

Quarterly Statistical Summaries

2019 First Quarter: January - March

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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 2018 Fact Book or visit the EMMA website at EMMA.MSRB.org.

¹ As described in a 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 the EMMA website, but may be included in this report.

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Municipal Securities Rulemaking Board

Highlights

Municipal Market Trade Summary

Par amount traded in the municipal securities market totaled \$756.1 billion in 2019:Q1, nearly unchanged from 2018:Q1 but 3.2% lower than the \$780.8 billion in 2018:Q4. Total number of trades decreased by 5.1% to 2.4 million traded compared to the same period in 2018.

Most Actively Traded Municipal Securities

Recently restructured bonds from Puerto Rico Sales Tax Financing Corporation (COFINA) accounted for the top 11 most traded securities with over 37,000 trades in 2019:Q1. A revenue bond from the Industrial Development Board of the Parish of East Baton Rouge was the most actively traded security with \$6.8 billion in 2019:Q1.

Municipal Market Trades by Trade Type

Customer buying activity accounted for 39% of the 40,097 trades in 2019:Q1, unchanged from 2018:Q1. Customer sales accounted for 23% of all trades in the period.

A daily average of \$412.9 million, or 6.8% of customer purchases of trades of \$100,000 or less, occurred in 2019:Q1, compared to \$435.3 billion, or 7.2% of all customer purchases, in 2018:Q1.

Municipal Market Variable Securities Rate Resets

The number of variable rate demand obligations rate resets continued to decline in 2019:Q1 to 88,500, down from the 95,513 rate resets in 2018:Q1.

The number of auction rate securities rate resets totaled 972 in 2019:Q1 compared to 1,571 resets in 2018:Q1.

Municipal Market Disclosures

The number of continuing disclosure documents received by the MSRB totaled 43,878 in 2019:Q1, nearly unchanged from the 44,449 documents in the same period of 2018.

Municipal Market Trade Summary

Transaction Summary

Total par amount traded in \$ millions

	2019:Q1
Total	756,136.7

By Trade Type

Customer Bought	368,025.0
Customer Sold	244,816.3
Inter-Dealer	143,295.4

By Coupon Type

Fixed Rate	479,726.9
Variable Rate	208,669.9
Zero Coupon	20,063.9
Other ¹	47,676.0

By Source of Repayment

General Obligation	214,064.8
Revenue	495,200.7
Double Barrel	16,999.0
Other ¹	29,872.1

By Tax Status

Tax Exempt	633,500.0
Taxable	55,584.1
AMT	35,998.9
Other ¹	31,053.7

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

	2019:Q1
Total	2,445,914

By Trade Type

Customer Bought	951,114
Customer Sold	559,650
Inter-Dealer	935,150

By Coupon Type

Fixed Rate	2,279,860
Variable	79,818
Zero Coupon	81,094
Other ¹	5,142

By Source of Repayment

General Obligation	923,153
Revenue	1,444,657
Double Barrel	75,300
Other ¹	2,804

By Tax Status

Tax Exempt	2,255,500
Taxable	155,611
AMT	31,354
Other ¹	3,449

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, 2019:Q1

By par amount

Rank	CUSIP ¹	Issuer Name	Coupon	Maturity	Par Amount (\$ Millions)	Number of Trades
1	270777AC9	EAST BATON ROUGE PARISH LA INC INDL DEV BRD REV	-	8/1/2035	2,969.4	189
2	60528AAS3	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	-	12/1/2030	2,816.7	120
3	74529JQG3	PUERTO RICO SALES TAX FING CORP SALES TAX REV	-	7/1/2046	2,734.1	5,504
