

Market Transparency Report

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

March 2017

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 March 2017

	Median Yield (bps)	Daily Trade Volume	Buy/Sell Ratio
Agency	3	1.8%	0.0
CD	3	0.1%	-0.3
Corp	-1	-1.8%	0.0
Municipal	-2	-5.6%	-0.2
Treasury	22	8.1%	0.5

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

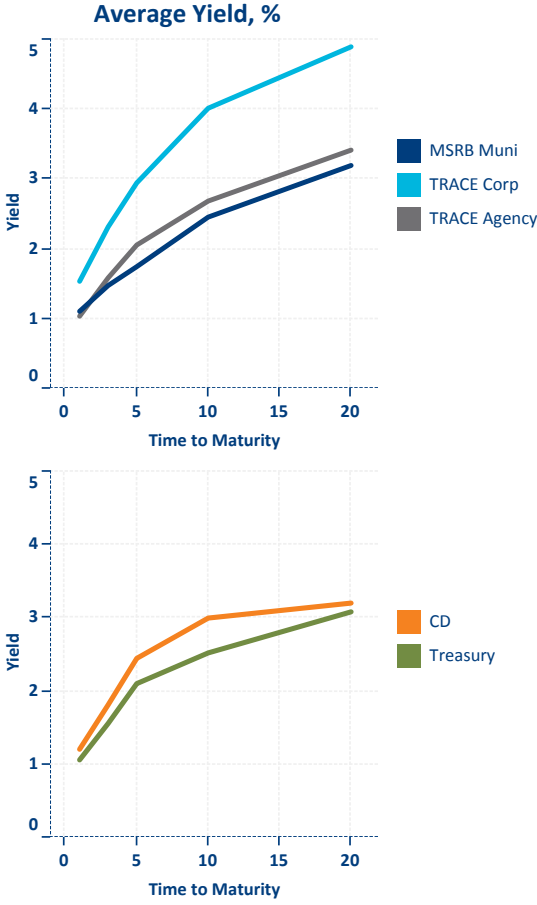
Yield Matrix

Average Yield, % for March 2017

Market	TTM					Median Maturity (Years)
	1	3	5	10	20	
MSRB Muni	1.1	1.5	1.8	2.5	3.2	13
TRACE Corp	1.5	2.3	3.0	4.0	4.9	4
TRACE Agency	1.0	1.6	2.1	2.7	3.4	3
CD	1.2	1.8	2.5	3.0	3.3	1
Treasury	1.1	1.6	2.1	2.5	3.1	0

