

Quarterly Statistical Summaries

2018 Third Quarter: July - September

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About the Quarterly Statistical Summaries

The MSRB's quarterly statistical summaries include aggregate municipal market information for the most recent quarter and cover different types of municipal issues, trades and interest rate resets. The MSRB publishes this information to regularly update certain data published annually in the MSRB Fact Book with the goal of providing market participants with historical statistics that can be further analyzed, studied and reviewed.

The quarterly summaries reflect aggregate trading activity at the end of each trading day as submitted to the MSRB's Real-Time Transaction Reporting System (RTRS).¹ The MSRB obtains some information on the characteristics of securities traded from Standard & Poor's Financial Services LLC and CUSIP databases furnished by the CUSIP Service Bureau.² Additionally, the quarterly data includes the number of interest rate resets for variable rate demand obligations and auction rate securities, as well as the statistics related to continuing disclosure documents received through the MSRB's Electronic Municipal Market Access (EMMA[®]) website.

For additional data on municipal trading activity, interest rate resets, and continuing and primary market disclosures, please see the MSRB's 2017 Fact Book or visit the EMMA website at emma.msrb.org.

¹ As described in an MSRB Rule G-14 interpretive notice from January 2, 2008 (Reporting of Transactions in Certain Special Trading Situations), some transactions are subject to special conditions indicating that they are not a typical arms-length transaction and possibly a misleading indicator of the market value of a security. These transactions may be excluded from the MSRB's transparency products, including data disseminated through EMMA, but may be included in this report.

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Highlights

Municipal Market Trade Summary

Par amount traded in the municipal securities market totaled \$743.3 billion in 2018:Q3. Third quarter par volume was down 8.9 percent from the \$815.8 billion in 2018:Q2 but up 12.5 percent from 2017:Q3. Total number of trades decreased by 7.7 percent to 2.4 million trades compared to the previous quarter, but up 4.6 percent from the 2.3 million trades in 2017:Q3.

Most Actively Traded Municipal Securities

A revenue anticipation note from the State of Texas was the most actively traded security with \$6.8 billion and 2,135 trades in 2018:Q3.

Municipal Market Trades by Trade Type

Customer buying activity increased to an average daily par amount of \$6 billion in 2018:Q3, compared to \$5.4 billion in the same period last year. The average daily number of trades of customer purchases totaled 15,067 in 2018:Q3, compared to 14,496 trades in 2017:Q3.

A daily average of \$403.5 million, or 6.7 percent of customer purchases of trades of \$100,000 or less, occurred in 2018:Q3, compared to \$386.9 billion, or 7.2 percent of all customer purchases, in 2017:Q3.

Municipal Market Variable Securities Rate Resets

The number of variable rate demand obligations rate resets declined to 92,707 in 2018:Q3, compared to the 102,475 rate resets in 2017:Q3.

The number of auction rate securities rate resets totaled 1,270 in 2018:Q3 compared to 1,771 resets in 2017:Q3.

Municipal Market Disclosures

The number of continuing disclosure documents received by the MSRB totaled 27,901 in 2018:Q3, compared to 30,405 documents in the same period of 2017.

Municipal Market Trade Summary

Transaction Summary

Total par amount traded in \$ millions

2018:Q3	
Total	743,309.5
By Trade Type	
Customer Bought	379,555.6
Customer Sold	237,204.6
Inter-Dealer	126,549.3
By Coupon Type	
Fixed Rate	432,283.8
Variable Rate	249,708.0
Zero Coupon	16,160.9
Other ¹	45,156.8
By Source of Repayment	
General Obligation	187,421.8
Revenue	505,832.8
Double Barrel	14,760.3
Other ¹	35,294.6
By Tax Status	
Tax Exempt	611,531.7
Taxable	49,661.8
AMT	45,165.0
Other ¹	36,951.1

¹ Includes municipal commercial paper and issues that could not be categorized based on available data.

Municipal Market Trade Summary

Transaction Summary

Total number of trades

	2018:Q3
Total	2,400,376

By Trade Type

Customer Bought	949,252
Customer Sold	524,608
Inter-Dealer	926,516

By Coupon Type

Fixed Rate	2,258,420
Variable	80,431
Zero Coupon	56,865
Other ¹	4,660

By Source of Repayment

General Obligation	897,916
Revenue	1,416,036
Double Barrel	82,873
Other ¹	3,551

By Tax Status

Tax Exempt	2,221,328
Taxable	141,970
AMT	33,146
Other ¹	3,932

¹ Includes municipal commercial paper and issues that could not be categorized based on available data.

Most Actively Traded Municipal Securities

Top 50 Most Active Securities, 2018:Q3

By par amount

Rank	CUSIP ¹	Issuer Name	Coupon	Maturity	Par Amount (\$ Millions)	Number of Trades
1	882724GP6	TEXAS ST	4.00	8/29/2019	6,783.0	2,135
2	270777AC9	EAST BATON ROUGE PARISH LA INC INDL DEV BRD REV	-	8/1/2035	3,647.9	198
3	60528AAS3	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	-	12/1/2030	3,330.3	137
4	402207AD6	GULF COAST INDL DEV AUTH TEX REV	-	11/1/2041	2,937.9	293
5	544351NT2	LOS ANGELES CALIF	4.00	6/27/2019	1,855.3	1,364
6	270777AD7	EAST BATON ROUGE PARISH LA INC INDL DEV BRD REV	-	12/1/2040	1,768.6	88
7	71884SAA8	PHOENIX ARIZ INDL DEV AUTH HEALTH CARE FACS REV	-	11/15/2052	1,645.3	146
8	54834RAC3	LOWER NECHES VALLEY AUTH TEX INDL DEV CORP EXEMPT FACS REV	-	2/1/2031	1,458.1	42
9	64966LCJ8	NEW YORK N Y	-	8/1/2038	1,458.1	216
10	64986ML29	NEW YORK ST HSG FIN AGY REV	-	5/1/2041	1,414.4	75
11	64966KTD5	NEW YORK N Y	-	3/1/2042	1,368.9	82
12	13063BCH3	CALIFORNIA ST	-	5/1/2033	1,352.7	108
13	548351AC9	LOWER NECHES VALLEY AUTH TEX INDL DEV CORP REV	-	11/1/2038	1,330.1	174
14	467229AF7	JACKSON CNTY MISS PORT FAC REV	-	6/1/2023	1,320.9	107
15	74514LE86	PUERTO RICO COMWLTH	8.00	7/1/2035	1,254.9	532
16	87638QBF5	TARRANT CNTY TEX CULTURAL ED FACS FIN CORP HOSP REV	-	10/1/2041	1,254.0	122
17	57586CV69	MASSACHUSETTS ST HEALTH & EDL FACS AUTH REV	-	12/1/2037	1,193.4	80
18	882854Q70	TEXAS WTR DEV BRD REV	5.00	4/15/2049	1,189.4	70
19	915137T60	UNIVERSITY TEX UNIV REVS	-	8/1/2034	1,168.6	75
20	13048TGT4	CALIFORNIA MUN FIN AUTH REV	-	11/1/2035	1,118.9	208
21	882724DQ7	TEXAS ST	4.00	8/30/2018	1,087.7	344
22	373385CW1	GEORGIA ST	3.25	7/1/2037	1,072.9	741
23	59266TPD7	METROPOLITAN WTR DIST SOUTHN CALIF WTRWKS REV	-	7/1/2037	1,061.0	55
24	64972F6V3	NEW YORK N Y CITY MUN WTR FIN AUTH WTR & SWR SYS REV	-	6/15/2045	1,039.9	92
25	91425MDV6	UNIVERSITY DEL REV	-	11/1/2037	1,028.8	65
26	546398YU6	LOUISIANA PUB FACS AUTH REV	-	8/1/2043	1,023.6	81
27	130534XX3	CALIFORNIA POLLUTN CTL FING AUTH POLLUTN CTL REV	-	11/1/2026	994.7	153
28	91412GSJ5	UNIVERSITY CALIF REVS	-	5/15/2048	977.1	189
29	74440DBD5	KENTUCKY INC KY PUB ENERGY AUTH GAS SUPPLY REV	4.00	1/1/2049	963.2	41
30	040507QA6	ARIZONA HEALTH FACS AUTH REV	-	1/1/2046	962.8	160
31	821697K99	SHELBY CNTY TENN HEALTH EDL & HSG FACS BRD REV	-	6/1/2042	954.4	87
32	64966JE77	NEW YORK N Y	-	4/1/2042	931.4	232
33	60528AAT1	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	-	12/1/2030	926.2	94
34	70342PAK0	PATRIOTS ENERGY GROUP FING AGY S C GAS SUPPLY REV	4.00	10/1/2048	920.6	119
35	821697L23	SHELBY CNTY TENN HEALTH EDL & HSG FACS BRD REV	-	6/1/2042	895.9	62
36	533485BD9	LINCOLN CNTY WYO POLLUTN CTL REV	-	10/1/2044	886.3	43
37	31350ACC0	FEDERAL HOME LN MTG CORP MULTIFAMILY VAR RATE CTFS RELATING TO MUN SECS	-	7/15/2058	886.2	12
38	644614RZ4	NEW HAMPSHIRE HEALTH & ED FACS AUTH REV	-	6/1/2041	884.3	90
39	60528AAW4	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	-	12/1/2030	882.2	55
40	64972F6T8	NEW YORK N Y CITY MUN WTR FIN AUTH WTR & SWR SYS REV	-	6/15/2045	880.2	100
41	64972F2H8	NEW YORK N Y CITY MUN WTR FIN AUTH WTR & SWR SYS REV	-	6/15/2044	865.8	89
42	414009AT7	HARRIS CNTY TEX CULTURAL ED FACS FIN CORP REV	-	12/1/2024	845.3	179
43	45203HYZ9	ILLINOIS FIN AUTH REV	-	12/1/2034	820.7	44
44	903592AQ6	UINTA CNTY WYO POLLUTION CTL REV	-	8/15/2020	815.9	81
45	73358WX90	PORT AUTH N Y & N J	4.03	9/1/2048	809.4	151
46	919061BU4	VALDEZ ALASKA MARINE TERM REV	-	10/1/2025	802.5	60
47	130534XA3	CALIFORNIA POLLUTN CTL FING AUTH POLLUTN CTL REV	-	11/1/2026	793.5	105
48	13062RG77	CALIFORNIA ST	-	5/1/2040	787.6	77
49	60528ABY9	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	-	11/1/2035	785.2	95
50	64971XFY9	NEW YORK N Y CITY TRANSITIONAL FIN AUTH REV	-	8/1/2045	767.8	81

