

Market Transparency Report

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

January 2018

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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.

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Market Commentary

Monthly Change Table for January 2018

	Median Yield (bps)	Daily Trade Volume	Buy/Sell Ratio
Agency	22	10.0%	0.0
CD	6	17.7%	1.7
Corp	11	18.7%	0.0
Municipal	5	8.6%	-0.1
Treasury	13	28.7%	0.3

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

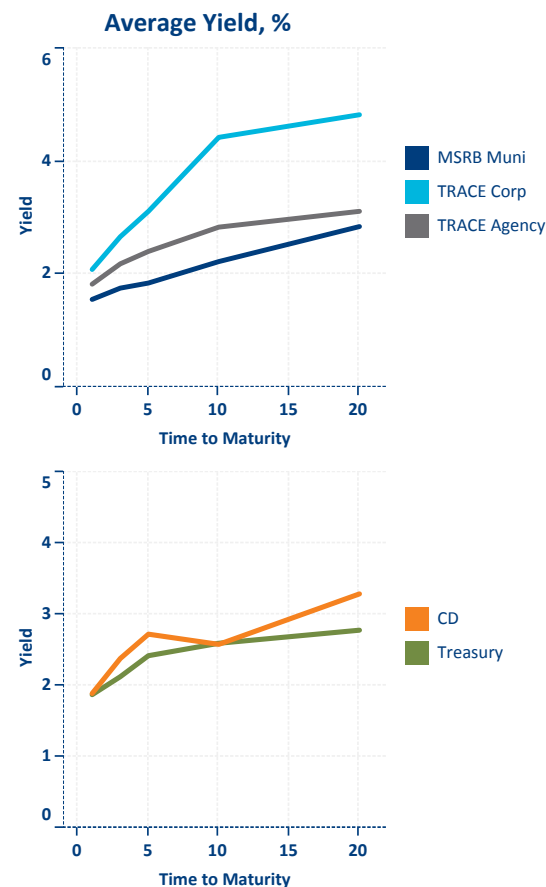
Yield Matrix

Average Yield, % for January 2018

Market	TTM					Median Maturity (Years)
	1	3	5	10	20	
MSRB Muni	1.6	1.8	1.9	2.2	2.9	12
TRACE Corp	2.1	2.7	3.1	4.4	4.8	4
TRACE Agency	1.8	2.2	2.4	2.8	3.1	3
CD	1.9	2.4	2.7	3.0	3.3	1
Treasury	1.9	2.1	2.4	2.6	2.8	0

Asset Class

Market	Category (Filtered)	Rating Key	1	3	5	10	20	Median Maturity (Years)
TRACE Corp	Financial	AA	2.0	2.4	2.4	3.0		2
		A	2.0	2.6	3.0	3.4	4.0	4
		BBB	2.4	3.0	3.2	3.7	4.4	5
		HY	2.3	3.4	3.8	7.0	6.3	5
		AAA	2.0	2.2	2.6	3.2	3.5	3
	Non-Financial	AA	1.9	2.2	2.6	3.2		1
		A	2.0	2.6	2.9	3.6	4.1	8
		BBB	2.2	2.8	3.3	4.9	4.8	5
		HY	3.0	6.4	5.0	11.4	12.2	8
MSRB Muni	GO	AAA	1.4	1.6	1.7	2.1	2.8	9
		AA	1.5	1.7	1.8	2.2	2.8	11
		A	1.7	1.9	2.0	2.5	2.9	9
		BBB	2.5	3.2	3.0	3.5	3.7	10
		HY	4.1	4.2	4.5	4.7	4.5	8
	Revenue	AAA	1.5	1.6	1.7	2.0	2.6	8
		AA	1.5	1.7	1.8	2.1	2.7	12
		A	1.6	1.9	2.0	2.3	2.9	16
		BBB	1.8	2.3	2.5	3.0	3.2	15
		HY	14.3	24.5	11.7	6.6	6.7	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.

