

Market Transparency Report

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



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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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Treasury, Agency and CD

• Daily trade volume and median yields for Treasury increased in November, and Agency yields declined, while daily trade volume improved marginally. CD yields remained close to levels from the previous month and daily trade volume increase by 2%. In addition, the buy-to-sell ratio for Treasury and Agency rose in November and the ratio for CD did not see much change from October.

Corporate

• Yields and credit spreads for Corporate bonds remained close to October levels. However, the daily trade volume for Corporate bonds increased 6% and the buy-to-sell ratio climbed by 14%.

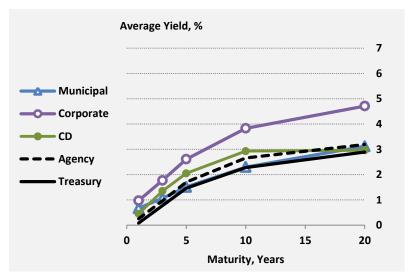
Municipal

• Municipal bond daily trade volumes grew 4% compared to the previous month. Additionally, the buyto-sell ratio increased to 2.1% and the median yield and credit spreads for Municipal bonds saw and uptick in November.



Yield Matrix

Average Yield, %		Asset		Mat	Median			
Nov-14		Class	1	3	5	10	20	Maturity, Years
		Treasury	0.1	0.8	1.5	2.3	2.9	0.9
		Agency	0.3	1.0	1.7	2.7	3.2	3
		CD	0.5	1.4	2.1	2.9	3.0	1.9
	·	Corporate	1.0	1.8	2.6	3.8	4.7	6
		Municipal	0.7	1.1	1.5	2.3	3.1	14
				Mat	urity, Y	ears		Median
Asset Class		Rating	1	3	5	10	20	Maturity, Years
		AAA	-	-	-	-	-	-
		AA	0.5	1.4	2.2	3.1	4.4	5
	Financial	Α	0.7	1.5	2.2	3.4	4.3	5
		BBB	0.9	1.8	2.6	4.1	5.5	10
Corporato		High Yield	1.8	3.1	4.0	4.7	6.8	4
Corporate		AAA	0.3	-	1.9	2.7	3.8	6
	New	AA	0.4	1.4	1.8	2.7	4.0	5
	Non- Financial	Α	0.6	1.7	2.3	3.5	4.1	5
	Financiai	BBB	0.8	1.9	3.1	4.4	5.9	8
		High Yield	2.0	5.5	6.4	6.3	8.8	12
		AAA	0.5	0.7	1.1	1.9	2.6	11
	Comonal	AA	0.5	0.9	1.3	2.1	3.1	11
	General Obligation	Α	0.7	1.1	1.5	2.3	3.2	10
	obligation	BBB	2.2	1.5	2.4	3.1	3.8	8
Municipal		High Yield	10.1	9.5	8.4	8.7	8.4	17
Municipal		AAA	0.5	0.8	1.3	2.1	2.6	12
	·	AA	0.5	0.9	1.4	2.1	2.9	15
	Revenue	Α	0.7	1.1	1.6	2.4	3.2	20
		BBB	1.2	1.7	2.3	3.2	3.4	19
		High Yield	12.2	14.7	14.3	9.5	7.3	16



Source: TRACE, MSRB and Tradeweb Direct as of 11/28/2014.

- 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



Agency



DJFMAMJJASON

'13'14



Source: TRACE and Tradeweb Direct as of 11/28/2014.

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.



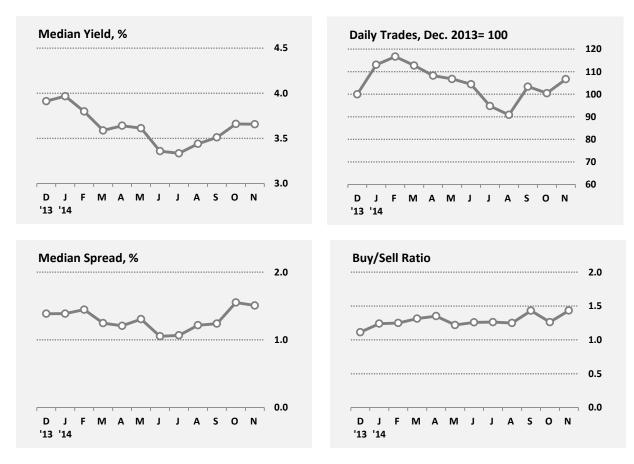
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Corporate Bonds: Odd-Lot Customer Transaction Trend Summary

