

Market Transparency Report

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

February 2018

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 February 2018

	Median Yield (bps)	Daily Trade Volume	Buy/Sell Ratio
Agency	11	6.1%	0.0
CD	8	1.1%	0.4
Corp	13	3.9%	0.0
Municipal	29	1.3%	0.0
Treasury	18	6.2%	0.4

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

Yield Matrix

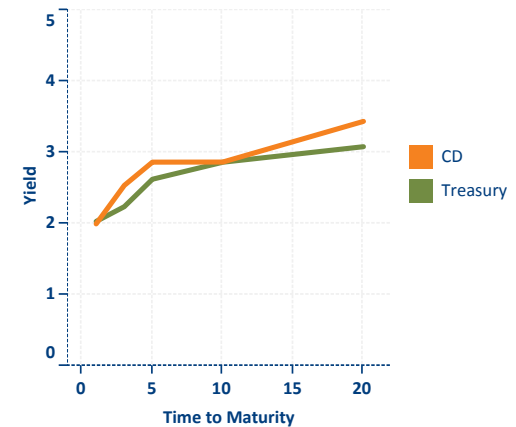
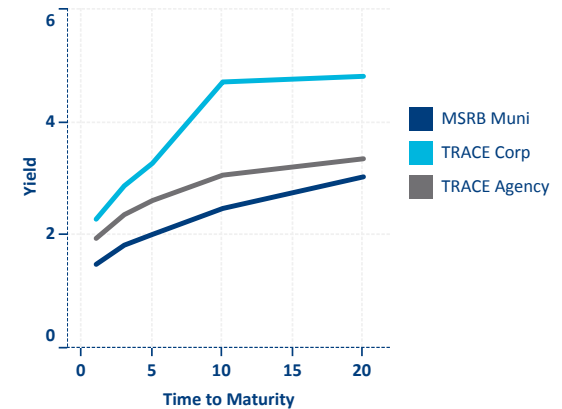
Average Yield, % for February 2018

Market	TTM					Median Maturity (Years)
	1	3	5	10	20	
MSRB Muni	1.5	1.8	2.0	2.5	3.0	12
TRACE Corp	2.3	2.9	3.3	4.7	4.8	4
TRACE Agency	2.0	2.4	2.6	3.1	3.4	3
CD	2.0	2.5	2.9	3.2	3.5	1
Treasury	2.0	2.3	2.6	2.9	3.1	0

Asset Class

Market	Category (Filtered)	Rating Key	1	3	5	10	20	Median Maturity (Years)
TRACE Corp	Financial	AA	2.3	2.6	3.2	3.8		2
		A	2.2	2.8	3.2	3.7	4.4	3
		BBB	2.6	3.1	3.4	4.0	4.9	6
		HY	2.7	3.7	4.0	7.5	6.4	4
		AAA	2.1	2.5	2.7	3.4	3.8	3
	Non-Financial	AA	2.1	2.4	2.9	3.3		1
		A	2.0	2.7	3.1	3.9	4.3	10
		BBB	2.4	3.0	3.6	5.4	5.1	8
		HY		5.8	5.2	9.8	11.3	9
MSRB Muni	GO	AAA	1.4	1.6	1.9	2.3	3.0	10
		AA	1.4	1.7	2.0	2.5	3.1	11
		A	1.5	1.9	2.1	2.7	3.2	8
		BBB	2.7	3.5	3.3	3.8	3.8	7
		HY	4.8	3.3	6.0	4.3	4.5	9
		AAA	1.4	1.7	1.9	2.4	2.9	9
		AA	1.5	1.7	2.0	2.4	2.9	12
	Revenue	A	1.5	1.9	2.1	2.6	3.1	15
		BBB	2.3	2.6	2.9	3.3	3.6	15
		HY	6.1	29.2	12.2	7.0	5.5	14

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.