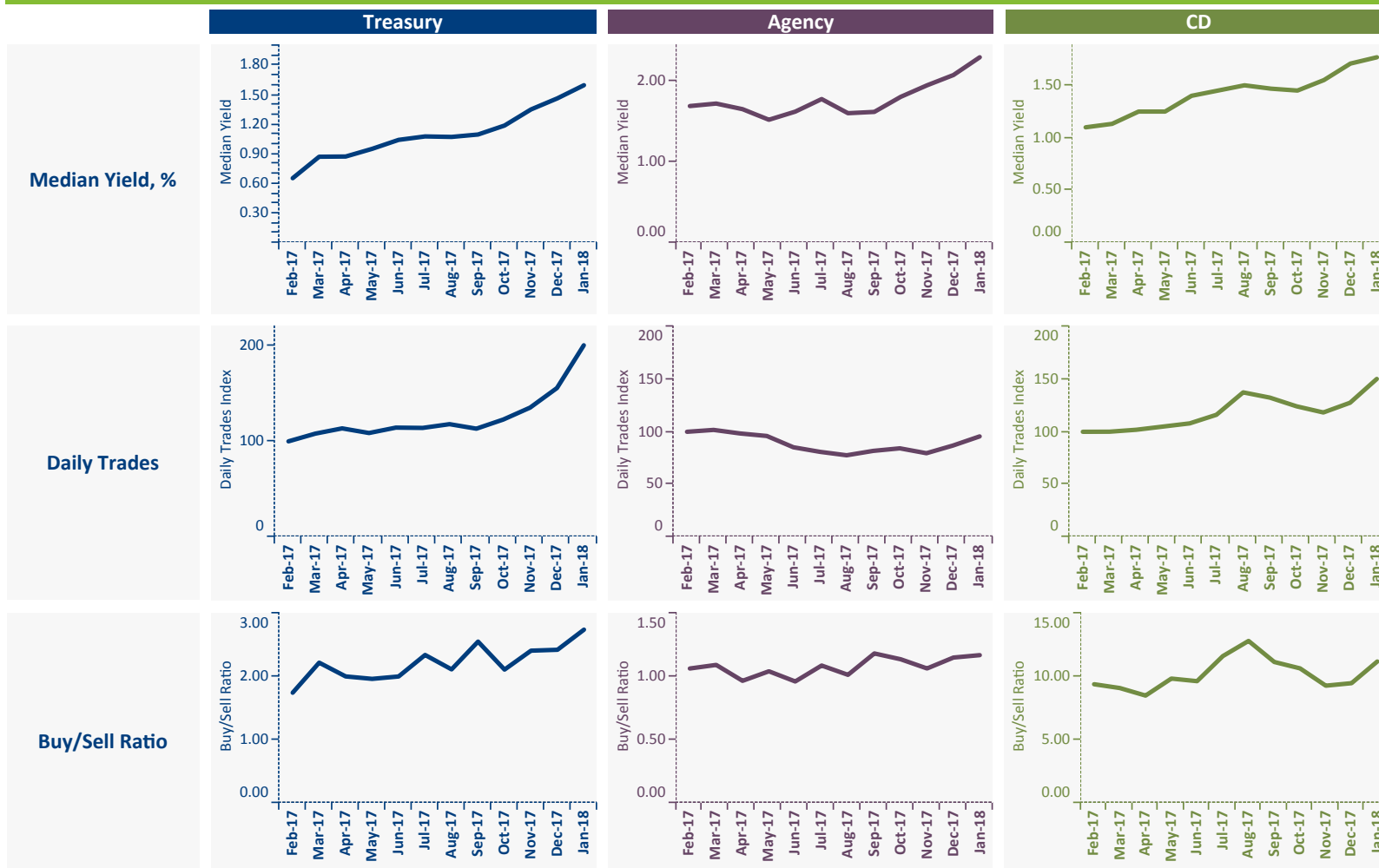
-The weights are based on transaction size.

