

Market Transparency Report

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

September 2021

www.tradeweb.com

1177 Avenue of the Americas
New York, NY 10036
212.852.1234

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.

Page Reference

- 3. Market Commentary
- 4. Yield Matrix
- 5. Treasury, Agency, CD Transaction Trend Summary
- 6. Corporate Bonds: Odd-Lot Customer Transaction Trend Summary
- 7. Municipal Bonds: Odd-Lot Customer Transaction Trend Summary
- 8. Corporate Bonds: Top 20 Most Active Issuers
- 9. Corporate Bonds: Top 20 Issuers with Highest Buy/Sell Ratio
- 10. Corporate Bonds: Top 20 Issuers with Lowest Buy/Sell Ratio
- 11. Corporate Bonds: Top 20 Most Bought Issues
- 12. Corporate Bonds: Top 20 Most Sold Issues
- 13. Appendix
- 14. Disclosures

Market Commentary

Monthly Change Table for September 2021

	Median Yield (bps)	Daily Trade Volume	Buy/Sell Ratio
Agency	4	4.6%	-0.2
CD	0	1.4%	0.6
Corp	8	8.4%	0.0
Municipal	4	5.8%	-0.1
Treasury	-3	7.7%	0.0

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

Yield Matrix

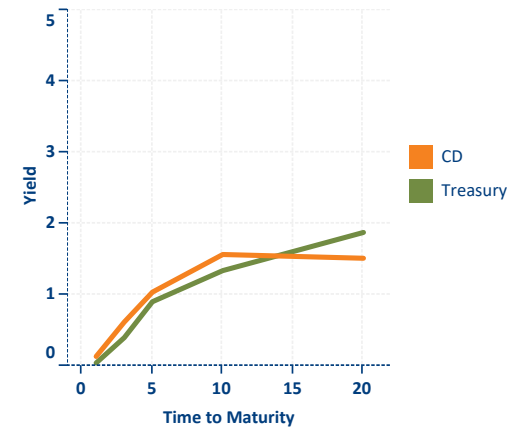
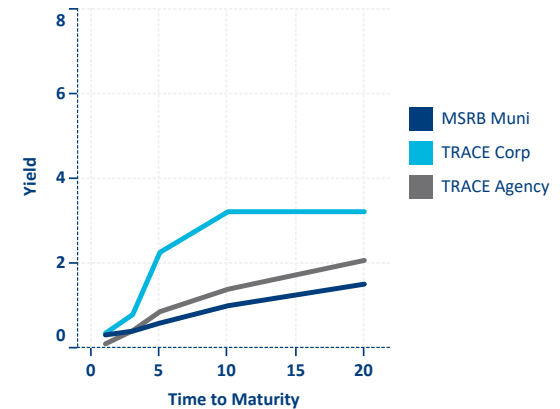
Average Yield, % for September 2021

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	0.4	0.8	2.3	3.2	3.2	3
TRACE Agency	0.1	0.4	0.9	1.4	2.1	5
CD	0.1	0.6	1.0	1.6	1.5	1
Treasury	0.0	0.4	0.9	1.3	1.9	1

Asset Class

Market	Category (Filtered)	Rating Key	1	3	5	10	20	Median Maturity (Years)	
TRACE Corp	Financial	AA	0.2	0.4	1.1	2.0		0	
		A	0.2	0.6	1.2	2.0	3.0	3	
		BBB	0.4	1.0	1.5	2.3	3.1	3	
		HY	1.6	2.2	5.8	5.7		7	
	Non-Financial	AAA				1.5	2.4		8
		AA		0.4	1.3	1.7	2.6		7
		A	0.2	0.7	1.2	1.9			4
		BBB	0.4	1.0	1.7	2.9	3.4		6
		HY	1.3	3.1	6.8	4.7	4.4		5
MSRB Muni	GO	AAA	0.3	0.3	0.5	0.9	1.3		7
		AA	0.3	0.4	0.6	1.0	1.6		9
		A	0.4	0.5	0.7	1.0	1.2		7
		BBB	0.5	0.6	0.9	1.8	1.2		8
	Revenue	HY	0.3	1.2			1.4		20
		AAA	0.3	0.3	0.6	1.0	1.4		8
		AA	0.3	0.4	0.6	1.0	1.4		9
		A	0.4	0.5	0.6	1.0	1.3		11
		BBB	0.6	0.8	1.0	1.5	1.5		13
		HY	3.9	3.1	3.1	2.5	3.0		9

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.