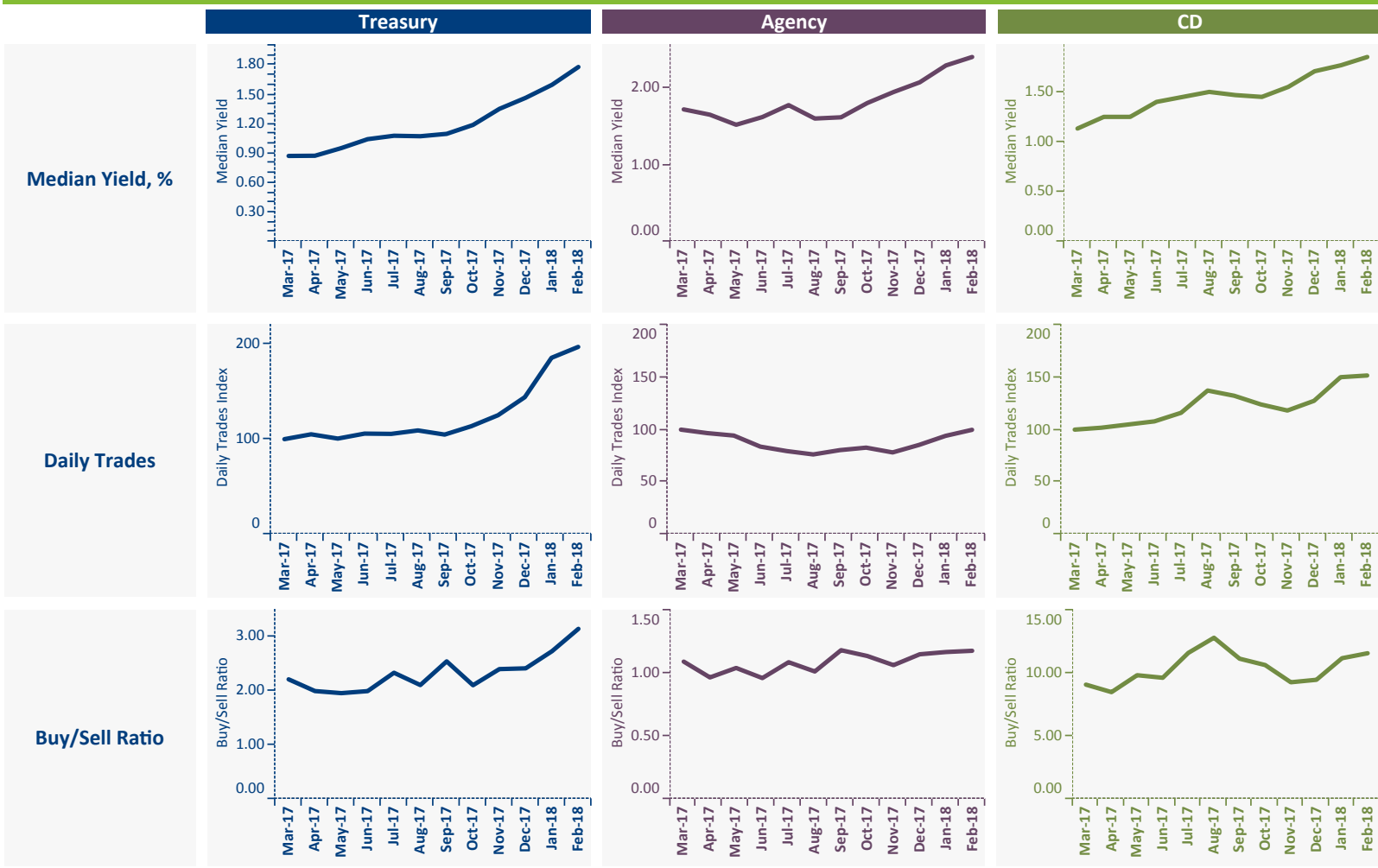
-The weights are based on transaction size.

