

# Market Transparency Report

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

**January 2015**

As of Jan. 30, 2015

[www.tradeweb.com](http://www.tradeweb.com)

1177 Avenue of the Americas  
New York, NY 10036  
866.645.7524

# 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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## Treasury, Agency and CD

- The daily trades and buy-to-sell ratio for CDs did not see much change from December levels and median yield also remained the same. There was a moderate decrease in Agency median yields and buy-to-sell ratio, while daily trade volume stayed similar to the previous month's levels. Treasury daily trade volume increased marginally while median yields and the buy-to-sell ratio fell in January.

## Corporate

- Median yields and credit spreads for corporate bonds improved in January from levels seen during the previous month. In addition, the number of daily trades increased 6% and buy-to-sell ratio climbed by 8%.

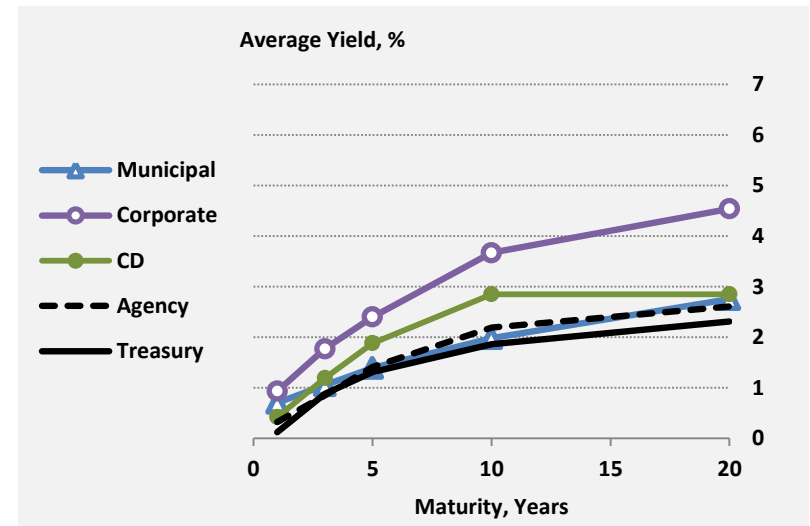
## Municipal

- Municipal bond median spreads increased by 34% and daily trade volumes were up 8%. However, median yields for municipal bonds and the buy-to-sell ratio decreased in January.

# Yield Matrix

Average Yield, % Jan-15	Asset Class	Maturity, Years					Median Maturity, Years
		1	3	5	10	20	
	Treasury	0.1	0.9	1.3	1.9	2.3	0.7
	Agency	0.3	0.9	1.4	2.2	2.6	3
	CD	0.4	1.2	1.9	2.9	2.9	1.8
	Corporate	0.9	1.8	2.4	3.7	4.5	5
	Municipal	0.7	1.1	1.4	2.0	2.8	13

Asset Class	Rating	Maturity, Years					Median Maturity, Years
		1	3	5	10	20	
Financial	AAA	-	-	-	-	-	-
	AA	0.6	1.2	1.8	2.9	4.1	3
	A	0.8	1.5	1.9	3.1	3.9	4
	BBB	1.1	1.8	2.5	3.8	5.5	8
	High Yield	2.0	3.3	3.1	5.1	7.2	4
Corporate	AAA	0.2	-	1.7	2.2	3.2	6
	AA	0.4	1.2	1.9	2.8	3.6	4
	A	0.7	1.4	2.5	3.3	3.8	6
	BBB	1.0	1.7	3.0	4.3	5.0	8
	High Yield	2.1	4.9	6.9	6.4	8.1	11
Non-Financial	AAA	0.5	0.8	1.1	1.5	2.3	9
	AA	0.5	0.9	1.2	1.8	2.8	12
	A	0.7	1.1	1.5	2.0	3.0	11
	BBB	1.0	1.6	2.2	2.9	3.1	9
	High Yield	7.2	9.4	9.2	8.6	8.4	10
Municipal	AAA	0.5	0.8	1.2	1.7	2.4	10
	AA	0.6	0.9	1.2	1.8	2.5	13
	A	0.7	1.1	1.5	2.1	2.7	18
	BBB	0.9	1.7	1.9	2.4	2.9	20
	High Yield	14.8	10.2	14.2	9.2	6.8	15