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Most Actively Traded Municipal Securities

Top 50 Most Active Securities, 2018:Q3

By number of trades

Rank	CUSIP ¹	Issuer Name	Coupon	Maturity	Par Amount (\$ Millions)	Number of Trades
1	882724GP6	TEXAS ST	4.00	8/29/2019	6,783.0	2,135
2	956622N91	WEST VIRGINIA ST HOSP FIN AUTH HOSP REV	4.00	6/1/2051	358.9	1,524
3	01728A3Z7	ALLEGHENY CNTY PA HOSP DEV AUTH REV	4.00	4/1/2044	634.6	1,453
4	70914PN32	PENNSYLVANIA ST	3.75	3/1/2039	117.0	1,386
5	544351NT2	LOS ANGELES CALIF	4.00	6/27/2019	1,855.3	1,364
6	64972HS94	NEW YORK N Y CITY TRANSITIONAL FIN AUTH BLDG AID REV	3.50	7/15/2047	146.9	1,153
7	803301DK3	SARASOTA CNTY FLA PUB HOSP DIST HOSP REV	4.00	7/1/2048	372.4	1,113
8	74529JAC9	PUERTO RICO SALES TAX FING CORP SALES TAX REV	6.05	8/1/2036	222.7	918
9	047870QR4	ATLANTA GA WTR & WASTEWTR REV	3.50	11/1/2043	189.9	867
10	59447TMQ3	MICHIGAN FIN AUTH REV	4.00	11/15/2046	105.9	862
11	650010AD3	NEW YORK ST TWY AUTH GEN REV JR INDBT OBLIGS	5.00	5/1/2019	418.7	817
12	249182LP9	DENVER COLO CITY & CNTY ARPT REV	4.00	12/1/2048	404.0	792
13	56042RQY1	MAINE HEALTH & HIGHER EDL FACS AUTH REV	4.00	7/1/2048	100.6	779
14	373385CW1	GEORGIA ST	3.25	7/1/2037	1,072.9	741
15	97671VAK1	WISCONSIN HEALTH & EDL FACS AUTH SR LIVING REV	4.00	7/1/2048	86.5	736
16	373385CS0	GEORGIA ST	3.00	7/1/2033	90.8	732
17	64966MA33	NEW YORK N Y	3.50	4/1/2046	56.9	716
18	74529JGP4	PUERTO RICO SALES TAX FING CORP SALES TAX REV	6.35	8/1/2039	229.9	705
19	74529JLM5	PUERTO RICO SALES TAX FING CORP SALES TAX REV	5.25	8/1/2041	332.9	691
20	745160RC7	PUERTO RICO COMWLTH AQUEDUCT & SWR AUTH REV	5.25	7/1/2042	245.7	672
21	60637AMW9	MISSOURI ST HEALTH & EDL FACS AUTH HEALTH FACS REV	4.00	11/15/2048	39.3	663
22	74514LB89	PUERTO RICO COMWLTH	5.00	7/1/2041	368.3	643
23	914724BQ1	UNIVERSITY N D CTFB PARTN	4.00	4/1/2057	89.6	641
24	74529JHN8	PUERTO RICO SALES TAX FING CORP SALES TAX REV	6.00	8/1/2042	272.6	633
25	64971XFX1	NEW YORK N Y CITY TRANSITIONAL FIN AUTH REV	3.50	8/1/2043	61.9	612
26	6582563U4	NORTH CAROLINA ST	3.00	6/1/2034	55.1	609
27	70914PM90	PENNSYLVANIA ST	4.00	3/1/2037	79.6	597
28	97671VAL9	WISCONSIN HEALTH & EDL FACS AUTH SR LIVING REV	4.13	7/1/2053	68.6	562
29	452151LF8	ILLINOIS ST	5.10	6/1/2033	735.8	561
30	342816Q32	FLORIDA ST MUN PWR AGY REV	3.00	10/1/2029	53.3	559
31	429326C33	HIDALGO CNTY TEX	4.00	8/15/2043	122.3	554
32	017357E83	ALLEGHENY CNTY PA SAN AUTH SWR REV	4.00	6/1/2048	116.8	551
33	20772KEC9	CONNECTICUT ST	4.00	9/15/2036	91.1	546
34	546395S54	LOUISIANA PUB FACS AUTH HOSP REV	4.00	6/1/2045	86.4	541
35	74514LE86	PUERTO RICO COMWLTH	8.00	7/1/2035	1,254.9	532
36	359023CX4	FRONT ROYAL & WARREN CNTY VA INDL DEV AUTH REV	3.75	1/1/2046	51.1	532
37	646136U66	NEW JERSEY ST TRANSN TR FD AUTH	4.25	6/15/2044	24.0	529
38	70917S2R3	PENNSYLVANIA ST HIGHER EDL FACS AUTH REV	3.75	6/15/2043	44.0	526
39	745235R37	PUERTO RICO PUB BLDGS AUTH REV GTD	5.25	7/1/2042	202.6	521
40	13063A7G3	CALIFORNIA ST	6.20	10/1/2019	147.8	514
41	34074GDH4	FLORIDA HURRICANE CATASTROPHE FD FIN CORP REV	3.00	7/1/2020	183.8	513
42	74526QKX9	PUERTO RICO ELEC PWR AUTH PWR REV	5.00	7/1/2037	162.0	508
43	626207YS7	MUNICIPAL ELEC AUTH GA	7.06	4/1/2057	73.8	508
44	13063A5G5	CALIFORNIA ST	7.55	4/1/2039	296.0	508
45	57582RSH0	MASSACHUSETTS ST	3.50	5/1/2038	40.7	507
46	660393S67	NORTH LAS VEGAS NEV	4.00	6/1/2041	90.9	499
47	664482GT7	NORTHEASTERN OHIO LOC SCH DIST CLARK CNTY	4.00	12/1/2055	90.9	486
48	64971XHQ4	NEW YORK N Y CITY TRANSITIONAL FIN AUTH REV	4.00	8/1/2038	137.3	481
49	74529JKK0	PUERTO RICO SALES TAX FING CORP SALES TAX REV	5.38	8/1/2039	229.2	476
50	74526QXT4	PUERTO RICO ELEC PWR AUTH PWR REV	6.13	7/1/2040	165.6	473