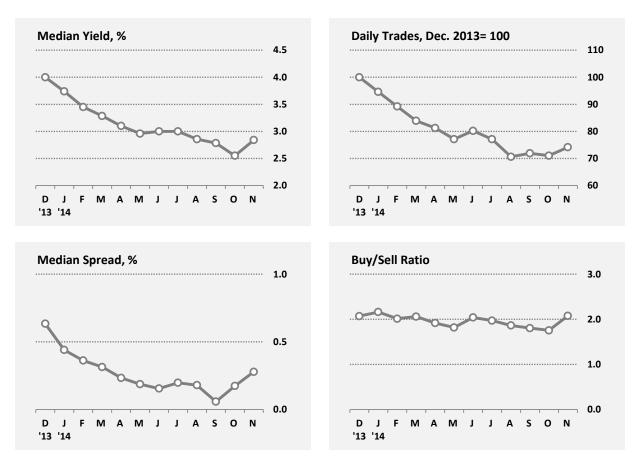


Source: TRACE and Tradeweb Direct as of 11/28/2014.

- 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: MSRB and Tradeweb Direct as of 11/28/2014.

- 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

November 2014

	lssuer	* Issuer Name		lssues Traded	% of	of Num of	Buy/Sell	Dollar Vol.	Median Yield (%), Investor Buys					
			Rating		7 Trades	Trades	Ratio	Traded (in Millions)	1Y	3Y	5Y	10Y	20Y	
1	BAC	BANK OF AMERICA	BBB	602	4.1	11,748	1.0	215	0.9	1.9	2.6	4.2	3.4	
2	GS	GOLDMAN SACHS	BBB	660	3.4	9,585	1.1	217	0.9	2.0	2.6	3.7	4.7	
3	JPM	JP MORGAN CHASE	Α	464	3.3	9,422	1.5	196	0.8	1.7	2.4	3.6	6.0	
4	GE	GENERAL ELECTRIC	AA	468	2.8	8,140	1.0	178	0.6	1.5	2.4	3.2	4.1	
5	PBR	PETROBRAS	BBB	24	2.5	7,082	1.1	197	2.9	3.8	4.7	5.6	-	
6	С	CITIGROUP	BBB	281	2.3	6,499	1.7	163	1.1	1.6	2.4	3.9	4.6	
7	MS	MORGAN STANLEY	BBB	572	2.0	5,841	0.9	136	1.0	1.9	2.4	3.8	1.4	
8	RIG	TRANSOCEAN INC	BBB	14	2.0	5,750	11.4	127	1.9	3.2	6.0	5.3	7.4	
9	GNW	GENWORTH	BBB	11	1.8	5,084	3.0	115	0.9	5.2	6.5	6.3	7.2	
10	WFC	WELLS FARGO	Α	172	1.7	4,906	1.5	112	0.4	1.5	2.1	3.5	3.2	
11	VZ	VERIZON	BBB	69	1.6	4,529	1.7	90	0.6	2.0	2.7	3.5	4.6	
12	т	AT&T	Α	61	1.2	3,436	1.4	76	0.6	1.8	2.2	3.4	5.2	
13	CLF	CLIFFS NATURAL RESOURCES	BB	5	0.9	2,453	0.6	38	-	11.8	12.0	-	-	
14	нвс	HSBC	Α	414	0.8	2,415	0.8	84	0.7	1.8	2.9	3.6	4.9	
15	BRK	BERKSHIRE HATHAWAY	AA	112	0.8	2,361	1.4	58	0.5	1.5	3.4	3.1	4.3	
16	BCS	BARCLAYS	Α	414	0.8	2,318	0.8	52	0.8	1.8	2.7	3.5	3.8	
17	CTL	CENTURYLINK	BB	33	0.8	2,212	1.1	49	-	2.1	4.1	5.1	7.0	
18	HPQ	HEWLETT PACKARD	BBB	20	0.8	2,211	0.9	51	0.9	1.7	3.0	3.7	-	
19	AAPL	APPLE INC	AA	13	0.7	2,130	2.0	54	0.5	1.5	1.9	2.9	-	
20	SWY	SAFEWAY	BBB	7	0.7	2,104	3.8	51	-	2.2	4.2	-	7.2	

Source: TRACE and Tradeweb Direct as of 11/28/2014.