4	74529JQH1	PUERTO RICO SALES TAX FING CORP SALES TAX REV	-	7/1/2051	2,665.5	5,253
5	402207AD6	GULF COAST INDL DEV AUTH TEX REV	-	11/1/2041	2,635.4	252
6	74529JPX7	PUERTO RICO SALES TAX FING CORP SALES TAX REV	5.00	7/1/2058	2,306.4	4,662
7	270777AD7	EAST BATON ROUGE PARISH LA INC INDL DEV BRD REV	-	12/1/2040	2,094.0	158
8	072024VU3	BAY AREA TOLL AUTH CALIF TOLL BRDG REV	2.63	4/1/2045	2,041.1	68
9	64966ML98	NEW YORK N Y	-	12/1/2047	1,592.9	124
10	79766DMB2	SAN FRANCISCO CALIF CITY & CNTY ARPTS COMMN INTL ARPT REV	5.00	5/1/2049	1,461.5	205
11	64966G4Q2	NEW YORK N Y	-	4/1/2035	1,353.1	171
12	74514LE86	PUERTO RICO COMWLTH	8.00	7/1/2035	1,219.0	549
13	57586CV69	MASSACHUSETTS ST HEALTH & EDL FACS AUTH REV	-	12/1/2037	1,126.5	99
14	882724GP6	TEXAS ST	4.00	8/29/2019	1,113.8	1,052
15	60528ABY9	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	-	11/1/2035	1,110.2	123
16	25476FXV5	DISTRICT COLUMBIA	5.00	10/15/2044	1,091.7	120
17	60528AAW4	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	-	12/1/2030	1,061.7	89
18	882854Q70	TEXAS WTR DEV BRD REV	5.00	4/15/2049	1,055.6	307
19	59261AXV4	METROPOLITAN TRANSN AUTH N Y REV	4.00	2/3/2020	1,022.8	1,659
20	546398YU6	LOUISIANA PUB FACS AUTH REV	-	8/1/2043	1,014.5	54
21	60528ACB8	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	-	11/1/2035	1,012.6	90
22	89602RFA8	TRIBOROUGH BRDG & TUNL AUTH N Y REVS	-	11/1/2032	977.9	178
23	36829QAA3	GDB DEBT RECOVERY AUTH OF COMWLTH PUERTO RICO	7.50	8/20/2040	930.2	1,747
24	79766DMA4	SAN FRANCISCO CALIF CITY & CNTY ARPTS COMMN INTL ARPT REV	5.00	5/1/2044	914.0	132
25	6461364X6	NEW JERSEY ST TRANSN TR FD AUTH	5.25	6/15/2043	882.0	255
26	13063BCH3	CALIFORNIA ST	-	5/1/2033	879.1	93
27	64966JE77	NEW YORK N Y	-	4/1/2042	876.1	263
28	59260XAA6	METROPOLITAN TRANSN AUTH N Y DEDICATED TAX FD	5.00	3/1/2022	870.2	380
29	64971XHT8	NEW YORK N Y CITY TRANSITIONAL FIN AUTH REV	-	8/1/2042	869.7	130
30	91412HFG3	UNIVERSITY CALIF REVS	3.35	7/1/2029	862.1	250
31	64971XFY9	NEW YORK N Y CITY TRANSITIONAL FIN AUTH REV	-	8/1/2045	860.3	133
32	74529JPW9	PUERTO RICO SALES TAX FING CORP SALES TAX REV	4.75	7/1/2053	847.2	3,839
33	60528AAT1	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	-	12/1/2030	836.1	97
34	533485BD9	LINCOLN CNTY WYO POLLUTN CTL REV	-	10/1/2044	832.3	42
35	919061BU4	VALDEZ ALASKA MARINE TERM REV	-	10/1/2025	819.3	102
36	548351AC9	LOWER NECHES VALLEY AUTH TEX INDL DEV CORP REV	-	11/1/2038	816.8	186
37	9151153W7	UNIVERSITY TEX PERM UNIV FD	-	7/1/2037	800.9	59
38	467229AF7	JACKSON CNTY MISS PORT FAC REV	-	6/1/2023	798.9	97
39	13033FK74	CALIFORNIA HEALTH FACS FING AUTH REV	-	6/1/2041	797.3	164
40	64966FA87	NEW YORK N Y	-	4/1/2036	793.5	104
41	548351AE5	LOWER NECHES VALLEY AUTH TEX INDL DEV CORP REV	-	5/1/2046	793.1	128
42	167593M66	CHICAGO ILL O HARE INTL ARPT REV	5.00	1/1/2053	786.4	63
43	20786LDG3	CONNECTOR 2000 ASSN INC S C TOLL RD REV	-	1/1/2019	781.0	16
44	544495DH4	LOS ANGELES CALIF DEPT WTR & PWR REV	-	7/1/2034	770.6	331
45	903592AQ6	UINTA CNTY WYO POLLUTION CTL REV	-	8/15/2020	764.9	67
46	64966LCJ8	NEW YORK N Y	-	8/1/2038	757.0	272
47	45471AAS1	INDIANA FIN AUTH HOSP REV	-	12/31/2039	748.9	159
48	45204EM39	ILLINOIS FIN AUTH REV	-	11/15/2037	748.5	135
49	54834RAC3	LOWER NECHES VALLEY AUTH TEX INDL DEV CORP EXEMPT FACS REV	-	2/1/2031	740.1	43
50	6461364Z1	NEW JERSEY ST TRANSN TR FD AUTH	4.50	6/15/2049	729.8	1,987