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Most Actively Traded Municipal Securities

Top 50 Most Active Fixed Rate¹ Securities, 2018:Q3

By par amount

Rank	CUSIP ²	Issuer Name	Coupon	Maturity	Par Amount (\$ Millions)	Number of Trades
1	882724GP6	TEXAS ST	4.00	8/29/2019	6,783.0	2,135
2	544351NT2	LOS ANGELES CALIF	4.00	6/27/2019	1,855.3	1,364
3	74514LE86	PUERTO RICO COMWLTH	8.00	7/1/2035	1,254.9	532
4	882854Q70	TEXAS WTR DEV BRD REV	5.00	4/15/2049	1,189.4	70
5	882724DQ7	TEXAS ST	4.00	8/30/2018	1,087.7	344
6	373385CW1	GEORGIA ST	3.25	7/1/2037	1,072.9	741
7	73358WX90	PORT AUTH N Y & N J	4.03	9/1/2048	809.4	151
8	882854Q54	TEXAS WTR DEV BRD REV	4.00	10/15/2043	752.0	89
9	38122NZW5	GOLDEN ST TOB SECURITIZATION CORP CALIF TOB SETTLEMENT REV	5.00	6/1/2047	740.2	39
10	452151LF8	ILLINOIS ST	5.10	6/1/2033	735.8	561
11	59333P3W6	MIAMI-DADE CNTY FLA AVIATION REV	4.28	10/1/2041	710.2	259
12	452152P70	ILLINOIS ST	5.00	11/1/2023	683.6	246
13	196729CG0	COLORADO ST GEN FD REV	4.00	6/26/2019	652.4	258
14	01728A3Z7	ALLEGHENY CNTY PA HOSP DEV AUTH REV	4.00	4/1/2044	634.6	1,453
15	57582RTN6	MASSACHUSETTS ST	4.00	4/25/2019	601.8	343
16	64990AJU0	NEW YORK ST DORM AUTH SALES TAX REV ST SUPPORTED DEBT	5.00	3/15/2030	558.5	25
17	64990GGK2	NEW YORK ST DORM AUTH REVS NON ST SUPPORTED DEBT	4.95	8/1/2048	546.3	239
18	57582RED4	MASSACHUSETTS ST	5.00	7/1/2036	532.3	297
19	57582RTQ9	MASSACHUSETTS ST	4.00	6/20/2019	525.0	161
20	57582RTP1	MASSACHUSETTS ST	4.00	5/23/2019	522.5	85
21	451434BY9	IDAHO ST	4.00	6/28/2019	493.4	47
22	13080SVN1	CALIFORNIA STATEWIDE CMNTYS DEV AUTH REV	5.50	12/1/2058	490.0	130
23	544445GB9	LOS ANGELES CALIF DEPT ARPTS ARPT REV	5.00	5/15/2044	487.4	131
24	24917DBK8	DENVER COLO CITY & CNTY DEDICATED TAX REV	5.00	8/1/2048	475.9	145
25	57582RUM6	MASSACHUSETTS ST	5.25	9/1/2043	455.7	61
26	51771FAU0	LAS VEGAS NEV CONVENTION & VISITORS AUTH CONVENTION CTR EXPANSION REV	4.00	7/1/2049	454.8	469
27	64971XEBO	NEW YORK N Y CITY TRANSITIONAL FIN AUTH REV	3.85	5/1/2030	449.8	12
28	451295A25	IDAHO HEALTH FACS AUTH REV	5.02	3/1/2048	446.8	99
29	13063DGD4	CALIFORNIA ST	4.50	4/1/2033	442.4	200
30	59261AVV6	METROPOLITAN TRANSN AUTH N Y REV	5.00	5/15/2021	434.3	100
31	650010AD3	NEW YORK ST TWY AUTH GEN REV JR INDBT OBLIGS	5.00	5/1/2019	418.7	817
32	249182LP9	DENVER COLO CITY & CNTY ARPT REV	4.00	12/1/2048	404.0	792
33	249182LX2	DENVER COLO CITY & CNTY ARPT REV	5.25	12/1/2043	399.5	74
34	303823MW5	FAIRFAX CNTY VA INDL DEV AUTH REV	4.00	5/15/2048	397.0	234
35	452152Q20	ILLINOIS ST	5.00	11/1/2028	395.9	206
36	64990AJD8	NEW YORK ST DORM AUTH SALES TAX REV ST SUPPORTED DEBT	4.00	3/15/2048	395.4	91
37	249182LV6	DENVER COLO CITY & CNTY ARPT REV	5.00	12/1/2043	390.7	64
38	745177FF7	PUERTO RICO COMWLTH GOVT DEV BK	5.00	8/1/2023	383.4	332
39	64990C7K1	NEW YORK ST DORM AUTH REVS NON ST SUPPORTED DEBT	4.85	7/1/2048	373.8	43
40	803301DK3	SARASOTA CNTY FLA PUB HOSP DIST HOSP REV	4.00	7/1/2048	372.4	1,113
41	745160QA2	PUERTO RICO COMWLTH AQUEDUCT & SWR AUTH REV	6.00	7/1/2038	372.2	212
42	74514LB89	PUERTO RICO COMWLTH	5.00	7/1/2041	368.3	643
43	956622N91	WEST VIRGINIA ST HOSP FIN AUTH HOSP REV	4.00	6/1/2051	358.9	1,524
44	74529JKM6	PUERTO RICO SALES TAX FING CORP SALES TAX REV	5.50	8/1/2042	357.1	427
45	745177FN0	PUERTO RICO COMWLTH GOVT DEV BK	4.38	2/1/2019	355.9	259
46	542424VF0	LONG BEACH CALIF HBR REV	5.00	12/15/2020	351.0	155
47	6461363Q2	NEW JERSEY ST TRANSN TR FD AUTH	5.00	6/15/2031	345.6	207
48	59333RJE5	MIAMI-DADE CNTY FLA SCH DIST	5.00	6/15/2019	340.7	39
49	574193QT8	MARYLAND ST	5.00	8/1/2030	339.9	30
50	626207YF5	MUNICIPAL ELEC AUTH GA	6.64	4/1/2057	333.6	84

¹ Includes zero-coupon securities

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Most Actively Traded Municipal Securities

