

Market Transparency Report

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

August 2024

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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

	Median Yield (bps)	Daily Trade Volume	Buy/Sell Ratio
Agency	-23	40.1%	-1.9
CD	-45	-16.8%	-3.1
Corp	-36	9.0%	0.0
Municipal	-15	-4.7%	0.1
Treasury	-25	-14.9%	-1.8

Monthly Change Table for August 2024

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



Yield Matrix

Average \	Yield, % for August	2024							Average Yield, %
					TTM			Median	
Market			1	3	5	10	20	Maturity (Years)	5-
MSRB Muni			2.9	2.8	2.9	3.2	3.8	9	
TRACE Corp			4.8	4.5	4.9	4.8	5.3	3	
TRACE Agen	су		4.5	4.0	4.1	4.2	4.6	3	MSRB Muni
CD			4.6	4.3	4.3	4.6	4.5	1	TRACE Corp
Treasury			4.8	4.0	3.7	3.9	4.3	0	TRACE Agen
Asset Cla	SS								
								Median	
Market	Category (Filtered)	Rating Key	1	3	5	10	20	Maturity (Years)	3-
		AA	4.6	4.3	4.3		5.0	4	
		A	4.6	4.3	4.2	4.6	5.0	4	·
	Financial	BBB	4.8	4.7	4.9	5.0	5.8	2	0 5 10 15 20
		HY	6.9	7.0	7.1	7.9	5.0	4	Time to Maturity
TRACE -		AAA	010		3.7	2.3	4.3	15	
Corp		AA	4.9	4.0	3.8	4.1	4.8	16	
	Non-Financial	А	4.5	4.2	3.9	4.6	5.2	4	
		BBB	4.9	4.5	4.5	4.8	6.0	5	
		HY	6.2	6.0	20.1			1	4.5 -
								Median	
			1	3	5	10	20	Maturity (Years)	CD Treasury
		AAA	2.8	2.7	2.8	3.1	3.7	8	
		AA	2.9	2.8	2.9	3.2	3.8	8	
	GO	A	3.1	3.0	3.0	3.3	3.9	7	4.0
		BBB	3.9	3.5	3.9	4.0	4.4	9	
MSRB		HY			5.5	5.5	4.7	14	
Muni		AAA	2.8	2.7	2.8	3.1	3.8	10	
		AA	2.9	2.8	2.8	3.1	3.8	10	V
	Revenue	A	3.1	3.0	3.1	3.4	3.9	12	······································
		BBB	3.6	3.8	3.8	4.0	4.5	13	0 5 10 15 20
		HY	5.0	5.8	6.0	6.8	5.4	16	Time to Maturity

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 transcations 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.

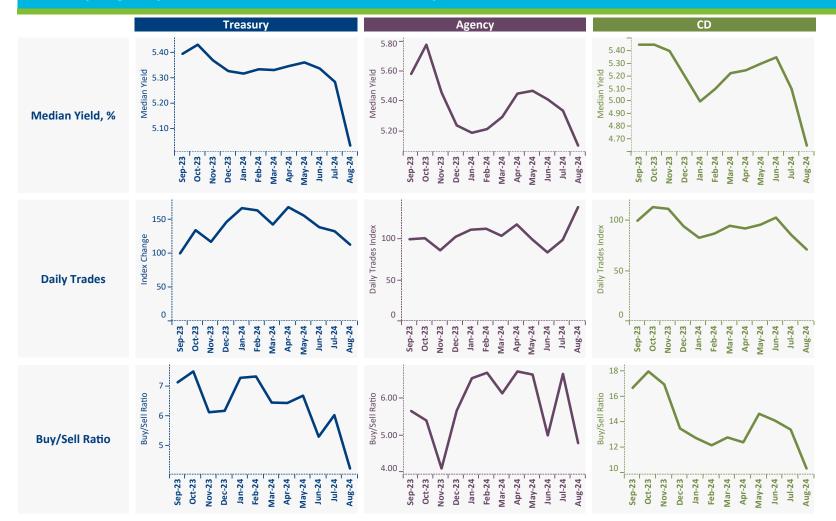
-Yield summaries for Corporate and Agency exclude transactions in callable or floating-rate coupon bonds.