Asset Class

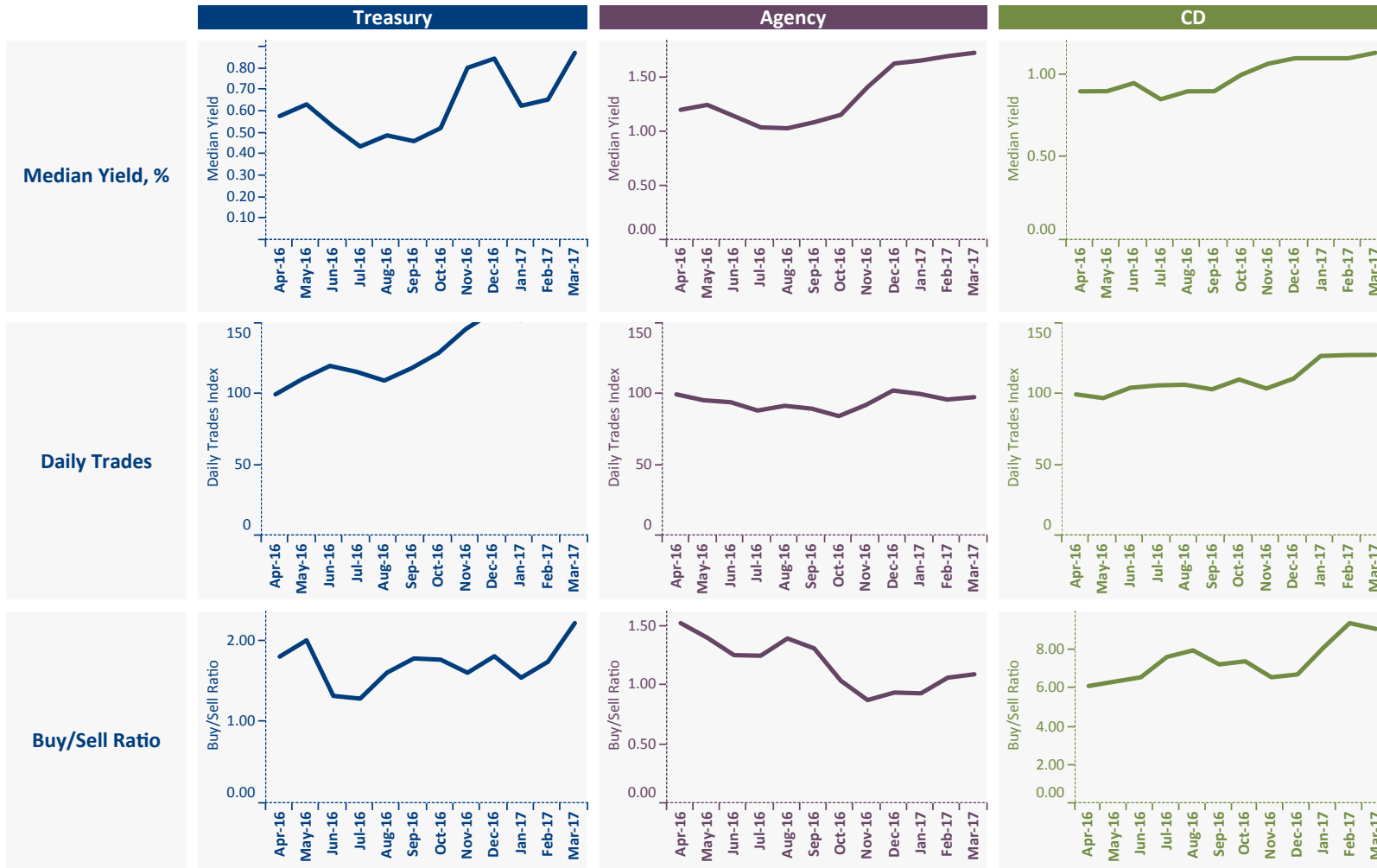
Market	Category (Filtered)	Rating Key	1	3	5	10	20	Median Maturity (Years)
TRACE Corp	Financial	AA	1.4	2.0	2.4			3
		A	1.4	2.2	2.8	3.5	4.4	4
		BBB	1.6	2.5	3.2	3.9	4.3	6
		HY	2.1	3.6	4.3	4.6	7.7	3
	Non-Financial	AAA	1.7	2.1	2.1	3.3	4.0	4
		AA	1.2	1.9	2.3	3.8	4.1	4
		A	1.4	2.0	2.7	3.6	4.4	3
		BBB	1.7	2.5	3.8	4.4	6.0	5
		HY	4.9	5.0	5.4	7.3	12.8	9
MSRB Muni	GO	AAA	1.0	1.2	1.6	2.2	3.1	11
		AA	1.0	1.3	1.7	2.4	3.2	11
		A	1.1	1.5	1.8	2.6	3.5	10
		BBB	1.9	3.4	3.7	4.0	4.6	11
		HY	22.9	4.4	3.5	4.4	5.4	7
	Revenue	AAA	1.0	1.3	1.6	2.3	3.1	10
		AA	1.0	1.3	1.7	2.4	3.0	13
		A	1.1	1.5	1.9	2.5	3.3	18
		BBB	1.6	2.4	3.1	3.6	3.7	17
		HY	25.0	20.0	15.1	9.8	8.2	17