Top 50 Most Active Fixed Rate¹ Securities, 2018:Q3

By number of trades

Rank	CUSIP ²	Issuer Name	Coupon	Maturity	Par Amount (\$ Millions)	Number of Trades
1	882724GP6	TEXAS ST	4.00	8/29/2019	6,783.0	2,135
2	956622N91	WEST VIRGINIA ST HOSP FIN AUTH HOSP REV	4.00	6/1/2051	358.9	1,524
3	01728A3Z7	ALLEGHENY CNTY PA HOSP DEV AUTH REV	4.00	4/1/2044	634.6	1,453
4	70914PN32	PENNSYLVANIA ST	3.75	3/1/2039	117.0	1,386
5	544351NT2	LOS ANGELES CALIF	4.00	6/27/2019	1,855.3	1,364
6	64972HS94	NEW YORK N Y CITY TRANSITIONAL FIN AUTH BLDG AID REV	3.50	7/15/2047	146.9	1,153
7	803301DK3	SARASOTA CNTY FLA PUB HOSP DIST HOSP REV	4.00	7/1/2048	372.4	1,113
8	74529JAC9	PUERTO RICO SALES TAX FING CORP SALES TAX REV	6.05	8/1/2036	222.7	918
9	047870QR4	ATLANTA GA WTR & WASTE WTR REV	3.50	11/1/2043	189.9	867
10	59447TMQ3	MICHIGAN FIN AUTH REV	4.00	11/15/2046	105.9	862
11	650010AD3	NEW YORK ST TWY AUTH GEN REV JR INDBT OBLIGS	5.00	5/1/2019	418.7	817
12	249182LP9	DENVER COLO CITY & CNTY ARPT REV	4.00	12/1/2048	404.0	792
13	56042RQY1	MAINE HEALTH & HIGHER EDL FACS AUTH REV	4.00	7/1/2048	100.6	779
14	373385CW1	GEORGIA ST	3.25	7/1/2037	1,072.9	741
15	97671VAK1	WISCONSIN HEALTH & EDL FACS AUTH SR LIVING REV	4.00	7/1/2048	86.5	736
16	373385CS0	GEORGIA ST	3.00	7/1/2033	90.8	732
17	64966MA33	NEW YORK N Y	3.50	4/1/2046	56.9	716
18	74529JGP4	PUERTO RICO SALES TAX FING CORP SALES TAX REV	6.35	8/1/2039	229.9	705
19	74529JLM5	PUERTO RICO SALES TAX FING CORP SALES TAX REV	5.25	8/1/2041	332.9	691
20	745160RC7	PUERTO RICO COMWLTH AQUEDUCT & SWR AUTH REV	5.25	7/1/2042	245.7	672
21	60637AMW9	MISSOURI ST HEALTH & EDL FACS AUTH HEALTH FACS REV	4.00	11/15/2048	39.3	663
22	74514LB89	PUERTO RICO COMWLTH	5.00	7/1/2041	368.3	643
23	914724BQ1	UNIVERSITY N D CTFS PARTN	4.00	4/1/2057	89.6	641
24	74529JHN8	PUERTO RICO SALES TAX FING CORP SALES TAX REV	6.00	8/1/2042	272.6	633
25	64971XFX1	NEW YORK N Y CITY TRANSITIONAL FIN AUTH REV	3.50	8/1/2043	61.9	612
26	6582563U4	NORTH CAROLINA ST	3.00	6/1/2034	55.1	609
27	70914PM90	PENNSYLVANIA ST	4.00	3/1/2037	79.6	597
28	97671VAL9	WISCONSIN HEALTH & EDL FACS AUTH SR LIVING REV	4.13	7/1/2053	68.6	562
29	452151LF8	ILLINOIS ST	5.10	6/1/2033	735.8	561
30	342816Q32	FLORIDA ST MUN PWR AGY REV	3.00	10/1/2029	53.3	559
31	429326C33	HIDALGO CNTY TEX	4.00	8/15/2043	122.3	554
32	017357E83	ALLEGHENY CNTY PA SAN AUTH SWR REV	4.00	6/1/2048	116.8	551
33	20772KEC9	CONNECTICUT ST	4.00	9/15/2036	91.1	546
34	546395S54	LOUISIANA PUB FACS AUTH HOSP REV	4.00	6/1/2045	86.4	541
35	74514LE86	PUERTO RICO COMWLTH	8.00	7/1/2035	1,254.9	532
36	359023CX4	FRONT ROYAL & WARREN CNTY VA INDL DEV AUTH REV	3.75	1/1/2046	51.1	532
37	646136U66	NEW JERSEY ST TRANSN TR FD AUTH	4.25	6/15/2044	24.0	529
38	70917S2R3	PENNSYLVANIA ST HIGHER EDL FACS AUTH REV	3.75	6/15/2043	44.0	526
39	745235R37	PUERTO RICO PUB BLDGS AUTH REV GTD	5.25	7/1/2042	202.6	521
40	13063A7G3	CALIFORNIA ST	6.20	10/1/2019	147.8	514
41	34074GDH4	FLORIDA HURRICANE CATASTROPHE FD FIN CORP REV	3.00	7/1/2020	183.8	513
42	74526QKX9	PUERTO RICO ELEC PWR AUTH PWR REV	5.00	7/1/2037	162.0	508
43	626207YS7	MUNICIPAL ELEC AUTH GA	7.06	4/1/2057	73.8	508
44	13063A5G5	CALIFORNIA ST	7.55	4/1/2039	296.0	508
45	57582RSH0	MASSACHUSETTS ST	3.50	5/1/2038	40.7	507
46	660393S67	NORTH LAS VEGAS NEV	4.00	6/1/2041	90.9	499
47	664482GT7	NORTHEASTERN OHIO LOC SCH DIST CLARK CNTY	4.00	12/1/2055	90.9	486
48	64971XHQ4	NEW YORK N Y CITY TRANSITIONAL FIN AUTH REV	4.00	8/1/2038	137.3	481
49	74529JJK0	PUERTO RICO SALES TAX FING CORP SALES TAX REV	5.38	8/1/2039	229.2	476
50	74526QXT4	PUERTO RICO ELEC PWR AUTH PWR REV	6.13	7/1/2040	165.6	473

¹ Includes zero-coupon securities

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Most Actively Traded Municipal Securities

Top 50 Most Active Variable Rate Securities, 2018:Q3

By par amount

Rank	CUSIP ¹	Issuer Name	Maturity	Par Amount (\$ Millions)	Number of Trades
1	270777AC9	EAST BATON ROUGE PARISH LA INC INDL DEV BRD REV	8/1/2035	3,647.9	198
2	60528AAS3	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	12/1/2030	3,330.3	137
3	402207AD6	GULF COAST INDL DEV AUTH TEX REV	11/1/2041	2,937.9	293
4	270777AD7	EAST BATON ROUGE PARISH LA INC INDL DEV BRD REV	12/1/2040	1,768.6	88
5	71884SAA8	PHOENIX ARIZ INDL DEV AUTH HEALTH CARE FACS REV	11/15/2052	1,645.3	146
6	54834RAC3	LOWER NECHES VALLEY AUTH TEX INDL DEV CORP EXEMPT FACS REV	2/1/2031	1,458.1	42
7	64966LCJ8	NEW YORK N Y	8/1/2038	1,458.1	216
8	64986ML29	NEW YORK ST HSG FIN AGY REV	5/1/2041	1,414.4	75
9	64966KTD5	NEW YORK N Y	3/1/2042	1,368.9	82
10	13063BCH3	CALIFORNIA ST	5/1/2033	1,352.7	108
11	548351AC9	LOWER NECHES VALLEY AUTH TEX INDL DEV CORP REV	11/1/2038	1,330.1	174
12	467229AF7	JACKSON CNTY MISS PORT FAC REV	6/1/2023	1,320.9	107
13	87638QBF5	TARRANT CNTY TEX CULTURAL ED FACS FIN CORP HOSP REV	10/1/2041	1,254.0	122
14	57586CV69	MASSACHUSETTS ST HEALTH & EDL FACS AUTH REV	12/1/2037	1,193.4	80
15	915137T60	UNIVERSITY TEX UNIV REVS	8/1/2034	1,168.6	75
16	13048TGT4	CALIFORNIA MUN FIN AUTH REV	11/1/2035	1,118.9	208
17	59266TPD7	METROPOLITAN WTR DIST SOUTHN CALIF WTRWKS REV	7/1/2037	1,061.0	55
18	64972F6V3	NEW YORK N Y CITY MUN WTR FIN AUTH WTR & SWR SYS REV	6/15/2045	1,039.9	92
19	91425MDV6	UNIVERSITY DEL REV	11/1/2037	1,028.8	65
20	546398YU6	LOUISIANA PUB FACS AUTH REV	8/1/2043	1,023.6	81
21	130534XX3	CALIFORNIA POLLUTN CTL FING AUTH POLLUTN CTL REV	11/1/2026	994.7	153
22	91412GSJ5	UNIVERSITY CALIF REVS	5/15/2048	977.1	189
23	74440DBD5	KENTUCKY INC KY PUB ENERGY AUTH GAS SUPPLY REV	1/1/2049	963.2	41
24	040507QA6	ARIZONA HEALTH FACS AUTH REV	1/1/2046	962.8	160
25	821697K99	SHELBY CNTY TENN HEALTH EDL & HSG FACS BRD REV	6/1/2042	954.4	87
26	64966JE77	NEW YORK N Y	4/1/2042	931.4	232
27	60528AAT1	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	12/1/2030	926.2	94
28	70342PAK0	PATRIOTS ENERGY GROUP FING AGY S C GAS SUPPLY REV	10/1/2048	920.6	119
29	821697L23	SHELBY CNTY TENN HEALTH EDL & HSG FACS BRD REV	6/1/2042	895.9	62
30	533485BD9	LINCOLN CNTY WYO POLLUTN CTL REV	10/1/2044	886.3	43
31	31350ACC0	FEDERAL HOME LN MTG CORP MULTIFAMILY VAR RATE CTFS RELATING TO MUN SECS	7/15/2058	886.2	12
32	644614RZ4	NEW HAMPSHIRE HEALTH & ED FACS AUTH REV	6/1/2041	884.3	90
33	60528AAW4	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	12/1/2030	882.2	55
34	64972F6T8	NEW YORK N Y CITY MUN WTR FIN AUTH WTR & SWR SYS REV	6/15/2045	880.2	100
35	64972F2H8	NEW YORK N Y CITY MUN WTR FIN AUTH WTR & SWR SYS REV	6/15/2044	865.8	89
36	414009AT7	HARRIS CNTY TEX CULTURAL ED FACS FIN CORP REV	12/1/2024	845.3	179
37	45203HYZ9	ILLINOIS FIN AUTH REV	12/1/2034	820.7	44
38	903592AQ6	UINTA CNTY WYO POLLUTION CTL REV	8/15/2020	815.9	81
39	919061BU4	VALDEZ ALASKA MARINE TERM REV	10/1/2025	802.5	60
40	130534XA3	CALIFORNIA POLLUTN CTL FING AUTH POLLUTN CTL REV	11/1/2026	793.5	105
41	13062RG77	CALIFORNIA ST	5/1/2040	787.6	77
42	60528ABY9	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	11/1/2035	785.2	95
43	64971XFY9	NEW YORK N Y CITY TRANSITIONAL FIN AUTH REV	8/1/2045	767.8	81
44	575827R51	MASSACHUSETTS ST	12/1/2030	760.9	77
45	533485BB3	LINCOLN CNTY WYO POLLUTN CTL REV	10/1/2044	739.0	90
46	18085PJZ8	CLARK CNTY NEV ARPT REV	7/1/2040	738.1	28
47	64972GJQ8	NEW YORK N Y CITY MUN WTR FIN AUTH WTR & SWR SYS REV	6/15/2048	734.0	75
48	914455HD5	UNIVERSITY MICH UNIV REVS	4/1/2038	733.1	119
49	64966MSD2	NEW YORK N Y	10/1/2046	727.3	47
50	64966G4Q2	NEW YORK N Y	4/1/2035	720.6	102