-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.



Corporate Bonds: Odd-Lot Customer Transaction Trend Summary



Daily Trades: First month = 100 Source: TRACE and Tradeweb Direct

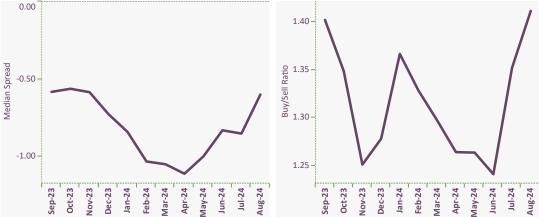
-Based on odd-lot customer transactions (<100M) reported in TRACE.

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



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.



Corporate Bonds: Top 20 <u>Most Active</u> Issuers

August 2024

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	MS	MORGAN STANLEY	А	1,435	2.7%	30,523	0.5	381	4.7	4.5	4.5	4.7	5.1
2	JPM	JP MORGAN CHASE	А	1,218	2.7%	30,383	1.5	541	4.8	4.4	4.6	5.1	5.2
3	PM	PHILIP MORRIS INTL INC	А	33	2.6%	29,215	8.4	189	4.6	4.4	4.5	4.9	5.3
4	С	CITIGROUP	BBB	870	2.5%	27,574	1.6	539	5.0	4.7	4.8	5.1	5.3
5	GS	GOLDMAN SACHS	А	1,285	2.5%	27,314	1.2	448	4.8	4.5	4.5	4.6	5.1
6	BAC	BANK OF AMERICA	А	546	2.1%	23,007	1.5	493	4.8	4.5	4.7	5.0	5.3
7	WFC	WELLS FARGO	А	249	1.8%	20,004	1.4	329	4.9	4.5	4.5	5.1	5.5
8	CVS	CVS CAREMARK CORP	BBB	50	1.2%	13,824	1.6	205	5.0	4.7	4.7	5.2	5.8
9	UNH	UNITEDHEALTH	А	69	1.1%	12,756	2.6	215	4.6	4.2	4.3	4.6	5.1
10	AAPL	APPLE INC	AA	50	1.1%	12,696	1.8	193	4.3	4.0	4.0	4.2	4.8
11	VZ	VERIZON	BBB	161	1.1%	12,581	1.1	182	5.3	4.4	4.4	4.9	5.3
12	INTC	INTEL CORP	BBB	39	1.1%	12,340	1.9	244	5.1	4.7	4.8	5.1	5.8
13	CMCS	COMCAST	А	67	1.1%	12,168	1.3	181	4.7	4.3	4.4	4.7	5.2
14	GM	GENERAL MOTORS FINANCIAL COMPANY INC	BBB	88	1.1%	12,168	1.7	253	5.1	4.8	4.9	5.4	5.9
15	USB	U S BANCORP MEDIUM TERM NTS- BOOK ENTRY	А	32	1.1%	12,116	2.9	135	4.9	4.4	4.6		
16	т	AT&T	BBB	104	1.1%	11,824	1.1	167	5.5	4.5	4.5	4.9	5.4
17	ORCL	ORACLE CORP	BBB	37	1.0%	11,076	1.6	201	5.1	4.5	4.6	4.9	5.4
18	COF	CAPITAL ONE FINL CORP	BBB	29	1.0%	11,060	3.0	119	5.2	4.7			
19	ABBV	ABBVIE INC	А	26	0.9%	10,381	1.3	133	5.1	4.3	4.2	4.6	5.1
20	BRK	BERKSHIRE HATHAWAY	А	149	0.9%	10,298	2.0	217	4.9	4.3	4.4	5.0	5.1

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 <u>Highest</u> Buy/Sell Ratio