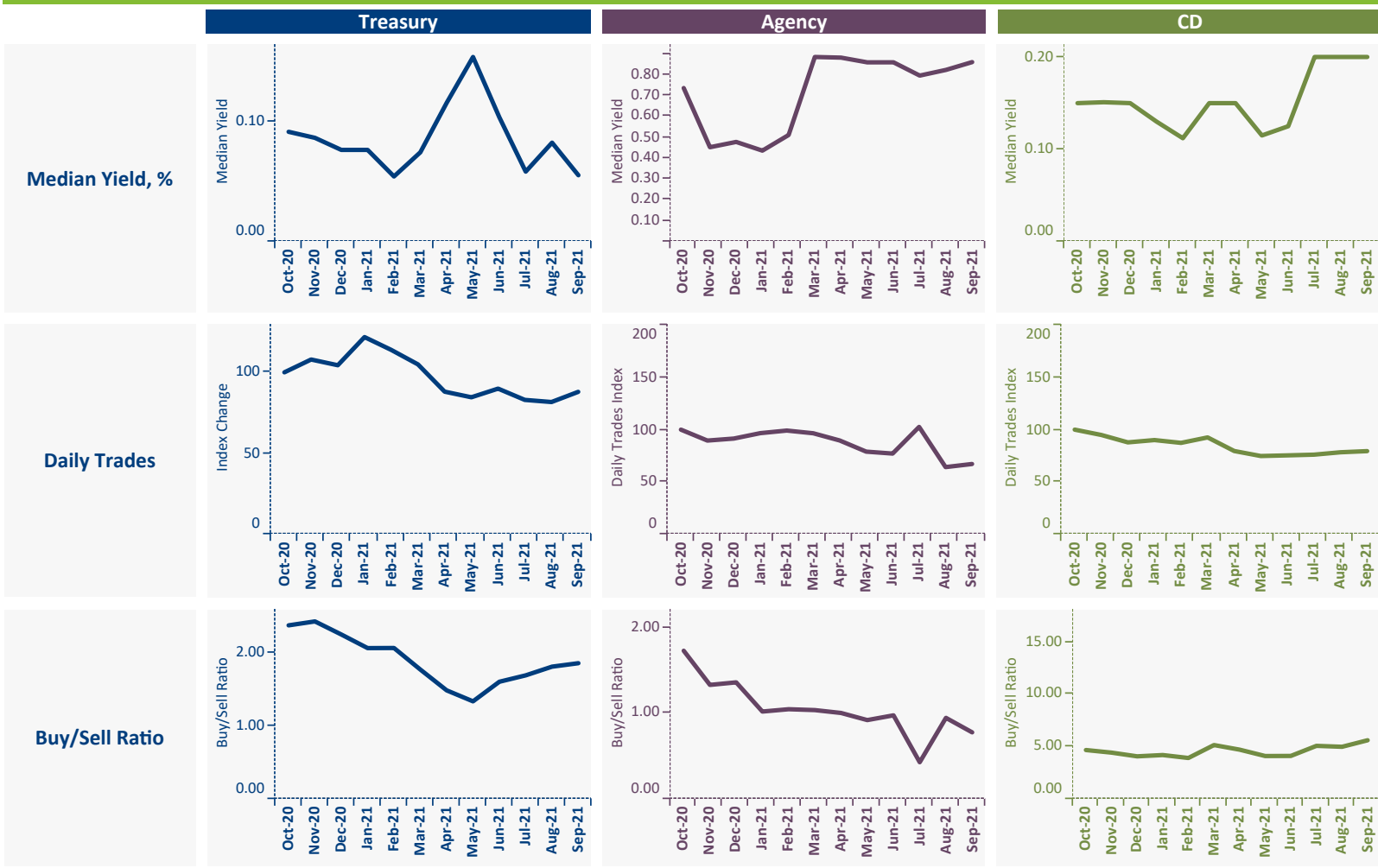
-The weights are based on transaction size.