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



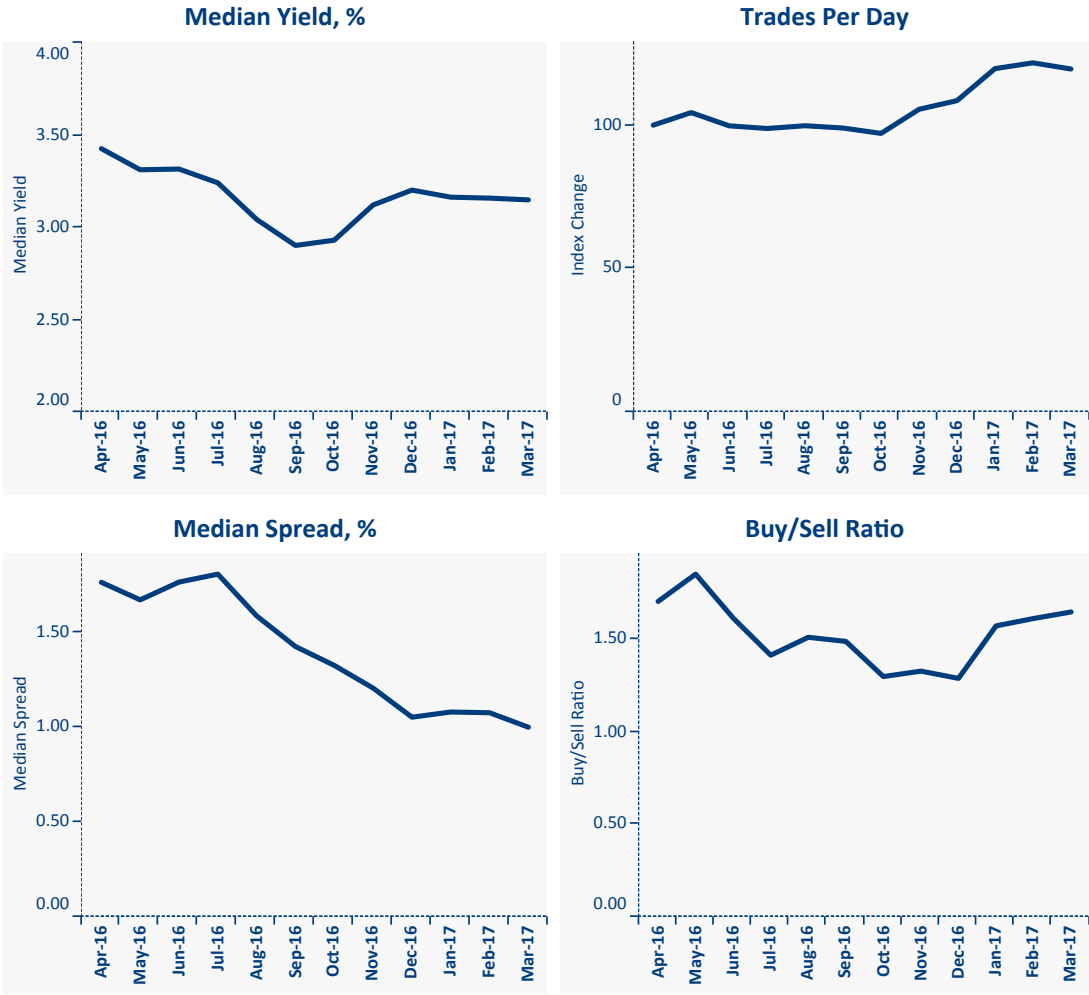
Daily Trades: First month = 100

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

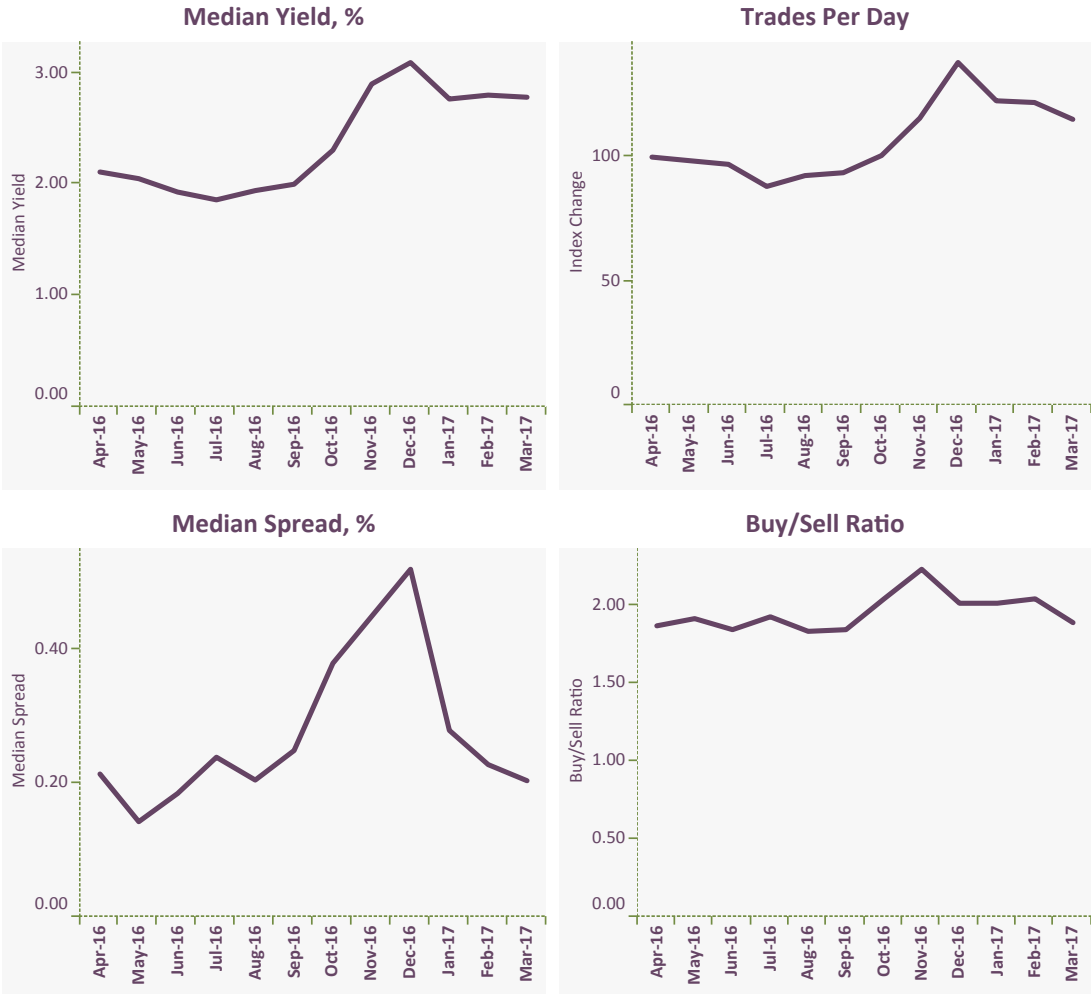


Daily Trades: First month = 100
 Source: TRACE and Tradeweb Direct
 -Based on odd-lot customer transactions (<100M) reported in TRACE.
 -Median yields and spreads are based on all odd-lot customer buy transactions...

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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

March 2017

Index	Ticker	Comany	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	544	3.9%	20,521	2.1	406	1.5	2.2	3.0	3.6	4.1
2	GS	GOLDMAN SACHS	BBB	837	3.5%	18,783	1.7	394	1.6	2.3	2.9	3.7	4.5
3	C	CITIGROUP	BBB	357	3.0%	15,730	2.4	312	1.5	2.4	2.9	4.1	3.7
4	BAC	BANK OF AMERICA	BBB	480	2.9%	15,494	1.4	299	1.6	2.3	3.1	4.0	4.0
5	T	AT&T	BBB	82	2.6%	13,829	2.8	280	1.6	2.4	3.1	4.0	5.1
6	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	AA	377	2.3%	12,058	1.2	222	1.2	2.0	2.5	3.4	4.0