August 2024

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	INTU	INTUIT	А	7	0.3%	3,385	3,175	210	15.1	36	4.7	4.2	4.3	4.7	
2	DB	DEUTSCHE BANK	А	78	0.3%	2,815	2,580	235	11.0	48	4.8	4.7	4.7	5.3	5.5
3	PM	PHILIP MORRIS INTL INC	А	33	2.6%	29,215	26,105	3,110	8.4	189	4.6	4.4	4.5	4.9	5.3
4	ТКРН	Takeda Pharmaceutical Co Ltd	BBB	12	0.3%	3,622	3,088	534	5.8	19	5.0	4.7	4.6	4.9	5.4
5	AEP	AMERICAN ELEC PWR CO INC	BBB	81	0.4%	4,916	3,976	940	4.2	100	4.9	4.6	4.5	5.0	5.5
6	BLK	BLACKROCK INC	AA	15	0.3%	3,264	2,483	781	3.2	58	5.8	4.1	6.5	4.6	
7	PSEC	PROSPECT CAP CORP INTERNOTES BOOK ENTRY	BBB	174	0.4%	4,518	3,399	1,119	3.0	58	8.1	7.9	7.5	7.4	7.1
8	COF	CAPITAL ONE FINL CORP	BBB	29	1.0%	11,060	8,294	2,766	3.0	119	5.2	4.7			
9	LUK	JEFFERIES GROUP INC NEW	BBB	119	0.3%	2,985	2,234	751	3.0	64	5.0	4.8	5.3	6.0	5.9
10	USB	U S BANCORP MEDIUM TERM NTS- BOOK ENTRY	А	32	1.1%	12,116	9,011	3,105	2.9	135	4.9	4.4	4.6		
11	HON	HONEYWELL INTL INC	А	26	0.3%	3,067	2,279	788	2.9	66	4.8	4.2	4.3	4.6	5.0
12	PSX	PHILLIPS 66	BBB	24	0.2%	2,639	1,915	724	2.7	55	5.0	4.4	4.5	5.0	5.4
13	MET	METLIFE	А	21	0.4%	4,273	3,093	1,180	2.6	60	4.6		4.3	4.8	5.2
14	UNH	UNITEDHEALTH	А	69	1.1%	12,756	9,188	3,568	2.6	215	4.6	4.2	4.3	4.6	5.1
15	D	DOMINION RES INC VA NEW	BBB	81	0.4%	4,967	3,572	1,395	2.6	90	4.8	4.4	4.7	4.9	5.5
16	FB	Null	AA	15	0.3%	3,749	2,679	1,070	2.5	79		4.1	4.2	4.4	
17	SBUX	STARBUCKS CORP	BBB	20	0.3%	3,106	2,194	912	2.4	47	4.6	4.5	4.4	4.7	5.4
18	CAT	CATERPILLAR	А	57	0.4%	4,019	2,824	1,195	2.4	60	4.5	4.2	4.2	4.4	5.0
19	ETR	ENTERGY CORP NEW	А	58	0.2%	2,752	1,932	820	2.4	50	4.6	4.5	4.6	4.9	5.5
20	NEE	FPL GROUP CAP INC	BBB	71	0.8%	8,641	6,040	2,601	2.3	153	4.9	4.3	4.5	4.7	5.1