-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

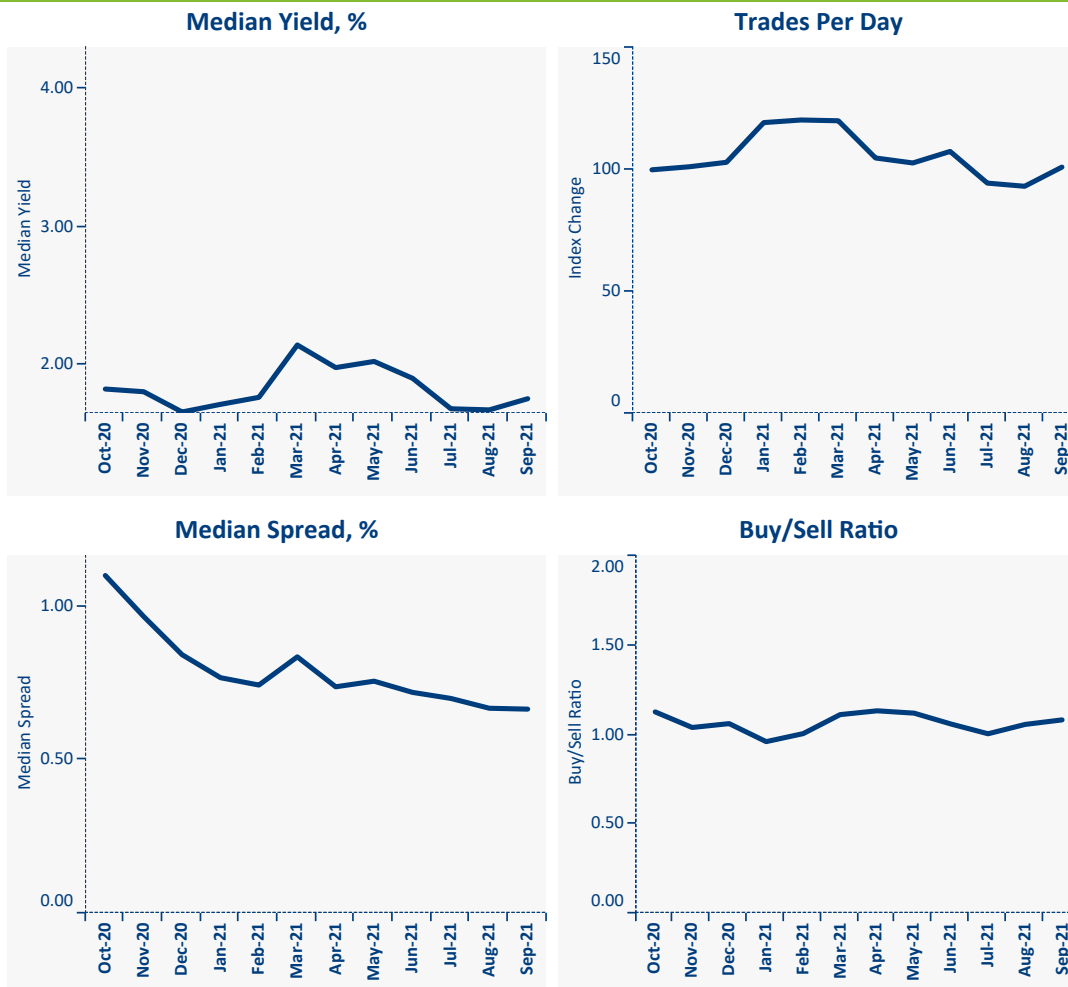
-Treasury and CD are based on transactions on the Tradeweb Direct Platform. Median yields are based on all customer buy transactions.

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

©2020 Tradeweb Markets LLC. All rights reserved. The information contained herein is highly confidential and some or all of it may constitute material, non-public information under applicable securities laws. This information must be kept strictly confidential, may not be disclosed or distributed to anyone without the express written consent of Tradeweb Markets LLC, and may only be used as expressly permitted by any applicable non-disclosure, customer, or other written agreement with Tradeweb.



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.