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Most Actively Traded Municipal Securities

Top 50 Most Active Securities, 2019:Q1

By number of trades

Rank	CUSIP ¹	Issuer Name	Coupon	Maturity	Par Amount (\$ Millions)	Number of Trades
1	74529JQG3	PUERTO RICO SALES TAX FING CORP SALES TAX REV	-	7/1/2046	2,734.1	5,504
2	74529JQH1	PUERTO RICO SALES TAX FING CORP SALES TAX REV	-	7/1/2051	2,665.5	5,253
3	74529JPX7	PUERTO RICO SALES TAX FING CORP SALES TAX REV	5.00	7/1/2058	2,306.4	4,662
4	74529JPW9	PUERTO RICO SALES TAX FING CORP SALES TAX REV	4.75	7/1/2053	847.2	3,839
5	74529JPY5	PUERTO RICO SALES TAX FING CORP SALES TAX REV	4.55	7/1/2040	563.6	3,495
6	74529JQF5	PUERTO RICO SALES TAX FING CORP SALES TAX REV	-	7/1/2033	537.9	3,079
7	74529JQE8	PUERTO RICO SALES TAX FING CORP SALES TAX REV	-	7/1/2031	478.6	2,778
8	74529JQA6	PUERTO RICO SALES TAX FING CORP SALES TAX REV	5.00	7/1/2058	238.7	2,535
9	74529JQC2	PUERTO RICO SALES TAX FING CORP SALES TAX REV	-	7/1/2027	471.9	2,282
10	74529JQD0	PUERTO RICO SALES TAX FING CORP SALES TAX REV	-	7/1/2029	381.5	2,262
11	74529JPU3	PUERTO RICO SALES TAX FING CORP SALES TAX REV	4.50	7/1/2034	440.6	2,005
12	6461364Z1	NEW JERSEY ST TRANSN TR FD AUTH	4.50	6/15/2049	729.8	1,987
13	36829QAA3	GDB DEBT RECOVERY AUTH OF COMWLTH PUERTO RICO	7.50	8/20/2040	930.2	1,747
14	74529JQB4	PUERTO RICO SALES TAX FING CORP SALES TAX REV	-	7/1/2024	293.4	1,670
15	59261AXV4	METROPOLITAN TRANSN AUTH N Y REV	4.00	2/3/2020	1,022.8	1,659
16	74514LB89	PUERTO RICO COMWLTH	5.00	7/1/2041	608.6	1,528
17	74529JPV1	PUERTO RICO SALES TAX FING CORP SALES TAX REV	4.55	7/1/2040	251.4	1,238
18	882724GP6	TEXAS ST	4.00	8/29/2019	1,113.8	1,052
19	167593L42	CHICAGO ILL O HARE INTL ARPT REV	4.00	1/1/2043	172.3	1,025
20	83703FLQ3	SOUTH CAROLINA JOBS-ECONOMIC DEV AUTH HOSP REV	4.25	5/1/2048	121.9	911
21	167593M74	CHICAGO ILL O HARE INTL ARPT REV	4.00	1/1/2053	84.6	892
22	646140DC4	NEW JERSEY ST TPK AUTH TPK REV	4.00	1/1/2048	536.0	849
23	74529JHN8	PUERTO RICO SALES TAX FING CORP SALES TAX REV	6.00	8/1/2042	252.7	794
24	6461364T5	NEW JERSEY ST TRANSN TR FD AUTH	4.00	6/15/2036	163.1	793
25	93976ABH4	WASHINGTON ST CONVENTION CTR PUB FACS DIST	4.00	7/1/2058	123.8	791
26	491209AW2	KENTUCKY BD DEV CORP CONVENTION FACS REV	4.00	9/1/2048	106.7	771
27	167593M41	CHICAGO ILL O HARE INTL ARPT REV	4.00	1/1/2044	532.9	675
28	650010AD3	NEW YORK ST TWY AUTH GEN REV JR INDBT OBLIGS	5.00	5/1/2019	345.1	667
29	37329DBS5	GEORGIA MUN ELEC AUTH PWR REV	4.13	1/1/2049	48.9	667
30	65830RCL1	NORTH CAROLINA TPK AUTH TRIANGLE EXPWY SYS REV	4.00	1/1/2041	65.3	664
31	6461364J7	NEW JERSEY ST TRANSN TR FD AUTH	4.00	12/15/2037	106.2	651
32	60636ASR5	MISSOURI ST HEALTH & EDL FACS AUTH EDL FACS REV	3.75	10/1/2043	68.6	633
33	6461364W8	NEW JERSEY ST TRANSN TR FD AUTH	4.13	6/15/2039	96.0	620
34	64990GGK2	NEW YORK ST DORM AUTH REVS NON ST SUPPORTED DEBT	4.95	8/1/2048	111.9	608
35	74529JLM5	PUERTO RICO SALES TAX FING CORP SALES TAX REV	5.25	8/1/2041	184.0	605
36	70014RBJ5	PARK 70 MET DIST COLO	4.00	12/1/2048	58.2	596
37	745235R37	PUERTO RICO PUB BLDGS AUTH REV GTD	5.25	7/1/2042	229.9	594
38	13063A5G5	CALIFORNIA ST	7.55	4/1/2039	346.4	592
39	74529JQY4	PUERTO RICO SALES TAX FING CORP SALES TAX REV	4.55	7/1/2040	134.8	590
40	74514LB63	PUERTO RICO COMWLTH	5.13	7/1/2037	140.8	586
41	56035DBU5	MAIN STR NAT GAS INC GA GAS SUPPLY REV	4.00	5/15/2039	111.2	585
42	956622N91	WEST VIRGINIA ST HOSP FIN AUTH HOSP REV	4.00	6/1/2051	54.5	575
43	74514LE86	PUERTO RICO COMWLTH	8.00	7/1/2035	1,219.0	549
44	19648FHR8	COLORADO HEALTH FACS AUTH REV	4.25	9/15/2038	36.8	540
45	090874NM6	BIRDVILLE TEX INDPT SCH DIST	3.75	2/15/2044	98.7	532
46	64972GPY4	NEW YORK N Y CITY MUN WTR FIN AUTH WTR & SWR SYS REV	3.63	6/15/2048	94.6	531
47	745160RC7	PUERTO RICO COMWLTH AQUEDUCT & SWR AUTH REV	5.25	7/1/2042	388.3	526
48	34074GDH4	FLORIDA HURRICANE CATASTROPHE FD FIN CORP REV	3.00	7/1/2020	160.7	514
49	64966MR68	NEW YORK N Y	3.13	8/1/2035	55.3	511
50	650116BG0	NEW YORK TRANSN DEV CORP SPL FAC REV	4.00	7/1/2041	40.5	499

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Most Actively Traded Municipal Securities