-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



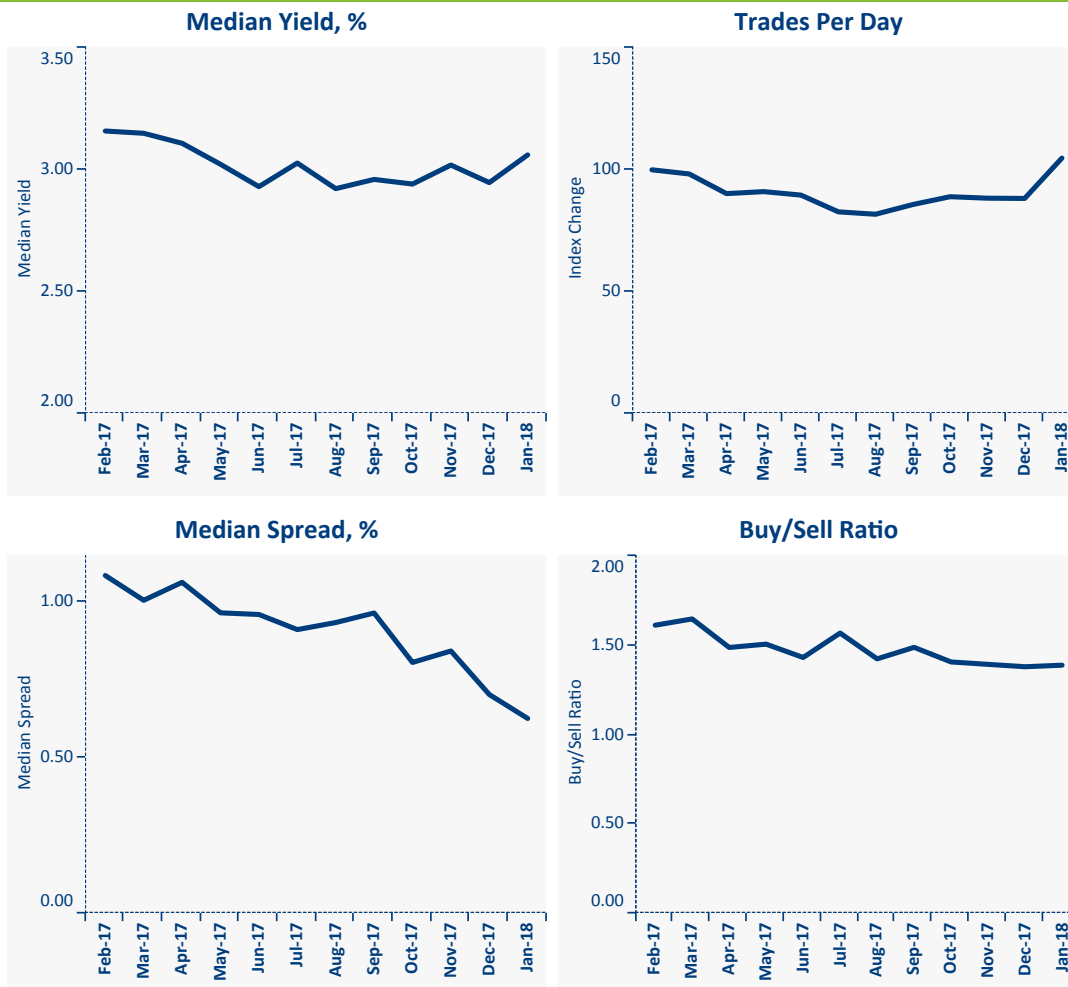
Daily Trades: First month = 100

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.