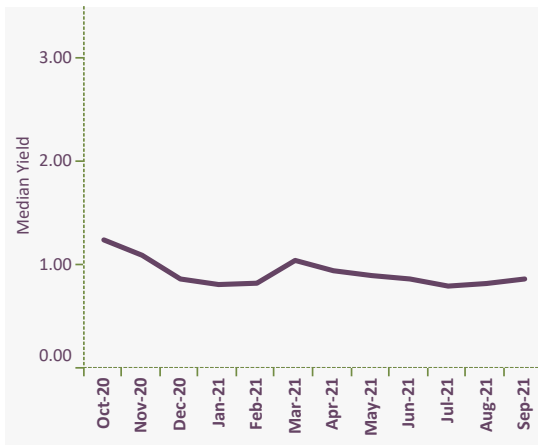
-Median yields and spreads are based on all odd-lot customer buy transactions...

©2020 Tradeweb Markets LLC. All rights reserved. The information contained herein is highly confidential and some or all of it may constitute material, non-public information under applicable securities laws. This information must be kept strictly confidential, may not be disclosed or distributed to anyone without the express written consent of Tradeweb Markets LLC, and may only be used as expressly permitted by any applicable non-disclosure, customer, or other written agreement with Tradeweb.

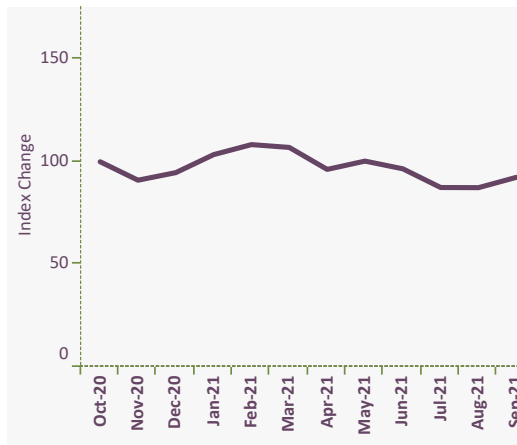


Municipal Bonds: Odd-Lot Customer Transaction Trend Summary

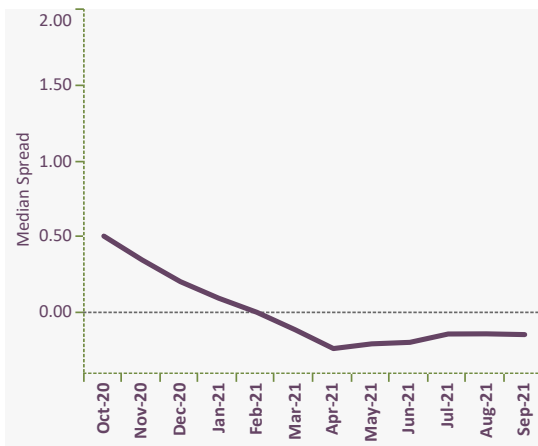
Median Yield, %



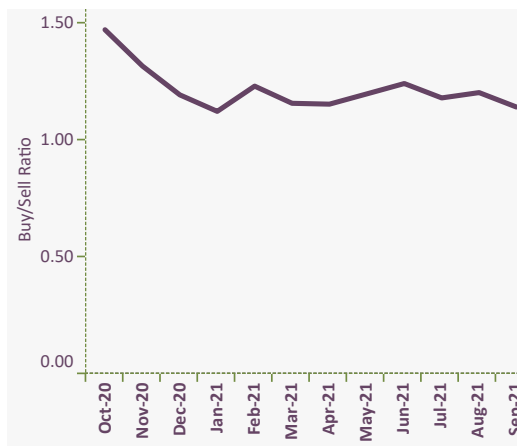
Trades Per Day



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.

©2020 Tradeweb Markets LLC. All rights reserved. The information contained herein is highly confidential and some or all of it may constitute material, non-public information under applicable securities laws. This information must be kept strictly confidential, may not be disclosed or distributed to anyone without the express written consent of Tradeweb Markets LLC, and may only be used as expressly permitted by any applicable non-disclosure, customer, or other written agreement with Tradeweb.