Top 50 Most Active Fixed Rate¹ Securities, 2019:Q1

By par amount

Rank	CUSIP ²	Issuer Name	Coupon	Maturity	Par Amount (\$ Millions)	Number of Trades
1	74529JPX7	PUERTO RICO SALES TAX FING CORP SALES TAX REV	5.00	7/1/2058	2,306.4	4,662
2	79766DMB2	SAN FRANCISCO CALIF CITY & CNTY ARPTS COMMN INTL ARPT REV	5.00	5/1/2049	1,461.5	205
3	74514LE86	PUERTO RICO COMWLTH	8.00	7/1/2035	1,219.0	549
4	882724GP6	TEXAS ST	4.00	8/29/2019	1,113.8	1,052
5	25476FXV5	DISTRICT COLUMBIA	5.00	10/15/2044	1,091.7	120
6	882854Q70	TEXAS WTR DEV BRD REV	5.00	4/15/2049	1,055.6	307
7	59261AXV4	METROPOLITAN TRANSN AUTH N Y REV	4.00	2/3/2020	1,022.8	1,659
8	36829QAA3	GDB DEBT RECOVERY AUTH OF COMWLTH PUERTO RICO	7.50	8/20/2040	930.2	1,747
9	79766DMA4	SAN FRANCISCO CALIF CITY & CNTY ARPTS COMMN INTL ARPT REV	5.00	5/1/2044	914.0	132
10	6461364X6	NEW JERSEY ST TRANSN TR FD AUTH	5.25	6/15/2043	882.0	255
11	59260XAA6	METROPOLITAN TRANSN AUTH N Y DEDICATED TAX FD	5.00	3/1/2022	870.2	380
12	91412HFG3	UNIVERSITY CALIF REVS	3.35	7/1/2029	862.1	250
13	74529JPW9	PUERTO RICO SALES TAX FING CORP SALES TAX REV	4.75	7/1/2053	847.2	3,839
14	167593M66	CHICAGO ILL O HARE INTL ARPT REV	5.00	1/1/2053	786.4	63
15	6461364Z1	NEW JERSEY ST TRANSN TR FD AUTH	4.50	6/15/2049	729.8	1,987
16	54466HHF6	LOS ANGELES CNTY CALIF MET TRANSN AUTH SALES TAX REV	5.00	7/1/2044	684.9	166
17	130179SD7	CALIFORNIA EDL FACS AUTH REV	5.00	5/1/2049	628.5	130
18	74514LB89	PUERTO RICO COMWLTH	5.00	7/1/2041	608.6	1,528
19	452151LF8	ILLINOIS ST	5.10	6/1/2033	608.0	493
20	64971XEBO	NEW YORK N Y CITY TRANSITIONAL FIN AUTH REV	3.85	5/1/2030	599.7	18
21	5444956V1	LOS ANGELES CALIF DEPT WTR & PWR REV	5.25	7/1/2049	587.0	88
22	677660UZ3	OHIO ST WTR DEV AUTH POLLUTION CTL FACS REV	5.00	6/1/2029	580.6	234
23	888808HT2	TOBACCO SETTLEMENT FING CORP N J	5.00	6/1/2046	568.7	238
24	79467BCN3	SALES TAX SECURITIZATION CORP ILL	4.79	1/1/2048	566.7	93
25	64990FJL9	NEW YORK ST DORM AUTH ST PERS INCOME TAX REV	4.00	3/15/2048	564.5	142
26	74529JPY5	PUERTO RICO SALES TAX FING CORP SALES TAX REV	4.55	7/1/2040	563.6	3,495
27	13063DLS5	CALIFORNIA ST	5.00	4/1/2036	541.4	103
28	646140DC4	NEW JERSEY ST TPK AUTH TPK REV	4.00	1/1/2048	536.0	849
29	13063DLT3	CALIFORNIA ST	5.00	4/1/2036	534.6	184
30	167593M41	CHICAGO ILL O HARE INTL ARPT REV	4.00	1/1/2044	532.9	675
31	072024QS4	BAY AREA TOLL AUTH CALIF TOLL BRDG REV	5.00	10/1/2042	520.2	146
32	646140DD2	NEW JERSEY ST TPK AUTH TPK REV	5.00	1/1/2048	516.6	435
33	13063DLL0	CALIFORNIA ST	5.00	4/1/2032	505.3	132
34	6500358W1	NEW YORK ST URBAN DEV CORP REV	3.90	3/15/2033	502.9	78
35	79467BCM5	SALES TAX SECURITIZATION CORP ILL	4.64	1/1/2040	499.2	70
36	20772GF45	CONNECTICUT ST	5.85	3/15/2032	498.4	74
37	64990AMQ5	NEW YORK ST DORM AUTH SALES TAX REV ST SUPPORTED DEBT	5.00	3/15/2039	470.9	24
38	167593H62	CHICAGO ILL O HARE INTL ARPT REV	4.47	1/1/2049	460.3	107
39	56035DBW1	MAIN STR NAT GAS INC GA GAS SUPPLY REV	5.00	5/15/2049	458.6	159
40	574193PD4	MARYLAND ST	5.00	8/1/2025	450.3	159
41	57582RVX1	MASSACHUSETTS ST	5.25	1/1/2044	447.4	86
42	05914FN89	BALTIMORE CNTY MD	4.00	3/18/2019	444.3	65
43	74529JPU3	PUERTO RICO SALES TAX FING CORP SALES TAX REV	4.50	7/1/2034	440.6	2,005
44	594712UF6	MICHIGAN ST UNIV REVS	4.50	8/15/2048	439.5	151
45	118217AU2	BUCKEYE OHIO TOB SETTLEMENT FING AUTH	5.88	6/1/2047	435.5	426
46	544657HV4	LOS ANGELES CNTY CALIF	4.00	6/28/2019	433.3	141
47	544495Z72	LOS ANGELES CALIF DEPT WTR & PWR REV	5.00	7/1/2047	432.1	70
48	072024TG7	BAY AREA TOLL AUTH CALIF TOLL BRDG REV	5.25	4/1/2048	428.3	231
49	64972GSJ4	NEW YORK N Y CITY MUN WTR FIN AUTH WTR & SWR SYS REV	5.25	6/15/2049	427.4	112
50	283770MF9	EL PASO TEX INDPT SCH DIST	4.00	8/15/2043	419.4	156

¹ Includes zero-coupon securities

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Most Actively Traded Municipal Securities

