

THE BOND BUYER

2021 IN STATISTICS

Midyear Review

OUTRUNNING THE RECORD

Halfway through 2021, long-term issuance is
slightly ahead of last year's record pace



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
ALL BONDS	\$6.17	\$5.78	\$5.58	\$5.45	\$5.59	\$5.27	\$4.89	\$6.21	\$5.94	\$5.62	\$5.52	\$5.20	\$5.00	\$4.64	\$4.65	\$4.49	\$4.42	\$4.31	\$4.25	\$3.70
Negotiated	6.20	5.80	5.49	5.56	5.66	5.41	4.82	6.22	6.03	5.61	5.40	5.17	5.08	4.57	4.62	4.55	4.53	4.36	4.17	3.93
Competitive	5.86	5.57	6.31	4.42	4.89	4.12	5.61	6.16	5.23	5.65	6.17	5.35	4.58	4.96	4.77	4.22	3.91	3.98	4.82	1.84
New-Money	6.27	5.85	5.65	5.71	5.60	5.37	5.47	6.39	6.05	5.98	5.57	5.25	5.36	5.05	4.96	4.99	4.66	4.52	4.50	3.72
Refunding	5.88	5.45	5.33	5.21	5.45	4.87	3.82	5.84	5.59	5.16	5.51	5.13	4.65	4.40	4.49	4.11	3.93	4.23	4.16	3.20
Combined	6.38	6.23	5.80	5.20	5.68	5.34	5.01	6.20	6.27	5.52	5.46	5.21	4.99	4.47	4.46	4.14	4.10	3.84	3.83	4.57
Development	4.79	7.33	6.43	6.74	7.04	6.39	4.88	3.65	5.07	5.55	3.43	5.73	6.67	6.58	6.13	6.89	8.68	7.50	5.95	14.38
Education	6.38	5.74	5.55	5.45	5.38	5.12	5.32	6.43	6.33	6.13	6.06	5.53	5.23	5.05	4.92	4.92	5.17	4.87	4.49	4.31
Electric Power	6.17	5.58	5.39	4.34	5.24	4.83	4.74	5.81	5.35	4.52	4.51	4.48	4.24	2.86	3.18	3.26	3.16	3.16	2.66	n.a
Environmental	5.89	5.87	5.18	4.96	4.34	4.15	4.37	5.20	4.31	5.54	5.76	5.99	5.09	3.77	4.52	7.36	3.72	5.43	3.26	n.a
Health Care	6.59	6.50	5.65	4.99	5.64	5.90	4.13	7.78	8.56	7.10	7.42	7.08	7.28	6.38	6.37	5.99	6.02	5.08	4.34	4.32
Housing	6.63	5.81	5.86	5.43	6.11	5.84	5.40	5.66	6.40	6.89	6.57	6.09	6.10	4.72	4.82	4.92	5.02	5.33	5.43	8.68
Public Facilities	6.41	6.12	5.97	6.28	6.87	5.24	5.02	7.44	6.69	6.89	6.54	5.57	6.36	5.53	6.01	5.45	4.52	5.33	5.47	10.39
Transportation	5.14	5.31	5.07	4.85	5.06	4.78	4.80	5.55	5.28	4.79	4.74	4.24	3.94	3.57	3.95	3.29	3.01	2.91	3.73	2.47
Utilities	6.45	6.07	5.48	5.73	5.22	5.53	4.63	6.00	5.88	5.74	6.21	5.62	5.02	4.73	4.11	4.36	4.16	4.41	4.75	5.56
General Purpose	6.28	5.61	5.72	5.86	6.01	5.13	5.20	5.87	5.28	4.93	4.69	4.52	4.41	4.08	4.04	3.74	3.68	3.67	3.79	3.59
Stimulus Program	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	7.45	6.44	7.16	5.86	5.88	8.05	4.87	4.86	5.33	6.79	0.25	5.00	n.a

Note: Amounts represent dollars per \$1,000 face value of bond issues. Underwriting spreads include managers' fees, underwriting fees, average takedowns, and expenses. Private placements, short-term notes maturing in under 13 months, and remarketings of variable-rate securities are excluded. Source: Refinitiv (Aug. 2)

	2021		2020		Percent Change
	Volume (\$ mill)	# Issues	Volume (\$ mill)	# Issues	
Total	\$56,522.2	1,297	\$57,001.1	1,011	−0.8%
First Quarter	30,178.0	654	24,159.1	413	+24.9
Second Quarter	26,344.2	643	32,842.1	598	−19.8
Development	1,565.7	61	1,802.9	48	−13.2
Education	18,862.9	613	22,929.7	499	−17.7
Electric Power	952.7	10	1,279.4	19	−25.5
Environmental Facilities	18.6	2	4.5	1	+313.3
Healthcare	1,689.3	35	1,782.8	37	−5.2
Housing	2,759.0	53	2,541.8	41	+8.5
Public Facilities	1,046.7	43	770.5	19	+35.8
Transportation	7,589.6	46	6,433.5	34	+18.0
Utilities	4,715.7	90	6,028.8	93	−21.8
General Purpose	17,322.0	344	13,427.2	220	+29.0
Tax-Exempt	0.0	0	0.0	0	n.m.
Taxable	56,522.2	1,297	57,001.1	1,011	−0.8
Minimum-Tax	0.0	0	0.0	0	n.m.
New-Money	31,021.5	605	20,021.3	466	+54.9
Refunding	21,991.9	629	31,045.0	484	−29.2
Combined	3,508.8	63	5,934.9	61	−40.9
Negotiated	45,543.4	908	46,347.8	661	−1.7
Competitive	7,827.4	309	4,239.3	208	+84.6
Private Placements	3,151.4	80	6,414.0	142	−50.9
Revenue	33,939.0	545	37,301.4	449	−9.0
General Obligation	22,583.2	752	19,699.8	562	+14.6
Fixed Rate	53,792.1	1,248	55,159.3	957	−2.5
Variable Rate (Short Put)	957.3	9	1,387.6	9	−31.0
Variable Rate (Long/No Put)	36.9	3	36.6	1	+0.8
Zero Coupon	235.0	33	185.3	37	+26.8
Linked Rate	1,501.0	4	223.6	6	+571.3
Convertible	0.0	0	8.8	1	−100.0
Bond Insurance	5,481.5	194	3,325.0	119	+64.9
Letter of Credit	0.0	0	0.0	0	n.m.
Standby Purchase Agreements	0.0	0	37.7	1	−100.0
Insured Mortgages	6.6	1	169.3	4	−96.1
Guaranties	1,386.9	58	1,952.3	78	−29.0
Other Enhancements	0.0	0	0.0	0	n.m.
State Governments	4,714.5	36	3,502.3	20	+34.6
State Agencies	15,504.9	183	13,414.6	140	+15.6
Counties & Parishes	2,486.6	83	2,830.6	47	−12.2
Cities & Towns	8,709.9	266	9,170.6	221	−5.0
District	10,943.3	505	10,029.1	389	+9.1
Local Authorities	10,170.9	177	8,402.3	131	+21.0
Colleges & Universities	3,875.6	43	9,144.8	54	−57.6
Direct Issuer	116.5	4	506.9	9	−77.0
Tribal Government	0.0	0	0.0	0	n.m.
Build America Bonds	0.0	0	0.0	0	n.m.
Qualified Sch Construction	0.0	0	0.0	0	n.m.
Other Stimulus Program	0.0	0	0.0	0	n.m.

Notes: Figures are based on issues maturing in 13 months or longer. Private placements and municipal forwards are included, but remarketings are excluded. n.m. — not meaningful. Source: Refinitiv (Jul. 12)

Date	Issuer	Amt (\$mill)	Manager(s)
Mar-19	NYS Dorm Authority, GOs (tax)	\$2,163.1	Mor Stan/Citi/Ramirez/Jeff/Gold Sac/Siebert Williams
Jan-21	Port Authority of NY & NJ, (tax)	1,512.0	BA Securities
Feb-23	Regents of the Univ of California, (tax)	1,379.6	Jefferies/Citi
Apr-20	Triborough Bridge & Tunnel Auth, GOs (tax)(ref)	1,238.2	Goldman Sachs & Co
Mar-24	NYC Transitional Finance Auth, (tax)(cpt)	1,229.5	BNY Cap Mkts/JPM/UBS Fin Ser/Wells Fargo
Feb-25	Regents of the Univ of California, (tax)	1,132.0	Jefferies/Citi
Feb-5	Nassau Co Interim Finance Auth, (tax)	1,110.1	Goldman Sachs & Co
Mar-3	New York City-New York, GOs (tax)(cpt)	1,100.0	BA Securities/Barclays
Jun-8	Georgia (State), GOs (tax)(cpt)	1,096.6	Morgan Stanley
May-5	Pennsylvania (State), GOs (tax)(cpt)(ref)	1,046.6	BA Securities

Key to abbreviations: neg — negotiated; nm — new-money; pvt — private placement; ref — refunding. Source: Refinitiv (Jul. 12)

Taxable Bonds			Taxable Bonds		
Senior Managers: First Half 2021			Financial Advisors: First Half 2021		
	Manager	Amt (\$mill)		Advisor	Amt (\$mill)
1	BofA Securities	\$6,444.1	1	PFM Financial Adv	\$8,239.7
2	Citi	4,849.5	2	Public Resources Adv	5,347.3
3	Morgan Stanley	4,488.4	3	Hilltop Securities	4,439.5
4	Stifel Nicolaus	4,269.8	4	Piper Sandler	2,308.1
5	Jefferies	3,694.6	5	RBC Capital Mkts	2,226.6
6	J P Morgan	3,318.0	6	Swap Financial Group	1,482.3
7	RBC Capital Mkts	3,228.0	7	KNN Public Finance	1,366.4
8	Goldman Sachs	3,227.0	8	Lamont Fin Serv Corp	1,351.7
9	Raymond James	2,409.5	9	Baker Tilly Municipal Adv	1,206.1
10	Piper Sandler	2,348.3	10	S L Capital Strategies	1,134.2

Private placements, short-term notes, and remarketings are excluded. In issues with multiple book-runners, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Private placements, short-term notes, and remarketings are excluded. In issues with co-advisors, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

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Long-Term Bond Sales: First Half