Corporate Bonds: Odd-Lot Customer Transaction Trend Summary



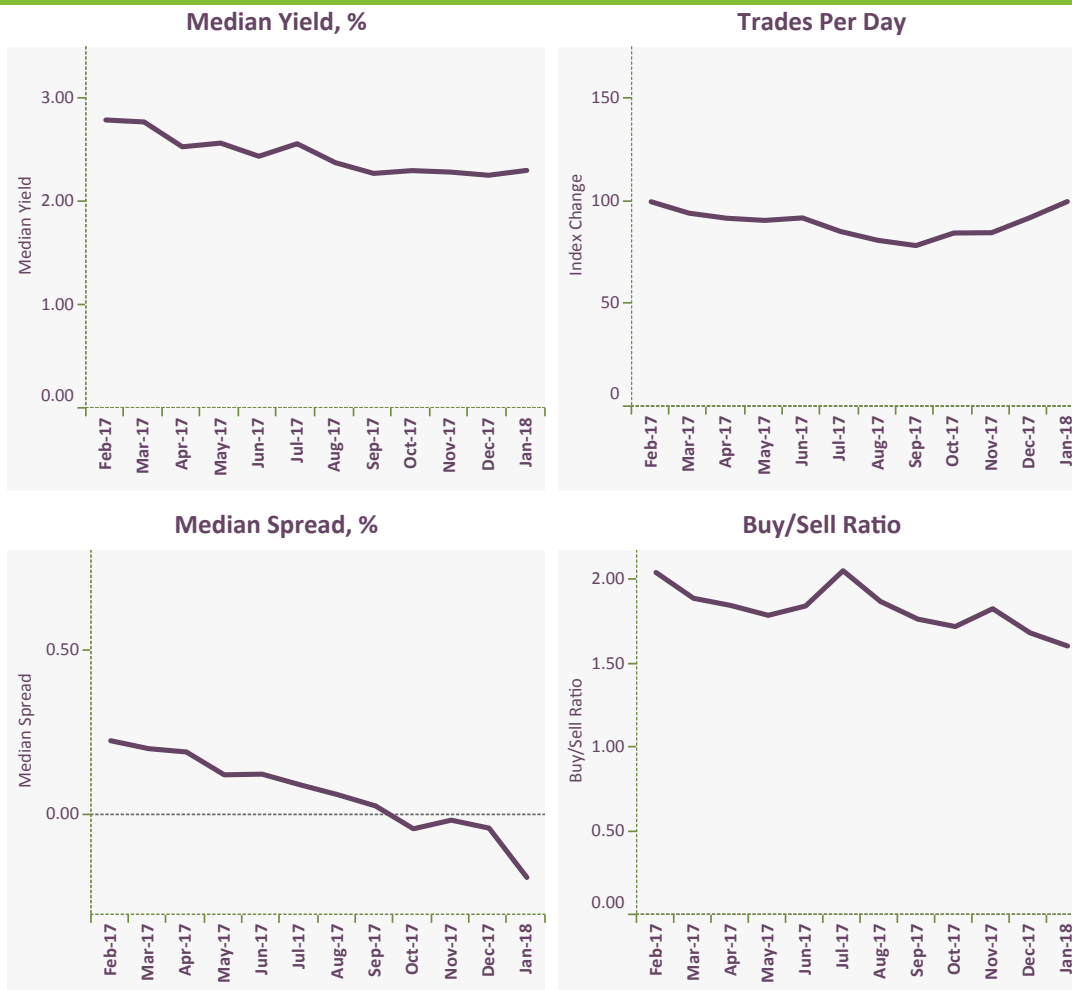
Daily Trades: First month = 100

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.

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Corporate Bonds: Top 20 Most Active Issuers

January 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	GS	GOLDMAN SACHS	BBB	884	3.3%	16,952	1.4	357	2.1	2.7	3.1	3.6	4.3
2	JPM	JP MORGAN CHASE	A	596	3.0%	15,407	1.3	328	2.1	2.5	3.0	3.4	3.8
3	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	A	367	2.9%	15,194	1.1	299	2.2	2.7	3.1	3.7	4.1
4	BAC	BANK OF AMERICA	A	448	2.6%	13,486	1.1	262	2.1	2.5	3.0	3.4	4.0
5	C	CITIGROUP	BBB	392	2.6%	13,295	1.6	275	2.1	2.6	3.0	3.7	3.7
6	T	AT&T	BBB	91	2.4%	12,383	1.8	248	2.3	2.6	3.0	3.9	4.7
7	WFC	WELLS FARGO	A	221	2.0%	10,158	1.6	220	2.1	2.6	3.0	3.4	3.7
8	MS	MORGAN STANLEY	BBB	739	1.8%	9,315	1.2	215	2.1	2.6	3.1	3.5	4.0
9	AAPL	APPLE INC	AA	59	1.6%	8,276	2.0	175	2.0	2.4	2.7	3.1	3.4
10	VZ	VERIZON	BBB	105	1.4%	7,272	1.5	154		2.7	3.0	3.6	4.3
11	GM	GENERAL MOTORS FINANCIAL COMPANY INC	BBB	64	1.3%	6,855	2.3	143	2.2	2.9	3.3	3.9	4.8
12	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	A	40	1.1%	5,606	1.8	105	2.1	2.5	2.9	3.3	3.9
13	BRK	BERKSHIRE HATHAWAY	A	161	1.1%	5,459	1.3	129	2.0	2.4	2.8	3.3	3.8
14	MSFT	MICROSOFT CORP	AAA	41	0.9%	4,440	1.5	99	1.8	2.2	2.6	3.0	3.4
15	F	FORD	BBB	234	0.8%	4,177	1.0	85	2.3	2.7	3.1	3.8	4.7
16	HBC	HSBC	N/R	563	0.8%	3,990	1.0	92	2.1	2.8	3.0	3.6	4.2
17	AXP	AMERICAN EXPRESS	A	37	0.7%	3,805	1.4	81	1.9	2.4	2.8	3.2	3.8
18	ORCL	ORACLE CORP	AA	32	0.7%	3,798	1.2	74	2.0	2.5	2.7	3.2	3.5
19	TEVA	TEVA PHARMACEUTICAL FIN CO B V	BB	12	0.7%	3,787	2.9	79	3.2	4.3	5.1	5.5	5.9
20	CTL	CENTURYLINK	B	37	0.7%	3,712	1.3	80		4.5	6.1	6.7	7.4