-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



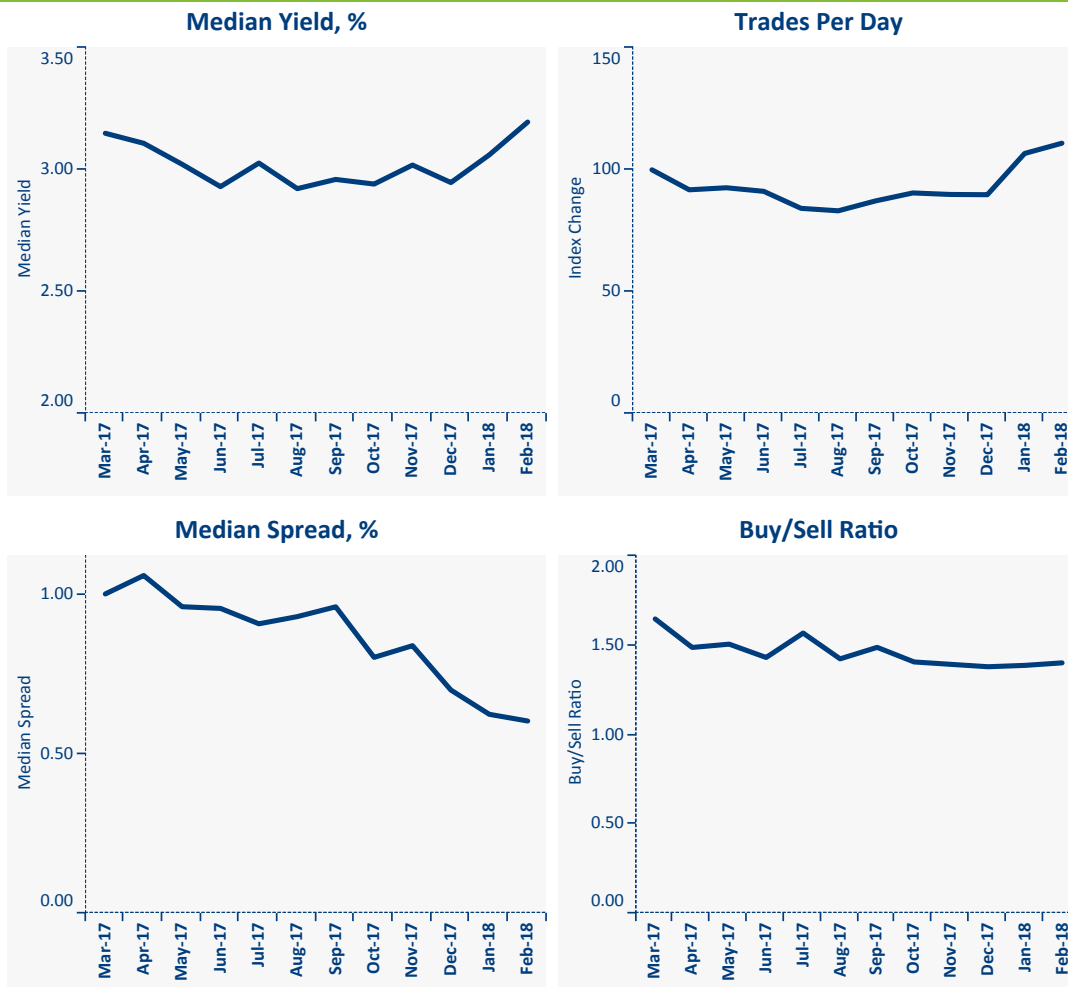
Daily Trades: First month = 100

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.