	2021		2020		Percent
	Volume (\$ mill) # Issues		Volume (\$ mill) # Issues		Change
TOTAL	\$231,176.9	6,584	\$210,350.3	5,900	+9.9%
January	27,925.6	789	32,792.9	839	-14.8
February	35,929.6	963	42,229.0	921	-14.9
March	47,382.7	1,197	20,261.5	651	+133.9
April	36,732.2	1,103	31,688.6	919	+15.9
May	34,158.3	1,236	30,991.1	1,071	+10.2
June	49,048.5	1,296	52,387.1	1,499	-6.4
First Quarter	111,237.9	2,949	95,283.4	2,411	+16.7
Second Quarter	119,939.0	3,635	115,066.8	3,489	+4.2
Development	5,114.1	254	4,286.7	171	+19.3
Education	64,769.6	2,464	68,711.6	2,454	-5.7
Electric Power	5,817.0	69	5,612.1	66	+3.7
Environmental Facilities	1,854.4	26	1,043.3	20	+77.7
Health Care	11,591.0	178	16,056.6	205	-27.8
Housing	17,195.2	366	13,394.1	300	+28.4
Public Facilities	6,042.9	218	2,662.8	197	+126.9
Transportation	32,709.0	271	22,006.3	226	+48.6
Utilities	24,444.2	818	23,074.9	802	+5.9
General Purpose	61,639.5	1,920	53,501.9	1,459	+15.2
Tax-Exempt	168,901.7	5,225	151,135.8	4,850	+11.8
Taxable	56,522.2	1,297	57,001.1	1,011	-0.8
Minimum Tax	5,753.0	62	2,213.3	39	+159.9
New-Money	154,402.1	4,087	114,129.1	3,644	+35.3
Refunding	52,477.2	2,108	66,651.1	1,885	-21.3
Combined	24,297.6	389	29,570.2	371	-17.8
Negotiated	169,802.6	3,873	154,923.3	3,241	+9.6
Competitive	51,926.8	2,285	36,952.3	1,940	+40.5
Private Placements	9,447.5	426	18,474.7	719	-48.9
Revenue	139,317.1	2,537	124,848.1	2,131	+11.6
General Obligation	91,859.8	4,047	85,502.2	3,769	+7.4
Fixed-Rate	218,350.8	6,362	197,381.6	5,621	+10.6
Variable-Rate (Short Put)	3,856.8	60	6,587.3	110	-41.5
Variable-Rate (Long/No Put)	6,064.0	83	4,382.3	75	+38.4
Zero-Coupon	1,188.7	69	1,500.5	81	-20.8
Linked-Rate	1,716.6	10	474.1	11	+262.1
Auction Rate	0.0	0	0.0	0	n.m.
Convertible	0.0	0	24.5	2	-100.0
Bond Insurance	18,750.2	1,164	14,044.2	985	+33.5
Letters of Credit	82.5	3	947.7	14	-91.3
Standby Purch Agreements	145.0	3	786.7	12	-81.6
Insured Mortgages	466.8	19	453.8	14	+2.9
Guaranties	6,063.0	338	14,259.6	652	-57.5
Other Enhancements	0.0	0	0.0	0	n.m.
State Governments	21,473.1	119	18,394.1	82	+16.7
State Agencies	65,613.1	785	53,358.5	637	+23.0
Counties & Parishes	13,462.6	397	11,814.4	359	+14.0
Cities & Towns	31,334.7	1,815	29,258.1	1,512	+7.1
Districts	46,625.7	2,611	46,972.4	2,552	-0.7
Local Authorities	40,561.9	719	36,150.0	609	+12.2
Colleges & Universities	8,954.7	117	13,445.9	131	-33.4
Direct Issuers	2,548.6	20	956.9	18	+166.3
Tribal Governments	0.0	0	0.0	0	n.m.
Cooperative Utilities	602.5	1	0.0	0	n.m.
Bank-Qualified	8,330.9	2,102	7,930.5	1,981	+5.0
Build America Bonds	0.0	0	0.0	0	n.m.
Qualified Sch Construction	0.0	0	0.0	0	n.m.
Other Stimulus	4.5	1	15.0	1	-70.0

Notes: Private placements and municipal forwards are included, but short-term notes and remarketings are excluded. n.m. - not meaningful.
Source: Refinitiv (Jul. 23)

At Halfway, Primary Volume Ahead of 2020’s Record Pace

By Aaron Weitzman

Long-term municipal bond volume was 9.9% ahead of 2020’s record-breaking pace at the halfway point of 2021.

After the first six months of the year, bond volume stood at \$231.18 billion in 6,584 transactions, compared to \$210.35 billion in 5,900 deals at the same time last year, according to data from Refinitiv.

The municipal bond market set a record for issuance in 2020 at \$483.6 billion.

Quarter by Quarter

In the first quarter, volume was up 16.7% year-over-year to \$111.24 billion from \$95.28 billion and second quarter issuance increased 4.2% to \$119.94 billion from \$115.07 billion.

“Volume is higher than last year, which feels surprising, as the market has been trading as if it is supply constrained,” according to Jim Grabovac, investment strategist at Loomis Sayles. “That, of course, is counterbalanced by the huge demand that the market has experienced since the initial stages of market recovery from the crisis.”

He added that historically, issuance usually picks up in the second half of the year and there is “a good chance at matching or exceeding last year’s pace.”

Exempt v. Taxable

Tax-exempt issuance was up 11.8% to \$168.90 billion in the first half from \$151.13 billion a year earlier, while taxables dipped 0.8% to \$56.52 billion from \$66.65 billion.

Three out of the first six months saw declines in volume year-over-year, with the decreases coming in January, February and June.

Grabovac believes that drop in June after three months of increase stems from uncertainty over the infrastructure package brewing in Congress.

“Some issuers were taking a wait-and-see approach to determine if exempt advance refunding could return and hesitating, as they were waiting for clarity on the infrastructure package (and) didn’t want to add to debt levels if they were going to get some sort of federal funding,” he said.

Taxables started the year off on a high note, finishing the first quarter up 24.9% to \$30.18 billion from \$24.16 billion and then dropped 19.8% in the second quarter to \$26.34 billion from \$32.84 billion.

“The deceleration of taxable issuance is reflective in the lower number of refunding issuance relative to last year,” Grabovac said. “There is a good chance to come close to what we got last year for taxables at roughly \$65.25 billion.”

He added that in 2020 the split between tax-exempt and taxable was roughly 70% for exempts and 30% for

taxables and this year, it is closer to a 75%-25% split.

“Taxables are definitely here to stay,” he said, noting that legislation is the “wild card” going forward.

“Legislative changes could impact whether or not taxable issuance increases or decreases,” he said. “If for example, if they bring back advance refundings at some point, all refunding activity would come back to the exempt market, and we would see that as a \$100 billion swing.”

A Shift in Refundings

Dawn Mangerson, vice president, head of municipal portfolio management at Loomis Sayles & Co., said she gets the sense that issuers who can get it done in the exempt market with a forward delivery are getting better yields than going taxable.

“Institutionally, when looking at tax-exempt versus taxables with the same name/credit, we have seen issuers pick up 30 basis points with the 21% tax rate,” she said.

New-money volume jumped 35.3% to \$154.40 billion from \$114.13 billion, while refunding volume dropped 21.3% to \$52.48 billion from \$66.65 billion.

Mangerson noted that issuance could have been much higher in the first half, if it were not for the unprecedented fiscal stimulus.

“A lot of issuers with stimulus money may not need to issue as much as they did a year ago; lots of them are in good shape financially,” she said. “But for many it was and still is an enticing debate, as with rates so low — and won’t be this low forever — they are tempted to tackle some long-term projects and lock in the low rates.”

California, the largest state, was the largest source of municipal bonds in the first half.

Municipal issuers in the Golden State were credited by Refinitiv with issuing more than \$37.1 billion of bonds, up 30% from the first half of 2020.

Texas came second, at just shy of \$25.9 billion, down 4.1% year-over-year.

New York was third at \$24.3 billion, a 10.6% increase.

American Samoa held the 53rd final spot among states, territories and the District of Columbia where debt was issued, with \$43.2 million.

No issues came from Puerto Rico and the U.S. Virgin Islands, according to Refinitiv.

COMMENT

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Bond Sales by State: First Half

States	2021			2020			Percent Change
	Rank	Volume (\$mill)	# Issues	Rank	Volume (\$mill)	# Issues	
Alabama	25	\$3,116.8	102	22	\$2,568.0	86	+21.4
Alaska	44	710.4	9	47	153.4	2	+363.1
Arizona	17	4,361.9	84	20	3,049.6	71	+43.0
Arkansas	34	1,586.2	87	34	1,462.5	131	+8.5
California	1	37,130.9	513	1	28,558.0	478	+30.0
Colorado	9	6,072.6	159	13	4,252.1	144	+42.8
Connecticut	19	3,950.9	94	16	3,314.0	80	+19.2
Delaware	48	332.7	5	40	770.8	8	−56.8
Florida	5	8,141.5	209	7	7,249.2	168	+12.3
Georgia	22	3,519.6	85	21	2,701.7	62	+30.3
Hawaii	50	259.3	5	38	1,011.4	5	−74.4
Idaho	42	744.6	16	48	147.5	11	+404.8
Illinois	10	6,055.9	218	9	5,596.8	222	+8.2
Indiana	23	3,355.5	143	31	1,882.3	112	+78.3
Iowa	24	3,319.5	251	25	2,229.1	253	+48.9
Kansas	29	2,108.3	136	28	1,905.9	122	+10.6
Kentucky	35	1,537.3	93	33	1,695.2	86	−9.3
Louisiana	27	2,604.4	72	39	840.1	28	+210.0
Maine	41	826.1	22	44	468.3	19	+76.4
Maryland	16	4,554.4	49	15	3,993.3	53	+14.1
Massachusetts	6	6,757.6	161	5	9,630.3	133	−29.8
Michigan	14	4,826.5	224	8	6,361.6	214	−24.1
Minnesota	26	2,833.3	223	19	3,068.8	212	−7.7
Mississippi	40	869.2	43	42	710.9	49	+22.3
Missouri	20	3,911.2	183	23	2,564.8	154	+52.5
Montana	51	241.5	10	51	111.8	12	+116.0
Nebraska	32	1,675.4	258	32	1,733.8	230	−3.4
Nevada	36	1,218.5	17	35	1,173.5	23	+3.8
New Hampshire	46	422.5	12	37	1,071.5	18	−60.6
New Jersey	8	6,216.5	123	17	3,275.1	113	+89.8
New Mexico	37	1,113.5	22	36	1,127.2	25	−1.2
New York	3	24,305.3	417	3	21,984.5	304	+10.6
North Carolina	15	4,568.8	74	18	3,262.3	75	+40.0
North Dakota	43	743.8	51	45	428.0	24	+73.8
Ohio	12	5,204.8	165	4	12,637.0	167	−58.8
Oklahoma	33	1,626.7	241	27	1,943.4	245	−16.3
Oregon	21	3,584.5	81	14	4,091.9	79	−12.4
Pennsylvania	4	9,963.6	292	6	9,584.1	292	+4.0
Rhode Island	39	881.8	21	41	756.7	13	+16.5
South Carolina	28	2,146.1	58	29	1,898.4	46	+13.0
South Dakota	45	502.0	24	46	246.3	21	+103.8
Tennessee	11	5,899.1	92	30	1,894.4	69	+211.4
Texas	2	25,897.1	822	2	27,000.0	759	−4.1
Utah	31	1,884.0	53	24	2,282.7	40	−17.5
Vermont	52	224.7	9	50	114.4	4	+96.4
Virginia	18	4,274.3	69	10	5,101.1	53	−16.2
Washington	7	6,632.4	82	11	4,806.2	83	+38.0
West Virginia	38	935.9	23	43	636.7	12	+47.0
Wisconsin	13	4,890.8	354	12	4,607.8	279	+6.1
Wyoming	49	276.0	10	52	95.4	1	+189.3
American Samoa	53	43.2	2	53	0.0	0	n.m.
D. of Columbia	30	1,981.0	13	26	2,166.9	9	−8.6
Guam	47	336.5	3	49	134.0	1	+151.1
Puerto Rico	..	0.0	0	..	0.0	0	n.m.
Trust Territories	..	0.0	0	..	0.0	0	n.m.
Virgin Islands	..	0.0	0	..	0.0	0	n.m.
Other Territories	..	0.0	0	..	0.0	0	n.m.
TOTAL		\$231,176.9	6,584		\$210,350.3	5,900	+9.9%