7	WFC	WELLS FARGO	A	226	2.1%	10,949	2.0	244	1.4	2.3	2.8	3.5	3.8
8	MS	MORGAN STANLEY	BBB	870	1.8%	9,673	1.4	224	1.6	2.2	2.9	3.8	3.7
9	VZ	VERIZON	BBB	72	1.7%	8,762	2.2	172	1.7	2.4	2.9	3.7	4.8
10	AAPL	APPLE INC	AA	44	1.3%	6,650	2.0	138	1.2	1.8	2.4	3.1	3.8
11	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	A	42	1.1%	5,805	2.0	102	1.4	2.2	2.9	3.5	4.2
12	AXP	AMERICAN EXPRESS	BBB	38	1.0%	5,422	3.0	110	1.6	2.0	2.7	3.6	4.7
13	FTR	FRONTIER COMMUNICATIONS CORP	B	23	1.0%	5,325	0.9	107		6.8	9.5	11.3	10.6
14	BRK	BERKSHIRE HATHAWAY	A	162	1.0%	5,096	1.6	123	1.4	1.9	2.7	3.2	4.3
15	MSFT	MICROSOFT CORP	AAA	42	0.8%	4,133	2.2	96	1.0	1.7	2.4	3.1	3.8
16	F	FORD	BBB	197	0.8%	4,121	2.4	93	1.6	2.4	3.1	4.0	
17	GM	GENERAL MOTORS FINANCIAL COMPANY INC	BBB	39	0.8%	4,080	2.6	98	1.6	2.5	3.1	4.0	5.0
18	HBC	HSBC	N/R	522	0.7%	3,926	1.1	77	1.6	3.0	2.9	3.9	4.6
19	CMCS	COMCAST	A	46	0.7%	3,600	1.5	69	1.2	2.1	2.8	3.3	4.1
20	VIA	VIACOM INC NEW	BB	36	0.6%	3,373	3.7	81	1.8	2.1	3.3	3.7	5.5