Corporate Bonds: Odd-Lot Customer Transaction Trend Summary



Daily Trades: First month = 100

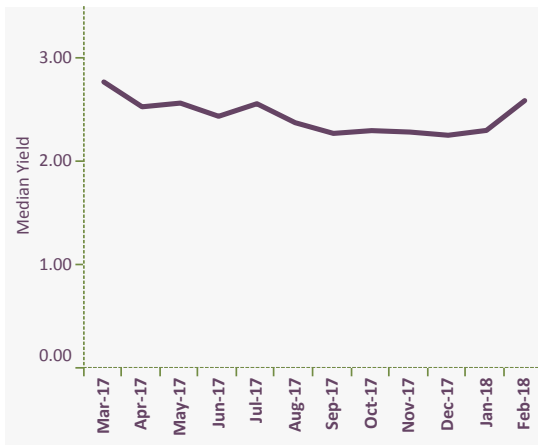
Source: TRACE and Tradeweb Direct

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

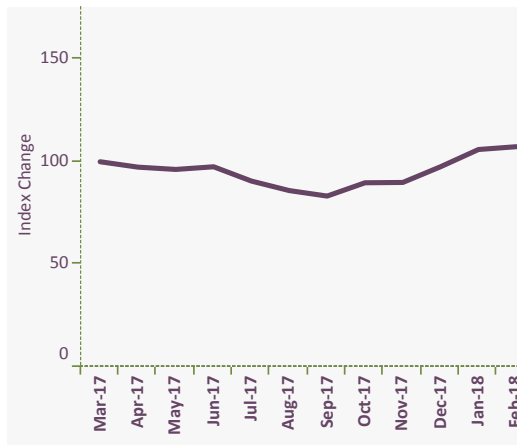
-Median yields and spreads are based on all odd-lot customer buy transactions...

Municipal Bonds: Odd-Lot Customer Transaction Trend Summary

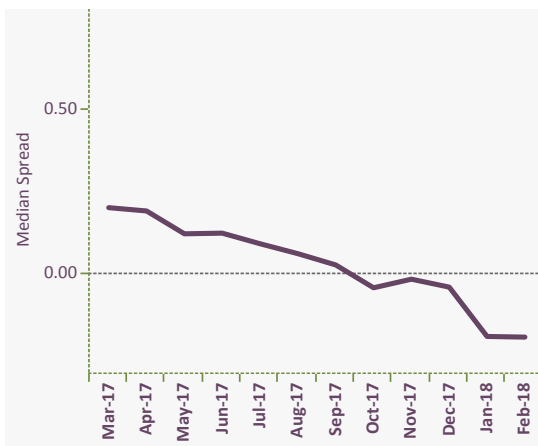
Median Yield, %



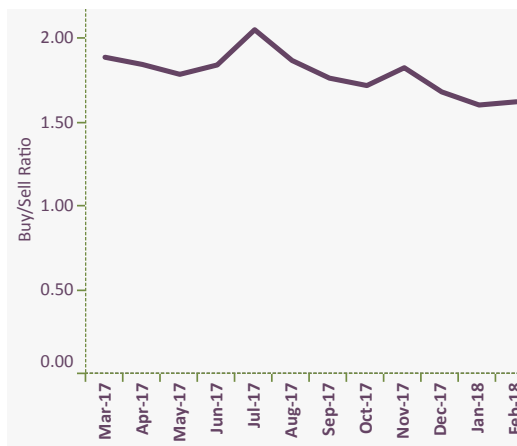
Trades Per Day



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.

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Corporate Bonds: Top 20 Most Active Issuers

February 2018

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	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	A	39	9.1%	44,347	1.1	246	2.6	2.9	3.2	3.6	4.2
2	GS	GOLDMAN SACHS	BBB	843	3.5%	16,881	1.6	323	2.2	3.1	3.3	4.0	4.4
3	JPM	JP MORGAN CHASE	A	491	2.7%	13,123	1.4	267	2.3	2.8	3.2	3.7	4.0
4	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	A	359	2.7%	13,122	1.7	261	2.4	3.0	3.3	4.0	4.5
5	BAC	BANK OF AMERICA	A	424	2.4%	11,873	1.2	223	2.3	2.8	3.2	3.8	4.1
6	C	CITIGROUP	BBB	347	2.2%	10,494	1.5	225	2.3	2.9	3.3	3.9	4.1
7	T	AT&T	BBB	90	1.9%	9,449	1.7	194	2.3	3.1	3.2	4.0	4.9
8	WFC	WELLS FARGO	A	214	1.7%	8,436	1.3	190	2.3	2.9	3.3	3.8	4.0
9	MS	MORGAN STANLEY	BBB	737	1.6%	7,915	1.3	175	2.4	3.0	3.3	3.8	4.2
10	AAPL	APPLE INC	AA	58	1.5%	7,157	1.9	156	2.1	2.6	3.0	3.4	3.6
11	VZ	VERIZON	BBB	102	1.3%	6,491	1.6	128	2.3	2.9	3.2	3.8	4.5
12	BRK	BERKSHIRE HATHAWAY	AA	152	1.1%	5,420	1.6	117	2.3	2.6	3.0	3.5	4.3
13	GM	GENERAL MOTORS FINANCIAL COMPANY INC	BBB	60	1.0%	4,961	3.3	112	2.4	3.1	3.6	4.2	5.0
14	AXP	AMERICAN EXPRESS	BBB	39	1.0%	4,874	1.5	81	2.2	2.8	3.1	3.5	4.0
15	MSFT	MICROSOFT CORP	AAA	41	0.9%	4,245	1.8	91	2.0	2.5	2.9	3.3	3.6
16	F	FORD	BBB	231	0.8%	4,074	2.4	83	2.4	3.1	3.7	4.4	5.1
17	ORCL	ORACLE CORP	AA	31	0.8%	3,666	1.3	74	2.2	2.8	3.0	3.5	3.8
18	CMCS	COMCAST	A	50	0.7%	3,414	1.5	62	2.5	2.6	3.1	3.6	4.1
19	CTL	CENTURYLINK	B	37	0.7%	3,291	1.3	70		4.6	6.6	7.4	7.4
20	PTRB	PETROBRAS	BB	26	0.6%	3,014	1.6	109		4.4	4.8	6.0	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