- 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

November 2014

	laavon	* Issuer Name		lssues Traded	% of	Num of Trades			– Buy/Sell	Dollar Vol.	Median Yield (%), Investor Buys				
	Issuer Reference*		Rating		7 or Trades	All	Buys	Sells	Ratio	Traded (in Millions)	1Y	3Y	5Y	10Y	20Y
1	CHRC	REVIVAL PENTE TABERNACLE	N/R	60	0.5	1,304	1,241	63	20	10	-	-	-	-	7.0
2	KGC	KINROSS GOLD CORP	BBB	4	0.3	826	765	61	13	18	-	-	-	-	-
3	RIG	TRANSOCEAN INC	BBB	14	2.0	5,750	5,286	464	11	127	1.9	3.2	6.0	5.3	7.4
4	KLAC	KLA-TENCOR CORP	BBB	6	0.3	826	754	72	10	17	-	2.0	3.0	4.4	5.5
5	AGN	ALLERGAN INC	А	4	0.4	1,166	1,036	130	8	26	1.0	2.3	3.7	4.3	-
6	IEP	ICAHN ENTERPRISES	BB	4	0.4	1,015	893	122	7	27	-	2.9	4.2	-	-
7	ОХҮ	OCCIDENTAL PETE CORP	Α	11	0.2	622	538	84	6	13	0.8	1.1	-	3.2	-
8	MUR	MURPHY OIL CORP	BBB	6	0.2	587	505	82	6	12	-	2.0	-	4.2	-
9	EBAY	EBAY INC	Α	11	0.3	981	830	151	5	26	0.6	1.5	2.5	3.5	-
10	AMD	ADVANCED MICRO DEVICES	В	5	0.3	822	691	131	5	15	-	-	8.4	8.8	-
11	LINE	Linn Energy, LLC	В	7	0.4	1,207	1,014	193	5	26	-	-	9.0	7.7	-
12	EMC	EMC CORP	Α	3	0.3	735	596	139	4	16	-	1.9	2.6	3.4	-
13	STI	SUNTRUST BKS INC	BB	25	0.4	1,015	817	198	4	29	0.8	1.9	2.3	4.1	-
14	SWY	SAFEWAY	BBB	7	0.7	2,104	1,670	434	4	51	-	2.2	4.2	-	7.2
15	DTEGF	Deutsche Telekom AG	BB	17	0.3	805	637	168	4	29	1.0	2.8	4.0	5.7	4.6
16	NEM	NEWMONT MINING	BBB	6	0.3	1,000	791	209	4	21	-	1.2	3.2	-	6.4
17	AGO	ASSURED GTY U S HLDGS INC	Α	3	0.3	764	596	168	4	14	-	-	-	4.4	5.7
18	AMT	AMERICAN TOWER CORP NEW	BBB	11	0.2	591	459	132	3	14	-	2.2	2.8	4.0	-
19	ALLY	ALLY FINANCIAL	BB	51	0.3	770	588	182	3	19	1.4	2.6	4.1	4.6	5.5
20	WAG	WALGREEN CO	BBB	12	0.2	589	449	140	3	14	-	1.6	2.3	3.2	4.3

Source: TRACE and Tradeweb Direct as of 11/28/2014.

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- 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.



