUM TERM NTS BOOK	Mar-25	A	3.350	191	853	1,044	20	4.6	4.6	97.5	97.4
5	USB	U S BANCORP MEDIUM TERM NTS- BOOK ENTRY	Sep-24	A	3.600	791	850	1,641	14	4.5	4.5	98.6	98.5
6	TFC	Null	Oct-24	A	2.850	765	818	1,583	13	4.4	4.5	97.3	97.3
7	CMCS	COMCAST	Oct-28	A	4.150	1,512	793	2,305	21	4.4	4.4	98.7	98.5
8	C	CITIGROUP	Oct-23	BBB	3.875	270	768	1,038	7	4.7	4.9	99.4	99.2
9	MRK	MERCK & CO INC NEW	Feb-25	A	2.750	778	752	1,530	10	4.5	4.5	96.7	96.6
10	AMGN	AMGEN INC	Feb-27	BBB	2.200	891	736	1,627	10	4.4	4.4	91.8	91.8
11	BP	BP	Sep-25	A	3.796	740	730	1,470	12	4.2	4.2	99.0	98.9
12	VZ	VERIZON	Feb-25	BBB	3.376	808	711	1,519	11	4.7	4.8	97.4	97.3
13	MCD	MCDONALDS	Jan-26	BBB	3.700	1,016	699	1,715	15	4.3	4.3	98.3	98.3
14	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Null	BBB	8.099	1,013	689	1,702	36	8.1	8.1	99.8	99.4
15	ABT	ABBOTT LABS	Nov-26	AA	3.750	906	677	1,583	15	4.1	4.1	98.8	98.8
16	BNS	BANK NOVA SCOTIA B C	Feb-24	A	3.400	689	674	1,363	8	4.9	4.9	98.5	98.5
17	CMCS	COMCAST	Aug-25	A	3.375	106	674	780	12	4.5	4.9	97.2	96.4
18	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	Apr-28	BBB	4.000	845	664	1,509	12	4.4	4.4	98.0	98.1
19	AIG	AIG	Feb-24	BBB	4.125	678	661	1,339	7	4.8	5.0	99.3	99.1
20	DUK	DUKE ENERGY	Sep-26	BBB	2.650	700	659	1,359	9	4.6	4.6	93.5	93.5

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).

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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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