Corporate Bonds: Top 20 Most Active Issuers

September 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	726	3.2%	14,287	1.2	299	0.3	0.8	1.3	2.0	2.8
2	GS	GOLDMAN SACHS	A	892	2.5%	10,906	0.8	223	0.4	0.9	1.4	2.3	3.2
3	BAC	BANK OF AMERICA	A	295	2.4%	10,524	0.9	203	0.2	0.9	1.3	2.2	3.0
4	C	CITIGROUP	BBB	498	2.3%	10,197	1.0	212	0.3	1.0	1.4	2.4	3.0
5	MS	MORGAN STANLEY	A	1,016	1.7%	7,376	0.9	172	0.4	0.8	1.4	2.3	2.8
6	WFC	WELLS FARGO	A	143	1.5%	6,723	0.8	138	0.2	1.0	1.4	1.6	3.1
7	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	BBB	267	1.5%	6,644	1.5	152	0.4	1.0	1.5	2.9	3.0
8	T	AT&T	BBB	118	1.4%	6,190	0.8	131	0.3	0.6	1.5	2.1	3.2
9	VZ	VERIZON	BBB	143	1.3%	5,834	1.0	119		0.7	1.2	2.1	2.9
10	AAPL	APPLE INC	AA	56	1.1%	5,036	1.0	105	0.2	0.8	1.0	1.8	2.6
11	ORCL	ORACLE CORP	BBB	36	1.0%	4,551	1.0	91	0.3	1.0	1.3	2.2	3.2
12	GM	GENERAL MOTORS FINANCIAL COMPANY INC	BBB	85	1.0%	4,532	1.1	107	0.4	1.0	1.6	2.5	3.7
13	CMCS	COMCAST	A	60	1.0%	4,243	0.9	85	0.1	0.6	1.0	2.0	2.7
14	CVS	CVS CAREMARK CORP	BBB	44	0.9%	4,136	0.9	83	0.3	0.8	1.4	2.1	2.9
15	F	FORD	BB	161	0.8%	3,657	1.4	86	1.1	2.4	2.3	3.4	4.2
16	BRK	BERKSHIRE HATHAWAY	A	144	0.7%	3,297	0.7	86	0.2	0.6	1.0	1.9	2.8
17	ABBV	ABBVIE INC	BBB	32	0.7%	3,064	0.9	67	0.3	0.9	1.4	2.0	3.0
18	BA	BOEING CO	BBB	57	0.7%	3,057	1.7	76	0.4	1.2	1.6	2.6	3.5
19	PEMX	PETROLEOS MEXICANOS	BB	39	0.7%	2,921	1.4	93	1.7	2.8	5.0	6.0	7.2
20	DIS	DISNEY WALT CO NEW MEDIUM TERM NTS BOOK	A	75	0.6%	2,838	1.3	58	0.2	0.9	1.1	1.7	2.7

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.

©2020 Tradeweb Markets LLC. All rights reserved. The information contained herein is highly confidential and some or all of it may constitute material, non-public information under applicable securities laws. This information must be kept strictly confidential, may not be disclosed or distributed to anyone without the express written consent of Tradeweb Markets LLC, and may only be used as expressly permitted by any applicable non-disclosure, customer, or other written agreement with Tradeweb.