Notes: Figures are based on issues maturing in 13 months or longer. Private placements and municipal forwards are included, but remarketings are excluded.
n.m. – not meaningful. Source: Refinitiv (Jul. 23)

Note Sales by State: First Half

States	2021			2020			Percent Change
	Rank	Volume (\$mill)	# Issues	Rank	Volume (\$mill)	# Issues	
Alabama	..	\$0.0	0	..	\$0.0	0	n.m.
Alaska	16	98.0	1	18	100.0	1	−2.0
Arizona	..	0.0	0	..	0.0	0	n.m.
Arkansas	..	0.0	0	..	0.0	0	n.m.
California	1	5,718.3	62	2	2,491.3	24	+129.5
Colorado	6	390.0	1	8	400.0	1	−2.5
Connecticut	14	174.1	12	10	364.5	27	−52.2
Delaware	..	0.0	0	..	0.0	0	n.m.
Florida	22	17.8	1	30	2.3	2	+673.9
Georgia	9	273.9	2	9	389.6	5	−29.7
Hawaii	..	0.0	0	..	0.0	0	n.m.
Idaho	8	305.0	1	32	0.0	0	n.m.
Illinois	25	12.8	7	4	1,763.4	21	−99.3
Indiana	17	97.4	4	17	102.7	7	−5.2
Iowa	27	6.0	1	27	10.2	2	−41.2
Kansas	13	189.7	7	16	123.5	7	+53.6
Kentucky	..	0.0	0	..	0.0	0	n.m.
Louisiana	26	8.2	1	19	76.1	4	−89.2
Maine	19	25.3	3	20	58.5	2	−56.8
Maryland	11	205.0	1	12	350.0	2	−41.4
Massachusetts	4	1,111.5	140	5	1,367.8	163	−18.7
Michigan	12	199.2	5	29	4.0	1	+4,880.0
Minnesota	30	1.0	1	15	125.8	2	−99.2
Mississippi	..	0.0	0	..	0.0	0	n.m.
Missouri	32	0.0	0	21	40.2	2	−100.0
Montana	..	0.0	0	..	0.0	0	n.m.
Nebraska	29	2.3	2	28	9.1	9	−74.7
Nevada	24	16.3	1	34	0.0	0	n.m.
New Hampshire	23	17.0	1	33	0.0	0	n.m.
New Jersey	3	2,023.0	205	3	1,987.3	184	+1.8
New Mexico	15	163.3	1	11	360.6	2	−54.7
New York	2	4,210.3	385	1	7,400.7	437	−43.1
North Carolina	..	0.0	0	..	0.0	0	n.m.
North Dakota	..	0.0	0	..	0.0	0	n.m.
Ohio	7	373.3	77	7	476.1	106	−21.6
Oklahoma	..	0.0	0	..	0.0	0	n.m.
Oregon	20	25.0	2	26	11.2	1	+123.2
Pennsylvania	21	20.0	1	22	36.0	2	−44.4
Rhode Island	18	62.0	1	25	15.0	1	+313.3
South Carolina	5	490.7	12	6	532.2	9	−7.8
South Dakota	..	0.0	0	..	0.0	0	n.m.
Tennessee	28	2.6	1	35	0.0	0	n.m.
Texas	33	0.0	0	23	35.1	3	−100.0
Utah	34	0.0	0	24	25.1	2	−100.0
Vermont	..	0.0	0	..	0.0	0	n.m.
Virginia	..	0.0	0	..	0.0	0	n.m.
Washington	35	0.0	0	31	0.1	1	−100.0
West Virginia	..	0.0	0	..	0.0	0	n.m.
Wisconsin	10	252.3	21	14	221.1	16	+14.1
Wyoming	..	0.0	0	..	0.0	0	n.m.
American Samoa	..	0.0	0	..	0.0	0	n.m.
D. of Columbia	31	0.0	0	13	300.0	1	−100.0
Guam	..	0.0	0	..	0.0	0	n.m.
Puerto Rico	..	0.0	0	..	0.0	0	n.m.
Trust Territories	..	0.0	0	..	0.0	0	n.m.
Virgin Islands	..	0.0	0	..	0.0	0	n.m.
Other Territories	..	0.0	0	..	0.0	0	n.m.
TOTAL		\$16,491.3	960		\$19,179.2	1,047	−14.0%

Notes: Figures are based on issues maturing in less than 13 months. Private placements and municipal forwards are included, but remarketings are excluded.
n.m. – not meaningful. Source: Refinitiv (Jul. 23)

Bond Insurance: First Half

	2021		2020		Percent Change
	Volume (\$ mill)	# Issues	Volume (\$ mill)	# Issues	
Total	\$18,750.2	1,164	\$14,044.2	985	+33.5%
First Quarter	8,710.3	527	4,907.5	363	+77.5
Second Quarter	10,039.9	637	9,136.7	622	+9.9
Development	1,944.8	21	1,103.4	32	+76.3
Education	3,610.0	421	3,891.1	395	-7.2
Electric Power	0.0	7	945.3	9	-100.0
Environmental Facilities	0.0	0	0.0	0	n.m.
Healthcare	0.0	8	1,240.7	11	-100.0
Housing	1,937.8	2	0.0	0	n.m.
Public Facilities	2,510.7	50	1,315.8	34	+90.8
Transportation	2,125.2	44	1,407.4	34	+51.0
Utilities	2,646.5	329	2,210.0	303	+19.8
General Purpose	3,975.1	282	1,930.7	167	+105.9
Tax-Exempt	13,040.4	958	10,638.6	860	+22.6
Taxable	5,470.5	193	3,405.6	125	+60.6
Minimum -Tax	239.3	13	0.0	0	n.m.
New-Money	11,547.7	693	8,300.5	610	+39.1
Refunding	5,530.7	401	4,590.6	314	+20.5
Combined	1,671.9	70	1,153.1	61	+45.0
Negotiated	14,606.5	830	10,952.6	681	+33.4
Competitive	4,105.4	333	2,964.1	298	+38.5
Private Placements	38.4	1	127.5	6	-69.9
Revenue	9,608.8	332	6,810.0	269	+41.1
General Obligation	9,141.6	832	7,234.2	716	+26.4
Fixed Rate	18,619.6	1,144	13,732.6	956	+35.6
Variable Rate (Short Put)	0.0	0	0.0	0	n.m.
Variable Rate (Long)	63.4	5	0.0	0	n.m.
Zero Coupon	67.2	15	311.6	29	-78.4
Linked Rate	0.0	0	0.0	0	n.m.
Convertible	0.0	0	0.0	0	n.m.
State Governments	0.0	0	0.0	0	n.m.
State Agencies	2,522.3	27	1,708.7	27	+47.6
Counties & Parishes	801.8	51	358.8	33	+123.5
Cities & Towns	5,006.5	291	2,564.8	198	+95.2
District	6,947.7	654	6,757.1	611	+2.8
Local Authorities	2,720.6	117	1,997.7	94	+36.2
Colleges & Universities	745.9	22	652.6	21	+14.3
Direct Issuer	5.6	2	4.5	1	+24.4
Bank Qualified	2,526.4	533	2,328.3	476	+8.5
Build America Bonds	0.0	0	0.0	0	n.m.
Qualified Sch Construction	0.0	0	0.0	0	n.m.
Other Stimulus Program	0.0	0	0.0	0	n.m.

Notes: Figures are based on issues maturing in 13 months or longer. Private placements and municipal forwards are included, but remarketings are excluded.
n.m. — not meaningful. Source: Refinitiv (Jul. 23)

Bond Insurer Rankings

First Half 2021 - Ranked by Insured Amount

Rank	Firm	Volume	Market Share	Issues
1	AGM formerly FSA Inc	\$10,744.3	58.8%	543
2	Build America Mutual (BAM)	7,536.9	41.2	584

This is Refinitiv's "AT10" league table. Dollar amounts are in millions. Rankings are final as of Jul. 7, 2021. Short-term notes, private placements, and deals not meeting Refinitiv's T+5 policy rule are excluded. Each firm is credited with the amount it insured within the issue.