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

January 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	135	0.3%	1,753	1,577	176	9.0	14		4.4		5.7	7.0
2	CBL	CBL & ASSOCS LTD PARTNERSHIP	BBB	3	0.3%	1,498	1,311	187	7.0	28			6.3	6.9	
3	QCOM	QUALCOMM	A	17	0.5%	2,757	2,251	506	4.5	64	2.1	2.4	3.1	3.6	4.0
4	STI	SUNTRUST BKS INC	BBB	25	0.4%	2,302	1,868	434	4.3	52	2.0	2.6	2.8	3.7	
5	PBI	PITNEY BOWES	BBB	8	0.3%	1,790	1,355	435	3.1	37	2.5	4.9	5.6		5.9
6	TEVA	TEVA PHARMACEUTICAL FIN CO B V	BB	12	0.7%	3,787	2,824	963	2.9	79	3.2	4.3	5.1	5.5	5.9
7	M	MACYS RETAIL HLDGS INC	BBB	21	0.4%	2,018	1,480	538	2.8	43		3.3	4.1	5.4	5.8
8	JNJ	JOHNSON & JOHNSON	AAA	32	0.3%	1,362	987	375	2.6	33	1.7	2.1	2.5	2.9	3.3
9	BDX	BECTON DICKINSON & CO	BBB	21	0.2%	1,198	865	333	2.6	26	2.3	2.8	3.1	3.8	4.2
10	XOM	XTO ENERGY INC	AA	24	0.4%	1,936	1,382	554	2.5	33	1.9	2.1	2.6	2.9	
11	ETP	ENERGY TRANSFER PARTNERS L P	BBB	27	0.3%	1,590	1,122	468	2.4	36	2.0	2.8	3.5	4.1	5.2
12	ABT	ABBOTT LABS	BBB	23	0.3%	1,687	1,190	497	2.4	41	2.0	2.5	2.9	3.5	3.9
13	UTX	UNITED TECHNOLOGIES CORP	A	26	0.3%	1,519	1,068	451	2.4	29		2.3	2.8	3.2	3.9
14	GM	GENERAL MOTORS FINANCIAL COMPANY INC	BBB	64	1.3%	6,855	4,797	2,058	2.3	143	2.2	2.9	3.3	3.9	4.8
15	DISH	DISH DBS CORP	B	9	0.3%	1,423	988	435	2.3	24		4.0	5.8	6.6	
16	PFE	PFIZER	AA	35	0.3%	1,438	997	441	2.3	43	2.1	2.4	2.7	3.1	3.5
17	IEP	ICAHN ENTERPRISES	BB	7	0.2%	1,242	857	385	2.2	29	3.2	3.2	4.5	4.9	
18	PM	PHILIP MORRIS INTL INC	A	30	0.3%	1,321	910	411	2.2	33	2.1	2.5	2.9	3.2	4.0
19	AMGN	AMGEN INC	A	34	0.5%	2,486	1,710	776	2.2	55	2.2	2.5	2.8	3.3	4.0
20	ABBV	ABBVIE INC	BBB	14	0.3%	1,750	1,193	557	2.1	40	2.0	2.6	2.9	3.3	3.8