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

September 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	PBFQ	PBF HLDG CO LLC / PBF FIN CORP	B	2	0.4%	1,928	1,664	264	6.3	23		21.4			
2	CNC	CENTENE CORP DEL	BBB	7	0.3%	1,499	1,221	278	4.4	17				2.3	
3	WDC	WESTERN DIGITAL CORP	BBB	2	0.3%	1,357	1,095	262	4.2	19		0.7	1.8		
4	PSEC	PROSPECT CAP CORP INTERNOTES BOOK ENTRY	BBB	99	0.3%	1,131	892	239	3.7	25	1.4	3.0	2.7	3.3	1.5
5	EIX	EDISON MISSION	BBB	47	0.4%	1,931	1,502	429	3.5	47	0.6	0.6	2.7	2.2	3.4
6	ALLY	ALLY FINANCIAL	BB	28	0.3%	1,377	973	404	2.4	30	0.4	0.8	2.0	2.8	
7	TEVA	TEVA PHARMACEUTICAL FIN CO B V	BB	10	0.4%	1,560	1,098	462	2.4	33	2.0	3.1	4.0		
8	KEY	KEYCORP MEDIUM TERM SR NTS BOOK ENTRY	BBB	17	0.3%	1,310	915	395	2.3	24	0.3	0.9	1.4	1.8	
9	PCG	PACIFIC GAS & ELEC CO	BBB	37	0.3%	1,277	865	412	2.1	31	1.5	2.0	2.3	3.3	4.2
10	TM	TOYOTA	A	67	0.6%	2,715	1,837	878	2.1	50	0.2	0.6	1.1	1.8	
11	WMT	WAL-MART	AA	32	0.6%	2,615	1,730	885	2.0	53	0.1	0.5	1.0	1.5	2.5
12	PM	PHILIP MORRIS INTL INC	A	27	0.3%	1,325	872	453	1.9	22	0.2	0.9	1.1	2.0	3.2
13	PNC	PNC FDG CORP	A	33	0.5%	2,100	1,328	772	1.7	45	0.2	0.6	1.1	1.8	
14	DE	DEERE JOHN CAP CORP MEDIUM TERM NTS-BOOK	A	58	0.5%	2,393	1,500	893	1.7	45	0.2	0.4	1.1	1.8	2.5
15	BA	BOEING CO	BBB	57	0.7%	3,057	1,912	1,145	1.7	76	0.4	1.2	1.6	2.6	3.5
16	VLO	VALERO ENERGY	BBB	16	0.3%	1,123	702	421	1.7	23		1.2	1.7	2.3	3.5
17	AIG	AIG	BBB	30	0.3%	1,336	832	504	1.7	26		1.0	1.2	2.1	3.0
18	SCHW	SCHWAB CHARLES CORP NEW	BBB	37	0.5%	2,356	1,416	940	1.5	58	0.2	0.5	1.0	1.9	
19	UNP	UNION PAC CORP	BBB	49	0.3%	1,134	680	454	1.5	24	0.1	0.5	1.3	1.8	2.6
20	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	BBB	267	1.5%	6,644	3,976	2,668	1.5	152	0.4	1.0	1.5	2.9	3.0

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

September 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	PEP	PEPSICO	A	36	0.5%	2,107	685	1,422	0.48	46	0.2	0.5	0.9	1.7	2.7
2	HBC	HSBC	N/R	353	0.3%	1,160	381	779	0.49	33	0.3	1.1	1.8	3.1	3.0
3	MAR	MARRIOTT INTL INC NEW	BBB	24	0.3%	1,113	386	727	0.53	18	1.1	1.5	1.6	2.7	
4	BCS	BARCLAYS	N/R	526	0.3%	1,369	488	881	0.55	32	1.3	1.6	1.7	2.3	3.2
5	BMO	BANK MONTREAL MEDIUM TERM SR NTS BOOK EN	A	82	0.3%	1,366	535	831	0.64	28	0.2	0.6	1.4		
6	BRK	BERKSHIRE HATHAWAY	A	144	0.7%	3,297	1,300	1,997	0.65	86	0.3	0.6	1.0	1.8	2.9
7	COF	CAPITAL ONE FINL CORP	BBB	23	0.6%	2,815	1,112	1,703	0.65	59	0.2	0.9	1.5		
8	NFLX	NETFLIX INC	BB	10	0.5%	2,357	953	1,404	0.68	25		1.4	1.7	2.3	
9	EXC	EXELON GENERATION CO LLC	BBB	74	0.2%	1,086	442	644	0.69	29	0.5	1.1	1.3	2.1	4.0
10	MSFT	MICROSOFT CORP	AAA	34	0.6%	2,422	1,012	1,410	0.72	46	0.2	0.4	0.9		2.5
11	HPQ	HEWLETT PACKARD	BBB	20	0.3%	1,350	581	769	0.76	34	0.5	0.8	1.4	2.5	3.8
12	HCA	HCA INC	BB	26	0.3%	1,248	545	703	0.78	27		1.5	1.6	2.5	3.2
13	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	BBB	39	0.5%	2,320	1,021	1,299	0.79	50			1.1	2.1	3.3
14	ETP	ENERGY TRANSFER PARTNERS L P	BBB	34	0.3%	1,325	588	737	0.80	32	0.7	1.4	2.0	2.6	4.1
15	NEE	FPL GROUP CAP INC	BBB	48	0.3%	1,329	591	738	0.80	29	0.4	1.0	1.0	2.0	2.6
16	KMI	KINDER MORGAN ENERGY PARTNERS L P	BBB	57	0.4%	1,578	704	874	0.81	37	0.4	0.8	2.2	2.4	3.6
17	V	VIVENDI	AA	13	0.4%	1,550	692	858	0.81	28	0.2		0.9	1.7	2.7
18	WFC	WELLS FARGO	A	143	1.5%	6,723	3,002	3,721	0.81	138	0.4	1.0	1.5	2.3	3.1
19	APC	ANADARKO PETE CORP	BB	74	0.3%	1,427	641	786	0.82	40	1.7	2.2	2.7	3.4	4.3
20	GS	GOLDMAN SACHS	A	892	2.5%	10,906	4,932	5,974	0.83	223	0.4	1.0	1.4	2.3	3.4

