

Market Transparency Report

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

April 2022

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 April 2022

	Median Yield (bps)	Daily Trade Volume	Buy/Sell Ratio
Agency	56	50.8%	1.1
CD	60	33.0%	0.8
Corp	45	7.1%	0.1
Municipal	65	23.2%	0.1
Treasury	51	53.3%	1.6

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

Yield Matrix

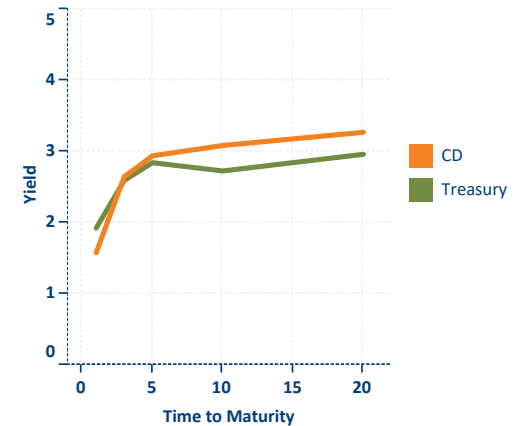
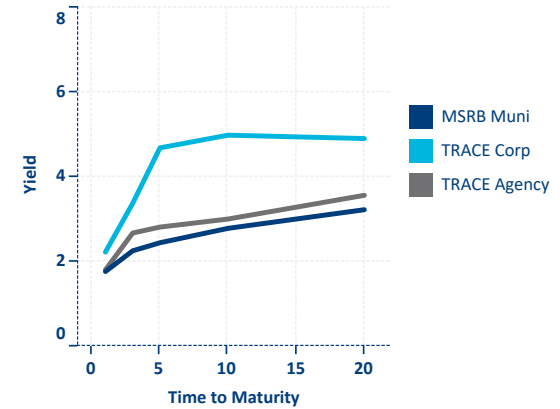
Average Yield, % for April 2022

Market	TTM					Median Maturity (Years)
	1	3	5	10	20	
MSRB Muni	1.8	2.3	2.5	2.8	3.2	8
TRACE Corp	2.2	3.4	4.7	5.0	4.9	3
TRACE Agency	1.8	2.7	2.8	3.0	3.6	2
CD	1.6	2.6	2.9	3.1	3.3	1
Treasury	1.9	2.6	2.8	2.7	3.0	1

Asset Class

Market	Category (Filtered)	Rating Key	1	3	5	10	20	Median Maturity (Years)
TRACE Corp	Financial	AA	2.1	3.6				7
		A	2.0	3.1	3.3	3.9	4.4	2
		BBB	2.2	3.6	4.0	4.5	4.7	3
		HY	3.9	5.1	6.3	7.9		5
		AAA					3.7	7
	Non-Financial	AA	2.6	2.9	3.4	3.5	3.9	5
		A	1.9	3.2	3.3	3.5		3
		BBB	2.8	3.3	3.9	4.5	5.3	3
		HY	5.1	5.3	13.5	8.1	6.3	6
MSRB Muni	GO	AAA	1.7	2.2	2.4	2.7	3.0	6
		AA	1.8	2.2	2.5	2.8	3.2	7
		A	1.9	2.4	2.6	2.9	3.3	6
		BBB	2.3	3.0	3.0	3.6	3.8	9
		HY		4.4		4.0	4.8	13
	Non-Financial	AA				3.7		12
		AAA	1.7	2.2	2.4	2.7	3.0	7
		AA	1.8	2.3	2.5	2.8	3.1	9
		A	1.8	2.4	2.5	2.9	3.4	13
		BBB	2.3	2.8	3.1	3.5	3.7	14
Revenue	HY	4.9	4.9	4.0	4.0	3.2	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.