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

January 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	FCX	FREEMPORT-MCMORAN COPPER & GOLD INC	BB	15	0.2%	1,199	284	915	0.31	28		3.7	4.0	5.6	5.2
2	RIG	TRANSOCEAN INC	B	11	0.2%	1,280	492	788	0.62	29				6.8	8.3
3	CS	CREDIT SUISSE	N/R	417	0.5%	2,376	981	1,395	0.70	50	5.0	2.8	3.7	3.7	
4	FTR	FRONTIER COMMUNICATIONS CORP	B	24	0.6%	3,204	1,332	1,872	0.71	50	5.0	17.6	17.1	16.2	14.3
5	DELL	DELL	BB	12	0.4%	1,810	819	991	0.83	41	3.2	3.4	4.3	5.5	6.2
6	EDP	ENTERPRISE PRODS OPER LLC	BBB	32	0.2%	1,236	564	672	0.84	26	2.5	2.7	3.0	3.4	4.3
7	BCS	BARCLAYS	BBB	446	0.5%	2,479	1,137	1,342	0.85	55	3.5	2.8	3.2	3.9	4.0
8	ESV	ENSCO PLC	B	11	0.3%	1,428	669	759	0.88	34	3.2	4.2	7.4	7.8	8.8
9	PNC	PNC FDG CORP	A	44	0.2%	1,231	577	654	0.88	25	2.5	2.6	2.9	3.3	
10	MET	METLIFE	A	21	0.3%	1,701	811	890	0.91	29	2.2	2.6	3.0	3.2	3.7
11	RY	ROYAL BANK OF CANADA	AA	261	0.4%	2,096	1,017	1,079	0.94	45	2.2	2.5	2.8	3.7	3.8
12	NRX	NATIONAL RURAL UTILS COOP FIN CORP	A	222	0.2%	1,195	581	614	0.95	22	2.3	2.5	3.0	3.5	
13	HBC	HSBC	N/R	563	0.8%	3,990	1,972	2,018	0.98	92	2.6	2.9	3.0	3.9	3.9
14	WMT	WAL-MART	AA	28	0.3%	1,497	747	750	1.00	36	2.0	2.3	2.7	3.1	
15	BP	BP	A	40	0.5%	2,557	1,294	1,263	1.02	54	2.2	2.5	2.8	3.2	
16	F	FORD	BBB	234	0.8%	4,177	2,115	2,062	1.03	85	2.8	3.2	3.4	4.2	4.7
17	LUK	JEFFERIES GROUP INC NEW	BBB	34	0.2%	1,289	657	632	1.04	31	2.8	3.2	3.8	4.2	5.2
18	KMI	KINDER MORGAN ENERGY PARTNERS L P	BBB	70	0.4%	1,822	932	890	1.05	43	2.6	2.9	3.3	4.6	5.0
19	LTD	LIMITED BRANDS INC	BB	10	0.2%	1,227	629	598	1.05	29	2.5	3.7	4.0	5.4	6.8
20	USB	U S BANCORP MEDIUM TERM NTS- BOOK ENTRY	A	27	0.4%	2,188	1,119	1,069	1.05	40	2.1	2.6	2.8	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

