

Market Transparency Report

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

October 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 October 2023

	Median Yield (bps)	Daily Trade Volume	Buy/Sell Ratio
Agency	20	1.2%	-0.3
CD	0	13.5%	1.3
Corp	30	4.6%	-0.1
Municipal	35	34.2%	-0.1
Treasury	4	34.1%	0.4

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

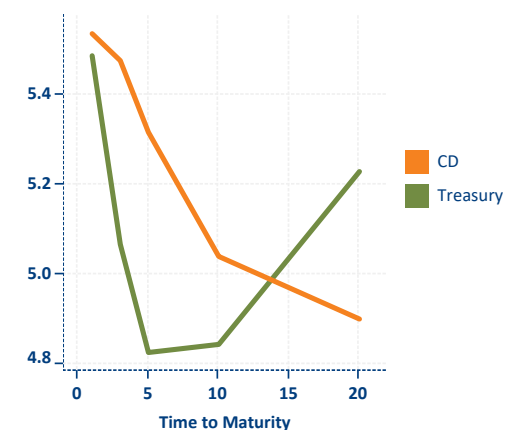
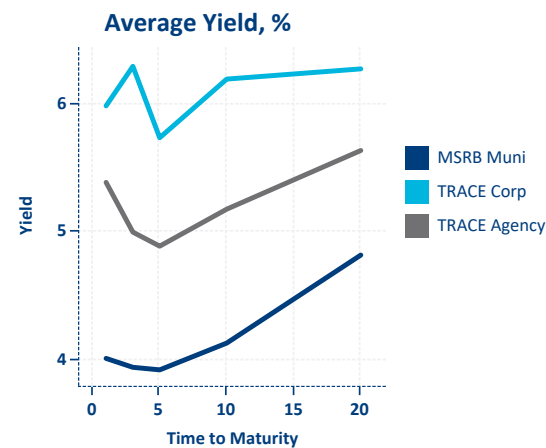
Yield Matrix

Average Yield, % for October 2023

Market	TTM					Median Maturity (Years)
	1	3	5	10	20	
MSRB Muni	4.0	3.9	3.9	4.1	4.8	9
TRACE Corp	6.0	6.3	5.7	6.2	6.3	3
TRACE Agency	5.4	5.0	4.9	5.2	5.6	3
CD	5.5	5.5	5.3	5.0	4.9	1
Treasury	5.5	5.1	4.8	4.8	5.2	1

Asset Class

Market	Category (Filtered)	Rating Key	1	3	5	10	20	Median Maturity (Years)
TRACE Corp	Financial	AA	5.7	5.6	5.6			5
		A	5.7	5.5	5.4	5.7	6.3	3
		BBB	6.6	6.5	7.4	6.5	7.6	3
		HY		11.5	12.0	10.6		5
		AAA			4.8		5.4	17
	Non-Financial	AA	5.4	5.1	5.0	5.5	5.7	6
		A	5.0	5.2	5.3	5.9	6.3	5
		BBB	6.0	5.9	5.9	6.2	7.2	4
		HY		7.7	8.4			4
MSRB Muni	GO	AAA	3.9	3.8	3.8	4.0	4.5	7
		AA	4.0	3.9	3.9	4.1	4.7	8
		A	4.2	4.2	4.2	4.4	5.1	6
		BBB	5.2	4.7	4.7	5.1	5.7	10
		HY		4.5	5.9	7.7	6.1	14
	Revenue	AAA	3.9	3.9	3.8	4.0	4.7	9
		AA	4.0	3.9	3.9	4.1	4.7	9
		A	4.2	4.2	4.3	4.4	5.0	13
		BBB	5.1	4.9	4.9	5.2	5.5	13
		HY	10.1	9.2	8.6	6.6	6.4	15



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.