February 2018

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	CHRC	BAYSIDE CMNTY CHURCH SARASOTA INC BRADEN	N/R	163	0.3%	1,420	1,171	249	4.7	9		4.7	5.5	5.9	6.5
2	QCOM	QUALCOMM	A	16	0.4%	2,115	1,695	420	4.0	50	2.3	2.8	3.4	4.0	4.3
3	BDX	BECTON DICKINSON & CO	BBB	21	0.2%	1,040	803	237	3.4	19	2.4	3.1	3.4	4.2	4.7
4	GM	GENERAL MOTORS FINANCIAL COMPANY INC	BBB	60	1.0%	4,961	3,812	1,149	3.3	112	2.4	3.1	3.6	4.2	5.0
5	JNJ	JOHNSON & JOHNSON	AAA	33	0.3%	1,244	899	345	2.6	30	1.8	2.4	2.9	3.2	3.5
6	SFTBF	SPRINT	B	15	0.2%	1,140	823	317	2.6	26	3.3	5.5	6.0	7.1	
7	ETP	ENERGY TRANSFER PARTNERS L P	BBB	27	0.3%	1,390	1,002	388	2.6	29		3.1	3.9	4.4	5.4
8	IEP	ICAHN ENTERPRISES	BB	6	0.2%	1,113	801	312	2.6	24		5.0	5.8	6.0	
9	DISH	DISH DBS CORP	B	9	0.2%	1,075	772	303	2.6	22		4.7	6.3	7.5	
10	TM	TOYOTA	AA	53	0.4%	1,742	1,245	497	2.5	42	2.1	2.7	3.0	3.2	3.2
11	F	FORD	BBB	231	0.8%	4,074	2,888	1,186	2.4	83	2.4	3.1	3.7	4.4	5.1
12	DB	DEUTSCHE BANK	BBB	93	0.4%	1,733	1,226	507	2.4	37	2.6	3.2	3.5	4.2	
13	PBI	PITNEY BOWES	BBB	8	0.2%	1,110	785	325	2.4	24	2.4	4.4	5.5		5.8
14	PSEC	PROSPECT CAP CORP INTERNOTES BOOK ENTRY	BBB	159	0.3%	1,473	1,037	436	2.4	18	3.2	4.0	4.9	4.5	6.1
15	ABBV	ABBVIE INC	BBB	14	0.4%	1,794	1,235	559	2.2	42	2.1	2.8	3.3	3.7	4.2
16	TEVA	TEVA PHARMACEUTICAL FIN CO B V	BB	12	0.5%	2,426	1,662	764	2.2	57	3.2	4.3	5.3	5.7	6.3
17	WAG	WALGREEN CO	BBB	10	0.3%	1,464	998	466	2.1	29	2.3	3.1	3.3	4.1	4.6
18	CAT	CATERPILLAR	A	90	0.4%	2,175	1,479	696	2.1	45	2.1	2.7	3.0	3.4	3.7
19	CVS	CVS CAREMARK CORP	BBB	20	0.5%	2,529	1,722	807	2.1	55	2.3	2.9	3.4	4.0	4.4
20	COF	CAPITAL ONE FINL CORP	BBB	34	0.4%	1,981	1,347	634	2.1	46	2.4	2.9	3.3	4.1	