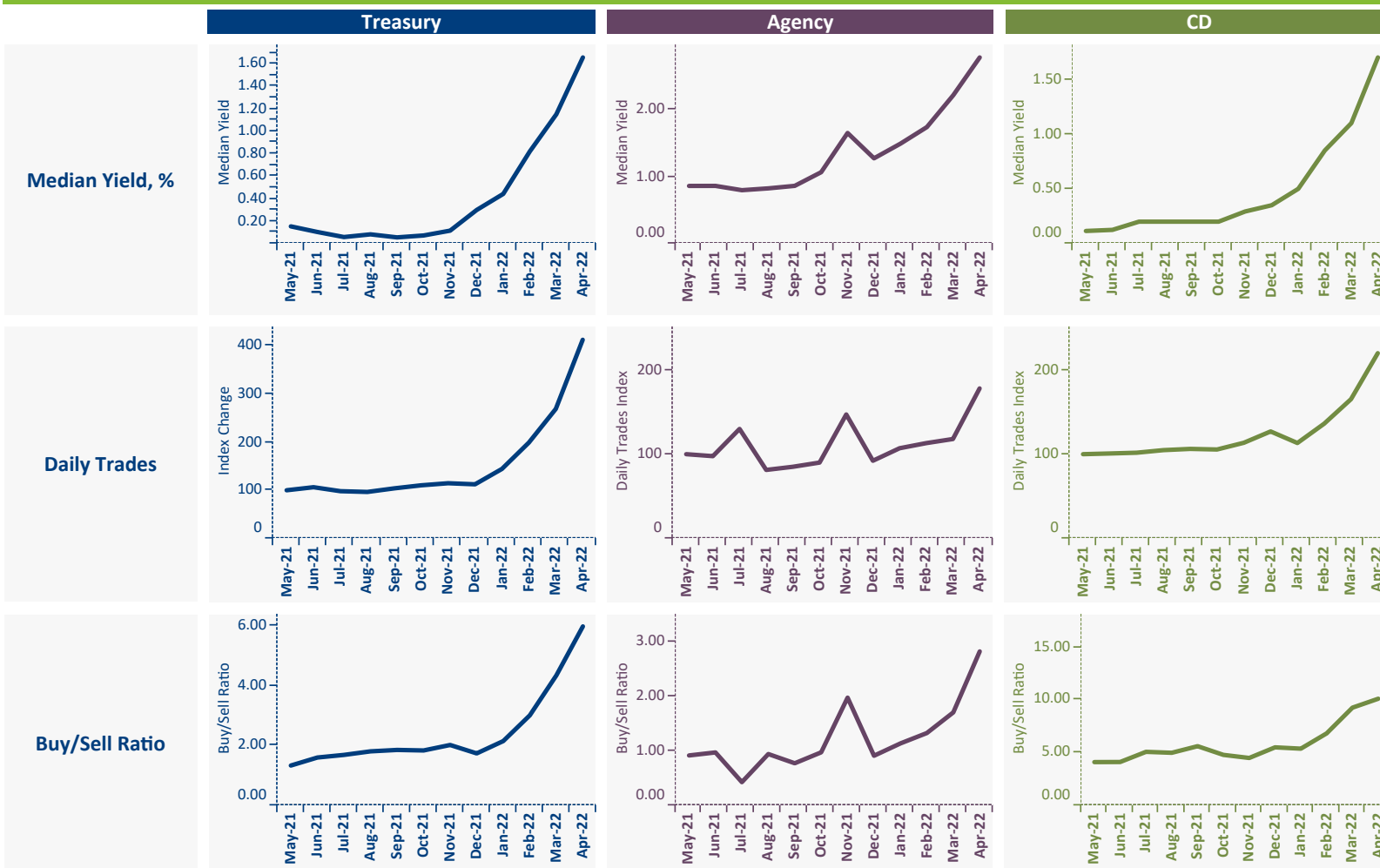
-The weights are based on transaction size.