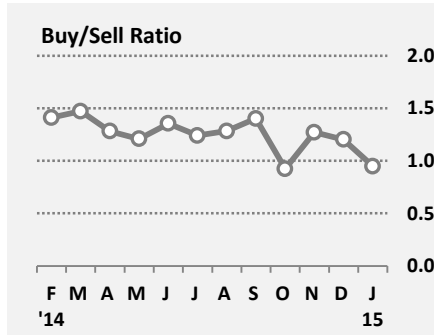
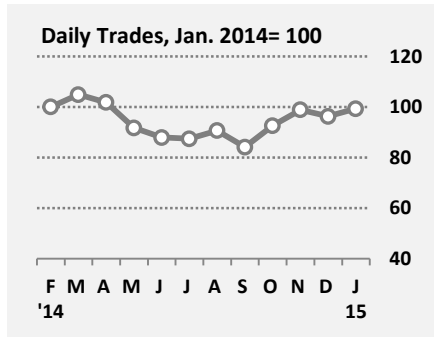
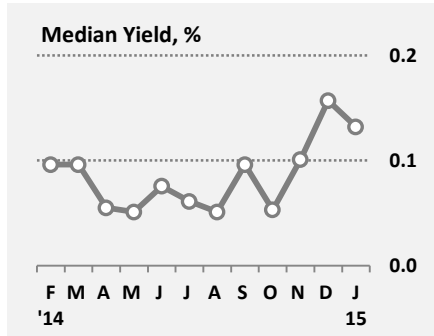


Source: TRACE, RTRS (MSRB's Real-time Transaction Reporting System) and Tradeweb Direct as of 1/30/2015.

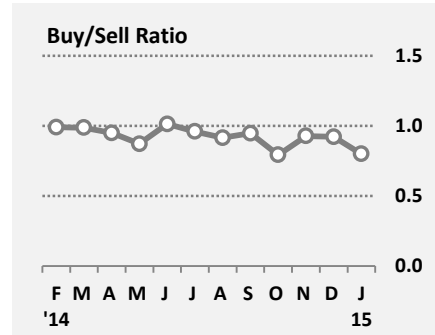
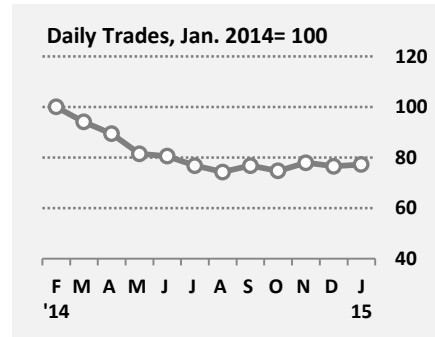
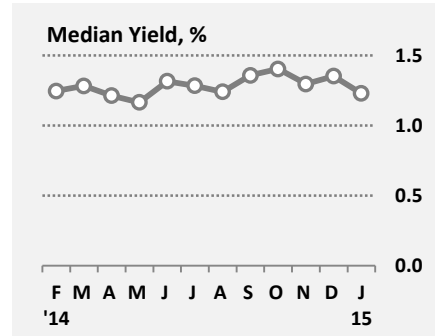
- The yields in each cell for Corporate/Agency/Municipal are the weighted average yield based on odd-lot customer buy transactions reported in TRACE/MSRB.
- The yields in each cell for Treasury/CD are the weighted average yield based on buy transactions on the Tradeweb Direct Platform.
- The weights 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