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Municipal Market Trades by Trade Type

Trade Type and Size

Average daily par amount in \$ millions

2018:Q3

All Trades

Total 11,798.6

0 - \$25,000	294.2
\$25,001 - \$50,000	313.2
\$50,001 - \$75,000	123.9
\$75,001 - \$100,000	280.8
\$100,001 - \$500,000	1,201.8
\$500,001 - \$1,000,000	725.5
\$1,000,001 - \$2,000,000	854.4
More than \$2,000,000	8,004.8

Customer Bought

Total 6,024.7

0 - \$25,000	113.7
\$25,001 - \$50,000	126.0
\$50,001 - \$75,000	49.4
\$75,001 - \$100,000	114.4
\$100,001 - \$500,000	490.0
\$500,001 - \$1,000,000	316.9
\$1,000,001 - \$2,000,000	409.2
More than \$2,000,000	4,405.1

Customer Sold

Total 3,765.2

0 - \$25,000	62.6
\$25,001 - \$50,000	61.5
\$50,001 - \$75,000	27.3
\$75,001 - \$100,000	58.0
\$100,001 - \$500,000	267.3
\$500,001 - \$1,000,000	193.0
\$1,000,001 - \$2,000,000	250.5
More than \$2,000,000	2,845.0

Inter-Dealer

Total 2,008.7

0 - \$25,000	117.8
\$25,001 - \$50,000	125.8
\$50,001 - \$75,000	47.2
\$75,001 - \$100,000	108.4
\$100,001 - \$500,000	444.5
\$500,001 - \$1,000,000	215.6
\$1,000,001 - \$2,000,000	194.7
More than \$2,000,000	754.7

Municipal Market Trades by Trade Type

Trade Type and Size

Average daily number of trades

2018:Q3

All Trades

Total	38,101
0 - \$25,000	18,654
\$25,001 - \$50,000	7,417
\$50,001 - \$75,000	1,857
\$75,001 - \$100,000	2,889
\$100,001 - \$500,000	4,868
\$500,001 - \$1,000,000	915
\$1,000,001 - \$2,000,000	565
More than \$2,000,000	936

Customer Bought

Total	15,067
0 - \$25,000	7,045
\$25,001 - \$50,000	2,971
\$50,001 - \$75,000	738
\$75,001 - \$100,000	1,175
\$100,001 - \$500,000	1,990
\$500,001 - \$1,000,000	398
\$1,000,001 - \$2,000,000	269
More than \$2,000,000	482

Customer Sold

Total	8,327
0 - \$25,000	4,051
\$25,001 - \$50,000	1,472
\$50,001 - \$75,000	408
\$75,001 - \$100,000	597
\$100,001 - \$500,000	1,075
\$500,001 - \$1,000,000	239
\$1,000,001 - \$2,000,000	164
More than \$2,000,000	321

Inter-Dealer

Total	14,707
0 - \$25,000	7,557
\$25,001 - \$50,000	2,974
\$50,001 - \$75,000	711
\$75,001 - \$100,000	1,117
\$100,001 - \$500,000	1,804
\$500,001 - \$1,000,000	279
\$1,000,001 - \$2,000,000	132
More than \$2,000,000	133

Municipal Fixed Rate Securities - Par Amount Traded and Number of Trades

Transaction Summary - Fixed Rate Securities

Average daily par amount in \$ millions

2018:Q3	
Fixed Rate	
Total	6,861.6
0 - \$25,000	286.5
\$25,001 - \$50,000	303.8
\$50,001 - \$75,000	119.5
\$75,001 - \$100,000	255.3
\$100,001 - \$500,000	1,056.7
\$500,001 - \$1,000,000	593.1
\$1,000,001 - \$2,000,000	661.1
More than \$2,000,000	3,585.6

Zero Coupon	
Total	256.5
0 - \$25,000	6.5
\$25,001 - \$50,000	7.8
\$50,001 - \$75,000	3.5
\$75,001 - \$100,000	6.9
\$100,001 - \$500,000	26.1
\$500,001 - \$1,000,000	12.7
\$1,000,001 - \$2,000,000	13.5
More than \$2,000,000	179.5

Municipal Fixed Rate Securities - Par Amount Traded and Number of Trades

Transaction Summary - Fixed Rate Securities

Average daily number of trades

2018:Q3	
Fixed Trade	
Total	35,848
0 - \$25,000	18,141
\$25,001 - \$50,000	7,190
\$50,001 - \$75,000	1,790
\$75,001 - \$100,000	2,630
\$100,001 - \$500,000	4,339
\$500,001 - \$1,000,000	750
\$1,000,001 - \$2,000,000	439
More than \$2,000,000	568

Zero Coupon	
Total	903
0 - \$25,000	440
\$25,001 - \$50,000	188
\$50,001 - \$75,000	53
\$75,001 - \$100,000	72
\$100,001 - \$500,000	110
\$500,001 - \$1,000,000	16
\$1,000,001 - \$2,000,000	9
More than \$2,000,000	14

Municipal Fixed Rate Securities - Par Amount Traded and Number of Trades

Source of Repayment

Average daily par amount in \$ millions

2018:Q3	
Fixed Rate	
Total	6,859.3
General Obligation	2,473.6
Revenue	4,165.1
Double Barrel	220.5

Zero Coupon	
Total	256.5
General Obligation	71.5
Revenue	183.1
Double Barrel	1.9

Average daily number of trades

Fixed Rate	
Total	35,847
General Obligation	13,618
Revenue	20,938
Double Barrel	1,291