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

November 2014

	lssuer			lssues Traded	% of -	Num of Trades			— Buy/Sell	Dollar Vol.	Median Yield (%), Investor Sells				
		Issuer Name	Rating		Trades	All	Buys	Sells	Ratio	Traded (in Millions)	1Y	3Y	5Y	10Y	20Y
1	вмо	BANK OF MONTREAL	AA	24	0.2	597	125	472	0.3	14.2	0.5	1.7	2.1	3.1	4.1
2	DELL	DELL	В	8	0.3	785	224	561	0.4	17.8	2.8	3.8	4.5	-	7.2
3	тwс	TIME WARNER	BBB	16	0.2	598	179	419	0.4	14.0	-	2.1	2.7	3.6	4.9
4	AA	ALCOA	BBB	11	0.4	1,277	392	885	0.4	32.4	-	2.8	3.7	5.0	5.7
5	MET	METLIFE	Α	19	0.3	790	274	516	0.5	16.5	0.9	2.0	2.2	3.3	4.2
6	CLF	CLIFFS NATURAL RESOURCES	BB	5	0.9	2,453	873	1,580	0.6	37.9	-	13.7	13.3	-	-
7	AIG	AIG	BBB	40	0.4	1,229	458	771	0.6	29.3	2.9	1.8	2.7	3.4	4.5
8	X	US STEEL	В	6	0.2	652	243	409	0.6	14.2	-	3.3	5.1	-	7.1
9	UBS	UBS	Α	198	0.3	849	348	501	0.7	17.6	1.6	2.0	2.5	3.6	-
10	RY	ROYAL BANK OF CANADA	AA	206	0.4	1,239	532	707	0.8	26.1	0.7	1.4	2.0	3.4	4.2
11	CMCS	COMCAST	Α	38	0.4	1,202	517	685	0.8	27.0	0.8	1.6	2.4	3.2	4.3
12	АХР	AMERICAN EXPRESS	Α	36	0.6	1,617	706	911	0.8	35.2	0.7	1.8	2.3	3.1	-
13	CVS	CVS CAREMARK CORP	BBB	17	0.3	764	336	428	0.8	15.2	-	2.0	2.4	3.4	-
14	BCS	BARCLAYS	Α	414	0.8	2,318	1,027	1,291	0.8	52.3	2.1	2.4	3.2	4.8	4.2
15	НВС	HSBC	Α	414	0.8	2,415	1,104	1,311	0.8	83.6	1.2	2.3	3.2	4.7	4.7
16	MS	MORGAN STANLEY	BBB	572	2.0	5,841	2,694	3,147	0.9	136.4	1.0	1.6	2.8	4.0	2.6
17	SLM	SLM CORP	BB	176	0.4	1,128	522	606	0.9	24.8	2.8	4.3	5.2	5.9	7.9
18	DB	DEUTSCHE BANK	Α	127	0.3	999	470	529	0.9	19.8	1.0	1.6	2.2	3.6	-
19	HPQ	HEWLETT PACKARD	BBB	20	0.8	2,211	1,049	1,162	0.9	51.4	1.0	1.8	2.7	3.9	-
20	DTV	DIRECTV Holdings LLC	BBB	15	0.2	615	297	318	0.9	13.8	1.0	1.5	2.9	3.9	-

Source: TRACE and Tradeweb Direct as of 11/28/2014.

- 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.



Corporate Bonds: Top 20 Most Bought Issues

November 2014

		Issuer	• Coupon	Maturity	Rating	Numb	per of T	rades	Dollar Vol.	Median Yield, %		Median Pric	
	Issue	Reference*				Buys	Sells	Total	Traded (in Million)	Buys	Sells	Buys	Sells
1	TRANSOCEAN INC	RIG	6.500	Nov-20	BBB	1,900	67	1,967	42.4	6.0	6.2	102.6	101.3
2	TRANSOCEAN INC	RIG	6.800	Mar-38	BBB	1,834	85	1,919	43.0	7.4	7.7	93.6	90.1
3	CITIGROUP INC	C	5.800	Oct-44	BB	937	22	959	28.8	-	-	101.6	100.1
4	BANK OF AMERICA CORP	BAC	4.200	Aug-24	BBB	786	30	816	12.4	4.2	4.1	100.3	100.6
5	SAFEWAY INC	SWY	7.250	Feb-31	BBB	770	210	980	24.0	7.2	7.4	100.2	98.5
6	GENWORTH FINANCIAL INC	GNW	7.625	Sep-21	BBB	699	171	870	22.8	6.8	7.2	104.7	102.5
7	SUNTRUST BANKS INC	STI	5.625	Nov-49	BB	673	23	696	22.2	-	-	101.8	100.4
8	GENWORTH FINL INC	GNW	7.700	Jun-20	BBB	664	201	865	20.6	6.5	6.9	105.4	103.9
9	GENWORTH FINL INC	GNW	6.515	May-18	BBB	642	454	1,096	22.9	5.4	5.7	103.6	102.5
10	PETROBRAS GLOBAL FINANCE B V	PBR	4.375	May-23	BBB	630	563	1,193	34.3	5.4	5.6	93.0	91.8
11	JPMORGAN CHASE & CO	JPM	7.900	Apr-49	BBB	598	194	792	13.4	-	-	108.8	108.2
12	PETROBRAS INTL	PBR	5.375	Jan-21	BBB	596	854	1,450	35.4	5.4	5.8	100.0	98.0
13	CITIGROUP INC	C	10.000	Nov-34	А	550	0	550	13.0	-	-	98.8	-
14	APPLE INC	AAPL	2.400	May-23	AA	531	295	826	21.7	2.9	2.9	96.5	96.2
15	ASSURED GTY US HLDGS INC	AGO	5.000	Jul-24	Α	510	123	633	11.8	4.4	4.4	104.6	104.3
16	GENWORTH FINL INC	GNW	6.500	Jun-34	BBB	496	73	569	10.8	7.2	7.5	92.5	90.0
17	ALLERGAN INC	AGN	3.375	Sep-20	Α	490	52	542	12.7	3.7	3.4	98.5	100.0
18	JPMORGAN CHASE & CO	JPM	5.000	Jan-49	BBB	482	29	511	11.3	-	-	98.5	98.0
19	GENWORTH FINANCIAL INC	GNW	7.200	Feb-21	BBB	481	167	648	16.4	6.6	7.0	103.2	100.7
20	LINN ENERGY LLC	LINE	8.625	Apr-20	В	470	45	515	10.8	9.4	10.4	96.6	92.6