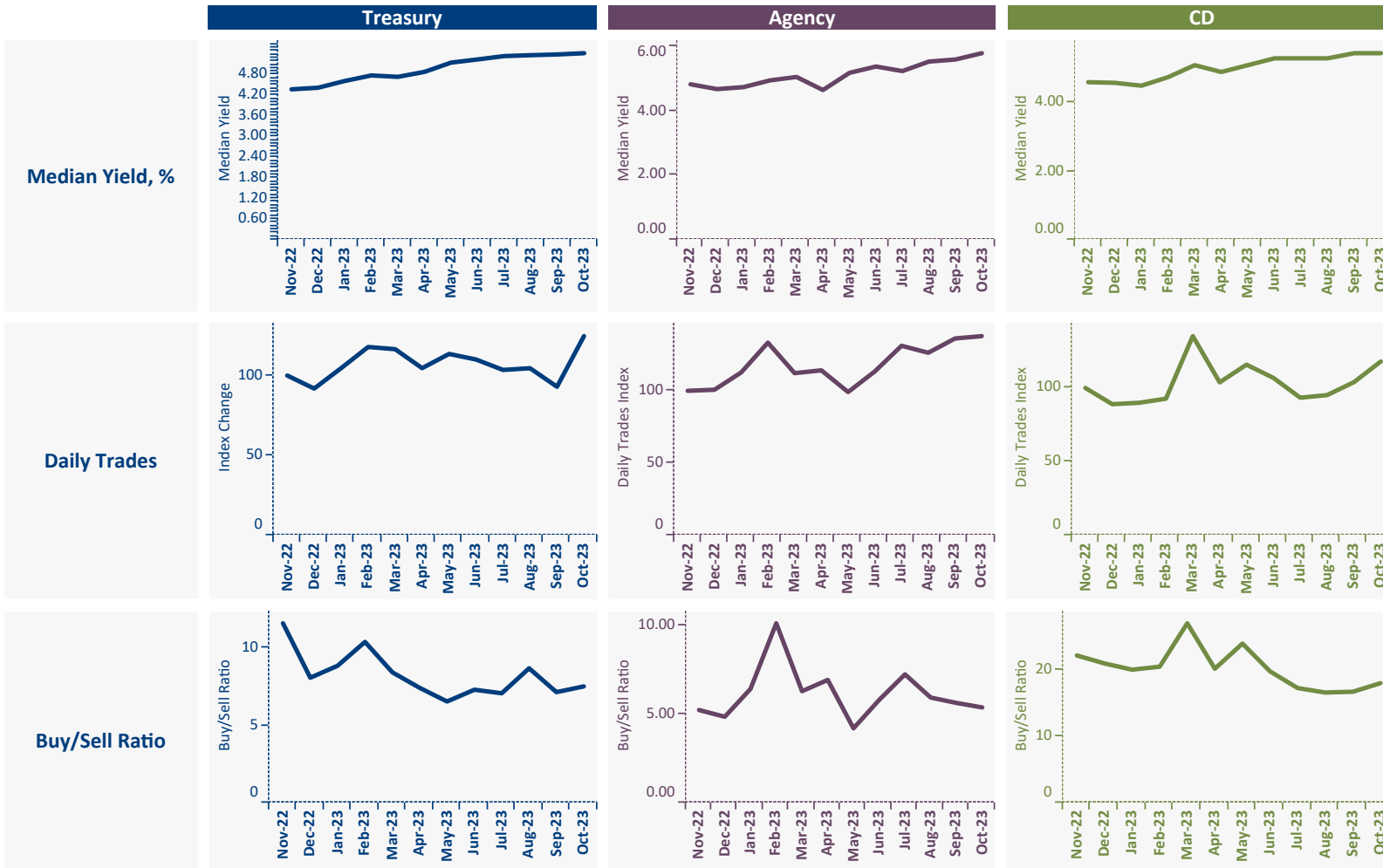
-The weights are based on transaction size.