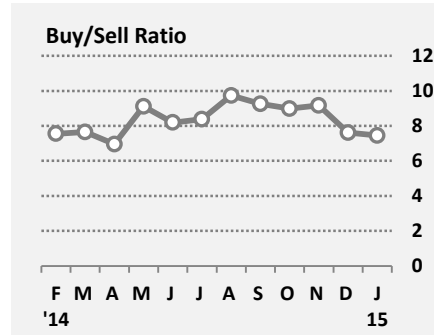
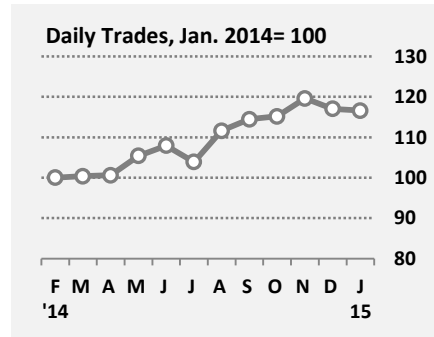
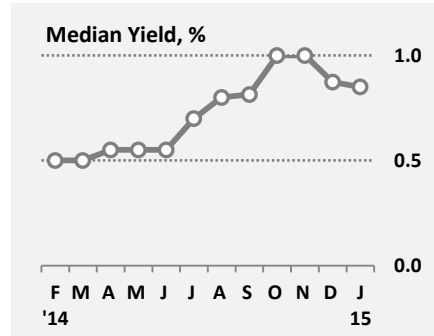
## Treasury



## Agency



## CD



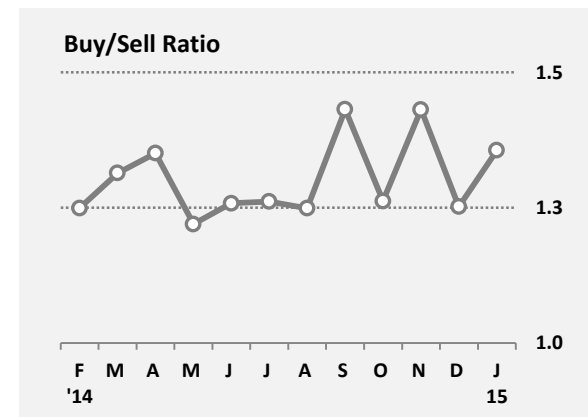
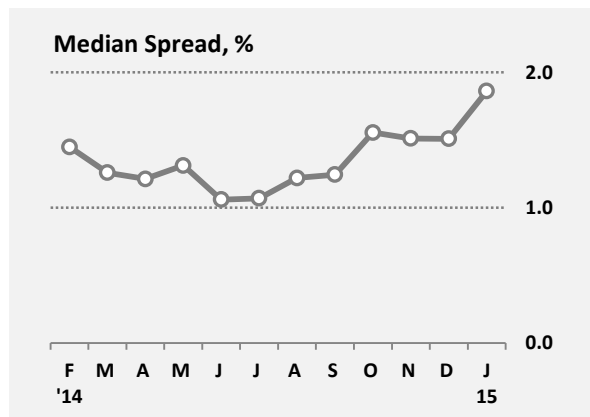
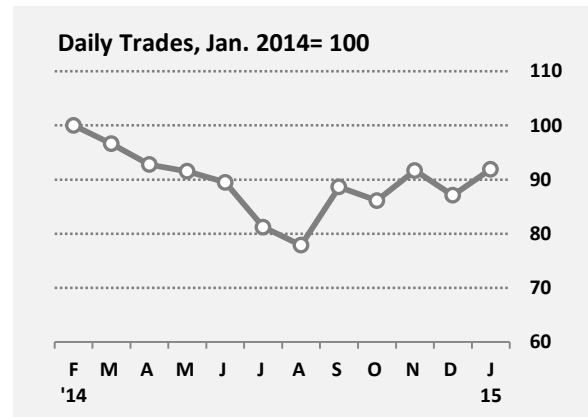
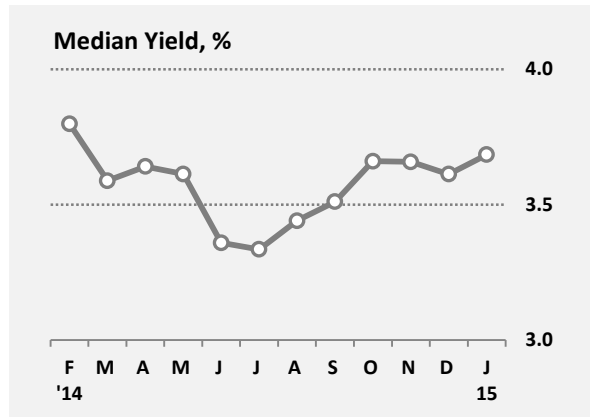
Source: TRACE and Tradeweb Direct as of 1/30/2015.