-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

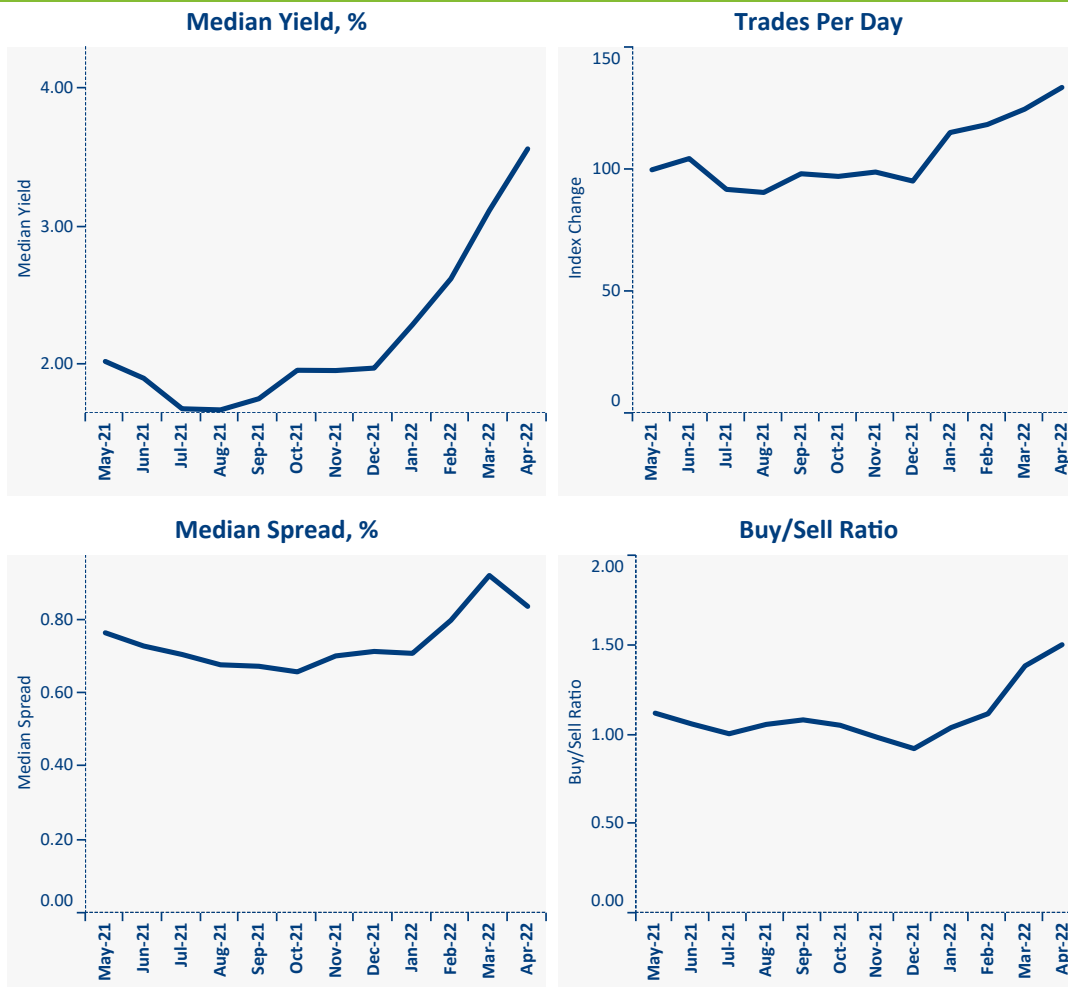
-Treasury and CD are based on transactions on the Tradeweb Direct Platform. Median yields are based on all customer buy transactions.