January 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	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Null	BBB	5.000	1,444	1,339	2,783	50			102.0	100.8
2	GM	GENERAL MOTORS FINANCIAL COMPANY INC	Null	BB	5.750	1,056	78	1,134	17			103.9	103.3
3	STI	SUNTRUST BKS INC	Null	BBB	5.125	966	12	978	24			99.3	96.5
4	AAPL	APPLE INC	May-23	AA	2.400	940	370	1,310	20	2.7	2.8	98.6	97.9
5	MNK	Null	Apr-23	B	4.750	743	69	812	12	8.4	8.9	85.0	82.8
6	T	AT&T	May-25	BBB	3.400	676	234	910	19	3.6	3.7	98.5	97.8
7	C	CITIGROUP	Oct-20	BBB	2.650	668	107	775	7	2.6	2.7	100.2	99.8
8	CBL	CBL & ASSOCS LTD PARTNERSHIP	Dec-26	BBB	5.950	666	76	742	15	6.9	7.2	93.6	92.1
9	C	CITIGROUP	Dec-18	BBB	2.050	646	57	703	10	2.1	2.2	100.0	99.8
10	T	AT&T	Mar-19	BBB	2.300	644	76	720	16	2.3	2.3	100.1	100.0
11	OII	Null	Nov-24	BBB	4.650	636	65	701	15	5.0	5.3	98.0	96.5
12	TEVA	TEVA PHARMACEUTICAL FIN CO B V	Oct-26	BB	3.150	598	87	685	15	5.5	5.6	84.2	83.2
13	C	CITIGROUP	Sep-18	BBB	2.500	577	99	676	9	2.0	2.2	100.4	100.2
14	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	Feb-19	A	2.150	568	471	1,039	6	2.1	2.2	100.1	99.9
15	GS	GOLDMAN SACHS	Null	BB	5.000	564	40	604	17			100.0	98.5
16	DISH	DISH DBS CORP	Nov-24	B	5.875	560	70	630	8	6.5	6.6	96.5	96.1
17	JPM	JP MORGAN CHASE	Null	BBB	4.625	536	26	562	16			99.5	97.6
18	T	AT&T	Mar-27	BBB	4.250	535	162	697	14	4.0	4.0	102.2	101.8
19	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	Feb-26	A	3.650	534	379	913	18	3.3	3.4	102.3	101.5
20	CBL	CBL & ASSOCS LTD PARTNERSHIP	Dec-23	BBB	5.250	532	63	595	10	6.3	6.6	95.0	93.6

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

January 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	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Null	BBB	5.000	1,444	1,339	2,783	50			102.0	100.8
2	F	FORD	Dec-26	BBB	4.346	369	789	1,158	19	3.9	4.2	103.6	100.7
3	GM	GENERAL MOTORS FINANCIAL COMPANY INC	Oct-23	BBB	4.875	129	721	850	9	3.3	3.4	107.9	107.4
4	FTR	FRONTIER COMMUNICATIONS CORP	Sep-21	B	6.250	172	628	800	7	13.2	17.6	82.3	70.4
5	BAC	BANK OF AMERICA	Apr-25	BBB	3.950	144	551	695	8	3.5	3.6	103.0	102.5
6	T	AT&T	Feb-22	BBB	3.000	508	478	986	8	3.0	3.0	100.2	99.9
7	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	Feb-19	A	2.150	568	471	1,039	6	2.1	2.2	100.1	99.9
8	JPM	JP MORGAN CHASE	Null	BBB	7.900	189	439	628	14			101.6	101.1
9	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Jan-23	A	3.100	224	398	622	13	3.1	3.2	100.0	99.5
10	VZ	VERIZON	Nov-24	BBB	3.500	444	395	839	11	3.3	3.4	101.3	100.7
11	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	Feb-26	A	3.650	534	379	913	18	3.3	3.4	102.3	101.5
12	VZ	VERIZON	Sep-23	BBB	5.150	279	374	653	14	3.1	3.2	110.4	109.9
13	AAPL	APPLE INC	May-23	AA	2.400	940	370	1,310	20	2.7	2.8	98.6	97.9
14	ESRX	EXPRESS SCRIPTS HLDG CO	Mar-27	BBB	3.400	372	369	741	4	3.7	3.7	98.0	97.6
15	WFC	WELLS FARGO	Null	BBB	7.980	175	362	537	8			101.3	101.3
16	GILD	GILEAD SCIENCES INC	Feb-25	A	3.500	298	352	650	4	3.1	3.1	102.7	102.3
17	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Jan-38	A	5.875	89	327	416	7	4.1	4.0	123.9	124.9
18	ACT	ALLERGAN	Mar-25	BBB	3.800	282	314	596	5	3.6	3.7	101.4	100.8
19	WFC	WELLS FARGO	Mar-22	A	3.500	286	287	573	9	2.8	2.9	102.6	102.4
20	GNW	GENWORTH	Sep-21	B	7.625	270	285	555	10	8.3	8.5	98.0	97.2

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).

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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