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.



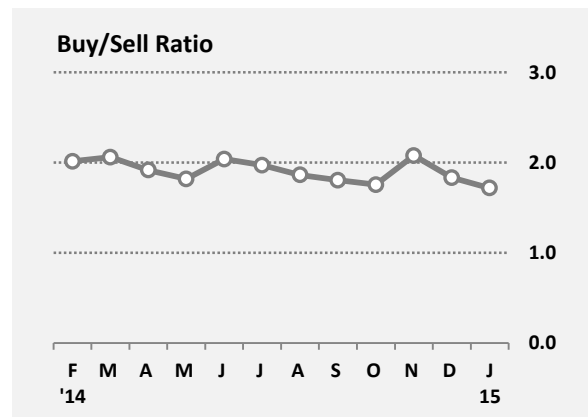
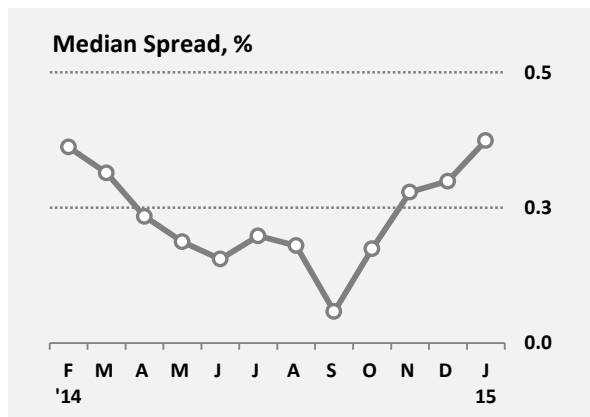
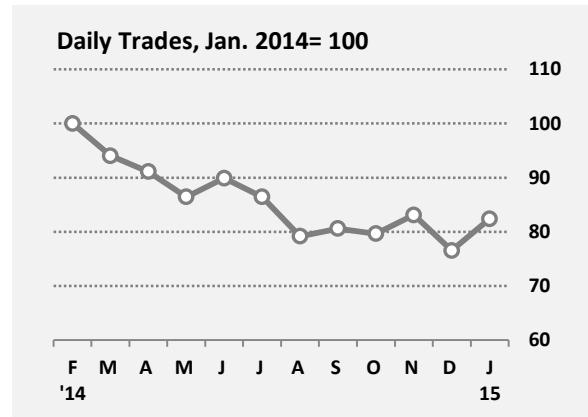
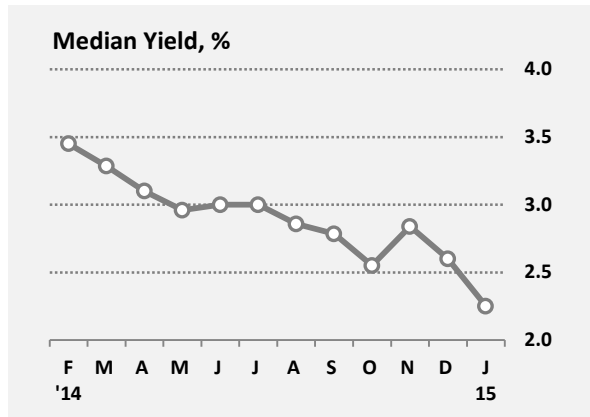
# Corporate Bonds: Odd-Lot Customer Transaction Trend Summary



Source: TRACE and Tradeweb Direct as of 1/30/2015.

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

# Municipal Bonds: Odd-Lot Customer Transaction Trend Summary



Source: RTRS (MSRB's Real-time Transaction Reporting System) and Tradeweb Direct as of 1/30/2015.

- 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.