-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

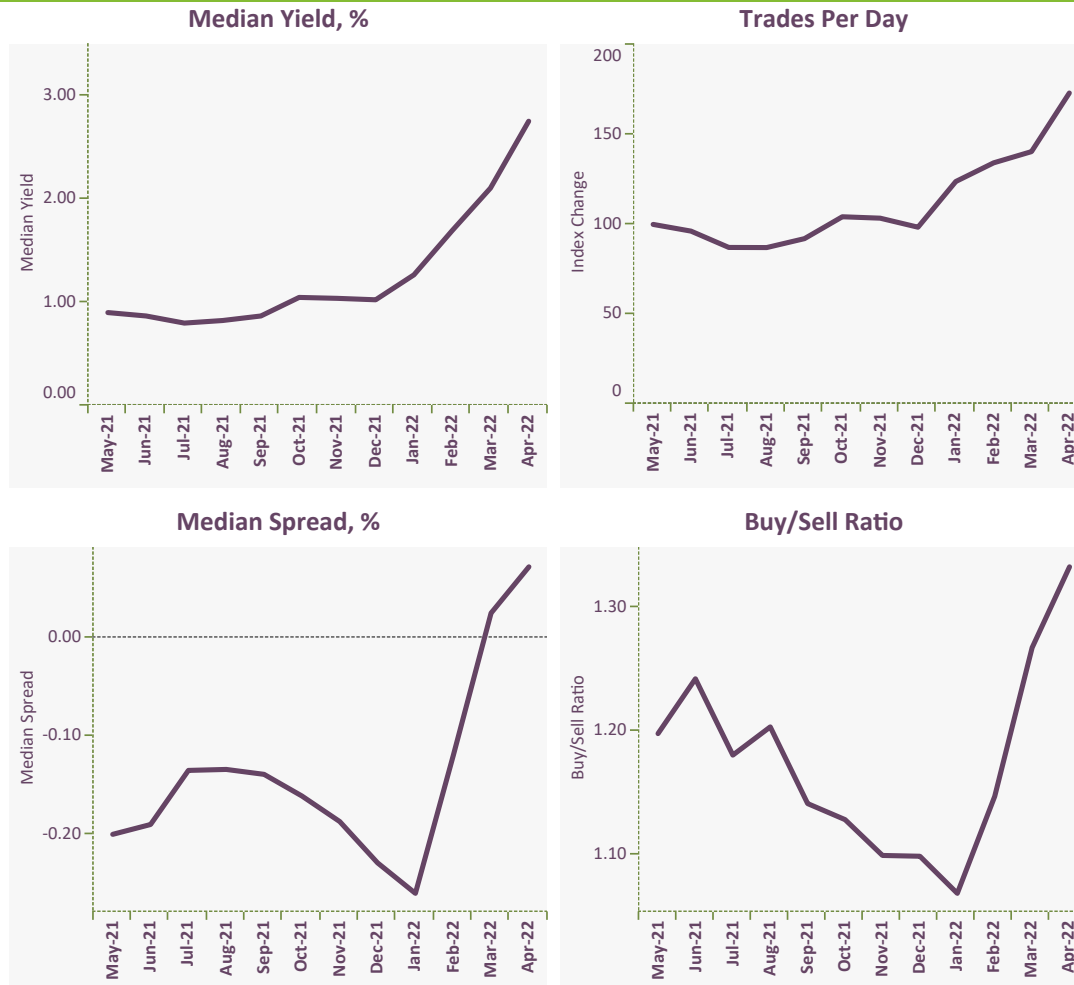
-Based on odd-lot customer transactions (<100M) reported in TRACE.

-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

April 2022

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	942	3.4%	19,416	1.9	375	2.1	3.5	4.0	4.3	4.7
2	BAC	BANK OF AMERICA	A	334	3.4%	19,126	1.9	396	1.9	3.5	4.0	4.1	4.5
3	JPM	JP MORGAN CHASE	A	710	3.1%	17,514	1.2	346	2.2	3.3	3.9	4.2	4.5
4	C	CITIGROUP	BBB	597	2.5%	14,340	1.4	288	2.1	3.6	3.9	4.4	4.7
5	MS	MORGAN STANLEY	A	724	1.8%	10,397	1.5	221	2.2	3.4	4.0	4.1	4.5
6	WFC	WELLS FARGO	A	136	1.8%	10,141	1.2	189	2.5	3.3	3.9	4.1	4.7
7	GM	GENERAL MOTORS FINANCIAL COMPANY INC	BBB	91	1.6%	8,927	2.6	197	2.9	3.8	4.4	4.8	5.4
8	BA	BOEING CO	BBB	55	1.5%	8,300	4.7	150	3.0	4.0	4.3	5.0	5.3
9	ORCL	ORACLE CORP	BBB	35	1.4%	8,036	2.2	155	2.7	3.4	4.0	4.7	5.3
10	AAPL	APPLE INC	AA	53	1.3%	7,494	1.6	151	2.0	2.9	3.2	3.5	4.0
11	VZ	VERIZON	BBB	147	1.2%	6,980	1.1	121		3.0	3.7	4.1	4.4
12	ABBV	ABBVIE INC	BBB	28	1.0%	5,640	2.6	106	1.9	3.3	3.6	3.9	4.6
13	CMCS	COMCAST	A	59	1.0%	5,493	0.9	100	1.5	3.1	3.5	3.9	4.3
14	BRK	BERKSHIRE HATHAWAY	A	145	1.0%	5,490	1.6	123	1.9	3.1	3.8	3.8	4.4
15	T	AT&T	BBB	112	0.9%	5,275	0.7	99	1.3	3.2	3.6	4.1	4.6
16	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	BBB	244	0.9%	5,040	1.4	100	2.5	3.7	4.0	4.5	4.6
17	CVS	CVS CAREMARK CORP	BBB	43	0.9%	4,863	1.2	95	1.8	3.2	3.8	4.1	4.6
18	AMZN	AMAZON COM INC	AA	33	0.7%	4,205	1.4	82	1.5	2.8	3.3	3.6	3.9
19	COF	CAPITAL ONE FINL CORP	BBB	24	0.7%	4,016	2.1	82	2.3	3.6	4.0		
20	AXP	AMERICAN EXPRESS	A	29	0.7%	3,963	2.0	75	1.9	3.2	3.4		4.2