Top 50 Most Active Fixed Rate¹ Securities, 2019:Q1

By number of trades

Rank	CUSIP ²	Issuer Name	Coupon	Maturity	Par Amount (\$ Millions)	Number of Trades
1	74529JPX7	PUERTO RICO SALES TAX FING CORP SALES TAX REV	5.00	7/1/2058	2,306.4	4,662
2	74529JPW9	PUERTO RICO SALES TAX FING CORP SALES TAX REV	4.75	7/1/2053	847.2	3,839
3	74529JPY5	PUERTO RICO SALES TAX FING CORP SALES TAX REV	4.55	7/1/2040	563.6	3,495
4	74529JQA6	PUERTO RICO SALES TAX FING CORP SALES TAX REV	5.00	7/1/2058	238.7	2,535
5	74529JPU3	PUERTO RICO SALES TAX FING CORP SALES TAX REV	4.50	7/1/2034	440.6	2,005
6	6461364Z1	NEW JERSEY ST TRANSN TR FD AUTH	4.50	6/15/2049	729.8	1,987
7	36829QAA3	GDB DEBT RECOVERY AUTH OF COMWLTH PUERTO RICO	7.50	8/20/2040	930.2	1,747
8	59261AXV4	METROPOLITAN TRANSN AUTH N Y REV	4.00	2/3/2020	1,022.8	1,659
9	74514LB89	PUERTO RICO COMWLTH	5.00	7/1/2041	608.6	1,528
10	74529JPV1	PUERTO RICO SALES TAX FING CORP SALES TAX REV	4.55	7/1/2040	251.4	1,238
11	882724GP6	TEXAS ST	4.00	8/29/2019	1,113.8	1,052
12	167593L42	CHICAGO ILL O HARE INTL ARPT REV	4.00	1/1/2043	172.3	1,025
13	83703FLQ3	SOUTH CAROLINA JOBS-ECONOMIC DEV AUTH HOSP REV	4.25	5/1/2048	121.9	911
14	167593M74	CHICAGO ILL O HARE INTL ARPT REV	4.00	1/1/2053	84.6	892
15	646140DC4	NEW JERSEY ST TPK AUTH TPK REV	4.00	1/1/2048	536.0	849
16	74529JHN8	PUERTO RICO SALES TAX FING CORP SALES TAX REV	6.00	8/1/2042	252.7	794
17	6461364T5	NEW JERSEY ST TRANSN TR FD AUTH	4.00	6/15/2036	163.1	793
18	93976ABH4	WASHINGTON ST CONVENTION CTR PUB FACS DIST	4.00	7/1/2058	123.8	791
19	491209AW2	KENTUCKY BD DEV CORP CONVENTION FACS REV	4.00	9/1/2048	106.7	771
20	167593M41	CHICAGO ILL O HARE INTL ARPT REV	4.00	1/1/2044	532.9	675
21	37329DBS5	GEORGIA MUN ELEC AUTH PWR REV	4.13	1/1/2049	48.9	667
22	650010AD3	NEW YORK ST TWY AUTH GEN REV JR INDBT OBLIGS	5.00	5/1/2019	345.1	667
23	65830RCL1	NORTH CAROLINA TPK AUTH TRIANGLE EXPWY SYS REV	4.00	1/1/2041	65.3	664
24	6461364J7	NEW JERSEY ST TRANSN TR FD AUTH	4.00	12/15/2037	106.2	651
25	60636ASR5	MISSOURI ST HEALTH & EDL FACS AUTH EDL FACS REV	3.75	10/1/2043	68.6	633
26	6461364W8	NEW JERSEY ST TRANSN TR FD AUTH	4.13	6/15/2039	96.0	620
27	64990GGK2	NEW YORK ST DORM AUTH REVS NON ST SUPPORTED DEBT	4.95	8/1/2048	111.9	608
28	74529JLM5	PUERTO RICO SALES TAX FING CORP SALES TAX REV	5.25	8/1/2041	184.0	605
29	70014RBJ5	PARK 70 MET DIST COLO	4.00	12/1/2048	58.2	596
30	745235R37	PUERTO RICO PUB BLDGS AUTH REV GTD	5.25	7/1/2042	229.9	594
31	13063A5G5	CALIFORNIA ST	7.55	4/1/2039	346.4	592
32	74529JQY4	PUERTO RICO SALES TAX FING CORP SALES TAX REV	4.55	7/1/2040	134.8	590
33	74514LB63	PUERTO RICO COMWLTH	5.13	7/1/2037	140.8	586
34	56035DBU5	MAIN STR NAT GAS INC GA GAS SUPPLY REV	4.00	5/15/2039	111.2	585
35	956622N91	WEST VIRGINIA ST HOSP FIN AUTH HOSP REV	4.00	6/1/2051	54.5	575
36	74514LE86	PUERTO RICO COMWLTH	8.00	7/1/2035	1,219.0	549
37	19648FHR8	COLORADO HEALTH FACS AUTH REV	4.25	9/15/2038	36.8	540
38	090874NM6	BIRDVILLE TEX INDPT SCH DIST	3.75	2/15/2044	98.7	532
39	64972GPY4	NEW YORK N Y CITY MUN WTR FIN AUTH WTR & SWR SYS REV	3.63	6/15/2048	94.6	531
40	745160RC7	PUERTO RICO COMWLTH AQUEDUCT & SWR AUTH REV	5.25	7/1/2042	388.3	526
41	34074GDH4	FLORIDA HURRICANE CATASTROPHE FD FIN CORP REV	3.00	7/1/2020	160.7	514
42	64966MR68	NEW YORK N Y	3.13	8/1/2035	55.3	511
43	650116BG0	NEW YORK TRANSN DEV CORP SPL FAC REV	4.00	7/1/2041	40.5	499
44	01728A4B9	ALLEGHENY CNTY PA HOSP DEV AUTH REV	4.00	4/1/2044	72.2	497
45	452151LF8	ILLINOIS ST	5.10	6/1/2033	608.0	493
46	113071BF0	BROOKHAVEN GA	3.50	7/1/2049	35.7	483
47	59447TMQ3	MICHIGAN FIN AUTH REV	4.00	11/15/2046	52.3	476
48	13063BJB9	CALIFORNIA ST	7.70	11/1/2030	64.5	473
49	649906BB9	NEW YORK ST DORM AUTH REVS NON ST SUPPORTED DEBT	5.00	10/1/2041	160.9	466
50	645913AA2	NEW JERSEY ECONOMIC DEV AUTH ST PENSION FDG REV	7.43	2/15/2029	304.4	460

¹ Includes zero-coupon securities

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Most Actively Traded Municipal Securities