Source: TRACE and Tradeweb Direct as of 11/28/2014.

- 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

November 2014

		Issuer		Maturity		Numb	per of T	rades	Dollar Vol.	Median Yield, %		Median Price	
	Issue	Reference*	Coupon		Rating	Buys	Sells	Total	Traded (in Million)	Buys	Sells	Buys	Sells
1	PETROBRAS INTL	PBR	5.375	Jan-21	BBB	596	854	1,450	35.4	5.4	5.8	100.0	98.0
2	PETROBRAS GLOBAL FINANCE B V	PBR	4.375	May-23	BBB	630	563	1,193	34.3	5.4	5.6	93.0	91.8
3	CLIFFS NATURAL RESOURCES	CLF	4.800	Oct-20	BB	154	459	613	7.7	11.6	12.7	71.6	68.0
4	GENWORTH FINL INC	GNW	6.515	May-18	BBB	642	454	1,096	22.9	5.4	5.7	103.6	102.5
5	RADIATION THERAPY SVCS INC	RTSX	8.875	Jan-17	С	22	428	450	4.6	8.1	9.0	101.0	99.9
6	HEWLETT PACKARD CO	HPQ	2.750	Jan-19	BBB	165	418	583	11.8	2.6	2.7	100.7	100.2
7	CLIFFS NAT RES INC	CLF	6.250	Oct-40	BB	161	414	575	8.1	9.4	10.5	69.4	62.4
8	ANGLOGOLD ASHANTI HLDGS FIN PL	AU	8.500	Jul-20	BBB	211	405	616	12.6	6.5	6.7	108.0	107.3
9	PLAINS EXPL& PRODTN CO	FCX	6.125	Jun-19	BBB	13	361	374	4.6	2.0	2.4	109.3	108.7
10	COLT DEFENSE LLC	CDFA	8.750	Nov-17	С	106	344	450	3.9	35.3	43.2	53.1	45.0
11	ELIZABETH ARDEN INC	RDEN	7.375	Mar-21	В	240	330	570	9.1	8.2	8.7	95.9	93.8
12	CLIFFS NATURAL RESOURCES	CLF	4.875	Apr-21	BB	99	312	411	6.8	11.1	12.1	72.1	68.7
13	APPLE INC	AAPL	2.400	May-23	AA	531	295	826	21.7	2.9	2.9	96.5	96.2
14	VERIZON COMMUNICATIONS INC	VZ	5.150	Sep-23	BBB	219	279	498	8.9	3.6	3.7	111.3	111.2
15	GENERAL ELECTRIC CO	GE	5.250	Dec-17	AA	134	274	408	7.5	1.5	1.5	111.3	111.0
16	MORGAN STANLEY	MS	4.750	Mar-17	BBB	82	257	339	6.6	1.5	1.6	107.4	107.2
17	CENTURYLINK INC	CTL	5.800	Mar-22	BB	85	257	342	7.3	4.9	5.0	105.7	105.0
18	JPMORGAN CHASE & CO	JPM	4.400	Jul-20	Α	107	243	350	6.4	2.8	2.8	108.5	108.5
19	PETROBRAS GLOBAL FINANCE B V	PBR	3.000	Jan-19	BBB	220	228	448	12.7	4.2	4.6	95.4	94.1
20	PETROBRAS INTL FIN CO	PBR	3.500	Feb-17	BBB	142	224	366	9.7	3.7	4.0	99.6	98.9

Source: TRACE and Tradeweb Direct as of 11/28/2014.

- 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 <= TTM <= 1.5</td>

 3Y:
 2 <= TTM <= 4</td>

 5Y:
 4 < TTM <= 6</td>

 10Y:
 7.5 <= TTM <= 12.5</td>

 20Y:
 15 <= TTM <= 25</td>

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

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