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

April 2022

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	55	1.5%	8,300	6,833	1,467	4.7	150	3.0	4.0	4.3	5.0	5.3
2	ARCC	ARES CAP CORP	BBB	9	0.2%	1,421	1,150	271	4.2	20	2.6	4.5	4.9	5.8	
3	PM	PHILIP MORRIS INTL INC	A	25	0.3%	1,813	1,376	437	3.2	39	2.2	3.1	3.5	4.1	4.9
4	GT	GOODYEAR TIRE & RUBBER	B	11	0.3%	1,768	1,329	439	3.0	39		2.4	5.8	6.8	
5	NFLX	NETFLIX INC	BBB	9	0.2%	1,350	1,013	337	3.0	29		3.7	4.9		
6	GM	GENERAL MOTORS FINANCIAL COMPANY INC	BBB	91	1.6%	8,927	6,451	2,476	2.6	197	2.9	3.8	4.4	4.8	5.4
7	ABBV	ABBVIE INC	BBB	28	1.0%	5,640	4,058	1,582	2.6	106	1.9	3.3	3.6	3.9	4.6
8	BMJ	BRISTOL MYERS SQUIBB CO	A	46	0.4%	2,064	1,482	582	2.6	48	1.8	3.0	3.2	3.7	4.1
9	AMT	AMERICAN TOWER CORP NEW	BBB	30	0.4%	2,563	1,837	726	2.5	51	2.5	3.5	4.1	4.5	
10	ALLY	ALLY FINANCIAL	BBB	39	0.5%	2,631	1,881	750	2.5	51	3.1	4.2	3.9	5.1	
11	HPQ	HEWLETT PACKARD	BBB	20	0.5%	2,666	1,893	773	2.5	59	2.4	3.4	4.0	4.8	5.5
12	EIX	EDISON MISSION	BBB	49	0.4%	2,385	1,688	697	2.4	50	2.7	3.4	4.4	4.2	4.9
13	BTI	BAT INTERNATIONAL FINANCE PLC	BBB	34	0.5%	2,892	2,041	851	2.4	60	3.0	3.8	4.5	5.1	6.0
14	LUV	SOUTHWEST AIRL CO	BBB	10	0.2%	1,399	969	430	2.3	26	2.6	3.6	4.0	4.3	
15	FITB	FIFTH THIRD BANCORP	BBB	17	0.3%	1,830	1,260	570	2.2	36	2.3	3.5	3.9		4.6
16	TD	TORONTO DOMINION BK SR MEDIUM TERM BK NT	A	131	0.5%	2,861	1,956	905	2.2	60	1.7	3.2	3.6	4.0	
17	ORCL	ORACLE CORP	BBB	35	1.4%	8,036	5,481	2,555	2.2	155	2.7	3.4	4.0	4.7	5.3
18	TEVA	TEVA PHARMACEUTICAL FIN CO B V	BB	11	0.2%	1,387	943	444	2.1	29	3.4	4.9	5.9		5.9
19	DAL	DELTA AIR LINES INC DEL	BB	11	0.2%	1,255	852	403	2.1	26	3.2	4.5	5.2	5.3	
20	COF	CAPITAL ONE FINL CORP	BBB	24	0.7%	4,016	2,706	1,310	2.1	82	2.3	3.6	4.0		