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

March 2017

Index	Ticker	Comany	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	CBL	CBL & ASSOCS LTD PARTNERSHIP	BBB	3	0.3%	1,562	1,395	167	8.4	34				6.2	
2	HTZ	HERTZ CORP	B	7	0.3%	1,487	1,273	214	6.0	34	2.4	6.6	6.8	6.9	
3	TRP	TRANSCANADA PIPELINES LTD	BBB	29	0.3%	1,440	1,219	221	5.5	24	1.5	2.5	2.8	3.9	4.5
4	PBI	PITNEY BOWES	BBB	7	0.3%	1,334	1,098	236	4.7	30	2.0	2.4	3.7		5.3
5	KSS	KOHL'S CORP	BBB	8	0.3%	1,469	1,168	301	3.9	29			3.6	4.6	6.4
6	VIA	VIACOM INC NEW	BB	36	0.6%	3,373	2,651	722	3.7	81	1.8	2.1	3.3	3.7	5.5
7	ESRX	EXPRESS SCRIPTS HLDG CO	BBB	14	0.4%	2,157	1,680	477	3.5	35		2.1	3.0	4.1	
8	TEVA	TEVA PHARMACEUTICAL FIN CO B V	BBB	12	0.3%	1,810	1,370	440	3.1	41	1.6	2.3	3.2	4.2	5.2
9	ABBV	ABBVIE INC	BBB	14	0.4%	1,866	1,401	465	3.0	42	1.7	2.3	3.0	3.8	4.5
10	AXP	AMERICAN EXPRESS	BBB	38	1.0%	5,422	4,070	1,352	3.0	110	1.6	2.0	2.7	3.6	4.7
11	T	AT&T	BBB	82	2.6%	13,829	10,172	3,657	2.8	280	1.6	2.4	3.1	4.0	5.1
12	PFE	PFIZER	AA	39	0.3%	1,518	1,115	403	2.8	41	1.4	1.7	2.3	3.2	4.0
13	PM	PHILIP MORRIS INTL INC	A	29	0.3%	1,571	1,154	417	2.8	34	1.5	2.2	2.7	3.2	4.3
14	ABT	ABBOTT LABS	BBB	25	0.2%	1,274	929	345	2.7	29	1.8	2.2	2.9	3.7	4.6
15	BK	BANK NEW YORK INC MEDIUM TERM SR NTS BOO	A	43	0.5%	2,842	2,058	784	2.6	60	1.4	2.0	2.5	3.2	
16	GM	GENERAL MOTORS FINANCIAL COMPANY INC	BBB	39	0.8%	4,080	2,957	1,123	2.6	98	1.6	2.5	3.1	4.0	5.0
17	PSEC	PROSPECT CAP CORP INTERNOTES BOOK ENTRY	BBB	193	0.4%	1,893	1,357	536	2.5	35	2.2	4.6	4.9	5.0	6.3
18	F	FORD	BBB	197	0.8%	4,121	2,895	1,226	2.4	93	1.6	2.4	3.1	4.0	
19	C	CITIGROUP	BBB	357	3.0%	15,730	11,029	4,701	2.4	312	1.5	2.4	2.9	4.1	3.7
20	AMGN	AMGEN INC	A	31	0.4%	2,151	1,504	647	2.3	45	1.6	2.0	2.6	3.4	4.6