# Corporate Bonds: Top 20 Most Active Issuers

January 2015

	Issuer		Rating	Issues Traded	% of Trades	Num of Trades	Buy/Sell Ratio	Dollar Vol. Traded (in Millions)	Median Yield (%), Investor Buys				
	Reference*	Issuer Name							1Y	3Y	5Y	10Y	20Y
1	GS	GOLDMAN SACHS	BBB	666	3.4	10,932	1.1	269	0.9	1.8	2.4	3.4	4.5
2	BAC	BANK OF AMERICA	BBB	586	3.3	10,580	1.1	208	1.1	1.9	2.6	3.7	3.4
3	GE	GENERAL ELECTRIC	AA	464	3.3	10,512	1.0	225	0.6	1.4	2.2	3.1	3.9
4	JPM	JP MORGAN CHASE	A	464	3.3	10,504	1.5	232	0.9	1.7	2.3	3.3	6.0
5	RIG	TRANSOCEAN INC	BBB	14	2.7	8,785	12.0	168	3.8	9.0	9.6	8.2	9.1
6	WFC	WELLS FARGO	A	180	2.2	6,874	1.7	169	0.8	1.4	2.0	3.2	3.1
7	MS	MORGAN STANLEY	BBB	585	2.0	6,435	0.9	159	1.0	1.8	2.3	3.6	1.2
8	PBR	PETROBRAS	BBB	24	1.9	5,936	1.4	164	5.1	6.2	6.7	6.8	7.6
9	C	CITIGROUP	BBB	258	1.8	5,677	1.4	140	1.1	1.6	2.2	3.5	4.3
10	VZ	VERIZON	BBB	63	1.6	5,048	1.8	112	0.5	1.9	2.6	3.3	4.3
11	T	AT&T	A	60	1.3	4,164	1.5	96	0.8	1.6	1.9	3.0	4.4
12	GNW	GENWORTH	BBB	11	1.1	3,645	9.2	69	-	5.7	7.4	7.7	7.9
13	SFTBF	SPRINT	B	14	0.8	2,679	1.5	39	-	4.6	6.3	7.0	8.7
14	BCS	BARCLAYS	A	485	0.8	2,601	0.9	48	0.9	1.5	2.1	3.3	3.6
15	BRK	BERKSHIRE HATHAWAY	AA	120	0.8	2,504	0.9	63	0.6	1.2	3.2	2.7	3.9
16	HBC	HSBC	A	415	0.8	2,482	0.9	60	0.8	1.7	2.9	3.6	4.2
17	AVP	AVON PRODUCTS	BB	7	0.7	2,358	6.0	36	3.0	6.7	8.1	7.5	-
18	AAPL	APPLE INC	AA	13	0.7	2,256	1.0	56	0.4	1.2	1.4	2.5	-
19	FCX	FREEMPORT-MCMORAN COPPER & GOLD INC	BBB	18	0.7	2,215	6.2	49	-	2.4	3.7	4.9	6.0
20	CTL	CENTURYLINK	BB	33	0.6	2,076	1.2	44	-	2.2	4.3	5.0	7.3

Source: TRACE and Tradeweb Direct as of 1/30/2015.

- 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.

\* Actual issue symbol will vary.