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

April 2022

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	BCS	BARCLAYS	N/R	483	0.3%	1,461	215	1,246	0.17	23	3.7	4.0	4.3	4.1	4.8
2	T	AT&T	BBB	112	0.9%	5,275	2,179	3,096	0.70	99	2.1	3.2	3.7	4.1	4.7
3	RDS	SHELL	AA	24	0.3%	1,855	777	1,078	0.72	34	2.4	3.1	3.3	3.8	4.2
4	CHTR	CCO HOLDINGS LLC	BBB	44	0.2%	1,404	643	761	0.84	37	3.2	4.0		5.1	5.6
5	HBC	HSBC	N/R	289	0.2%	1,304	599	705	0.85	35	2.7	4.0	4.3	4.9	4.7
6	CMCS	COMCAST	A	59	1.0%	5,493	2,585	2,908	0.89	100	2.5	3.3	3.5	3.9	4.3
7	MET	METLIFE	A	20	0.3%	1,836	878	958	0.92	39	2.8	3.1		3.9	4.4
8	EDP	ENTERPRISE PRODS OPER LLC	BBB	33	0.3%	1,944	941	1,003	0.94	37	2.4	3.4	3.7	4.0	5.0
9	HCA	HCA INC	BB	30	0.2%	1,316	649	667	0.97	29	2.9	4.1	4.2	4.8	5.1
10	BP	BP	A	38	0.5%	2,912	1,469	1,443	1.02	58	2.5	3.3	3.6	4.0	4.3
11	SPG	SIMON PPTY GROUP L P	A	23	0.2%	1,286	657	629	1.04	25	2.7	3.3	3.7	4.1	4.4
12	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	BBB	37	0.4%	2,435	1,249	1,186	1.05	46		3.4	3.9	4.0	4.8
13	BXMT	Null	N/R	3	0.6%	3,570	1,828	1,742	1.05	19	3.4		5.9		
14	VZ	VERIZON	BBB	147	1.2%	6,980	3,589	3,391	1.06	121		3.1	3.7	4.1	4.5
15	AMGN	AMGEN INC	BBB	31	0.3%	1,794	939	855	1.10	33	2.5	3.0	3.6	4.0	4.6
16	FISV	FISERV INC	BBB	10	0.2%	1,408	741	667	1.11	26	2.8	3.3	3.8	4.3	
17	BK	BANK NEW YORK INC MEDIUM TERM SR NTS BOO	A	44	0.6%	3,645	1,922	1,723	1.12	71	2.3	3.1	3.4	3.8	
18	CVS	CVS CAREMARK CORP	BBB	43	0.9%	4,863	2,604	2,259	1.15	95	2.3	3.3	3.8	4.2	4.7
19	KO	COCA COLA CO	A	29	0.3%	1,454	779	675	1.15	28	3.3	2.3	3.2	3.6	3.8
20	KMI	KINDER MORGAN ENERGY PARTNERS L P	BBB	54	0.3%	1,718	924	794	1.16	38	2.9	3.6	4.0	4.7	5.4