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

February 2018

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	VIA	VIACOM INC NEW	BBB	32	0.5%	2,214	552	1,662	0.33	46	2.7	3.3	3.9	4.1	5.3
2	FITB	FIFTH THIRD BANCORP	BBB	16	0.2%	1,203	332	871	0.38	15	2.6	2.9	3.3		4.8
3	RAD	RITE AID CORP	C	4	0.3%	1,666	585	1,081	0.54	33		5.6		9.1	
4	FTR	FRONTIER COMMUNICATIONS CORP	B	23	0.5%	2,355	927	1,428	0.65	39		9.9	17.7	16.8	14.9
5	GNW	GENWORTH	B	9	0.3%	1,332	584	748	0.78	26		8.4	8.4		8.7
6	RY	ROYAL BANK OF CANADA	AA	255	0.4%	1,805	827	978	0.85	56	2.6	2.7	2.8	3.9	4.1
7	WMT	WAL-MART	AA	29	0.2%	1,186	551	635	0.87	26	2.1	2.5	2.9	3.4	
8	EDP	ENTERPRISE PRODS OPER LLC	BBB	35	0.2%	1,144	552	592	0.93	26	2.7	2.9	3.4	3.8	4.5
9	STX	SEAGATE HDD CAYMAN	BBB	7	0.3%	1,312	637	675	0.94	30	2.8		4.6	5.5	6.3
10	MET	METLIFE	A	22	0.3%	1,516	744	772	0.96	28	2.5	3.0	3.2	3.6	4.2
11	BBT	BB&T CORP SR MEDIUM TERM NTS BOOK ENTRY	A	26	0.2%	1,037	512	525	0.98	22	2.6	2.9	3.1	3.6	
12	MCD	MCDONALDS	BBB	24	0.3%	1,659	825	834	0.99	33	2.5	2.8		3.7	4.2
13	PNC	PNC FDG CORP	A	41	0.2%	1,151	582	569	1.02	25	2.6	2.9	3.2	3.6	
14	CS	CREDIT SUISSE	N/R	363	0.4%	1,812	935	877	1.07	41	8.9	3.4	3.4	3.9	
15	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	A	39	9.1%	44,347	23,033	21,314	1.08	246	2.6	2.9	3.3	3.7	4.2
16	USB	U S BANCORP MEDIUM TERM NTS- BOOK ENTRY	A	27	0.4%	1,961	1,031	930	1.11	37	2.3	2.9	3.1	3.7	
17	KMI	KINDER MORGAN ENERGY PARTNERS L P	BBB	68	0.4%	1,712	909	803	1.13	40	2.8	3.2	3.7	5.7	5.3
18	HBC	HSBC	N/R	494	0.6%	2,891	1,551	1,340	1.16	66	2.7	3.2	3.3	4.2	4.2
19	DIS	DISNEY WALT CO NEW MEDIUM TERM NTS BOOK	A	31	0.2%	1,121	605	516	1.17	25	2.4	2.6	3.0	3.4	4.0
20	ACT	ALLERGAN	BBB	12	0.2%	1,062	574	488	1.18	17	2.8	3.0	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.