Source: Refinitiv (Jul. 7)

Largest Insured Issues

Date	Issuer	Amt (\$mill)	Manager(s)
Jan-27	Foothill/Eastern Transp Corridor Agy, (tax)(nm/ref)	\$759.8	Goldman Sachs & Co
Feb-17	Tucson City-Arizona, (tax)	658.1	FHNC Fin Cap Mkts/Stifel Nicolaus
Feb-10	NYC Industrial Dev Agency, (tax/te)(nm/ref)	551.5	Goldman Sachs & Co
Apr-7	Central Florida Expressway Au, (ref)	548.2	Wells Fargo/RBC Cap Mkts/BA Sec/JPM
Mar-24	San Jose City-California, (amt/tax)(ref)	428.1	Citi/Morgan Stanley
Feb-25	Indianapolis Loc Pub Imp Bond Bank	424.3	BA Securities/UBS Fin Ser
Mar-24	San Jose City-California, (ref)	424.1	Citi
Feb-4	New Orleans City-Louisiana, (tax)(ref)	372.5	J P Morgan Sec
Feb-11	Chula Vista City-California, (tax)	350.0	Stifel Nicolaus
May-13	NYS Dorm Authority	335.2	Raymond James

Key to abbreviations: GOs – general obligation bonds; nm – new-money; ref – refunding.

Source: Refinitiv (Jul. 12)

Bond Insurance on Pace For Best Market Share Since '08

By Aaron Weitzman

The two active bond insurers combined for a total of \$18.75 billion of insured par in the first half of 2021 in 1,164 deals, up from the \$14.04 billion in 985 transactions in the first half of last year.

They are on pace for the most insured par since 2008 and best market share since 2009.

Assured Guaranty Municipal Corp. and Build America Mutual insured 8.4% of the market, measured by par, according to Refinitiv data, the highest since it was 8.64% at the end of 2009. Pre-pandemic, the wrap rate was roughly 6%.

The first-half insured par is up 31% year-over-year compared to the overall market volume growth of 15%. The number of insured transactions is up 88%, while the total transaction count in the muni market increased by 19%.

Insurance usage was up 77.5% in the first quarter to \$8.71 billion from \$4.91 billion in the same time the year before, while the second quarter was up 9.9% to \$10.04 billion from \$9.14 billion.

Assured Guaranty accounted for a total of \$10.74 billion in 543 deals in the first half of 2021, compared to \$7.84 billion in 476 deals a year prior. Those figures include Assured's subsidiary, Municipal Assurance Corp, according to Refinitiv data.

"Assured Guaranty's U.S. municipal bond insurance production was outstanding during the first half of 2021, guaranteeing 58% of new issue insured par sold," said Robert Tucker, senior managing director and head of investor relations and communications at Assured.

"The \$11.1 billion (inclusive of a corporate-CUSIP transactions) Assured Guaranty guaranteed in the primary market was 34% higher than the amount of new-issue insured par sold that it guaranteed in the first half of 2020 and, looking back to a comparable period just before the pandemic, 73% more than the amount of new-issue insured par sold that it guaranteed in the first half of 2019," he said.

Tucker added that the results were achieved in a market where municipal interest rates hovered near historic lows and credit spreads tightened.

"Year over year, the financial guaranty industry's total first half insured par was up 34%, more than double the 15% rate of increase for total par issued in the U.S. municipal bond market," Tucker said.

Build America Mutual was credited by Refinitiv with \$7.54 billion in 584 deals or 41.2% of the two-insurer market share in the first half of 2021, up from its first half 2020 total of \$6.09 billion in 504 transactions.

"Insured bond volume is growing significantly faster than the market overall, and that is likely to be a lasting change: 48 underwriters priced transactions with BAM insurance in the first half, and we find that dealers who have had positive experiences selling BAM-insured bonds are more likely to utilize us again in the future," according to Scott Richbourg, head of public finance at BAM.

Assured Guaranty reports continued

heightened demand for its financial guaranty insurance on larger transactions, where high demand typically signals interest from institutional investors.

In the first half of 2021, Assured Guaranty selectively insured 21 transactions of \$100 million or more in insured par, Tucker said.

"Assured Guaranty also continued to add value on double-A credits, insuring \$2.3 billion of par on 56 transactions in this category during the first half of 2021," he said. "Overall par volume of municipal bonds issued has been strong year-to-date as monetary and fiscal policy drive economic recovery. Additionally, to the extent high-net-worth individual investors anticipate higher tax rates, the demand for tax-exempt income tends to increase."

Tucker noted that taxable issues made up a quarter of the par amount issued in the U.S. municipal bond market year-to-date and that Assured Guaranty believes these issues are attractive to taxable buyers because of the currently high relative value of taxable municipals versus corporate bonds.

"Some buyers of taxable municipal bonds, including international buyers, may prefer insured bonds because they are less familiar with U.S. municipal credit and benefit from the underwriting experience of the financial guarantor," he said. "Bond insurance penetration of first-half taxable new issue par sold reached 10%, and Assured Guaranty insured \$3.9 billion of taxable new-issue par sold, which was about two-thirds of the taxable new-issue insured par sold."

BAM's Richbourg said the insurer is seeing increased utilization on sales with underlying ratings in the double-A category, which allows the mutual insurer to achieve substantial growth without changing its credit appetite.

Both of the major insurers bring AA financial strength ratings from S&P Global Ratings to the paper they wrap.

"We anticipate that new-money volume will be stronger in the second half and into 2022 as issuers gear up their capital plans post-COVID, and our guaranty will be a helpful tool for them," he said.

Grant Dewey, head of capital markets at BAM, noted the "uneven" economic recovery from the COVID-19 pandemic.

"Even though municipal bond yields began and ended the first half at about the same level, there were some significant swings in the interim," he said. "We saw weakness in the first quarter based on inflation concerns, which then reversed when the Delta variant began to spread more widely in Q2."

He added that institutional investors, in particular, recognize that insured bonds can be more stable during those periods of volatility.

"So their appetite for a BAM wrap has remained elevated as compared to similar pre-COVID market conditions," he said. "We're also continuing to see strong interest on taxable transactions from buyers who are relatively new to the municipal market, and value BAM's deep knowledge of the sector and the liquidity of BAM-insured bonds." □

Municipal Note Volume Dips Amid Recovery, Federal Aid

By Christine Albano

Municipal note issuance in the first half of 2021 was down from a year earlier as states and municipalities had less need for short-term borrowing amid recent COVID-19 federal aid and rising tax receipts.

Issuance dropped to \$16.49 billion in 960 deals in the first six months of the year, from \$19.17 billion in 1,047 deals compared to the first six months of 2020, according to Refinitiv data.

“Parsing the short-term note issuance data through the first half of 2021 reveals little to no surprises,” said Jeff Lipton, head of municipal credit and market strategy and municipal capital markets at Oppenheimer & Co.

“The significant drop in muni short-term note issuance relative to the same period of last year can be directly attributable to stronger-than anticipated tax and other revenue receipts coming into municipal governments as well as to heavy doses of stimulus allocations from the federal government,” Lipton said.

Volume was down almost all of the first half, the figures show.

February and June issuance fell 32.5% and 27.8% year-over-year to \$1.19 billion in 108 deals from \$1.77 billion in 119 deals, and to \$7.48 billion among 304 deals, compared with \$10.36 billion among 340, respectively, according to the data.

Issuance also fell 22.3% in April and 19.1% in May to \$1.41 billion in 134 deals from \$1.82 billion in 161 deals and to \$1.57 billion in 160 deals from \$1.94 billion in 190 issues, respectively, compared to last year’s volume over the same period.

March was the only month that note volume grew noticeably, by 96.3%, as issuance increased to \$2.63 billion in 148 deals from \$1.34 billion in 99 deals the prior year.

The overall year-to-date trend in note issuance is occurring while total bond issuance is up year-over-year for the same period, Lipton noted.

“Volume is showing difficulty satisfying strong demand for product, particularly given rather material net negative supply conditions now being experienced through the cyclical summer months,” he said.

“With deepening penetration of the COVID-19 vaccinations, municipal operations, consumer engagement, and job formation are operating in full recovery mode, allowing restoration of fund balances for many municipal issuers,” he said.

ALTERNATIVES CONTRIBUTE

Alternative funding options also contributed to the overall decline in note issuance in the first half of 2021, even though with the dearth of short-term paper, short-term rates have experienced noted downward pressure, said Lipton.

Note issuance from state agencies

dropped 69.9% to \$1.08 billion in 19 deals from \$3.58 billion in 10 deals last year, according to Refinitiv.

State government notes fell by 61.6% to \$868.3 million in four deals, versus \$2.26 billion in five deals in 2020’s first half. A 51.1% decline in note issuance among local authorities saw volume in that sector drop to \$523.7 million in 28 issues, versus \$1.07 billion in 40 issues in the first six months of 2020.

CASH-FLUSH ISSUERS

“Against a backdrop of favorable revenue collections, a number of traditional note borrowers have been able to avoid the short-term market for cash flow purposes and have instead relied upon better budgetary performance to match up revenue and expenditure figures,” Lipton said.

In certain areas of the country, he noted, current tax collection performance is surpassing pre-pandemic experience, as it did in the first half, resulting in less need for short-term borrowing and declining note volume.

Negotiated pricings accounted for \$6.7 billion on 172 transactions, down 9.2% by volume year-over-year, according to Refinitiv.

Competitive note deals were up 3.3% to \$9.2 billion on 761 transactions. Private placements were down substantially, to \$583 million from \$2.9 billion.

More notes were sold out of California — \$5.7 billion — than from any other state. New York was second at \$4.2 billion.

Taxable note issuance was one of the only sectors where volume grew, paralleling increasing taxable bond issuance in the long-term market.

Issuance of taxable notes grew by 35.7% to \$1.61 billion in 99 deals from \$1.18 billion in 79 deals in the six months of 2020.

“Through the remainder of this year, unless there is some unforeseen event which triggers fiscal stress and undermines growth expectations — such as a more onerous Delta variant impact upon revenue performance — we see overall note issuance patterns reflective of currently sound and stable credit conditions,” Lipton explained.

At the same time, Lipton said more note issuance could be on the horizon depending on economic and market forces ahead.

“Once the wall of stimulus is largely taken down, some of the weaker and less fiscally agile governments may face some real credit headwinds, thus possibly resulting in a note issuance course correction that may occur as early as next year,” he said.