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

April 2022

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	May-23	BBB	4.508	3,281	88	3,369	43	3.0	3.3	101.4	101.2
2	BAC	BANK OF AMERICA	Null	BBB	6.125	1,868	76	1,944	53			101.8	100.5
3	BXMT	Null	Mar-27	N/R	5.500	1,807	24	1,831	9	5.7	5.9	99.4	98.5
4	GS	GOLDMAN SACHS	Mar-24	A	3.000	1,477	36	1,513	35	3.1	3.2	99.8	99.6
5	BAC	BANK OF AMERICA	Aug-24	BBB	4.200	964	220	1,184	27	3.3	3.4	101.9	101.7
6	ABBV	ABBVIE INC	Jun-24	BBB	3.850	864	6	870	6	3.3	3.3	100.9	101.0
7	MS	MORGAN STANLEY	Apr-24	A	3.875	813	226	1,039	19	3.3	3.2	101.2	101.3
8	BAC	BANK OF AMERICA	Apr-25	BBB	3.950	787	211	998	23	3.6	3.8	101.0	100.4
9	FITB	FIFTH THIRD BANCORP	Jan-24	BBB	3.650	746	148	894	15	3.2	3.2	100.7	100.7
10	GS	GOLDMAN SACHS	Jan-27	A	3.850	733	158	891	18	4.0	4.1	99.2	99.1
11	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Null	BBB	4.156	728	440	1,168	25	4.3	4.3	96.6	96.1
12	GS	GOLDMAN SACHS	Mar-24	A	4.000	719	168	887	18	3.2	3.2	101.4	101.5
13	ACM	Null	Mar-27	BB	5.125	716	152	868	9	4.8	5.0	101.2	100.5
14	ORCL	ORACLE CORP	Sep-23	BBB	2.400	707	159	866	18	2.8	2.9	99.5	99.3
15	BAC	BANK OF AMERICA	Mar-26	BBB	4.450	701	65	766	19	4.1	4.1	101.4	101.1
16	VIACA	Null	Mar-62	BBB	6.375	666	126	792	20			100.8	99.7
17	TD	TORONTO DOMINION BK SR MEDIUM TERM BK NT	Dec-22	A	1.900	653	39	692	14	1.7	1.8	100.1	100.0
18	F	FORD	Dec-26	BB	4.346	613	295	908	20	4.8	4.6	98.1	98.9
19	GS	GOLDMAN SACHS	Feb-24	A	3.625	606	36	642	14	3.2	3.2	100.8	100.7
20	AAPL	APPLE INC	May-23	AA	2.400	591	269	860	14	2.0	2.2	100.4	100.2

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).

Corporate Bonds: Top 20 Most Sold Issues

April 2022

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	BXMT	Null	May-22	N/R	4.375	1	1,673	1,674	9	4.3	4.1	100.0	100.0
2	WFC	WELLS FARGO	Aug-50	BBB	5.900	236	808	1,044	12	5.9	5.9	100.7	100.3
3	FE	FIRSTENERGY CORP	Nov-31	BB	7.375	40	611	651	3	4.3	4.7	123.6	120.6
4	CVS	CVS CAREMARK CORP	Mar-28	BBB	4.300	295	594	889	13	3.9	4.0	102.0	101.7
5	CMCS	COMCAST	Oct-28	A	4.150	298	499	797	13	3.7	3.7	102.2	102.2
6	C	CITIGROUP	Jul-28	BBB	3.668	163	451	614	7			98.5	97.3
7	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Null	BBB	4.156	728	440	1,168	25	4.3	4.3	96.6	96.1
8	VZ	VERIZON	Mar-27	BBB	4.125	251	392	643	13	3.7	3.7	101.8	102.0
9	CMCS	COMCAST	Mar-26	A	3.150	178	389	567	10	3.3	3.6	99.5	98.6
10	VZ	VERIZON	Nov-24	BBB	3.500	355	358	713	7	2.8	2.9	101.5	101.3
11	SCHW	SCHWAB CHARLES CORP NEW	Null	BBB	4.000	149	343	492	13			94.3	93.5
12	JPM	JP MORGAN CHASE	Jul-29	A	4.203	68	341	409	5			99.6	100.1
13	ORCL	ORACLE CORP	Nov-27	BBB	3.250	534	330	864	13	4.2	4.3	95.5	95.1
14	AMZN	AMAZON COM INC	Jun-27	AA	1.200	53	314	367	6	3.2	3.2	90.4	90.6
15	GS	GOLDMAN SACHS	Mar-30	A	3.800	402	312	714	12	4.3	4.4	96.8	95.8
16	JPM	JP MORGAN CHASE	Null	BBB	6.750	199	305	504	11	6.5	6.6	103.6	102.8
17	WFC	WELLS FARGO	May-28	A	3.584	69	300	369	6			97.8	97.2
18	BAC	BANK OF AMERICA	Null	BBB	6.100	171	298	469	10	5.9	6.0	103.3	102.0
19	BA	BOEING CO	May-30	BBB	5.150	366	295	661	10	5.0	5.1	100.8	100.4
20	F	FORD	Dec-26	BB	4.346	613	295	908	20	4.8	4.6	98.1	98.9

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

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