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

March 2017

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	DELL	DELL	BB	9	0.3%	1,474	560	914	0.61	37	2.8	3.6	4.0	6.3	6.8
2	CS	CREDIT SUISSE	N/R	430	0.4%	2,271	1,025	1,246	0.82	44	2.1	2.7	3.0	4.2	
3	MRO	MARATHON OIL CORP	BBB	20	0.2%	1,215	577	638	0.90	26	2.8	2.9	3.7	4.1	5.6
4	FTR	FRONTIER COMMUNICATIONS CORP	B	23	1.0%	5,325	2,545	2,780	0.92	107		7.0	9.9	11.0	11.1
5	PTRB	PETROBRAS	B	8	0.2%	1,298	640	658	0.97	41	3.0	5.1			7.6
6	RY	ROYAL BANK OF CANADA	AA	285	0.5%	2,579	1,311	1,268	1.03	50	1.7	2.2	2.6	3.9	4.0
7	BCS	BARCLAYS	N/R	491	0.4%	2,103	1,074	1,029	1.04	40	3.2	3.1	3.6	4.3	4.1
8	RIG	TRANSOCEAN INC	B	14	0.4%	2,352	1,206	1,146	1.05	47	4.4			8.9	9.2
9	AA	ALCOA	BB	12	0.3%	1,712	880	832	1.06	39	2.8	3.7	3.9	5.2	6.0
10	HBC	HSBC	N/R	522	0.7%	3,926	2,033	1,893	1.07	77	2.1	3.1	3.0	4.2	4.8
11	KMI	KINDER MORGAN ENERGY PARTNERS L P	BBB	68	0.4%	2,196	1,141	1,055	1.08	45	2.0	3.0	3.6	4.1	5.7
12	SHLD	SEARS HLDGS CORP	C	10	0.4%	2,037	1,061	976	1.09	23		13.3		24.9	
13	INTC	INTEL CORP	A	18	0.3%	1,392	741	651	1.14	34	1.4	2.1	2.6	3.1	1.1
14	NWL	NEWELL RUBBERMAID INC	BBB	16	0.2%	1,194	636	558	1.14	19	1.7	1.9	2.8	3.7	4.4
15	WMT	WAL-MART	AA	24	0.3%	1,612	861	751	1.15	37	1.4	2.0	2.2	3.2	4.1
16	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	AA	377	2.3%	12,058	6,469	5,589	1.16	222	1.5	2.3	2.6	3.6	4.1
17	COP	CONOCOPHILLIPS	BBB	32	0.3%	1,554	845	709	1.19	31	1.9	2.6	3.0	3.7	4.7
18	DOW	DOW CHEM CO	BBB	139	0.2%	1,315	725	590	1.23	28	2.2	2.5	2.9	4.0	4.4
19	IEP	ICAHN ENTERPRISES	BB	6	0.3%	1,392	770	622	1.24	35		4.8	5.6		
20	ACT	ALLERGAN	BBB	16	0.2%	1,212	674	538	1.25	20	1.9	2.5	3.2	3.8	4.6