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

January 2015

	Issuer Reference*	Issuer Name	Rating	Issues Traded	% of Trades	Num of Trades			Buy/Sell Ratio	Dollar Vol. Traded (in Millions)	Median Yield (%), Investor Buys				
						All	Buys	Sells			1Y	3Y	5Y	10Y	20Y
1	NE	NOBLE HLDG INTL LTD	BBB	10	0.5	1,451	1,388	63	22	25	3.0	4.4	6.6	-	-
2	ESV	ENSCO PLC	BBB	7	0.2	636	605	31	20	15	1.5	-	4.0	5.0	-
3	CHRC	REVIVAL PENTE TABERNACLE	N/R	76	0.4	1,130	1,059	71	15	8	-	-	-	-	7.0
4	NBR	NABORS INDS INC	BBB	6	0.4	1,274	1,180	94	13	29	-	4.3	5.7	6.2	-
5	RIG	TRANSOCEAN INC	BBB	14	2.7	8,786	8,109	677	12	168	3.8	9.0	9.6	8.2	9.1
6	MUR	MURPHY OIL CORP	BBB	6	0.4	1,294	1,188	106	11	27	-	2.8	-	5.1	-
7	GNW	GENWORTH	BBB	11	1.1	3,645	3,288	357	9	69	-	5.7	7.4	7.7	7.9
8	CLR	CONTINENTAL RES INC	BBB	6	0.3	1,107	998	109	9	17	-	-	2.9	5.4	-
9	OKE	ONEOK INC NEW	BBB	5	0.3	1,082	972	110	9	14	-	-	-	-	6.3
10	IEP	ICAHN ENTERPRISES	BB	4	0.4	1,254	1,112	142	8	31	-	3.0	4.5	-	-
11	WFT	WEATHERFORD INTL LTD BERMUDA	BBB	12	0.4	1,325	1,150	175	7	26	4.1	5.5	6.6	-	7.9
12	FCX	FREEMPORT-MCMORAN COPPER & GOLD INC	BBB	18	0.7	2,215	1,907	308	6	49	-	2.4	3.7	4.9	6.0
13	AVP	AVON PRODUCTS	BB	7	0.7	2,358	2,023	335	6	36	3.0	6.7	8.1	7.5	-
14	LINE	Linn Energy, LLC	B	7	0.4	1,219	1,040	179	6	21	-	-	12.0	11.7	-
15	PSEC	PROSPECT CAPITAL CORPORATION	BBB	147	0.5	1,481	1,256	225	6	29	3.9	5.4	4.1	5.0	5.3
16	JCP	JC PENNEY	C	11	0.3	1,030	848	182	5	8	-	8.5	9.7	9.5	10.8
17	AMD	ADVANCED MICRO DEVICES	B	5	0.3	899	727	172	4	12	-	7.3	9.4	8.9	-
18	WMB	WILLIAMS COS INC	BBB	23	0.3	912	733	179	4	20	-	-	3.2	4.8	6.8
19	AMZN	AMAZON COM INC	A	8	0.3	849	675	174	4	20	0.6	1.3	2.1	2.9	4.1
20	ALLY	ALLY FINANCIAL	BB	57	0.2	775	600	175	3	19	1.6	3.2	3.7	4.6	5.4

Source: TRACE and Tradeweb Direct as of 1/30/2015.

- 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 issuer. Bond ratings are from Moody's and S&P.

\* Actual issue symbol will vary.

# Corporate Bonds: Top 20 Issuers with Lowest Buy/Sell Ratio

January 2015

	Issuer Reference*	Issuer Name	Rating	Issues Traded	% of Trades	Num of Trades			Buy/Sell Ratio	Dollar Vol. Traded (in Millions)	Median Yield (%), Investor Sells				
						All	Buys	Sells			1Y	3Y	5Y	10Y	20Y
1	DELL	DELL	BB	8	0.5	1,601	252	1,349	0.2	40.9	2.6	3.8	4.4	-	6.5
2	CLF	CLIFFS NATURAL RESOURCES	B	5	0.5	1,601	417	1,184	0.4	22.3	-	16.3	13.5	-	-
3	TWC	TIME WARNER	BBB	16	0.2	742	217	525	0.4	20.2	-	2.1	2.6	3.2	4.3
4	SD	Sandridge Energy, Inc.	B	4	0.2	751	224	527	0.4	7.4	-	-	19.8	16.6	-
5	MET	METLIFE	A	19	0.3	1,038	310	728	0.4	24.0	1.0	1.8	2.2	3.0	3.8
6	SCGL	SOCIETE GENERALE NEW YORK	A	90	0.2	798	249	549	0.5	19.5	-	-	-	-	4.3
7	CS	CREDIT SUISSE	A	223	0.5	1,674	545	1,129	0.5	25.0	0.8	2.3	2.7	3.3	-
8	AA	ALCOA	BBB	11	0.5	1,503	531	972	0.5	36.5	-	2.8	3.8	4.8	5.6
9	INTC	INTEL CORP	A	9	0.3	895	330	565	0.6	19.9	-	1.2	-	2.6	1.2
10	MSFT	MICROSOFT CORP	AAA	17	0.3	848	323	525	0.6	21.7	0.6	1.2	1.8	2.4	3.7
11	WMT	WAL-MART	AA	30	0.4	1,405	549	856	0.6	34.0	0.5	1.3	1.9	2.6	3.7
12	DB	DEUTSCHE BANK	A	155	0.3	1,022	402	620	0.6	21.2	1.2	1.5	2.1	3.2	-
13	UBS	UBS	A	183	0.2	754	302	452	0.7	28.0	1.5	2.2	3.7	4.0	-
14	CSCO	CISCO	AA	12	0.3	990	397	593	0.7	21.2	0.6	1.1	2.0	2.6	3.9
15	CMCS	COMCAST	A	38	0.4	1,296	526	770	0.7	33.9	0.8	1.4	2.1	2.8	3.7
16	USB	US BANCORP	A	22	0.2	666	271	395	0.7	14.5	1.4	1.6	1.8	2.9	-
17	AXP	AMERICAN EXPRESS	A	33	0.5	1,682	700	982	0.7	38.4	0.9	1.6	2.1	2.7	-
18	AIG	AIG	BBB	38	0.4	1,132	477	655	0.7	27.8	2.7	1.6	2.5	4.4	4.0
19	PEP	PEPSICO	A	32	0.4	1,226	519	707	0.7	29.9	0.7	1.5	2.1	2.8	4.0
20	DE	DEERE JOHN CAP CORP MEDIUM TERM NTS-BOOK	A	48	0.3	990	423	567	0.7	22.6	0.6	1.3	2.0	2.6	-