“We suspect that issuers are also paying attention to monetary policy and prospects for a renewed cycle of Fed tightening, which may very well motivate a number of issuers to take advantage of today’s currently low interest rates at some point starting next year,” Lipton added.

Short-Term Note Sales: First Half

	2021		2020		Percent Change
	Volume (\$ mill)	# Issues	Volume (\$ mill)	# Issues	
TOTAL	\$16,491.3	960	\$19,179.2	1,047	−14.0%
January	2,181.1	106	1,923.9	138	+13.4
February	1,199.6	108	1,776.3	119	−32.5
March	2,639.2	148	1,344.2	99	+96.3
April	1,417.1	134	1,824.0	161	−22.3
May	1,571.1	160	1,942.4	190	−19.1
June	7,483.3	304	10,368.4	340	−27.8
First Quarter	6,019.9	362	5,044.4	356	+19.3
Second Quarter	10,471.4	598	14,134.9	691	−25.9
Development	121.8	10	146.0	12	−16.6
Education	5,581.9	306	4,598.1	338	+21.4
Electric Power	25.2	5	26.3	8	−4.2
Environmental Facilities	2.0	1	2.5	1	−20.0
Health Care	0.0	0	167.0	2	−100.0
Housing	8.2	1	52.3	2	−84.3
Public Facilities	35.1	15	107.9	37	−67.5
Transportation	168.8	24	363.2	38	−53.5
Utilities	301.6	26	346.0	34	−12.8
General Purpose	10,246.7	572	13,370.0	575	−23.4
Tax-Exempt	14,867.7	860	17,979.8	966	−17.3
Taxable	1,610.6	99	1,186.5	79	+35.7
Minimum Tax	13.0	1	13.0	2	unch
New-Money	16,463.7	956	19,004.6	1,039	−13.4
Refunding	27.6	4	60.6	7	−54.5
Combined	0.0	0	113.9	1	−100.0
Negotiated	6,737.6	172	7,419.5	170	−9.2
Competitive	9,170.8	761	8,880.3	830	+3.3
Private Placements	582.9	27	2,879.5	47	−79.8
Revenue	1,424.0	28	1,409.1	32	+1.1
General Obligation	15,067.3	932	17,770.1	1,015	−15.2
Fixed-Rate	16,491.3	960	18,726.6	1,041	−11.9
Variable-Rate (Short Put)	0.0	0	347.6	2	−100.0
Variable-Rate (Long Put)	0.0	0	15.0	1	−100.0
Linked-Rate	0.0	0	70.0	1	−100.0
Zero-Coupon	0.0	0	20.1	2	−100.0
Bond Insurance	5.8	5	27.9	4	−79.2
Letters of Credit	98.5	1	300.0	1	−67.2
Standby Purch Agreements	0.0	0	0.0	0	n.m.
Insured Mortgages	0.0	0	0.0	0	n.m.
Guaranties	79.6	9	171.3	21	−53.5
State Governments	868.3	4	2,260.6	5	−61.6
State Agencies	1,081.5	19	3,589.8	10	−69.9
Counties & Parishes	3,457.6	60	3,586.9	58	−3.6
Cities & Towns	6,308.8	549	4,710.2	591	+33.9
Districts	4,251.4	300	3,960.3	343	+7.4
Local Authorities	523.7	28	1,071.4	40	−51.1
Colleges & Universities	0.0	0	0.0	0	n.m.
Direct Issuers	0.0	0	0.0	0	n.m.
Co-Operative Utilities	0.0	0	0.0	0	n.m.
Bank-Qualified	1,481.6	459	1,745.9	527	−15.1
Build America Bonds	0.0	0	0.0	0	n.m.
Qualified Sch Construction	0.0	0	0.0	0	n.m.
Other Stimulus	0.0	0	0.0	0	n.m.

Notes: Private placements and municipal forwards are included, but short-term notes and remarketings are excluded. n.m. - not meaningful.
Source: Refinitiv (Jul. 23)

Development: First Half

	2021		2020		Percent Change
	Volume (\$ mill)	# Issues	Volume (\$ mill)	# Issues	
Total	\$5,114.1	254	\$4,286.7	171	+19.3%
First Quarter	1,984.7	108	1,628.8	80	+21.9
Second Quarter	3,129.4	146	2,657.8	91	+17.7
Economic Development	4,532.2	241	3,350.1	154	+35.3
Industrial Development	581.9	13	693.3	13	−16.1
Office Building	0.0	0	243.3	4	−100.0
Tax-Exempt	3,530.7	191	2,439.1	122	+44.8
Taxable	1,565.7	61	1,802.9	48	−13.2
Minimum-Tax	17.7	2	44.7	1	−60.4
New-Money	3,127.1	173	2,033.9	110	+53.7
Refunding	1,362.9	61	1,493.8	45	−8.8
Combined	624.1	20	758.9	16	−17.8
Negotiated	3,938.0	196	2,382.9	121	+65.3
Competitive	937.6	40	1,042.0	23	−10.0
Private Placements	238.5	18	861.8	27	−72.3
Revenue	4,592.4	220	3,807.7	144	+20.6
General Obligation	521.8	34	479.0	27	+8.9
Fixed Rate	4,888.3	250	4,248.5	169	+15.1
Variable Rate (Short Put)	0.0	0	0.0	0	n.m.
Variable Rate (Long/No Put)	0.0	0	38.2	2	−100.0
Zero-Coupon	225.8	4	0.0	0	n.m.
Linked Rate	0.0	0	0.0	0	n.m.
Convertible	0.0	0	0.0	0	n.m.
Bond Insurance	214.9	21	438.4	32	−51.0
Letter of Credit	0.0	0	0.0	0	n.m.
Guaranties	0.0	0	0.0	0	n.m.
Other Enhancements	0.0	0	0.0	0	n.m.
State Governments	419.4	8	189.0	1	+121.9
State Agencies	1,505.3	36	708.4	18	+112.5
Counties & Parishes	19.7	4	801.1	9	−97.5
Cities & Towns	592.0	51	563.7	42	+5.0
District	748.0	74	461.9	46	+61.9
Local Authorities	1,829.8	81	1,182.2	53	+54.8
Colleges & Universities	0.0	0	0.0	0	n.m.
Direct Issuer	0.0	0	380.4	2	−100.0
Tibal Government	0.0	0	0.0	0	n.m.
Cooperative Utilities	0.0	0	0.0	0	n.m.
Bank Qualified	96.3	23	60.6	16	+58.9
Qualified Sch Construction	0.0	0	0.0	0	n.m.
Other Stimulus Program	0.0	0	0.0	0	n.m.

Notes: Figures are based on issues maturing in 13 months or longer. Private placements and municipal forwards are included, but remarketings are excluded.
n.m. — not meaningful. Source: Refinitiv (Jul. 23)

Education: First Half

	2021		2020		Percent Change
	Volume (\$ mill)	# Issues	Volume (\$ mill)	# Issues	
Total	\$64,769.6	2,464	\$68,711.6	2,454	−5.7%
First Quarter	31,374.6	1,170	29,443.3	1,010	+6.6
Second Quarter	33,395.1	1,294	39,268.2	1,444	−15.0
K-12 Education	41,442.8	2,088	42,943.5	2,131	−3.5
Higher Education	21,260.3	338	24,643.1	287	−13.7
Student Loans	1,922.6	14	981.4	13	+95.9
Other Education	144.0	24	143.6	23	+0.3
Tax-Exempt	45,367.7	1,843	45,162.6	1,946	+0.5
Taxable	18,862.9	613	22,929.9	499	−17.7
Minimum-Tax	539.1	8	619.1	9	−12.9
New-Money	43,202.7	1,514	37,986.3	1,517	+13.7
Refunding	15,988.3	850	21,763.5	810	−26.5
Combined	5,578.7	100	8,961.9	127	−37.8
Negotiated	46,709.7	1,465	50,681.8	1,378	−7.8
Competitive	16,358.2	897	13,313.3	884	+22.9
Private Placements	1,701.7	102	4,716.5	192	−63.9
Revenue	25,871.7	680	29,406.2	615	−12.0
General Obligation	38,898.0	1,784	39,305.3	1,839	−1.0
Fixed Rate	62,583.7	2,399	65,106.7	2,359	−3.9
Variable Rate (Short Put)	730.0	8	2,674.7	17	−72.7
Variable Rate (Long/No Put)	179.0	3	44.9	2	+298.7
Zero Coupon	462.4	51	860.6	74	−46.3
Linked Rate	814.6	3	16.0	1	+4,991.3
Convertible	0.0	0	8.8	1	−100.0
Bond Insurance	7,488.3	421	6,604.8	395	+13.4
Letter of Credit	0.0	0	29.8	2	−100.0
Standby Purchase Agreements	0.0	0	225.0	3	−100.0
Insured Mortgages	0.0	0	0.0	0	n.m.
Guaranties	5,712.6	313	14,018.6	631	−59.2
Other Enhancements	0.0	0	0.0	0	n.m.
State Governments	1,340.3	13	322.3	5	+315.9
State Agencies	12,434.0	222	12,494.1	210	−0.5
Counties & Parishes	947.4	27	429.8	23	+120.4
Cities & Towns	407.2	25	394.5	25	+3.2
District	37,242.1	1,930	38,069.1	1,937	−2.2
Local Authorities	3,418.3	130	3,662.9	123	−6.7
Colleges & Universities	8,868.8	112	13,296.6	129	−33.3
Direct Issuer	111.7	5	42.1	2	+165.3
Bank Qualified	3,216.1	785	3,745.6	864	−14.1
Qualified Sch Construction	0.0	0	0.0	0	n.m.
Other Stimulus Program	0.0	0	0.0	0	n.m.