Zero Coupon	
Total	903
General Obligation	481
Revenue	401
Double Barrel	21

Municipal Fixed Rate Securities - Par Amount Traded and Number of Trades

Tax Status

Average daily par amount in \$ millions

2018:Q3	
Fixed Rate	
Total	6,859.7
Tax Exempt	5,941.7
Taxable	682.2
AMT	235.9

Zero Coupon	
Total	256.5
Tax Exempt	238.8
Taxable	17.7
AMT	<0.1

Average daily number of trades

Fixed Rate	
Total	35,848
Tax Exempt	33,238
Taxable	2,142
AMT	467

Zero Coupon	
Total	902
Tax Exempt	813
Taxable	89
AMT	<1

Municipal Fixed Rate Securities - Par Amount Traded and Number of Trades

Sector

Average daily par amount in \$ millions

2018:Q3	
Fixed Rate	
Total	6,861.6
Education	1,331.2
Health	482.4
Housing	128.6
Tax-Revenue	826.3
Transportation	710.8
Utility	843.1
Various Purpose	1,030.5
Other	1,508.8

Zero Coupon	
Total	256.5
Education	67.9
Health	2.2
Housing	0.7
Tax-Revenue	85.5
Transportation	31.0
Utility	3.4
Various Purpose	8.6
Other	57.2

Average daily number of trades

Fixed Rate	
Total	35,848
Education	8,910
Health	2,644
Housing	750
Tax-Revenue	3,684
Transportation	2,885
Utility	4,958
Various Purpose	4,681
Other	7,336

Zero Coupon	
Total	903
Education	443
Health	24
Housing	2
Tax-Revenue	128
Transportation	109
Utility	52
Various Purpose	57
Other	88

Municipal Variable Rate Securities - Par Amount Traded and Number of Trades

Variable Rate Demand Obligations¹ Trade Type and Size

Average daily par amount in \$ millions

2018:Q3	
All Trades	
Total	3,532.4
0 - \$25,000	<0.1
\$25,001 - \$50,000	<0.1
\$50,001 - \$75,000	<0.1
\$75,001 - \$100,000	15.6
\$100,001 - \$500,000	102.4
\$500,001 - \$1,000,000	103.6
\$1,000,001 - \$2,000,000	157.6
More than \$2,000,000	3,153.3
Customer Bought	
Total	1,743.2
0 - \$25,000	0.0
\$25,001 - \$50,000	0.0
\$50,001 - \$75,000	0.0
\$75,001 - \$100,000	5.6
\$100,001 - \$500,000	46.4
\$500,001 - \$1,000,000	48.6
\$1,000,001 - \$2,000,000	77.7
More than \$2,000,000	1,564.8
Customer Sold	
Total	1,734.8
0 - \$25,000	<0.1
\$25,001 - \$50,000	<0.1
\$50,001 - \$75,000	<0.1
\$75,001 - \$100,000	8.3
\$100,001 - \$500,000	47.1
\$500,001 - \$1,000,000	48.8
\$1,000,001 - \$2,000,000	72.7
More than \$2,000,000	1,557.8
Inter-Dealer	
Total	54.5
0 - \$25,000	<0.1
\$25,001 - \$50,000	<0.1
\$50,001 - \$75,000	<0.1
\$75,001 - \$100,000	1.7
\$100,001 - \$500,000	8.9
\$500,001 - \$1,000,000	6.1
\$1,000,001 - \$2,000,000	7.2
More than \$2,000,000	30.6

¹ Based on data submitted to the MSRB's Short-Term Obligation Rate Transparency (SHORT) System. May exclude submissions that could not be categorized based on available data.

Municipal Variable Rate Securities - Par Amount Traded and Number of Trades

Variable Rate Demand Obligations¹ Trade Type and Size

Average daily number of trades

2018:Q3	
All Trades	
Total	1,029
0 - \$25,000	2
\$25,001 - \$50,000	1
\$50,001 - \$75,000	1
\$75,001 - \$100,000	157
\$100,001 - \$500,000	354
\$500,001 - \$1,000,000	129
\$1,000,001 - \$2,000,000	103
More than \$2,000,000	283
Customer Bought	
Total	466
0 - \$25,000	1
\$25,001 - \$50,000	<1
\$50,001 - \$75,000	<1
\$75,001 - \$100,000	56
\$100,001 - \$500,000	158
\$500,001 - \$1,000,000	60
\$1,000,001 - \$2,000,000	51
More than \$2,000,000	139
Customer Sold	
Total	494
0 - \$25,000	1
\$25,001 - \$50,000	1
\$50,001 - \$75,000	<1
\$75,001 - \$100,000	83
\$100,001 - \$500,000	163
\$500,001 - \$1,000,000	60
\$1,000,001 - \$2,000,000	48
More than \$2,000,000	138
Inter-Dealer	
Total	68
0 - \$25,000	<1
\$25,001 - \$50,000	<1
\$50,001 - \$75,000	<1
\$75,001 - \$100,000	17
\$100,001 - \$500,000	33
\$500,001 - \$1,000,000	8
\$1,000,001 - \$2,000,000	5
More than \$2,000,000	6

¹ Based on data submitted to the MSRB's Short-Term Obligation Rate Transparency (SHORT) System. May exclude submissions that could not be categorized based on available data.

Municipal Variable Rate Securities - Par Amount Traded and Number of Trades

Auction Rate Securities¹ Trade Type and Size

Average daily par amount in \$ millions

2018:Q3	
All Trades	
Total	20.8
0 - \$25,000	0.2
\$25,001 - \$50,000	0.3
\$50,001 - \$75,000	0.2
\$75,001 - \$100,000	0.8
\$100,001 - \$500,000	4.4
\$500,001 - \$1,000,000	2.6
\$1,000,001 - \$2,000,000	2.6
More than \$2,000,000	9.6
Customer Bought	
Total	7.6
0 - \$25,000	0.1
\$25,001 - \$50,000	0.2
\$50,001 - \$75,000	0.1
\$75,001 - \$100,000	0.2
\$100,001 - \$500,000	1.3
\$500,001 - \$1,000,000	0.8
\$1,000,001 - \$2,000,000	0.9
More than \$2,000,000	4.0
Customer Sold	
Total	7.7
0 - \$25,000	0.1
\$25,001 - \$50,000	0.1
\$50,001 - \$75,000	0.1
\$75,001 - \$100,000	0.4
\$100,001 - \$500,000	1.7
\$500,001 - \$1,000,000	0.8
\$1,000,001 - \$2,000,000	0.8
More than \$2,000,000	3.8
Inter-Dealer	
Total	5.5
0 - \$25,000	<0.1
\$25,001 - \$50,000	0.1
\$50,001 - \$75,000	0.1
\$75,001 - \$100,000	0.2
\$100,001 - \$500,000	1.5
\$500,001 - \$1,000,000	0.9
\$1,000,001 - \$2,000,000	0.9
More than \$2,000,000	1.8

¹ Based on data submitted to the MSRB's Short-Term Obligation Rate Transparency (SHORT) System. May exclude submissions that could not be categorized based on available data.

Municipal Variable Rate Securities - Par Amount Traded and Number of Trades

Auction Rate Securities¹ Trade Type and Size

Average daily number of trades

2018:Q3	
All Trades	
Total	52
0 - \$25,000	11
\$25,001 - \$50,000	7
\$50,001 - \$75,000	3
\$75,001 - \$100,000	8
\$100,001 - \$500,000	17
\$500,001 - \$1,000,000	3
\$1,000,001 - \$2,000,000	2
More than \$2,000,000	1
Customer Bought	
Total	19
0 - \$25,000	5
\$25,001 - \$50,000	3
\$50,001 - \$75,000	1
\$75,001 - \$100,000	2
\$100,001 - \$500,000	5
\$500,001 - \$1,000,000	1
\$1,000,001 - \$2,000,000	1
More than \$2,000,000	1
Customer Sold	
Total	19
0 - \$25,000	4
\$25,001 - \$50,000	2
\$50,001 - \$75,000	1
\$75,001 - \$100,000	4
\$100,001 - \$500,000	6
\$500,001 - \$1,000,000	1
\$1,000,001 - \$2,000,000	1
More than \$2,000,000	<1
Inter-Dealer	
Total	14
0 - \$25,000	2
\$25,001 - \$50,000	1
\$50,001 - \$75,000	1
\$75,001 - \$100,000	2
\$100,001 - \$500,000	5
\$500,001 - \$1,000,000	1
\$1,000,001 - \$2,000,000	1
More than \$2,000,000	<1

¹ Based on data submitted to the MSRB's Short-Term Obligation Rate Transparency (SHORT) System. May exclude submissions that could not be categorized based on available data.