Corporate Bonds: Top 20 Most Bought Issues

February 2018

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	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	Feb-19	A	2.150	20,106	19,819	39,925	151	2.6	2.6	99.6	99.6
2	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Null	BBB	5.000	1,764	1,002	2,766	54			100.1	99.6
3	GS	GOLDMAN SACHS	Null	BB	5.700	1,174	67	1,241	8			102.9	102.2
4	F	FORD	Dec-26	BBB	4.346	971	154	1,125	17	4.5	4.5	99.1	98.9
5	GS	GOLDMAN SACHS	Jan-22	BBB	5.750	892	270	1,162	18	3.3	3.3	108.8	108.8
6	RCII	RENT A CTR INC NEW	Nov-20	C	6.625	717	184	901	6	9.9	10.1	92.4	91.9
7	MCFH	HARLAND CLARKE HLDGS CORP	Feb-21	C	5.750	699	119	818	8	13.8	14.4	81.0	79.6
8	GS	GOLDMAN SACHS	Jan-19	BBB	2.625	689	138	827	19	2.2	2.5	100.4	100.1
9	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	Feb-21	A	2.650	635	114	749	17	2.9	3.0	99.3	99.1
10	STI	SUNTRUST BKS INC	Null	BBB	5.125	626	12	638	16			97.9	95.1
11	AXP	AMERICAN EXPRESS	Null	BBB	5.200	546	636	1,182	9			102.8	102.3
12	PSEC	PROSPECT CAP CORP INTERNOTES BOOK ENTRY	Jul-22	BBB	4.950	519	30	549	2	4.9	5.0	100.2	99.7
13	T	AT&T	Feb-22	BBB	3.000	515	346	861	9	3.2	3.3	99.2	99.1
14	AAPL	APPLE INC	Feb-26	AA	3.250	478	264	742	10	3.4	3.5	98.8	98.6
15	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	Feb-26	A	3.650	469	370	839	16	3.6	3.7	100.3	99.4
16	MNK	Null	Apr-23	B	4.750	441	76	517	6	9.6	10.5	80.5	77.7
17	PTRB	PETROBRAS	Jan-28	N/R	5.999	439	130	569	22			100.0	99.0
18	QCOM	QUALCOMM	May-22	A	3.000	438	98	536	12	3.3	3.5	98.7	98.0
19	JPM	JP MORGAN CHASE	Oct-26	A	2.950	422	255	677	5	3.7	3.7	94.2	94.2
20	T	AT&T	Mar-27	BBB	4.250	421	109	530	12	4.1	4.2	101.3	100.4

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).

Corporate Bonds: Top 20 Most Sold Issues

February 2018

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	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	Feb-19	A	2.150	20,106	19,819	39,925	151	2.6	2.6	99.6	99.6
2	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Null	BBB	5.000	1,764	1,002	2,766	54			100.1	99.6
3	GS	GOLDMAN SACHS	Oct-19	BBB	2.550	271	739	1,010	16	2.6	2.8	99.9	99.6
4	VIA	VIACOM INC NEW	Jan-26	BBB	4.000	38	650	688	9	3.9	4.1	100.4	99.5
5	BAC	BANK OF AMERICA	Null	BBB	8.125	214	647	861	5			101.8	102.0
6	AXP	AMERICAN EXPRESS	Null	BBB	5.200	546	636	1,182	9			102.8	102.3
7	JPM	JP MORGAN CHASE	Null	BBB	6.750	201	631	832	8			110.6	111.8
8	FITB	FIFTH THIRD BANCORP	Null	BBB	4.900	70	629	699	3			100.9	100.6
9	RAD	RITE AID CORP	Feb-27	C	7.700	382	575	957	12	9.3	9.1	90.3	91.3
10	STI	SUNTRUST BKS INC	Null	BBB	5.625	83	564	647	4			103.6	104.0
11	ORI	OLD REP INTL CORP	Mar-18	BBB	3.750	4	519	523	3			140.8	138.4
12	CBL	CBL & ASSOCS LTD PARTNERSHIP	Dec-23	BBB	5.250	395	485	880	10	7.8	8.5	88.4	85.3
13	RAD	RITE AID CORP	Apr-23	N/R	6.125	140	427	567	18			100.9	100.5
14	FTR	FRONTIER COMMUNICATIONS CORP	Sep-21	B	6.250	84	383	467	5			81.9	83.7
15	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	Feb-26	A	3.650	469	370	839	16	3.6	3.7	100.3	99.4
16	T	AT&T	Feb-22	BBB	3.000	515	346	861	9	3.2	3.3	99.2	99.1
17	WFC	WELLS FARGO	Jun-26	BBB	4.100	241	337	578	10	4.0	4.1	100.6	100.0
18	VZ	VERIZON	Nov-24	BBB	3.500	380	329	709	8	3.5	3.6	100.0	99.5
19	VZ	VERIZON	Sep-23	BBB	5.150	240	323	563	11	3.3	3.4	109.2	108.7
20	AAPL	APPLE INC	May-23	AA	2.400	388	318	706	15	3.0	3.1	97.2	96.8

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).

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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