Top 50 Most Active Variable Rate Securities, 2019:Q1

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	2,969.4	189
2	60528AAS3	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	12/1/2030	2,816.7	120
3	402207AD6	GULF COAST INDL DEV AUTH TEX REV	11/1/2041	2,635.4	252
4	270777AD7	EAST BATON ROUGE PARISH LA INC INDL DEV BRD REV	12/1/2040	2,094.0	158
5	072024VU3	BAY AREA TOLL AUTH CALIF TOLL BRDG REV	4/1/2045	2,041.1	68
6	64966ML98	NEW YORK N Y	12/1/2047	1,592.9	124
7	64966G4Q2	NEW YORK N Y	4/1/2035	1,353.1	171
8	57586CV69	MASSACHUSETTS ST HEALTH & EDL FACS AUTH REV	12/1/2037	1,126.5	99
9	60528ABY9	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	11/1/2035	1,110.2	123
10	60528AAW4	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	12/1/2030	1,061.7	89
11	546398YU6	LOUISIANA PUB FACS AUTH REV	8/1/2043	1,014.5	54
12	60528ACB8	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	11/1/2035	1,012.6	90
13	89602RFA8	TRIBOROUGH BRDG & TUNL AUTH N Y REVS	11/1/2032	977.9	178
14	13063BCH3	CALIFORNIA ST	5/1/2033	879.1	93
15	64966JE77	NEW YORK N Y	4/1/2042	876.1	263
16	64971XHT8	NEW YORK N Y CITY TRANSITIONAL FIN AUTH REV	8/1/2042	869.7	130
17	64971XFY9	NEW YORK N Y CITY TRANSITIONAL FIN AUTH REV	8/1/2045	860.3	133
18	60528AAT1	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	12/1/2030	836.1	97
19	533485BD9	LINCOLN CNTY WYO POLLUTN CTL REV	10/1/2044	832.3	42
20	919061BU4	VALDEZ ALASKA MARINE TERM REV	10/1/2025	819.3	102
21	548351AC9	LOWER NECHES VALLEY AUTH TEX INDL DEV CORP REV	11/1/2038	816.8	186
22	9151153W7	UNIVERSITY TEX PERM UNIV FD	7/1/2037	800.9	59
23	467229AF7	JACKSON CNTY MISS PORT FAC REV	6/1/2023	798.9	97
24	13033FK74	CALIFORNIA HEALTH FACS FING AUTH REV	6/1/2041	797.3	164
25	64966FA87	NEW YORK N Y	4/1/2036	793.5	104
26	548351AE5	LOWER NECHES VALLEY AUTH TEX INDL DEV CORP REV	5/1/2046	793.1	128
27	544495DH4	LOS ANGELES CALIF DEPT WTR & PWR REV	7/1/2034	770.6	331
28	903592AQ6	UINTA CNTY WYO POLLUTION CTL REV	8/15/2020	764.9	67
29	64966LCJ8	NEW YORK N Y	8/1/2038	757.0	272
30	45471AAS1	INDIANA FIN AUTH HOSP REV	12/31/2039	748.9	159
31	45204EM39	ILLINOIS FIN AUTH REV	11/15/2037	748.5	135
32	54834RAC3	LOWER NECHES VALLEY AUTH TEX INDL DEV CORP EXEMPT FACS REV	2/1/2031	740.1	43
33	46246K5H1	IOWA FIN AUTH REV	2/15/2041	713.8	88
34	13063BCF7	CALIFORNIA ST	5/1/2033	713.0	57
35	64966KTD5	NEW YORK N Y	3/1/2042	710.8	166
36	546398ZP6	LOUISIANA PUB FACS AUTH REV	12/1/2043	706.6	47
37	270838AJ4	EAST BATON ROUGE PARISH LA POLLUTION CTL REV	3/1/2022	692.8	69
38	60374VEJ8	MINNEAPOLIS MINN HEALTH CARE SYS REV	11/15/2048	689.3	151
39	60528ABX1	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	11/1/2035	687.5	164
40	87638QBF5	TARRANT CNTY TEX CULTURAL ED FACS FIN CORP HOSP REV	10/1/2041	683.2	111
41	64972FSG2	NEW YORK N Y CITY MUN WTR FIN AUTH WTR & SWR SYS REV	6/15/2025	677.3	126
42	13062RG77	CALIFORNIA ST	5/1/2040	674.5	134
43	57563CDJ8	MASSACHUSETTS DEPT TRANSN MET HWY SYS REV	1/1/2039	644.3	64
44	130911LA6	CALIFORNIA STATEWIDE CMNTYS DEV AUTH REV	11/1/2030	627.2	85
45	792070BH6	ST LUCIE CNTY FLA POLLUTN CTL REV	9/1/2028	622.5	94
46	60528ACC6	MISSISSIPPI BUSINESS FIN CORP MISS GULF OPPORTUNITY ZONE INDL DEV REV	11/1/2035	618.5	116
47	13063A5Y6	CALIFORNIA ST	5/1/2034	610.5	102
48	880397BG8	TENNERGY CORP TENN GAS REV	2/1/2050	609.4	54
49	821697L23	SHELBY CNTY TENN HEALTH EDL & HSG FACS BRD REV	6/1/2042	592.5	80
50	64972GCR3	NEW YORK N Y CITY MUN WTR FIN AUTH WTR & SWR SYS REV	6/15/2049	586.4	97

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Municipal Market Trades by Trade Type

Trade Type and Size

Average daily par amount in \$ millions

2019:Q1

All Trades

Total	12,395.7
0 - \$25,000	297.1
\$25,001 - \$50,000	324.8
\$50,001 - \$75,000	130.0
\$75,001 - \$100,000	294.2
\$100,001 - \$500,000	1,333.0
\$500,001 - \$1,000,000	888.2
\$1,000,001 - \$2,000,000	1,056.2
More than \$2,000,000	8,072.1

Customer Bought

Total	6,033.2
0 - \$25,000	114.3
\$25,001 - \$50,000	129.9
\$50,001 - \$75,000	51.3
\$75,001 - \$100,000	117.3
\$100,001 - \$500,000	530.5
\$500,001 - \$1,000,000	369.7
\$1,000,001 - \$2,000,000	469.0
More than \$2,000,000	4,251.3

Customer Sold

Total	4,013.4
0 - \$25,000	65.1
\$25,001 - \$50,000	64.9
\$50,001 - \$75,000	28.8
\$75,001 - \$100,000	63.8
\$100,001 - \$500,000	311.7
\$500,001 - \$1,000,000	242.0
\$1,000,001 - \$2,000,000	319.5
More than \$2,000,000	2,917.6

Inter-Dealer

Total	2,349.1
0 - \$25,000	117.8
\$25,001 - \$50,000	130.0
\$50,001 - \$75,000	49.8
\$75,001 - \$100,000	113.1
\$100,001 - \$500,000	490.9
\$500,001 - \$1,000,000	276.5
\$1,000,001 - \$2,000,000	267.8
More than \$2,000,000	903.2

Municipal Market Trades by Trade Type

Trade Type and Size

Average daily number of trades

2019:Q1	
All Trades	
Total	40,097
0 - \$25,000	19,147
\$25,001 - \$50,000	7,684
\$50,001 - \$75,000	1,951
\$75,001 - \$100,000	3,032
\$100,001 - \$500,000	5,378
\$500,001 - \$1,000,000	1,126
\$1,000,001 - \$2,000,000	704
More than \$2,000,000	1,075

Customer Bought	
Total	15,592
0 - \$25,000	7,097
\$25,001 - \$50,000	3,060
\$50,001 - \$75,000	767
\$75,001 - \$100,000	1,208
\$100,001 - \$500,000	2,153
\$500,001 - \$1,000,000	467
\$1,000,001 - \$2,000,000	311
More than \$2,000,000	529

Customer Sold	
Total	9,175
0 - \$25,000	4,396
\$25,001 - \$50,000	1,556
\$50,001 - \$75,000	433
\$75,001 - \$100,000	657
\$100,001 - \$500,000	1,245
\$500,001 - \$1,000,000	302
\$1,000,001 - \$2,000,000	211
More than \$2,000,000	376