Municipal Market Coupon Distributions

Customer Trade and Size of Tax Exempt, Fixed Rate Securities

Average daily yields

2018:Q3	
All Trades	
Total	2.55
0 - \$25,000	2.61
\$25,001 - \$50,000	2.52
\$50,001 - \$75,000	2.38
\$75,001 - \$100,000	2.48
\$100,001 - \$500,000	2.43
\$500,001 - \$1,000,000	2.58
\$1,000,001 - \$2,000,000	2.62
More than \$2,000,000	2.81
Customer Bought	
Total	2.47
0 - \$25,000	2.54
\$25,001 - \$50,000	2.42
\$50,001 - \$75,000	2.26
\$75,001 - \$100,000	2.40
\$100,001 - \$500,000	2.31
\$500,001 - \$1,000,000	2.56
\$1,000,001 - \$2,000,000	2.66
More than \$2,000,000	2.90
Customer Sold	
Total	2.65
0 - \$25,000	2.77
\$25,001 - \$50,000	2.59
\$50,001 - \$75,000	2.50
\$75,001 - \$100,000	2.48
\$100,001 - \$500,000	2.41
\$500,001 - \$1,000,000	2.49
\$1,000,001 - \$2,000,000	2.46
More than \$2,000,000	2.69

Municipal Market Variable Securities Rate Resets

Number of Variable Rate Demand Obligations Rate Resets by Type¹

2018:Q3	
Total	92,707
Set by Remarketing Agent	92,534
Set by Formula	110
Maximum Rate	63

¹ Based on data submitted to the MSRB's Short-Obligation Rate Transparency (SHORT) System.
May exclude submissions that could not be categorized based on available information.

Municipal Market Variable Securities Rate Resets

Number of Auction Rate Securities Rate Resets by Type¹

2018:Q3	
Total	1,270
Set by Auction	503
Maximum Rate	694
All Hold Rate	73

¹ Based on data submitted to the MSRB's Short-Obligation Rate Transparency (SHORT) System.
May exclude submissions that could not be categorized based on available information.

Municipal Market Disclosures

Continuing Disclosures Submissions

Number of Documents

	2018:Q3
Bond Call	8,201
Audited Financial Statements or CAFR	4,733
Annual Financial Information and Operation Data	3,694
Quarterly/Monthly Financial Information	3,516
Other Financial/Operating Data	1,860
Rating Change	1,743
Other Event-Based Disclosures	1,167
Budget	974
Failure to Provide Annual Financial Info	597
Defeasance	411
Interim/Additional Financial Information/Operating Data	209
Notice to Investor Pursuant to Bond Documents	129
Bank Loan	97
Tender Offer/Secondary Market Purchases	83
Principal & Interest Payment Delinquency	82
Consultant Reports	50
Information Provided to Rating Agency, Credit/Liquidity Provider or Other Third Party	40
Asset Backed Securities Filings ¹	39
Consolidation	30
Substitution of Credit or Liquidity Provider or Its Failure to Perform	27
Bid for Auction Rate or Other Securities	26
Successor, Additional or Change in Trustee	21
Unscheduled Draw on Debt Service Reserve	18
Change in Obligated Person	18
Change of Tender Agent, Remarketing Agent, or Other On-Going Party	16
Non-payment Related Default	15
Modification to the Rights of Security Holders	15
Amendment to Continuing Disclosure Undertaking	14
Litigation/Enforcement Action	13
Investment/Debt/Financial Policy	12
Bankruptcy, Insolvency, Receivership	12
Unscheduled Draw on Credit Enhancement	11
Release, Substitution or Sale of Property	8
Change in Fiscal Year/Timing of Annual Disclosure	7
Capital or Other Financing Plan	6
Communication from the Internal Revenue Service	3
Adverse Tax Opinion or Event Affecting Tax-Exempt Status	2
Derivative	1
Change in Accounting Standard	1

¹ Disclosures related to municipal asset-backed securities required under Securities Exchange Act of 1934 Rule 15Ga-1

Definition of Terms Used

Alternative Minimum Tax (AMT) Municipal Security—a tax-exempt bond, interest on which is subject to the alternative minimum tax.

Auction Rate Securities (ARS)—variable rate bonds whose interest rate is reset periodically under the Dutch auction process.

Bond—a security with two years or more in maturity (maturity date less dated date) with fixed or zero interest rate.

Commercial Paper—short-term, unsecured promissory notes, usually backed by a line of credit with a bank, that mature within 270 days.

CUSIP number (Committee on Uniform Securities Identification Procedures)—an identification number assigned to each maturity of an issue intended to help facilitate the identification and clearance of securities.

Customer Bought—a municipal trade in which a customer bought the security from a broker dealer or bank.

Customer Sold—a municipal trade in which a customer sold the security to a broker-dealer or bank.

Customer Trade—a municipal securities trade between a broker-dealer (including a dealer bank or broker's broker), acting as agent in an agency trade or as purchaser or seller in a principal trade, and a contra-party that is not a broker-dealer (including including a dealer bank or broker's broker).

Dated Date—the date of an issue from which interest on the issue usually starts to accrue, even though the issue may actually be delivered at some later date.

Double Barrel Municipal Security—a security with characteristics of both revenue and general obligation instruments.

Fixed Rate—an interest rate on a security that does not change for the remaining life of the security.

General Obligation Municipal Security— a security that is secured by the full faith, credit and taxing power of an issuer. General obligation securities issued by local units of government are typically secured by a pledge of the issuer's "ad valorem" taxing power; general obligation securities issued by states are generally based upon appropriations made by the state legislature for the purposes specified.

Inter-Dealer—a municipal securities trade between two broker-dealers, including dealer banks or broker's brokers.

Long Note—a security with over nine months in maturity, but under two years in maturity (maturity date less dated date) with fixed or zero interest rate.

Revenue Municipal Security—a security that is payable from a specific source of revenue and to which the full faith and credit of an issuer with taxing power is not pledged. Revenue bonds are payable from identified sources of revenue and do not permit the bondholders to compel taxation or legislative appropriation of funds not pledged for payment of debt service.

RULE 15c2-12—an SEC rule under the Securities Exchange Act of 1934 setting forth certain obligations of (i) underwriters to receive, review and disseminate official statements prepared by issuers of most primary offerings of municipal securities, (ii) underwriters to obtain continuing disclosure agreements from issuers and other obligated persons to provide material event disclosures and annual financial information on a continuing basis, and (iii) broker-dealers to have access to such continuing disclosure in order to make recommendations of municipal securities in the secondary market.

Sector—transactions according to the security's use of proceeds, i.e., issuer's intended use of the capital raised by the offering, according to definitions provided by Standard & Poor's Securities Evaluations, Inc. The top seven most active sectors based on par amount are displayed, as well as an "Other" category that includes the remaining sectors and trades for which the sector information was not available.

Short Note—a security with nine months or less in maturity (maturity date less dated date) with fixed or zero interest rate.

Tax Exempt—interest on most municipal securities is excluded from gross income for federal income tax purposes and may or may not be exempt from state income or personal property taxation in the jurisdiction where issued or in other jurisdictions. If the bond is exempt from state income tax, it possesses "double exemption" status. "Triple exemption" bonds are exempt from municipal, local income or other special taxes, as well as from federal and state income tax.

Taxable—bonds or other securities issued by a municipal issuer for which interest or other investment return is included in gross income for federal income tax purposes. A municipal security may be issued on a taxable basis because the intended use of proceeds does not meet federal tax law requirements for the exclusion from gross income (e.g., private activity bonds that are not qualified bonds) or because certain other federal tax law requirements are not met (e.g., insufficient volume cap).

Variable (Long and Short)—variable interest rate securities with interest reset periods. Over 99 percent of these securities are short variable (interest reset period of nine months or less) as opposed to long variables (interest reset period longer than nine months.)