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.

©2020 Tradeweb Markets LLC. All rights reserved. The information contained herein is highly confidential and some or all of it may constitute material, non-public information under applicable securities laws. This information must be kept strictly confidential, may not be disclosed or distributed to anyone without the express written consent of Tradeweb Markets LLC, and may only be used as expressly permitted by any applicable non-disclosure, customer, or other written agreement with Tradeweb.



Corporate Bonds: Top 20 Most Bought Issues

September 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	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Aug-50	BBB	3.449	2,096	438	2,534	62	3.5	3.5	98.1	97.5
2	PBFQ	PBF HLDG CO LLC / PBF FIN CORP	May-23	B	6.875	1,496	153	1,649	20	8.0	8.2	98.3	97.9
3	WMT	WAL-MART	Sep-26	AA	1.050	1,099	15	1,114	21	1.0	1.1	100.3	99.9
4	CNC	CENTENE CORP DEL	Dec-27	BBB	4.250	1,023	56	1,079	7	1.4	1.7	105.6	105.2
5	WDC	WESTERN DIGITAL CORP	Feb-26	BBB	4.750	1,003	179	1,182	17	1.8	1.9	111.8	111.3
6	PKOH	PARK OHIO INDS INC OHIO	Apr-27	C	6.625	839	68	907	10	6.2	6.4	101.3	100.6
7	KEY	KEYCORP MEDIUM TERM SR NTS BOOK ENTRY	Dec-49	BBB	5.000	677	86	763	16	4.5	4.5	112.4	111.9
8	DE	DEERE JOHN CAP CORP MEDIUM TERM NTS-BOOK	Mar-24	A	2.600	620	20	640	13	0.4	0.5	105.2	105.1
9	PNC	PNC FDG CORP	Null	BBB	3.400	611	30	641	19			102.0	100.7
10	AXL	Null	Oct-29	B	5.000	608	30	638	12	5.0	5.0	100.1	99.8
11	JPM	JP MORGAN CHASE	Aug-50	BBB	5.000	562	103	665	12	4.7	4.7	105.8	105.4
12	BAC	BANK OF AMERICA	Aug-24	BBB	4.200	553	204	757	11	0.9	0.9	109.8	109.5
13	EIX	EDISON MISSION	Aug-50	BB	5.375	546	34	580	15			104.2	102.1
14	NFLX	NETFLIX INC	Apr-28	BB	4.875	533	30	563	4	2.3	2.1	115.5	117.0
15	JPM	JP MORGAN CHASE	Jan-23	A	2.972	507	68	575	7	0.3	0.3	100.8	100.8
16	DIS	DISNEY WALT CO NEW MEDIUM TERM NTS BOOK	Sep-29	A	2.000	506	108	614	10	1.7	1.7	102.1	101.9
17	PM	PHILIP MORRIS INTL INC	Feb-22	A	2.625	501	6	507	1	0.2	0.3	100.8	100.7
18	SYK	STRYKER CORP	Jun-25	BBB	1.150	492	32	524	11	0.7	1.0	101.5	100.5
19	BYD	BOYD GAMING CORP	Dec-27	B	4.750	441	30	471	5	3.6	3.7	103.4	103.3
20	F	FORD	Apr-25	BB	9.000	438	86	524	10	2.5	2.5	121.6	121.5

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).