Inter-Dealer	
Total	15,330
0 - \$25,000	7,654
\$25,001 - \$50,000	3,068
\$50,001 - \$75,000	751
\$75,001 - \$100,000	1,167
\$100,001 - \$500,000	1,980
\$500,001 - \$1,000,000	357
\$1,000,001 - \$2,000,000	182
More than \$2,000,000	170

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

Transaction Summary - Fixed Rate Securities

Average daily par amount in \$ millions

2019:Q1	
Fixed Rate	
Total	7,864.4
0 - \$25,000	287.5
\$25,001 - \$50,000	313.6
\$50,001 - \$75,000	124.2
\$75,001 - \$100,000	268.0
\$100,001 - \$500,000	1,176.2
\$500,001 - \$1,000,000	739.3
\$1,000,001 - \$2,000,000	838.6
More than \$2,000,000	4,116.7

Zero Coupon	
Total	328.9
0 - \$25,000	8.4
\$25,001 - \$50,000	9.4
\$50,001 - \$75,000	4.7
\$75,001 - \$100,000	7.9
\$100,001 - \$500,000	33.4
\$500,001 - \$1,000,000	18.5
\$1,000,001 - \$2,000,000	19.9
More than \$2,000,000	226.7

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

Transaction Summary - Fixed Rate Securities

Average daily number of trades

2019:Q1	
Fixed Trade	
Total	37,375
0 - \$25,000	18,335
\$25,001 - \$50,000	7,413
\$50,001 - \$75,000	1,864
\$75,001 - \$100,000	2,765
\$100,001 - \$500,000	4,797
\$500,001 - \$1,000,000	940
\$1,000,001 - \$2,000,000	560
More than \$2,000,000	701

Zero Coupon	
Total	1,329
0 - \$25,000	740
\$25,001 - \$50,000	229
\$50,001 - \$75,000	73
\$75,001 - \$100,000	83
\$100,001 - \$500,000	146
\$500,001 - \$1,000,000	23
\$1,000,001 - \$2,000,000	14
More than \$2,000,000	21

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

Source of Repayment

Average daily par amount in \$ millions

2019:Q1	
Fixed Rate	
Total	7,862.1
General Obligation	3,027.2
Revenue	4,573.2
Double Barrel	261.7

Zero Coupon	
Total	328.9
General Obligation	69.0
Revenue	258.2
Double Barrel	1.8

Average daily number of trades

Fixed Rate	
Total	37,375
General Obligation	14,445
Revenue	21,717
Double Barrel	1,212

Zero Coupon	
Total	1,329
General Obligation	515
Revenue	796
Double Barrel	18

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

Tax Status

Average daily par amount in \$ millions

2019:Q1	
Fixed Rate	
Total	7,862.3
Tax Exempt	6,811.6
Taxable	778.6
AMT	272.2

Zero Coupon	
Total	328.9
Tax Exempt	313.0
Taxable	15.8
AMT	0.1

Average daily number of trades

Fixed Rate	
Total	37,374
Tax Exempt	34,464
Taxable	2,445
AMT	464

Zero Coupon	
Total	1,329
Tax Exempt	1,246
Taxable	83
AMT	<1

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

Sector

Average daily par amount in \$ millions

2019:Q1	
Fixed Rate	
Total	7,864.4
Education	1,740.0
Health	421.8
Housing	169.1
Tax-Revenue	1,088.6
Transportation	839.2
Utility	863.2
Various Purpose	1,377.9
Other	1,364.7

Zero Coupon	
Total	328.9
Education	66.3
Health	4.2
Housing	0.2
Tax-Revenue	153.8
Transportation	38.3
Utility	2.8
Various Purpose	12.8
Other	50.6

Average daily number of trades

Fixed Rate	
Total	37,375
Education	9,778
Health	2,529
Housing	931
Tax-Revenue	4,097
Transportation	3,062
Utility	4,777
Various Purpose	4,992
Other	7,209

Zero Coupon	
Total	1,329
Education	482
Health	24
Housing	2
Tax-Revenue	496
Transportation	124
Utility	60
Various Purpose	55
Other	87

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

2019:Q1	
All Trades	
Total	3,085.1
0 - \$25,000	<0.1
\$25,001 - \$50,000	<0.1
\$50,001 - \$75,000	<0.1
\$75,001 - \$100,000	15.1
\$100,001 - \$500,000	104.2
\$500,001 - \$1,000,000	112.4
\$1,000,001 - \$2,000,000	170.5
More than \$2,000,000	2,682.9
Customer Bought	
Total	1,510.7
0 - \$25,000	<0.1
\$25,001 - \$50,000	<0.1
\$50,001 - \$75,000	<0.1
\$75,001 - \$100,000	5.2
\$100,001 - \$500,000	44.6
\$500,001 - \$1,000,000	51.3
\$1,000,001 - \$2,000,000	83.0
More than \$2,000,000	1,326.7
Customer Sold	
Total	1,519.0
0 - \$25,000	<0.1
\$25,001 - \$50,000	<0.1
\$50,001 - \$75,000	<0.1
\$75,001 - \$100,000	8.4
\$100,001 - \$500,000	51.8
\$500,001 - \$1,000,000	55.3
\$1,000,001 - \$2,000,000	80.9
More than \$2,000,000	1,322.7
Inter-Dealer	
Total	55.4
0 - \$25,000	<0.1
\$25,001 - \$50,000	<0.1
\$50,001 - \$75,000	<0.1
\$75,001 - \$100,000	1.5
\$100,001 - \$500,000	7.9
\$500,001 - \$1,000,000	5.9
\$1,000,001 - \$2,000,000	6.7
More than \$2,000,000	33.4

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

2019:Q1

All Trades	
Total	1,043
0 - \$25,000	1
\$25,001 - \$50,000	1
\$50,001 - \$75,000	<1
\$75,001 - \$100,000	151
\$100,001 - \$500,000	359
\$500,001 - \$1,000,000	141
\$1,000,001 - \$2,000,000	113
More than \$2,000,000	277