-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

October 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	C	CITIGROUP	BBB	838	3.3%	32,335	2.0	525	6.0	6.2	6.4	6.5	6.7
2	GS	GOLDMAN SACHS	A	1,243	3.2%	31,673	1.9	538	6.0	6.1	6.1	6.1	6.3
3	JPM	JP MORGAN CHASE	A	1,042	3.1%	30,419	1.5	521	6.0	5.9	5.8	6.2	6.3
4	BAC	BANK OF AMERICA	A	504	2.4%	23,727	1.6	478	6.1	6.1	6.2	6.1	6.3
5	WFC	WELLS FARGO	A	182	1.9%	18,912	1.5	296	6.0	6.2	6.0	6.7	6.9
6	MS	MORGAN STANLEY	A	920	1.8%	17,222	1.4	286	5.9	6.1	6.2	6.0	6.4
7	CVS	CVS CAREMARK CORP	BBB	46	1.5%	14,605	2.7	140	5.9	5.8	5.9	6.2	6.6
8	AAPL	APPLE INC	AA	53	1.4%	13,447	1.9	215	5.4	5.2	5.2	5.2	5.7
9	ORCL	ORACLE CORP	BBB	38	1.3%	12,762	1.8	213	5.9	5.8	5.8	6.2	6.6
10	VZ	VERIZON	BBB	151	1.3%	12,733	1.4	168	5.8	5.7	5.9	6.2	6.4
11	T	AT&T	BBB	110	1.1%	10,997	1.3	147	20.9	5.9	6.1	6.3	6.7
12	BRK	BERKSHIRE HATHAWAY	A	148	1.1%	10,688	2.9	201	5.7	5.3	5.7	6.1	6.5
13	GM	GENERAL MOTORS FINANCIAL COMPANY INC	BBB	90	1.1%	10,451	1.6	209	6.3	6.3	6.4	6.9	7.5
14	USB	U S BANCORP MEDIUM TERM NTS- BOOK ENTRY	A	30	1.0%	9,989	2.0	127	6.2	6.1	6.5		
15	CMCS	COMCAST	A	66	1.0%	9,848	1.3	148	5.5	5.5	5.6	5.9	6.3
16	DUK	DUKE ENERGY	BBB	125	1.0%	9,819	2.2	145	5.9	5.8	5.8	6.2	6.4
17	UNH	UNITEDHEALTH	A	57	0.9%	8,796	2.2	152	5.4	5.4	5.4	5.8	6.1
18	AMZN	AMAZON COM INC	AA	34	0.9%	8,448	1.7	146	5.5	5.2	5.2	5.4	5.8
19	TFC	Null	A	39	0.8%	8,242	1.5	126	6.2	6.1	6.9		
20	COF	CAPITAL ONE FINL CORP	BBB	31	0.8%	8,239	1.7	123	6.4	6.8	6.9		

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

October 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	MU	MICRON TECHNOLOGY INC	BBB	11	0.3%	3,016	2,482	534	4.7	53		6.1	6.3	6.9	6.8
2	TRP	TRANSCANADA PIPELINES LTD	BBB	33	0.3%	2,911	2,258	653	3.5	45	6.1	6.2	6.1	6.5	6.7
3	FITB	FIFTH THIRD BANCORP	BBB	19	0.7%	6,735	5,150	1,585	3.3	67	6.4	6.8	6.5		
4	PM	PHILIP MORRIS INTL INC	A	31	0.6%	5,460	4,171	1,289	3.2	115	5.7	5.6	5.8	6.3	6.6
5	AEP	AMERICAN ELEC PWR CO INC	BBB	72	0.3%	2,808	2,142	666	3.2	57		5.9	5.9	6.3	6.5
6	BX	APRIA HEALTHCARE GROUP INC	BBB	30	0.4%	3,830	2,901	929	3.1	74	6.7	7.4	6.7	6.7	5.3
7	BRK	BERKSHIRE HATHAWAY	A	148	1.1%	10,688	7,932	2,756	2.9	201	5.7	5.3	5.7	6.1	6.5
8	MAR	MARRIOTT INTL INC NEW	BBB	22	0.3%	2,789	2,056	733	2.8	57	6.0	5.9	6.0	6.4	
9	SCHW	SCHWAB CHARLES CORP NEW	A	39	0.8%	7,649	5,638	2,011	2.8	150	6.0	6.2	6.2	6.4	
10	ALLY	ALLY FINANCIAL	BBB	78	0.5%	4,407	3,240	1,167	2.8	80	6.7	7.4	7.4	8.3	
11	MET	METLIFE	A	22	0.5%	4,682	3,421	1,261	2.7	68	5.8	5.6		6.2	6.4
12	CVS	CVS CAREMARK CORP	BBB	46	1.5%	14,605	10,647	3,958	2.7	140	5.9	5.8	5.9	6.2	6.6
13	NEE	FPL GROUP CAP INC	BBB	66	0.8%	7,996	5,773	2,223	2.6	120	6.0	6.1	5.6	5.9	6.1
14	JNJ	JOHNSON & JOHNSON	AAA	26	0.3%	2,962	2,120	842	2.5	60	5.1	5.1	5.0	5.1	5.6
15	TM	TOYOTA	A	73	0.6%	5,531	3,953	1,578	2.5	118	5.6	5.4	5.5	5.6	6.8
16	DE	DEERE JOHN CAP CORP MEDIUM TERM NTS-BOOK	A	65	0.6%	5,865	4,176	1,689	2.5	122	5.4	5.3	5.4	5.6	5.7
17	FB	Null	AA	10	0.3%	2,600	1,851	749	2.5	51		5.3	5.3	5.7	
18	CE	CELANESE US HLDGS LLC	BBB	10	0.2%	2,159	1,518	641	2.4	41	6.2	6.7	6.9	7.2	
19	ENB	ENBRIDGE INC	BBB	39	0.4%	3,626	2,545	1,081	2.4	72	6.1	6.0	6.3	6.4	6.9
20	WMT	WAL-MART	AA	39	0.6%	5,774	4,043	1,731	2.3	95	5.3	5.1	5.1	5.3	5.7