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 2024

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	MS	MORGAN STANLEY	А	1,435	2.7%	30,523	10,630	19,893	0.53	381	4.7	4.7	5.2	4.7	5.1
2	RDS	SHELL	AA	24	0.3%	3,782	1,503	2,279	0.66	49	4.9	4.3	4.3	4.6	5.2
3	EDP	ENTERPRISE PRODS OPER LLC	А	37	0.5%	5,018	2,214	2,804	0.79	69	5.2	4.3	4.4	4.8	5.3
4	т	AT&T	BBB	104	1.1%	11,824	6,200	5,624	1.10	167	5.6	4.5	4.5	4.8	5.4
5	VZ	VERIZON	BBB	161	1.1%	12,581	6,607	5,974	1.11	182	5.5	4.4	4.5	4.9	5.4
6	AMZN	AMAZON COM INC	AA	32	0.8%	8,506	4,500	4,006	1.12	141	4.6	4.2	4.1	4.4	4.9
7	BTI	BAT INTERNATIONAL FINANCE PLC	BBB	37	0.4%	3,929	2,094	1,835	1.14	87	5.3	4.7	4.8	5.3	6.0
8	DELL	DELL	BBB	24	0.3%	3,093	1,675	1,418	1.18	74	5.3	4.7	4.7	5.1	5.7
9	RY	ROYAL BANK OF CANADA	А	281	0.3%	3,836	2,081	1,755	1.19	75	4.9	4.4	5.1	4.9	5.6
10	GS	GOLDMAN SACHS	А	1,285	2.5%	27,314	15,051	12,263	1.23	448	5.1	4.7	4.5	5.0	5.2
11	CMCS	COMCAST	А	67	1.1%	12,168	6,839	5,329	1.28	181	4.8	4.4	4.3	4.8	5.3
12	ABBV	ABBVIE INC	А	26	0.9%	10,381	5,840	4,541	1.29	133	5.2	4.4	4.2	4.6	5.1
13	AMT	AMERICAN TOWER CORP NEW	BBB	33	0.3%	3,030	1,705	1,325	1.29	51	5.2	4.7	4.7	5.0	
14	HMC	AMERICAN HONDA FIN CORP MED TERM NTS BOO	А	45	0.3%	3,166	1,781	1,385	1.29	67	4.8	4.4	4.4	4.7	
15	FISV	FISERV INC	BBB	16	0.3%	3,345	1,926	1,419	1.36	48	5.2	4.6	4.6	5.0	5.6
16	EXC	EXELON GENERATION CO LLC	BBB	94	0.2%	2,642	1,528	1,114	1.37	57	5.3	4.5	4.5	5.0	5.4
17	WFC	WELLS FARGO	А	249	1.8%	20,004	11,548	8,456	1.37	329	5.3	4.6	4.5	5.2	5.5
18	ANTM	Null	А	31	0.3%	3,617	2,096	1,521	1.38	55	4.8	4.5	4.5	4.8	5.3
19	TMUS	T-MOBILE USA INC	BBB	40	0.5%	5,699	3,311	2,388	1.39	116	5.4	4.6	4.6	4.9	5.3
20	CTL	CENTURYLINK	С	24	0.2%	2,712	1,592	1,120	1.42	30	8.9	20.7	21.7	20.6	16.8

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.



Corporate Bonds: Top 20 Most <u>Bought</u> Issues

August 2024

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	PM	PHILIP MORRIS INTL INC	Nov-29	А	5.625	22,432	490	22,922	71	4.5	4.4	105.0	105.3
2	COF	CAPITAL ONE FINL CORP	Jun-34	BBB	6.377	3,738	74	3,812	12			106.9	105.9
3	USB	U S BANCORP MEDIUM TERM NTS- BOOK ENTRY	Jun-34	А	5.836	3,287	127	3,414	13			105.9	105.1
4	ткрн	Takeda Pharmaceutical Co Ltd	Sep-26	BBB	3.200	3,033	477	3,510	16	4.7	4.6	97.0	97.2
5	INTU	INTUIT	Sep-33	А	5.200	3,018	75	3,093	28	4.7	4.6	103.5	104.2
6	CVS	CVS CAREMARK CORP	Mar-28	BBB	4.300	2,316	2,116	4,432	35	4.7	4.7	98.8	98.8
7	RLUX	Null	Feb-31	N/R	9.750	2,198	110	2,308	14			108.2	106.3
8	HPQ	HEWLETT PACKARD	Oct-25	BBB	4.900	2,140	634	2,774	21	5.0	5.1	99.9	99.8
9	NVST	Null	Aug-28	BBB	1.750	2,100	8	2,108	8	5.1	5.4	87.9	87.1
10	GS	GOLDMAN SACHS	Null	ВВ	7.500	2,058	101	2,159	30			104.2	104.2
11	ABBV	ABBVIE INC	Mar-25	А	3.800	1,961	269	2,230	13	5.1	5.3	99.3	99.2
12	UTX	UNITED TECHNOLOGIES CORP	Aug-25	BBB	3.950	1,949	598	2,547	14	4.9	5.0	99.1	98.9
13	LOW	LOWES COS INC	Apr-26	BBB	2.500	1,853	582	2,435	12	4.5	4.6	96.8	96.7
14	CMCS	COMCAST	Oct-28	А	4.150	1,762	1,811	3,573	29	4.4	4.3	99.2	99.4
15	AAPL	APPLE INC	Nov-27	AA	3.000	1,651	612	2,263	12	4.0	4.1	96.9	96.8
16	DWDP	Null	Nov-28	BBB	4.725	1,646	564	2,210	14	4.3	4.3	101.6	101.5
17	BP	BP	Sep-27	А	3.279	1,507	585	2,092	13	4.3	4.3	97.1	97.0
18	UNH	UNITEDHEALTH	Jul-25	А	3.750	1,502	352	1,854	12	4.7	4.8	99.2	99.1
19	MS	MORGAN STANLEY	Jan-27	А	3.625	1,477	399	1,876	16	4.4	4.4	98.3	98.1
20	RBC	Null	Feb-34	А	5.150	1,444	280	1,724	12	4.7	4.8	103.1	102.8