Source: TRACE and Tradeweb Direct as of 1/30/2015.

- 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 issuer. Bond ratings are from Moody's and S&P.

\* Actual issue symbol will vary.

# Corporate Bonds: Top 20 Most Bought Issues

January 2015

Issue	Issuer Reference*	Coupon	Maturity	Rating	Number of Trades			Dollar Vol. Traded (in Million)	Median Yield, %		Median Price		
					Buys	Sells	Total		Buyers	Sellers	Buyers	Sellers	
1	TRANSOCEAN INC	RIG	6.500	Nov-20	BBB	2,252	139	2,391	41.6	9.6	10.3	86.4	83.6
2	TRANSOCEAN INC	RIG	6.000	Mar-18	BBB	1,226	117	1,343	25.1	8.9	9.4	92.3	91.0
3	TRANSOCEAN INC	RIG	5.050	Dec-16	BBB	921	37	958	23.1	5.8	6.1	98.6	98.1
4	GENWORTH FINANCIAL INC	GNW	7.200	Feb-21	BBB	896	45	941	21.5	7.3	7.9	99.3	96.7
5	TRANSOCEAN INC	RIG	7.375	Apr-18	BBB	821	32	853	17.0	9.2	8.9	95.0	95.8
6	WELLS FARGO & COMPANY	WFC	5.875	Jan-49	BBB	804	10	814	25.0	-	-	103.5	102.8
7	AVON PRODS INC	AVP	4.200	Jul-18	BB	779	66	845	9.3	6.9	7.1	91.9	91.2
8	TRANSOCEAN INC	RIG	6.375	Dec-21	BBB	776	90	866	14.4	9.0	9.6	86.8	83.8
9	GENWORTH FINANCIAL INC	GNW	7.625	Sep-21	BBB	749	66	815	13.8	7.7	7.9	99.4	98.3
10	MURPHY OIL CORP	MUR	4.000	Jun-22	BBB	739	50	789	15.7	5.1	5.4	93.4	91.7
11	PENNEY J C INC	JCP	7.950	Apr-17	C	697	29	726	3.0	-	-	100.5	99.3
12	ONEOK INC	OKE	4.250	Feb-22	BBB	657	56	713	8.2	5.1	5.5	93.0	92.5
13	WACHOVIA CAP TR III	WFC	5.570	Mar-49	BBB	623	240	863	21.4	-	-	99.0	96.6
14	TRANSOCEAN INC	RIG	6.800	Mar-38	BBB	615	81	696	14.5	8.9	9.3	79.3	76.3
15	CITIGROUP INC	C	5.800	Oct-44	BB	569	31	600	17.4	-	-	101.8	99.8
16	TRANSOCEAN INC	RIG	7.500	Apr-31	BBB	564	36	600	10.2	9.5	9.6	83.5	83.1
17	AVON PRODS INC	AVP	4.600	Mar-20	BB	551	42	593	7.4	8.1	8.2	87.6	87.3
18	ADVANCED MICRO DEVICES INC	AMD	7.750	Aug-20	B	542	70	612	6.6	9.4	9.5	93.0	92.5
19	BANK OF AMERICA CORP	BAC	6.500	Oct-49	BB	531	17	548	16.1	-	-	104.6	102.5
20	WILLIAMS CLAYTON ENERGY INC	CWEI	7.750	Apr-19	B	519	33	552	5.2	11.5	12.0	87.8	86.4

Source: TRACE and Tradeweb Direct as of 1/30/2015.