Notes: Figures are based on issues maturing in 13 months or longer. Private placements and municipal forwards are included, but remarketings are excluded.
n.m. — not meaningful. Source: Refinitiv (Jul. 23)

Development

Senior Managers: First Half 2021

	Manager	Amt (\$mill)
1	BofA Securities	\$652.6
2	FMSbonds Inc	490.3
3	Citi	489.4
4	Morgan Stanley	478.1
5	Raymond James	417.1
6	Stifel Nicolaus	371.0
7	Oppenheimer	274.5
8	KeyBanc Capital Mkts	237.9
9	J P Morgan	232.7
10	Robert W Baird	203.0

Private placements, short-term notes, and remarketings are excluded. In issues with multiple book-runners, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Development

Financial Advisors: First Half 2021

	Advisor	Amt (\$mill)
1	PFM Financial Adv	\$638.4
2	Davenport & Co	424.0
3	Public Resources Adv	271.9
4	Harrell & Company Adv	168.2
5	Yuba Group	163.6
6	Hilltop Securities	157.9
7	Baker Tilly Muni Adv	152.6
8	Acacia Financial Group	150.2
9	Fieldman Rolapp & Assoc	143.5
10	ComCap Partners	128.8

Private placements, short-term notes, and remarketings are excluded. In issues with co-advisors, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Education

Senior Managers: First Half 2021

	Manager	Amt (\$mill)
1	Stifel Nicolaus	\$5,771.2
2	BofA Securities	5,674.5
3	RBC Capital Mkts	5,326.6
4	Citi	5,002.7
5	Morgan Stanley	4,946.1
6	J P Morgan	4,574.0
7	Piper Sandler	4,403.0
8	Robert W Baird	3,746.1
9	Raymond James	3,565.1
10	Jefferies LLC	2,362.2

Private placements, short-term notes, and remarketings are excluded. In issues with multiple book-runners, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Education

Financial Advisors: First Half 2021

	Advisor	Amt (\$mill)
1	PFM Financial Adv	\$8,538.8
2	Hilltop Securities	4,871.2
3	Swap Financial Grp	3,200.7
4	RBC Capital Mkts	3,037.4
5	Piper Sandler	2,441.2
6	Baker Tilly Municipal Adv	1,775.0
7	KNN Public Finance	1,613.4
8	Acacia Financial Group	1,390.5
9	Keygent LLC	1,326.0
10	S L Capital Strategies	1,211.0

Private placements, short-term notes, and remarketings are excluded. In issues with co-advisors, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Largest Development Issues

Date	Issuer	Amt (\$mill)	Manager(s)
Jun-9	Maryland Eco Dev Corp, (tax)	\$270.0	Oppenheimer & Co
Mar-23	Louisiana Gov Env Fac & CDA, (ref)	198.7	Morgan Stanley
Jun-10	Memphis-Shelby IDB Eco Dev Grow Engine	163.8	BA Securities
Jun-30	Chester Co Industrial Dev Auth	163.6	Morgan Stanley
Mar-31	La Quinta Successor Redev Agency, (tax)(ref)	156.9	Hilltop Securities Inc
May-28	Ohio (State), (tax/te)	150.2	BA Securities
Mar-30	Oklahoma City-Oklahoma, GOs (tax)(cpt)	146.6	Robert W Baird & Co Inc
Mar-18	Philadelphia Auth for Indus Dev, (tax)(ref)	137.0	BA Securities
Apr-20	Rhode Island & Providence Plan, GOs (cpt)(nm/ref)	131.4	Citi
May-25	New Jersey Infrasctructure Bank, (cpt)	122.5	BA Securities

Key to abbreviations: amt – alternative minimum tax; nm – new-money; ref – refunding; tax – taxable. Source: Refinitiv (Jul. 12)

Largest Education Issues

Date	Issuer	Amt (\$mill)	Manager(s)
Feb-23	Regents of the Univ of California, (tax/te)	\$1,379.6	Jefferies/Citi
Apr-13	Pennsylvania Econ Dev Fin Auth, (tax)	827.6	Barclays
Feb-9	Tennessee State School Bond Au, (tax)	713.4	Jefferies LLC
Mar-3	Ohio (State), Gos (tax/te)(nm/ref)	597.0	BA Securities
Jan-28	Chicago City BOE, GOs (nm/ref)	557.5	J P Morgan Sec
May-19	Virginia College Building Auth, (cpt)	537.1	J P Morgan Sec
Apr-13	Missouri Hgr Ed Loan, (tax)	523.9	BA Securities
Jan-7	Denver City and Co SD #1, GOs	450.0	RBC Cap Mkts/Stifel Nicolaus
Feb-11	Missouri Hgr Ed Loan, (tax)	446.0	BA Securities
Mar-23	New Jersey Educational Facs Au, (cpt)(ref)	429.3	Citi/Morgan Stanley

Key to abbreviations: nm – new money; ref – refunding; tax – taxable; te – tax exempt. Source: Refinitiv (Jul. 12)

Electric Power: First Half

	2021		2020		Percent Change
	Volume (\$ mill)	# Issues	Volume (\$ mill)	# Issues	
Total	\$5,817.0	69	\$5,612.1	66	+3.7%
First Quarter	1,819.0	32	1,296.7	30	+40.3
Second Quarter	3,998.0	37	4,315.5	36	−7.4
Tax-Exempt	4,859.6	58	4,332.8	47	+12.2
Taxable	952.7	10	1,279.4	19	−25.5
Minimum-Tax	4.7	1	0.0	0	n.m.
New-Money	3,001.3	34	1,539.0	21	+95.0
Refunding	1,805.4	30	2,322.9	38	−22.3
Combined	1,010.3	5	1,750.2	7	−42.3
Negotiated	5,263.0	54	5,467.1	52	−3.7
Competitive	544.8	13	60.7	6	+797.5
Private Placements	9.2	2	84.2	8	−89.1
Revenue	5,526.3	67	5,577.0	62	−0.9
General Obligation	290.7	2	35.2	4	+725.9
Fixed Rate	4,983.4	63	5,406.5	64	−7.8
Variable Rate (Short Put)	304.4	4	147.1	1	+106.9
Variable Rate (Long/No Put)	529.2	2	58.5	1	+804.6
Zero Coupon	0.0	0	0.0	0	n.m.
Linked Rate	0.0	0	0.0	0	n.m.
Bond Insurance	504.9	7	207.2	9	+143.7
Letter of Credit	0.0	0	147.1	1	−100.0
Standby Purch Agreement	125.0	2	0.0	0	n.m.
Guaranties	10.5	1	0.0	0	n.m.
State Governments	0.0	0	24.3	2	−100.0
State Agencies	1,240.3	11	1,408.7	5	−12.0
Counties & Parishes	0.0	0	10.2	1	−100.0
Cities & Towns	614.8	17	805.0	25	−23.6
District	436.1	12	899.2	11	−51.5
Local Authorities	2,294.8	22	2,048.2	18	+12.0
Direct Issuer	1,231.0	7	416.5	4	+195.6
Cooperative Utilities	0.0	0	0.0	0	n.m.
Bank Qualified	63.1	12	45.6	13	+38.4
Qualified Sch Construction	0.0	0	0.0	0	n.m.
Other Stimulus Program	0.0	0	0.0	0	n.m.

Notes: Figures are based on issues maturing in 13 months or longer. Private placements and municipal forwards are included, but remarketings are excluded.
n.m. — not meaningful. Source: Refinitiv (Jul. 23)

Environmental Facilities: First Half

	2021		2020		Percent Change
	Volume (\$ mill)	# Issues	Volume (\$ mill)	# Issues	
Total	\$1,854.4	26	\$1,043.3	20	+77.7%
First Quarter	269.1	6	481.0	6	−44.1
Second Quarter	1,585.2	20	562.3	14	+181.9
Pollution Control	1,574.0	16	746.3	12	+110.9
Solid Waste Disposal	220.4	8	296.9	8	−25.8
Recycling	60.0	2	0.0	0	n.m.
Tax-Exempt	1,098.8	13	911.6	16	+20.5
Taxable	18.6	2	4.5	1	+313.3
Minimum-Tax	737.0	11	127.2	3	+479.4
New-Money	1,205.2	18	870.3	17	+38.5
Refunding	649.2	8	173.0	3	+275.3
Combined	0.0	0	0.0	0	n.m.
Negotiated	1,440.7	20	619.0	14	+132.7
Competitive	77.2	4	90.3	3	−14.5
Private Placements	336.6	2	334.0	3	+0.8
Revenue	1,802.9	23	954.7	18	+88.8
General Obligation	51.5	3	88.6	2	−41.9
Fixed Rate	1,203.7	17	860.2	16	+39.9
Variable Rate (Short Put)	272.5	4	130.0	3	+109.6
Variable Rate (Long/No Put)	378.1	5	53.1	1	+612.1
Linked Rate	0.0	0	0.0	0	n.m.
Bond Insurance	0.0	0	0.0	0	n.m.
Letter of Credit	22.5	1	20.0	1	+12.5
Guaranties	5.1	1	0.0	0	n.m.
Other Enhancement	0.0	0	0.0	0	n.m.
State Governments	0.0	0	86.1	1	−100.0
State Agencies	1,208.1	14	214.5	3	+463.2
Counties & Parishes	171.8	5	142.3	3	+20.7
Cities & Towns	25.7	1	63.5	4	−59.5
District	0.0	0	38.5	1	−100.0
Local Authorities	448.8	6	498.3	8	−9.9
Direct Issuer	0.0	0	0.0	0	n.m.
Bank Qualified	5.9	2	3.0	2	+96.7
Qualified Sch Construction	0.0	0	0.0	0	n.m.
Other Stimulus Program	0.0	0	0.0	0	n.m.