©2020 Tradeweb Markets LLC. All rights reserved. The information contained herein is highly confidential and some or all of it may constitute material, non-public information under applicable securities laws. This information must be kept strictly confidential, may not be disclosed or distributed to anyone without the express written consent of Tradeweb Markets LLC, and may only be used as expressly permitted by any applicable non-disclosure, customer, or other written agreement with Tradeweb.



Corporate Bonds: Top 20 Most Sold Issues

September 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	NFLX	NETFLIX INC	Feb-22	BB	5.500	57	1,194	1,251	10	0.7	1.0	101.8	101.9
2	MO	ALTRIA GROUP INC	Aug-22	BBB	2.850	45	636	681	16	0.2	0.3	102.3	102.3
3	COF	CAPITAL ONE FINL CORP	Mar-22	BBB	3.050	28	622	650	14	0.2	0.2	101.1	101.1
4	PEP	PEPSICO	Mar-23	A	2.750	13	575	588	13	0.2	0.2	103.8	103.6
5	CVS	CVS CAREMARK CORP	Mar-28	BBB	4.300	216	479	695	11	1.7	1.8	115.1	114.9
6	BAC	BANK OF AMERICA	Jan-22	A	5.700	12	455	467	5	0.1	0.1	101.8	102.1
7	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Aug-50	BBB	3.449	2,096	438	2,534	62	3.5	3.5	98.1	97.5
8	NCSY	Null	Jan-24	N/R	1.250	5	367	372	5			351.1	335.5
9	CMCS	COMCAST	Oct-28	A	4.150	180	356	536	12	1.6	1.7	116.2	116.0
10	MAR	MARRIOTT INTL INC NEW	May-25	BBB	5.750	24	346	370	3	1.3	1.5	115.1	114.6
11	AAPL	APPLE INC	May-23	AA	2.400	163	345	508	9	0.3	0.3	103.5	103.4
12	FLR	FLUOR CORP NEW	Dec-24	BBB	3.500	52	312	364	4	1.6	1.8	105.6	104.9
13	VZ	VERIZON	Nov-24	BBB	3.500	218	308	526	5	0.7	0.7	108.1	107.9
14	AGO	ASSURED GTY U S HLDGS INC	Dec-66	BBB	2.496	26	287	313	3			86.7	84.3
15	C	CITIGROUP	Jul-28	BBB	3.668	166	286	452	5			110.8	110.7
16	VZ	VERIZON	Mar-27	BBB	4.125	99	286	385	8	1.4	1.5	114.2	114.1
17	BAC	BANK OF AMERICA	Jan-23	A	3.300	175	284	459	8	0.2	0.3	104.0	103.9
18	BPL	BUCKEYE PARTNERS	Oct-24	BB	4.350	8	275	283	3	2.4	2.8	105.3	104.2
19	ABBV	ABBVIE INC	May-25	BBB	3.600	190	265	455	7	1.0	1.0	108.7	108.7
20	ORCL	ORACLE CORP	Nov-27	BBB	3.250	237	261	498	5	1.6	1.6	109.2	109.0

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).

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.

Fixed income securities are subject to increased loss of principal during periods of rising interest rates. Fixed-income investments are subject to various risks including changes in credit quality, market valuations, liquidity, prepayments, early redemption, corporate events, tax ramifications and other factors. Defaults on interest payments and/or principal may also occur. Projections, results and assumptions contained herein reflect past performance of the referenced securities and asset classes. Past performance is no guarantee of future results. The investment return and principal value of an investment will fluctuate such that an investment, if and when redeemed, may be worth more or less than its original cost.

This information is intended for general informational purposes only, and should not be used as the sole basis for any investment decisions. None of the information in the report constitutes an offer or solicitation to buy or sell any security or financial product, a recommendation concerning any security, financial product or asset class, or an offer to provide investment advice or any other service. Where appropriate, please consult with a qualified financial and tax professional.