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

October 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	24	0.3%	3,305	1,458	1,847	0.79	46	5.7	5.3	5.4	5.8	6.1
2	BMY	BRISTOL MYERS SQUIBB CO	A	40	0.3%	3,232	1,556	1,676	0.93	46	5.8	5.4	5.5	5.6	6.1
3	EDP	ENTERPRISE PRODS OPER LLC	BBB	34	0.4%	3,850	1,866	1,984	0.94	50	5.9	5.7	5.8	5.9	6.3
4	BNS	BANK NOVA SCOTIA B C	A	169	0.4%	3,567	1,742	1,825	0.95	60	6.1	6.0	6.3	6.3	
5	ANTM	Null	A	27	0.3%	3,233	1,679	1,554	1.08	44	6.0	5.8	5.8	6.0	6.3
6	BP	BP	A	29	0.6%	6,053	3,193	2,860	1.12	74		5.5	5.6	5.9	6.2
7	ABT	ABBOTT LABS	AA	12	0.2%	2,445	1,305	1,140	1.14	31	5.5	5.3	5.2		5.9
8	AMT	AMERICAN TOWER CORP NEW	BBB	34	0.3%	3,309	1,790	1,519	1.18	55	6.2	6.2	6.3	6.5	
9	SPG	SIMON PPTY GROUP L P	A	23	0.2%	2,282	1,233	1,049	1.18	44	6.2	5.9	6.0	6.4	6.8
10	FISV	FISERV INC	BBB	12	0.4%	3,507	1,907	1,600	1.19	45	6.2	5.9	6.0	6.3	
11	UNP	UNION PAC CORP	A	55	0.2%	2,217	1,228	989	1.24	44	5.8	5.6	5.4	5.8	6.2
12	EXC	EXELON GENERATION CO LLC	BBB	87	0.2%	2,222	1,234	988	1.25	44	6.4	5.7	5.7	6.1	6.5
13	PEP	PEPSICO	A	40	0.3%	2,694	1,496	1,198	1.25	51	5.5	5.2	5.2	5.4	5.9
14	SRE	SEMPRA ENERGY	BBB	67	0.2%	2,315	1,292	1,023	1.26	45	6.0	5.9	5.9	6.1	6.4
15	CMCS	COMCAST	A	66	1.0%	9,848	5,505	4,343	1.27	148	5.8	5.6	5.6	6.0	6.3
16	BK	BANK NEW YORK INC MEDIUM TERM SR NTS BOO	A	52	0.6%	5,612	3,154	2,458	1.28	85	6.0	5.9	5.9	6.0	
17	TGT	TARGET CORP	A	20	0.3%	2,746	1,548	1,198	1.29	35	5.8	5.2	5.4	5.8	6.1
18	T	AT&T	BBB	110	1.1%	10,997	6,208	4,789	1.30	147	30.3	6.0	6.1	6.4	6.7
19	ETP	ENERGY TRANSFER PARTNERS L P	BBB	28	0.3%	2,961	1,681	1,280	1.31	55	6.2	6.2	6.3	6.7	7.2
20	MS	MORGAN STANLEY	A	920	1.8%	17,222	9,905	7,317	1.35	286	6.0	6.2	6.5	6.2	6.4