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 <u>Sold</u> Issues

August 2024

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	MS	MORGAN STANLEY	Jan-26	А	3.875	416	11,387	11,803	36	4.7	4.7	98.9	98.9
2	CVS	CVS CAREMARK CORP	Mar-28	BBB	4.300	2,316	2,116	4,432	35	4.7	4.7	98.8	98.8
3	CMCS	COMCAST	Oct-28	А	4.150	1,762	1,811	3,573	29	4.4	4.3	99.2	99.4
4	VZ	VERIZON	Mar-27	BBB	4.125	617	1,497	2,114	22	4.4	4.4	99.3	99.3
5	GS	GOLDMAN SACHS	Null	BB	5.300	236	1,494	1,730	18	5.3	5.4	100.1	98.9
6	GS	GOLDMAN SACHS	Mar-30	А	3.800	634	1,447	2,081	24	4.5	4.5	96.6	96.5
7	WFC	WELLS FARGO	May-28	А	3.584	330	1,309	1,639	12			97.1	97.4
8	т	AT&T	Dec-33	BBB	2.550	329	1,277	1,606	12	4.8	4.8	83.0	83.2
9	AMZN	AMAZON COM INC	Jun-30	AA	1.500	329	1,047	1,376	9	4.2	4.1	86.4	86.6
10	LOW	LOWES COS INC	Apr-33	BBB	5.000	118	993	1,111	13	4.7	4.8	102.0	101.0
11	JPM	JP MORGAN CHASE	Dec-29	А	4.452	353	992	1,345	10			99.5	99.7
12	PM	PHILIP MORRIS INTL INC	Nov-25	А	5.000	69	959	1,028	16	4.7	4.7	100.4	100.4
13	MS	MORGAN STANLEY	Jul-28	А	3.591	298	958	1,256	8			96.9	97.2
14	С	CITIGROUP	Jan-28	BBB	3.887	445	922	1,367	10			98.3	98.4
15	С	CITIGROUP	Jul-28	BBB	3.668	249	907	1,156	11			97.4	97.5
16	RDS	SHELL	Sep-26	AA	2.500	254	862	1,116	7	4.4	4.3	96.3	96.6
17	ABBV	ABBVIE INC	Mar-31	A	4.950	438	828	1,266	12	4.4	4.4	103.2	103.2
18	EDP	ENTERPRISE PRODS OPER LLC	Feb-53	А	3.300	308	796	1,104	5	5.3	5.3	70.4	70.9
19	BBY	BEST BUY INC	Oct-28	BBB	4.450	98	792	890	6	4.4	4.4	100.0	100.0
20	т	AT&T	Mar-29	BBB	4.350	816	778	1,594	17	4.5	4.5	99.5	99.4

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 <= TTM <= 1.5 3Y: 2 <= TTM <= 4 5Y: 4 < TTM <= 6 10Y: 7.5 <= TTM <= 12.5 20Y: 15 <= TTM <=25

Rating

Rating buckets (AAA, AA, AA, BBB, HY) in yield matrix are based on agggregate 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 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 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 <u>not rated</u> 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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