Notes: Figures are based on issues maturing in 13 months or longer. Private placements and municipal forwards are included, but remarketings are excluded.
n.m. — not meaningful. Source: Refinitiv (Jul. 23)

Electric Power

Senior Managers: First Half 2021

	Manager	Amt (\$mill)
1	BofA Securities	\$1,372.9
2	Goldman Sachs	1,194.5
3	RBC Capital Mkts	753.9
4	J P Morgan	724.6
5	Barclays	445.7
6	Raymond James	264.0
7	Wells Fargo	255.7
8	Citi	127.6
9	Ramirez & Co	100.0
10	US Bancorp	95.0

Private placements, short-term notes, and remarketings are excluded. In issues with multiple book-runners, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Electric Power

Financial Advisors: First Half 2021

	Advisor	Amt (\$mill)
1	PFM Financial Adv	\$1,565.5
2	Municipal Capital Mkts	886.6
3	Public Resources Adv	743.8
4	Specialized Public Fin	589.7
5	Hilltop Securities	338.6
6	Piper Sandler	273.7
7	Ramirez & Co	225.9
8	Sperry Capital	174.4
9	Dunlap & Associates	137.2
10	Baker Tilly Municipal Adv	79.8

Private placements, short-term notes, and remarketings are excluded. In issues with co-advisors, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Environmental

Senior Managers: First Half 2021

	Manager	Amt (\$mill)
1	BofA Securities	\$463.8
2	Ramirez & Co	284.8
3	Citi	229.8
4	Jefferies LLC	120.3
5	Hilltop Securities	100.0
6	Morgan Stanley	83.7
7	Thornton Farish	75.0
8	Ziegler	60.0
9	Robert W Baird	32.7
10	Bank of New York Mellon	25.7

Private placements, short-term notes, and remarketings are excluded. In issues with multiple book-runners, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Environmental

Financial Advisors: First Half 2021

	Advisor	Amt (\$mill)
1*	Lamont Fin Serv Corp	\$142.4
1*	Frasca & Associates	142.4
3	CTBH Partners	105.2
4	Baker Tilly Muni Adv	32.7
5	Piper Sandler	25.7
6	Ehlers & Associates	18.8

*Tie. Private placements, short-term notes, and remarketings are excluded. In issues with co-advisors, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Largest Electric Power Issues

Date	Issuer	Amt (\$mill)	Manager(s)
May-11	Energy Northwest, (tax/te)(nm/ref)	\$711.7	J P Morgan/Wells Fargo/BA Securities
Jun-9	Tennessee Energy Acquisition Corp	466.4	Goldman Sachs & Co
Jun-10	Los Angeles Dept Wtr & Pwr	438.4	RBC Capital Markets
Apr-20	Southeast Energy Authority	420.2	Goldman Sachs & Co
Feb-10	Lower Colorado River Authority, (ref)	397.2	BA Securities
Jun-15	Idaho Energy Resources Auth, (tax)	309.3	TD Securities/BA Securities
Jun-17	Oklahoma Muni Power Auth, (tax/te)(ref)	286.3	BA Securities
Jun-29	Seattle City-Washington, GOs (cpt)(nm/ref)	259.8	Barclays
Jan-14	Long Island Power Authority	250.0	Barclays/Ramirez
Jan-26	Los Angeles Dept Wtr & Pwr	250.0	Wells Fargo/BA Securities

Key to abbreviations: nm – new-money; ref – refunding; tax – taxable; te – tax-exempt. Source: Refinitiv (Jul. 12)

Largest Environmental Facility Issues

Date	Issuer	Amt (\$mill)	Manager(s)
Jun-16	NYS Environmental Facs Corp	\$284.7	Ramirez & Co Inc
Jun-24	California Municipal Fin Auth, (tax/amt)	175.0	BA Securities
May-26	Pennsylvania Econ Dev Fin Auth, (amt)	125.0	BA Securities
May-21	Grand Forks Co-North Dakota, (amt)	120.3	Jefferies LLC
May-25	Florida Development Fin Corp, (amt)	105.2	Citi
Mar-4	Indiana Finance Authority, (ref)	88.8	BA Securities
Jun-8	Mississippi Business Fin Corp, (ref)	83.7	Morgan Stanley
Mar-31	Pennsylvania Econ Dev Fin Auth, (amt)	75.0	BA Securities
Apr-19	Ohio Air Quality Dev Authority	75.0	Thornton Farish Inc
Apr-8	Iowa Finance Authority	68.2	Citi

Key to abbreviations: amt – alternative minimum tax; GOs – general obligation bonds; nm – new-money; ref – refunding; te – tax-exempt. Source: Refinitiv (Jul. 14)

General Purpose: First Half

	2021		2020		Percent Change
	Volume (\$ mill)	# Issues	Volume (\$ mill)	# Issues	
Total	\$61,639.5	1,920	\$53,501.9	1,459	+15.2%
First Quarter	31,942.8	829	26,175.3	565	+22.0
Second Quarter	29,696.8	1,091	27,326.6	894	+8.7
General Purpose	61,582.7	1,919	53,486.9	1,458	+15.1
Agriculture	0.0	0	15.0	1	−100.0
Veterans	56.9	1	0.0	0	n.m.
Tax-Exempt	44,281.4	1,572	40,067.7	1,238	+10.5
Taxable	17,322.0	344	13,427.2	220	+29.0
Minimum-Tax	36.2	4	7.0	1	+417.1
New-Money	42,834.2	1,214	27,530.1	936	+55.6
Refunding	11,936.0	577	16,908.2	424	−29.4
Combined	6,869.4	129	9,063.6	99	−24.2
Negotiated	38,305.1	905	35,792.8	628	+7.0
Competitive	22,316.2	915	14,224.7	658	+56.9
Private Placements	1,018.2	100	3,484.4	173	−70.8
Revenue	21,010.7	343	18,917.1	210	+11.1
General Obligation	40,628.8	1,577	34,584.8	1,249	+17.5
Fixed Rate	60,986.9	1,905	52,133.7	1,437	+17.0
Variable Rate (Short Put)	93.0	2	250.0	7	−62.8
Variable Rate (Long/No Put)	45.6	2	229.2	3	−80.1
Zero Coupon	494.8	10	519.6	4	−4.8
Linked Rate	19.4	1	353.6	7	−94.5
Convertible	0.0	0	15.8	1	−100.0
Bond Insurance	4,644.6	282	2,241.8	167	+107.2
Letter of Credit	0.0	0	115.0	2	−100.0
Standby Purchase Agreements	0.0	0	0.0	0	n.m.
Insured Mortgages	0.0	0	0.0	0	n.m.
Guaranties	258.6	14	163.4	15	+58.3
State Governments	15,577.1	73	14,294.1	54	+9.0
State Agencies	11,004.9	71	5,531.6	36	+98.9
Counties & Parishes	7,896.3	260	7,122.2	226	+10.9
Cities & Towns	20,466.5	1,351	17,637.7	1,013	+16.0
District	1,099.9	75	1,172.1	57	−6.2
Local Authorities	5,488.0	85	7,736.4	72	−29.1
Colleges & Universities	53.2	3	0.0	0	n.m.
Indian Tribal	0.0	0	0.0	0	n.m.
Direct Issuer	53.7	2	7.8	1	+588.5
Tribal Government	0.0	0	0.0	0	n.m.
Cooperative Utilities	0.0	0	0.0	0	n.m.
Bank Qualified	2,829.5	714	2,091.1	525	+35.3
Build America Bonds	0.0	0	0.0	0	n.m.
Qualified Sch Construction	0.0	0	0.0	0	n.m.
Other Stimulus Program	4.5	1	15.0	1	−70.0

Notes: Figures are based on issues maturing in 13 months or longer. Private placements and municipal forwards are included, but remarketings are excluded.
n.m. — not meaningful. Source: Refinitiv (Jul. 23)

Health Care: First Half

	2021		2020		Percent Change
	Volume (\$ mill)	# Issues	Volume (\$ mill)	# Issues	
Total	\$11,591.0	178	\$16,056.6	205	−27.8%
First Quarter	4,891.6	79	7,869.8	101	−37.8
Second Quarter	6,699.4	99	8,186.8	104	−18.2
General Acute-Care Hosps	8,672.7	111	13,028.8	150	−33.4
Single-SpecialtyHospitals	302.8	6	1,100.9	7	−72.5
Pediatric Hospitals	682.8	5	414.5	4	+64.7
Hospitals Equipment Loans	0.0	0	0.0	0	n.m.
General Medical	9.4	1	345.0	5	−97.3
Continuing Care	676.7	22	786.2	22	−13.9
Nursing Homes	0.0	0	0.0	0	n.m.
Life Care/Retirement	1,246.7	33	381.3	17	+227.0
Tax-Exempt	9,901.7	143	14,273.8	168	−30.6
Taxable	1,689.3	35	1,782.8	37	−5.2
Minimum-Tax	0.0	0	0.0	0	n.m.
New-Money	8,098.0	95	8,910.1	118	−9.1
Refunding	2,335.9	61	4,242.7	62	−44.9
Combined	1,157.1	22	2,903.8	25	−60.2
Negotiated	10,355.3	142	13,698.6	152	−24.4
Competitive	36.0	3	152.4	4	−76.4
Private Placements	1,199.7	33	2,205.6	49	−45.6
Revenue	10,976.8	161	14,907.6	187	−26.4
General Obligation	614.2	17	1,149.0	18	−46.5
Fixed Rate	9,357.4	151	13,466.3	164	−30.5
Variable Rate (Short Put)	783.0	12	915.8	15	−14.5
Variable Rate (Long/No Put)	1,393.1	12	1,479.6	24	−5.8
Zero Coupon	0.0	0	120.0	1	−100.0
Linked Rate	57.6	3	75.0	1	−23.2
Convertible	0.0	0	0.0	0	n.m.
Bond Insurance	401.5	8	552.0	11	−27.3
Letter of Credit	50.0	1	378.7	4	−86.8
Standby Purchase Agreements	0.0	0	136.7	1	−100.0
Insured Mortgages	0.0	0	85.8	3	−100.0
Guaranties	0.0	0	0.0	0	n.m.
State Governments	150.0	1	614.3	5	−75.6
State Agencies	6,523.4	88	7,159.1	81	−8.9
Counties & Parishes	759.6	20	1,368.7	19	−44.5
Cities & Towns	283.3	9	528.0	12	−46.3
District	383.9	13	577.5	12	−33.5
Local Authorities	3,466.3	46	5,601.2	70	−38.1
Colleges & Universities	24.6	1	149.2	2	−83.5
Direct Issuer	0.0	0	58.6	4	−100.0
Tribal Governments	0.0	0	0.0	0	n.m.
Bank Qualified	48.5	9	27.2	6	+78.3
Qualified Sch Construction	0.0	0	0.0	0	n.m.
Other Stimulus Program	0.0	0	0.0	0	n.m.