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

October 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	Jan-29	BBB	5.000	5,831	160	5,991	15	5.9	5.9	96.0	95.9
2	C	CITIGROUP	Oct-28	BBB	3.520	3,767	528	4,295	16			90.1	90.0
3	FITB	FIFTH THIRD BANCORP	Jul-29	BBB	6.339	2,615	55	2,670	6			98.3	97.1
4	C	CITIGROUP	Null	BB	7.625	1,968	131	2,099	52			97.0	96.2
5	GS	GOLDMAN SACHS	Null	BB	7.500	1,836	165	2,001	44			98.8	98.4
6	C	CITIGROUP	Nov-33	BBB	6.270	1,755	109	1,864	14			97.5	97.8
7	SCHW	SCHWAB CHARLES CORP NEW	Aug-26	A	5.875	1,747	66	1,813	38	6.1	6.2	99.3	99.2
8	CVS	CVS CAREMARK CORP	Mar-28	BBB	4.300	1,573	1,488	3,061	23	5.9	5.9	93.9	93.8
9	SJM	SMUCKER J M CO	Nov-28	BBB	5.900	1,327	25	1,352	9	6.0	6.0	100.2	99.4
10	JPM	JP MORGAN CHASE	May-38	A	6.400	1,319	58	1,377	18	6.2	6.2	102.1	101.5
11	C	CITIGROUP	Sep-25	BBB	5.500	1,305	174	1,479	19	6.2	6.3	98.7	98.6
12	JPM	JP MORGAN CHASE	Sep-24	BBB	3.875	1,291	261	1,552	30	6.1	6.3	98.1	97.9
13	NEE	FPL GROUP CAP INC	Sep-25	BBB	5.749	1,284	49	1,333	8	6.0	6.0	99.5	99.5
14	ORCL	ORACLE CORP	Apr-38	BBB	6.500	1,281	31	1,312	17	6.5	6.7	100.2	98.3
15	HPQ	HEWLETT PACKARD	Oct-25	BBB	4.900	1,274	933	2,207	17	5.9	5.9	98.1	98.1
16	WFC	WELLS FARGO	Null	BBB	7.625	1,273	290	1,563	32			100.5	100.2
17	AAPL	APPLE INC	Nov-27	AA	3.000	1,234	775	2,009	12	5.2	5.2	92.1	92.1
18	DWDP	Null	Nov-28	BBB	4.725	1,229	649	1,878	13	5.7	5.7	95.8	95.8
19	TFC	Null	Oct-24	A	2.850	1,215	878	2,093	21	6.3	6.4	96.7	96.5
20	USB	U S BANCORP MEDIUM TERM NTS- BOOK ENTRY	Sep-24	A	3.600	1,208	785	1,993	19	6.2	6.4	97.8	97.6

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

October 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	1,573	1,488	3,061	23	5.9	5.9	93.9	93.8
2	CMCS	COMCAST	Oct-28	A	4.150	1,170	1,090	2,260	17	5.6	5.6	93.9	93.7
3	JPM	JP MORGAN CHASE	Jul-28	A	4.851	242	1,019	1,261	18			95.7	95.4
4	HPQ	HEWLETT PACKARD	Oct-25	BBB	4.900	1,274	933	2,207	17	5.9	5.9	98.1	98.1
5	VZ	VERIZON	Mar-27	BBB	4.125	493	895	1,388	16	5.8	5.8	94.9	94.7
6	TFC	Null	Oct-24	A	2.850	1,215	878	2,093	21	6.3	6.4	96.7	96.5
7	UTX	UNITED TECHNOLOGIES CORP	Aug-25	BBB	3.950	1,173	868	2,041	11	5.8	5.8	96.9	96.8
8	ORCL	ORACLE CORP	Nov-32	BBB	6.250	922	850	1,772	30	6.2	6.1	100.1	101.1
9	T	AT&T	Mar-29	BBB	4.350	745	843	1,588	13	6.1	6.1	92.2	92.1
10	COF	CAPITAL ONE FINL CORP	Mar-27	BBB	3.750	708	832	1,540	14	6.7	7.0	91.1	90.4
11	JPM	JP MORGAN CHASE	Jul-25	A	3.900	667	816	1,483	14	5.8	5.8	96.9	96.9
12	GS	GOLDMAN SACHS	Feb-26	A	3.750	937	787	1,724	13	6.1	6.2	94.9	94.8
13	USB	U S BANCORP MEDIUM TERM NTS- BOOK ENTRY	Sep-24	A	3.600	1,208	785	1,993	19	6.2	6.4	97.8	97.6
14	AAPL	APPLE INC	Nov-27	AA	3.000	1,234	775	2,009	12	5.2	5.2	92.1	92.1
15	GS	GOLDMAN SACHS	Mar-30	A	3.800	629	726	1,355	15	6.2	6.3	87.3	86.9
16	BMY	BRISTOL MYERS SQUIBB CO	Jul-24	A	2.900	144	723	867	7	5.6	5.8	98.0	97.8
17	LOW	LOWES COS INC	Apr-26	BBB	2.500	996	703	1,699	9	5.6	5.6	92.9	92.8
18	WFC	WELLS FARGO	May-28	A	3.584	193	665	858	5			91.2	91.0
19	MCD	MCDONALDS	Jan-26	BBB	3.700	662	660	1,322	10	5.5	5.6	96.1	96.1
20	AMGN	AMGEN INC	Feb-27	BBB	2.200	634	659	1,293	8	5.6	5.7	89.7	89.6

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).

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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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