Variable Rate—an interest rate, sometimes referred to as a "floating rate," on a security that changes at intervals according to market conditions or a predetermined index or formula.

Variable Rate Demand Obligation (VRDO)—floating rate obligations that have a nominal long-term maturity but have a coupon rate that is reset periodically (e.g., daily or weekly). The investor has the option to put the issue back to the trustee or tender agent at any time with specified (e.g., seven days') notice.

Zero Coupon—an original issue discount bond on which no periodic interest payments are made but which is issued at a deep discount from par, accreting (at the rate represented by the offering yield at issuance) to its full value at maturity.

Continuing Disclosure Definitions

Financial/Operating-based disclosures

Rule 15c2-12-Based Financial/Operating Data

Annual Financial Information and Operating Data—issuer's/obligated person's financial information or operating data, of the type included in the original official statement, provided on at least an annual basis—see Exchange Act Rule 15c2-12(b)(5)(i)(A), 15c2-12(d)(2)(ii)(A) and 15c2-12(f)(9).

Audited Financial Statements or CAFR—issuer's/obligated person's audited financial statements or Comprehensive Annual Financial Report, if not included in annual financial information and operating data—see Exchange Act Rule 15c2-12(b)(5)(1)(B).

Failure to Provide Annual Financial Information—notice that issuer's/obligated person's annual financial information and operating data not submitted by date specified in the continuing disclosure undertaking—see Exchange Act Rule 15c2-12(b)(5)(i)(A).

Additional/Voluntary Financial/Operating Data

Quarterly/Monthly Financial Information—issuer's/obligated person's financial information provided on a quarterly or monthly basis.

Change in Fiscal Year/Timing of Annual Disclosure—notice that issuer's/obligated person's fiscal year has changed or the date specified in the continuing disclosure undertaking for submitting annual financial information and operating data has changed.

Change in Accounting Standard—notice that issuer's/obligated person's accounting standards pursuant to which it prepares its financial information have changed.

Interim/Additional Financial Information/Operating Data—additional financial or operating data of issuer/obligated person supplementing annual financial information or operating data or providing such information or data on an interim basis in addition to the annual submission.

Budget—issuer's/obligated person's budget document or other information relating to its budget.

Investment/Debt/Financial Policy—issuer's/obligated person's policy on its investment activities, debt incurrence or other financial matters.

Information Provided to Rating Agency, Credit/Liquidity Provider or Other Third Party—information that issuer/obligated person has provided to a rating agency, provider of a credit or liquidity facility or other entity that the issuer/obligated person wishes to be made available publicly.

Consultant Reports—report prepared for or about an issuer/obligated person by a third-party in connection with the issuer's/obligated person's issue of securities or other financial or operating matters.

Other Financial/Operating Data—any financial information or operating data of the issuer/obligated person not otherwise described in another category.

Event-Based Disclosures

Rule 15c2-12 Material Event Notices

P&I Payment Delinquency—a delinquency in scheduled payment of principal of or interest on municipal securities—see Exchange Act Rule 15c2-12(b)(5)(i)(C)(1).

Non-payment Related Default—a default relating to municipal securities other than a delinquency in payment of principal or interest, if material—see Exchange Act Rule 15c2-12(b)(5)(i)(C)(2).

Unscheduled Draw on Debt Service Reserve—an unscheduled draw on any debt service reserve fund/account that reflects financial difficulties of the issuer/obligated person or in connection with the municipal securities—see Exchange Act Rule 15c2-12(b)(5)(i)(C)(3).

Unscheduled Draw on Credit Enhancement—an unscheduled draw on credit enhancement for municipal securities reflecting financial difficulties of the issuer/obligated person or in connection with the municipal securities—see Exchange Act Rule 15c2-12(b)(5)(i)(C)(4).

Substitution of Credit or Liquidity Provider or Its Failure to Perform—a change in the entity providing any credit enhancement or liquidity support for the municipal securities, or any failure by such entity to perform its obligations under such credit enhancement or liquidity support—see Exchange Act Rule 15c2-12(b)(5)(i)(C)(5).

Adverse Tax Opinion or Event Affecting Tax-Exempt Status—notice of an adverse tax opinion, issuance by the Internal Revenue Service of proposed or final determination of taxability, Notice of Proposed Issue (IRS Form 5701-TEB) or other material notice of determination with respect to the tax status of the municipal securities, or other material event affecting the tax status of the municipal securities—see Exchange Act Rule 15c2-12(b)(5)(i)(C)(6).

Modification to the Rights of Security Holders—a modification to the rights of holders of the municipal securities, if material—see Exchange Act Rule 15c2-12(b)(5)(i)(C)(7).

Bond Call—a notice that municipal securities are called for redemption, if material—see Exchange Act Rule 15c2-12(b)(5)(i)(C)(8).

Tender Offer/Secondary Market Purchases—a notice that the issuer/obligated person is seeking offers to tender municipal securities for purchase or redemption by the issuer/obligated person, or that the issuer/obligated person has or seeks to purchase its securities in the secondary market—see Exchange Act Rule 15c2-12(b)(5)(i)(C)(8).

Defeasance—a notice that municipal securities have been defeased, typically by establishment of an escrow to pay principal and interest and the release of the covenants and original security lien—see Exchange Act Rule 15c2-12(b)(5)(i)(C)(9).

Release, Substitution or Sale of Property—a notice that there has been a release, substitution or sale of property securing repayment of the municipal securities, if material—see Exchange Act Rule 15c2-12(b)(5)(i)(C)(10).

Rating Change—a notice that a rating assigned by a rating agency on the municipal securities, the issuer of municipal securities, an obligated person or other rating relating to the municipal securities has been changed—see Exchange Act Rule 15c2-12(b)(5)

Bankruptcy, Insolvency, Receivership—a notice of bankruptcy, insolvency, receivership or similar event of the issuer/obligated person—see Exchange Act Rule 15c2-12(b)(5)(i)(C)(12).

Merger, Consolidation, Acquisition and Sale of Assets—a notice of the consummation of a merger, consolidation, or acquisition involving an issuer/obligated person, or the sale of all or substantially all of the assets of the issuer/obligated person, if material—see Exchange Act Rule 15c2-12(b)(5)(i)(C)(13).

Successor, Additional or Change in Trustee—a notice of the appointment of a successor or additional trustee, or the change of name of a trustee, if material—see Exchange Act Rule 15c2-12(b)(5)(i)(C)(14).

Additional/Voluntary Event-Based Disclosures

Amendment to Continuing Disclosure Undertaking—a notice that the issuer/obligated person has amended the continuing disclosure undertaking relating to its municipal securities.

Change in Obligated Person—a notice that a new obligated party for whom continuing disclosures will be provided has been added with respect to municipal securities and, if applicable, an existing obligated person has been released from its continuing disclosure obligation.

Notice to Investor Pursuant to Bond Documents—a notice required or authorized to be provided under the legal documents relating to the municipal securities.

Communication from the Internal Revenue Service—a notice of any communication from the Internal Revenue Service to the issuer/obligated person other than the items covered by “Adverse Tax Opinion or Event Affecting Tax-Exempt Status” above.

Bid for Auction Rate or Other Securities—a notice of a bid placed by the issuer/obligated person to purchase auction rate securities through the auction rate setting procedure or the purchase of any other of its securities.

Capital or Other Financing Plan—disclosure regarding an issuer’s/obligated person’s capital improvement plans or other financing or refinancing plans.

Litigation/Enforcement Action—disclosure regarding any litigation involving the issuer/obligated person or any other relevant party that has the potential to have a material impact on the municipal securities, or any regulatory enforcement action that may have such an impact.

Change of Tender Agent, Remarketing Agent, or Other On-Going Party—a notice of a change in the tender agent, remarketing agent, or other market participant that provides on-going services in connection with the issuer’s/obligated person’s municipal securities.

Derivative or Other Similar Transaction—any notice, disclosure or other document relating to derivatives or other financial products or structures used in connection with the issuer’s/obligated person’s municipal securities.

Other Event-Based Disclosures—any notice, disclosure or other document relating to the occurrence of an event or other non-financial matter relating to the issuer’s/obligated person’s municipal securities not otherwise described in another category.