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

March 2017

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	JPM	JP MORGAN CHASE	Apr-49	BBB	5.300	1,996	134	2,130	22			103.8	103.1
2	GE	GENERAL ELEC CAP CORP MEDIUM TERM NTS BO	Dec-49	A	5.000	1,975	1,398	3,373	41			105.3	104.6
3	C	CITIGROUP	Dec-49	BB	6.125	1,501	231	1,732	17			106.3	105.0
4	AXP	AMERICAN EXPRESS	Dec-49	BBB	5.200	1,212	124	1,336	17			101.3	100.8
5	VIA	VIACOM INC NEW	Feb-57	BB	6.250	1,057	16	1,073	29			102.1	100.2
6	WTI	W & T OFFSHORE INC	Jun-19	C	8.500	961	94	1,055	10	19.6	20.1	80.6	80.0
7	JPM	JP MORGAN CHASE	Jan-23	A	2.972	938	51	989	11	3.1	3.1	99.1	99.5
8	T	AT&T	Feb-22	BBB	3.000	899	337	1,236	16	3.1	3.2	99.8	99.2
9	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	Feb-19	A	2.150	886	334	1,220	6	1.7	1.8	100.8	100.6
10	TRP	TRANSCANADA PIPELINES LTD	Aug-76	BBB	5.875	856	68	924	9			106.2	106.9
11	JPM	JP MORGAN CHASE	Jan-49	BBB	5.000	844	122	966	24			101.6	100.1
12	GS	GOLDMAN SACHS	Jan-18	BBB	2.375	843	106	949	22	1.6	1.8	100.6	100.5
13	CBL	CBL & ASSOCS LTD PARTNERSHIP	Dec-26	BBB	5.950	822	67	889	20	6.2	6.6	98.0	95.2
14	WDC	WESTERN DIGITAL CORP	Apr-24	BB	10.500	821	66	887	17	5.2	5.4	117.2	116.7
15	T	AT&T	Mar-27	BBB	4.250	799	44	843	18	4.1	4.2	101.5	100.1
16	SHLD	SEARS HLDGS CORP	Oct-18	C	6.625	761	371	1,132	14	11.2	12.3	93.7	92.3
17	T	AT&T	May-25	BBB	3.400	757	183	940	15	3.8	4.0	97.0	96.1
18	JPM	JP MORGAN CHASE	Apr-49	BBB	7.900	703	502	1,205	25			103.9	103.1
19	VZ	VERIZON	Nov-24	BBB	3.500	699	249	948	13	3.6	3.6	99.6	99.1
20	GS	GOLDMAN SACHS	Dec-49	BB	5.375	686	123	809	18			102.8	102.0

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).

Corporate Bonds: Top 20 Most Sold Issues

March 2017

Index	Ticker	Comany	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	Dec-49	A	5.000	1,975	1,398	3,373	41			105.3	104.6
2	JPM	JP MORGAN CHASE	Jan-18	A	6.000	213	980	1,193	15	1.4	1.7	103.7	103.5
3	NRP	Natural Resources Partners	Oct-18	C	9.125	223	706	929	8	3.1	4.9	103.1	102.3
4	JPM	JP MORGAN CHASE	Apr-49	BBB	7.900	703	502	1,205	25			103.9	103.1
5	FTR	FRONTIER COMMUNICATIONS CORP	Aug-31	B	9.000	209	488	697	12	11.1	11.4	85.2	83.1
6	KTOS	KRATOS DEFENSE & SEC SOLUTIONS	May-19	C	7.000	75	478	553	7			100.3	100.4
7	FTR	FRONTIER COMMUNICATIONS CORP	Jul-21	B	9.250	72	470	542	5	9.2	9.9	100.2	97.8
8	AAPL	APPLE INC	May-23	AA	2.400	460	390	850	17	2.7	2.8	98.1	97.8
9	AMD	ADVANCED MICRO DEVICES	Sep-26	B	2.125	20	389	409	2			190.9	180.5
10	COF	CAPITAL ONE FINL CORP	Dec-49	BB	5.550	250	386	636	9			104.3	102.8
11	BAC	BANK OF AMERICA	Dec-49	BB	6.100	284	371	655	12			106.5	104.8
12	SHLD	SEARS HLDGS CORP	Oct-18	C	6.625	761	371	1,132	14	11.2	12.3	93.7	92.3
13	STX	SEAGATE HDD CAYMAN	Dec-34	BBB	5.750	521	365	886	21	6.5	6.9	92.0	88.8
14	GS	GOLDMAN SACHS	Mar-20	BBB	5.375	293	356	649	8	2.4	2.6	108.4	108.0
15	VZ	VERIZON	Sep-23	BBB	5.150	444	342	786	16	3.4	3.5	109.9	109.4
16	IEP	ICAHN ENTERPRISES	Feb-22	BB	5.875	347	339	686	17	5.1	5.6	102.0	100.7
17	T	AT&T	Feb-22	BBB	3.000	899	337	1,236	16	3.1	3.2	99.8	99.2
18	BUD	ANHEUSER BUSCH INBEV WORLDWIDE INC	Feb-19	A	2.150	886	334	1,220	6	1.7	1.8	100.8	100.6
19	HBC	HSBC	Apr-21	A	5.100	172	325	497	5	2.8	2.9	108.7	108.2
20	T	AT&T	Feb-26	BBB	4.125	463	314	777	9	4.0	4.1	101.2	100.3

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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