- 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).

\* Actual issue symbol will vary.

# Corporate Bonds: Top 20 Most Sold Issues

January 2015

Issue	Issuer Reference*	Coupon	Maturity	Rating	Number of Trades			Dollar Vol. Traded (in Million)	Median Yield, %		Median Price		
					Buys	Sells	Total		Buyers	Sellers	Buyers	Sellers	
1	SPRINT CAP CORP	SFTBF	6.900	May-19	B	76	701	777	6.3	6.2	6.5	102.7	101.6
2	DELL INC	DELL	6.500	Apr-38	BB	41	618	659	15.7	6.4	6.5	101.3	99.5
3	APPLE INC	AAPL	2.400	May-23	AA	459	481	940	24.4	2.5	2.5	99.6	99.0
4	PETROBRAS INTL	PBR	5.375	Jan-21	BBB	412	357	769	20.2	6.7	6.9	93.5	92.8
5	PETROBRAS GLOBAL FINANCE B V	PBR	4.375	May-23	BBB	302	355	657	18.6	6.5	6.7	86.5	85.5
6	PETROBRAS INTL	PBR	3.875	Jan-16	BBB	303	351	654	14.4	5.1	5.3	98.8	98.6
7	SAFEWAY INC	SWY	7.250	Feb-31	B	436	347	783	20.2	7.0	7.2	102.1	100.0
8	CLIFFS NATURAL RESOURCES	CLF	4.875	Apr-21	B	51	334	385	5.3	12.5	12.9	67.7	66.5
9	SANDRIDGE ENERGY INC	SD	7.500	Mar-21	B	69	332	401	2.4	16.4	17.3	66.4	63.8
10	DELL COMPUTER CORP	DELL	7.100	Apr-28	BB	8	301	309	9.4	6.0	6.1	110.1	109.1
11	GENERAL ELECTRIC CO	GE	5.250	Dec-17	AA	103	290	393	6.1	1.2	1.3	111.4	111.1
12	SCIENCE APPLICATIONS	SAI	5.500	Jul-33	BBB	41	289	330	3.6	5.9	6.6	96.0	88.7
13	GOLDMAN SACHS GROUP INC	GS	6.150	Apr-18	BBB	117	277	394	6.4	2.0	2.0	112.9	112.6
14	GENERAL ELECTRIC CAPITAL CORPORATION	GE	4.000	Feb-33	AA	123	275	398	5.5	3.4	4.1	101.3	99.3
15	CLIFFS NATURAL RESOURCES	CLF	5.900	Mar-20	B	101	271	372	5.5	13.7	14.0	71.9	70.8
16	GENERAL ELEC CAP CORP MTN BE	GE	5.875	Jan-38	AA	62	245	307	5.5	3.9	4.0	129.8	128.8
17	PETROLEOS DE VENEZUELA	PDVA	6.000	May-24	N/R	128	245	373	3.1	-	-	34.8	30.7
18	WACHOVIA CAP TR III	WFC	5.570	Mar-49	BBB	623	240	863	21.4	-	-	99.0	96.6
19	WELLS FARGO & COMPANY	WFC	7.980	Feb-49	BBB	439	235	674	13.8	-	-	111.1	109.5
20	JPMORGAN CHASE & CO	JPM	7.900	Apr-49	BBB	470	225	695	13.8	-	-	108.3	107.6

Source: TRACE and Tradeweb Direct as of 1/30/2015.

- 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).

\* Actual issue symbol will vary.

# Appendix

## Maturity

We consider the following maturity ranges for maturity buckets. TTM is Time to Maturity in years.

1Y:	0.5 <= TTM <= 1.5
3Y:	2 <= TTM <= 4
5Y:	4 < TTM <= 6
10Y:	7.5 <= TTM <= 12.5
20Y:	15 <= TTM <= 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.
  - Corp 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 BBB 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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