Customer Bought	
Total	459
0 - \$25,000	<1
\$25,001 - \$50,000	<1
\$50,001 - \$75,000	<1
\$75,001 - \$100,000	52
\$100,001 - \$500,000	151
\$500,001 - \$1,000,000	64
\$1,000,001 - \$2,000,000	55
More than \$2,000,000	136

Customer Sold	
Total	521
0 - \$25,000	1
\$25,001 - \$50,000	1
\$50,001 - \$75,000	<1
\$75,001 - \$100,000	84
\$100,001 - \$500,000	178
\$500,001 - \$1,000,000	69
\$1,000,001 - \$2,000,000	53
More than \$2,000,000	135

Inter-Dealer	
Total	62
0 - \$25,000	<1
\$25,001 - \$50,000	<1
\$50,001 - \$75,000	<1
\$75,001 - \$100,000	15
\$100,001 - \$500,000	29
\$500,001 - \$1,000,000	8
\$1,000,001 - \$2,000,000	4
More than \$2,000,000	5

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

2019:Q1	
All Trades	
Total	22.8
0 - \$25,000	0.2
\$25,001 - \$50,000	0.3
\$50,001 - \$75,000	0.2
\$75,001 - \$100,000	0.9
\$100,001 - \$500,000	4.7
\$500,001 - \$1,000,000	3.0
\$1,000,001 - \$2,000,000	2.9
More than \$2,000,000	10.7
Customer Bought	
Total	8.1
0 - \$25,000	0.1
\$25,001 - \$50,000	0.1
\$50,001 - \$75,000	0.1
\$75,001 - \$100,000	0.3
\$100,001 - \$500,000	1.4
\$500,001 - \$1,000,000	1.1
\$1,000,001 - \$2,000,000	1.0
More than \$2,000,000	4.1
Customer Sold	
Total	6.9
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	1.8
\$500,001 - \$1,000,000	0.9
\$1,000,001 - \$2,000,000	0.7
More than \$2,000,000	2.9
Inter-Dealer	
Total	7.8
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	1.1
\$1,000,001 - \$2,000,000	1.1
More than \$2,000,000	3.7

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

2019:Q1	
All Trades	
Total	50
0 - \$25,000	7
\$25,001 - \$50,000	5
\$50,001 - \$75,000	3
\$75,001 - \$100,000	9
\$100,001 - \$500,000	18
\$500,001 - \$1,000,000	4
\$1,000,001 - \$2,000,000	2
More than \$2,000,000	2
Customer Bought	
Total	17
0 - \$25,000	3
\$25,001 - \$50,000	2
\$50,001 - \$75,000	1
\$75,001 - \$100,000	3
\$100,001 - \$500,000	6
\$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	2
\$25,001 - \$50,000	2
\$50,001 - \$75,000	1
\$75,001 - \$100,000	4
\$100,001 - \$500,000	7
\$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	2
\$50,001 - \$75,000	1
\$75,001 - \$100,000	2
\$100,001 - \$500,000	6
\$500,001 - \$1,000,000	2
\$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

2019:Q1	
All Trades	
Total	2.48
0 - \$25,000	2.56
\$25,001 - \$50,000	2.45
\$50,001 - \$75,000	2.33
\$75,001 - \$100,000	2.37
\$100,001 - \$500,000	2.31
\$500,001 - \$1,000,000	2.41
\$1,000,001 - \$2,000,000	2.48
More than \$2,000,000	2.70

Customer Bought	
Total	2.36
0 - \$25,000	2.44
\$25,001 - \$50,000	2.34
\$50,001 - \$75,000	2.18
\$75,001 - \$100,000	2.24
\$100,001 - \$500,000	2.17
\$500,001 - \$1,000,000	2.35
\$1,000,001 - \$2,000,000	2.52
More than \$2,000,000	2.76

Customer Sold	
Total	2.56
0 - \$25,000	2.72
\$25,001 - \$50,000	2.49
\$50,001 - \$75,000	2.37
\$75,001 - \$100,000	2.35
\$100,001 - \$500,000	2.26
\$500,001 - \$1,000,000	2.34
\$1,000,001 - \$2,000,000	2.39
More than \$2,000,000	2.63

Municipal Market Variable Securities Rate Resets

Number of Variable Rate Demand Obligations Rate Resets by Type¹

	2019:Q1
Total	88,500
Set by Remarketing Agent	88,340
Set by Formula	99
Maximum Rate	61

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

2019:Q1	
Total	972
Set by Auction	474
Maximum Rate	461
All Hold Rate	37

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

	2019:Q1
Annual Financial Information and Operation Data	11,811
Audited Financial Statements or CAFR	11,734
Bond Call	6,882
Quarterly/Monthly Financial Information	3,759
Other Financial/Operating Data	2,742
Budget	1,603
Failure to Provide Annual Financial Info	1,297
Other Event-Based Disclosures	1,107
Rating Change	960
Interim/Additional Financial Information/Operating Data	636
Defeasance	345
Notice to Investor Pursuant to Bond Documents	169
Financial Obligation - Incurrence or Agreement	167
Principal & Interest Payment Delinquency	97
Bank Loan	91
Tender Offer/Secondary Market Purchases	67
Consultant Reports	64
Information Provided to Rating Agency, Credit/Liquidity Provider or Other Third Party	57
Asset Backed Securities Filings ¹	54
Unscheduled Draw on Debt Service Reserve	26
Investment/Debt/Financial Policy	25
Bid for Auction Rate or Other Securities	24
Successor, Additional or Change in Trustee	24
Bankruptcy, Insolvency, Receivership	21
Unscheduled Draw on Credit Enhancement	15
Consolidation	14
Amendment to Continuing Disclosure Undertaking	14
Non-payment Related Default	12
Substitution of Credit or Liquidity Provider or Its Failure to Perform	11
Litigation/Enforcement Action	9
Release, Substitution or Sale of Property	8
Change of Tender Agent, Remarketing Agent, or Other On-Going Party	7
Change in Obligated Person	6
Change in Fiscal Year/Timing of Annual Disclosure	5
Modification to the Rights of Security Holders	4
Communication from the Internal Revenue Service	3
Derivative	3
Capital or Other Financing Plan	2
Financial Obligation - Event Reflecting Financial Difficulties	2
Adverse Tax Opinion or Event Affecting Tax-Exempt Status	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.