Notes: Figures are based on issues maturing in 13 months or longer. Private placements and municipal forwards are included, but remarketings are excluded.
n.m. — not meaningful. Source: Refinitiv (Jul. 23)

General Purpose

Senior Managers: First Half 2021

	Manager	Amt (\$mill)
1	BofA Securities	\$10,445.2
2	Morgan Stanley	6,106.6
3	J P Morgan	4,737.1
4	Citi	4,113.7
5	Jefferies	3,654.2
6	Wells Fargo	3,347.4
7	Robert W Baird	2,885.4
8	Stifel Nicolaus	2,790.8
9	Goldman Sachs	2,571.4
10	Piper Sandler	2,219.4

Private placements, short-term notes, and remarketings are excluded. In issues with multiple book-runners, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

General Purpose

Financial Advisors: First Half 2021

	Advisor	Amt (\$mill)
1	Public Resources Adv	\$12,693.6
2	PFM Financial Adv	7,508.2
3	Hilltop Securities	5,751.5
4	Acacia Financial Grp	2,380.4
5	KNN Public Finance	2,041.6
6	Piper Sandler	1,800.1
7	Lamont Fin Services	1,685.4
8	Frasca & Associates	1,314.5
9	Davenport & Company	1,177.9
10	Columbia Capital Mgmt	983.6

Private placements, short-term notes, and remarketings are excluded. In issues with co-advisors, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Health Care

Senior Managers: First Half 2021

	Manager	Amt (\$mill)
1	J P Morgan	\$1,626.4
2	BofA Securities	1,619.9
3	Ziegler	1,218.8
4	RBC Capital Mkts	947.2
5	Goldman Sachs	846.8
6	Citi	726.0
7	Morgan Stanley	461.2
8	Barclays	446.3
9	Raymond James	422.2
10	Piper Sandler	308.4

Private placements, short-term notes, and remarketings are excluded. In issues with multiple book-runners, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Health Care

Financial Advisors: First Half 2021

	Advisor	Amt (\$mill)
1	Ponder & Co	\$2,108.0
2	Kaufman Hall & Assoc	1,218.3
3	Columbia Capital Mgmt	815.6
4	PFM Financial Adv	552.2
5	Acacia Financial Grp	508.8
6	Echo Financial Products	300.5
7	KNN Public Finance	285.5
8	Hilltop Securities	250.8
9	Stifel Nicolaus	244.1
10	Marathon Cap Strategies	114.8

Private placements, short-term notes, and remarketings are excluded. In issues with co-advisors, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Largest General Purpose Issues

Date	Issuer	Amt (\$mill)	Manager(s)
Mar-19	NYS Dorm Authority, (tax/te)	\$2,163.1	Mor Sta/Citi/Ramirez/Jefferies/Gold Sach/Sie Will
Mar-11	California (State), GOs (nm/ref)	1,842.1	BA Securities/J P Morgan Sec
Mar-17	Illinois (State), GOs (nm/ref)	1,258.0	Morgan Stanley
Mar-24	NYC Transitional Finance Auth, (tax/te)(cpt)	1,229.5	BNY Cap Mkts/JPM/Ramirez/UBS/Wells Fargo
Feb-5	Nassau Co Interim Finance Auth, (tax/te)	1,110.1	Goldman Sachs & Co
Mar-3	New York City-New York, GOs (tax/te)(cpt)	1,100.0	BA Sec/Barclays
Jun-8	Georgia (State), GOs (tax/te)(cpt)	1,096.6	Morgan Stanley/Citi/Wells Fargo
Apr-20	California, GOs (ref)	1,076.2	Goldman Sachs/Siebert Williams Shank
May-5	Pennsylvania (State), GOs (tax/te)(ref)	1,046.6	BA Securities
May-20	Connecticut (State), GOs (tax/te)(ref)	990.5	BA Securities/UBS Financial Ser

Key to abbreviations: GOs – general obligation bonds; nm – new money; ref – refunding. Source: Refinitiv (Jul. 12)

Largest Health Care Issues

Date	Issuer	Amt (\$mill)	Manager(s)
Mar-19	Missouri Hlth & Ed Facs Authority	\$796.1	RBC Cap Mkts/BA Sec
May-21	Charlotte-Mecklenburg Hosp Auth, (tax/te)	600.0	Citi
Apr-22	Illinois Finance Authority	493.3	Barclays/Goldman Sachs
Jun-15	Colorado Health Facilities Auth	491.8	J P Morgan Securities LLC
Jun-30	Harris Co Cult Ed Facs Fin Corp	338.4	Goldman Sachs/J P Morgan
May-26	California Public Finance Authority, (tax/te)(nm/ref)	297.0	Ziegler
Feb-23	Bucks Co Industrial Dev Auth	285.0	BA Securities
Apr-12	Cleveland-Cuyahoga Co Port Auth, (tax)	250.5	Huntington Capital Markets
May-20	Maricopa Co Spec Health Care Dt, GOs	244.1	J P Morgan Securities LLC
May-5	Maine Hlth & Hghr Ed Facs Auth, (tax/te)	242.9	Raymond James

issues were for general acute-care hospitals. Key to abbreviations: nm – new money; ref – refunding; Source: Refinitiv (Jul. 12)

Environmental and Public Facilities Sectors Lead Way

By Robert Slavin

Public facilities and environmental facilities were the municipal sectors that grew the most in volume in the first half of 2021 compared to the same period of 2020.

The public facilities sector was up 126.9% and environmental facilities was up 77.7%. The transportation sector was third, growing 48.6%. The increases compare to an overall 9.9% increase in municipal issuance for the half. All data is from Refinitiv and all percentages are for changes in dollar issuance volume.

“Public facilities is a perennial winner,” said John Hallacy, president of John Hallacy Consulting. “Environmental [facilities] is up due to the Environmental, Social, and Governance designations.”

Within public facilities, new-money issuance was up 121.6% and refunding was up 56.7%. The figures for environmental facilities were increases of 38.5% and 275.3%, respectively. For transportation, the changes were an 86.8% increase in new money and a 17.9% decline in refunding.

The sectors with the greatest declines were healthcare at 27.8% and education at 5.7%.

“Some sectors (like education) or subsectors may have seen less activity because activity that may have occurred in the first half of 2021 was accelerated to get done before the rush that came before the November 2020 elections,” said Tom Kozlik, HilltopSecurities’ head of municipal securities research and analytics.

“Within education, college and university borrowing had the largest decline in par amount issued,” said CreditSights senior municipal strategist Patrick Luby. “We believe that part of the driver for that was the shift of some refunding borrowing from the tax-exempt municipal bond market into the corporate bond market, where issuers can sell lower-coupon bonds to advance refund older higher-rate tax-exempt bonds. There were only a few of those issues in the first half, but they amounted to more than \$1.2 billion.”

Corporate CUSIP growth in both those sectors has been on the rise in the last year and half.

“There were also healthcare issuers that borrowed in the corporate market, and they tended to borrow in larger size than the universities,” Luby said. “The top 10 first half 2021 deals amounted to almost \$7 billion.”

Hallacy said, “The outlook for education is very mixed. The sector is still dealing with vaccination rate and social distancing as they consider bring students back into the fall. They do not want to ramp up debt when their financials are stressed by COVID.”

Within the development sector, the economic development subsector increased 35.3% from the first half of 2020. “There was a much lower base in

2020 due to the fact some projects were put on hold,” Hallacy said.

Within the development sector, state government issuance was up 121.9% compared to 16.7% for all municipal issuance. Also, within this sector, state agency issuance was up 112.5% compared to 23% for all municipal issuance.

“States have better access in times of stress,” Hallacy said. “It would appear that more programs are being accomplished at the state level due to the fact that costs are lower. Bond ratings are usually higher at the state level.”

Within the education sector, state government issuance was up 315.9% and in the environmental sector, state agency issuance was up 463.2%. In general purpose sector, state agency issuance grew 98.9%. For all of these, Hallacy explained it is easier to ramp up issuance at the state level. “There is more control over how proceeds are applied.”

In the electric power sector, new money was up 95% even as the sector overall was only up 3.7%. Refunding was down 22.3% and combined funding down 42.3%.

“The power sector had already accomplished massive levels of refunding,” Hallacy said. “New money is for alternative energy and efficiency projects. No new major plants have begun to my knowledge.”

Though healthcare issuance declined 27.8%, the life care/retirement subsector grew 227%.

“Life care/retirement is dependent on how much equity the elderly have in the existing homes before they go into a new facility,” Hallacy said. “Given the strength of the housing market, this trend fits well. There was more uncertainty last year after the initial swoon. Low rates accelerated the activity here.”

While public facilities grew 126.9%, the libraries and museum subsector grew 376.2% and civic and convention subsector grew 375.2%. Hallacy said he was unsure why this was. “I can only speculate that it is easier to get major work done when the crowds are not around.”

In the public facilities sector, the police stations and equipment subsector declined 83%.

“It was not a good time to acquire rolling stock for police when the factories were idled due to COVID,” Hallacy said. “Many cities had pressure to defund the police. That wave may have passed for now.”

In the transportation sector, the airport subsector grew 280.2% and the bridges subsector grew 148.7%.

“Airport bond issuance has been mostly for refunding, with a good chunk of that from issues for refunding and new money combined,” Luby said. “Airports experienced significant declines in revenues, and while most issuers entered the pandemic with ample amounts of cash on hand, the ability to take advantage of the low-yield environment to refinance higher cost bonds has allowed them to free up cash flow.”

Housing: First Half

	2021		2020		Percent Change
	Volume (\$ mill)	# Issues	Volume (\$ mill)	# Issues	
Total	\$17,195.2	366	\$13,394.1	300	+28.4%
First Quarter	8,087.8	172	5,440.3	112	+48.7
Second Quarter	9,107.3	194	7,953.8	188	+14.5
Single-Family	6,688.1	121	5,998.4	108	+11.5
Multifamily	10,507.1	245	7,395.6	192	+42.1
Tax-Exempt	14,166.2	300	10,678.8	250	+32.7
Taxable	2,759.0	53	2,541.8	41	+8.5
Minimum-Tax	270.0	13	173.4	9	+55.7
New-Money	16,707.8	345	11,885.9	274	+40.6
Refunding	259.1	15	1,222.3	21	-78.8
Combined	228.3	6	285.9	5	-20.1
Negotiated	14,708.1	250	8,743.5	158	+68.2
Competitive	107.3	11	371.1	7	-71.1
Private Placements	2,379.8	105	4,279.4	135	-44.4
Revenue	16,650.7	353	12,139.0	282	+37.2
General Obligation	544.5	13	1,255.1	18	-56.6
Fixed Rate	14,512.4	294	10,585.0	210	+37.1
Variable Rate (Short Put)	928.3	24	2,002.8	57	-53.6
Variable Rate (Long/No Put)	1,001.0	46	801.7	32	+24.9
Linked Rate	753.4	2	4.5	1	+16,642.2
Bond Insurance	95.4	2	0.0	0	n.m.
Letter of Credit	10.0	1	31.3	3	-68.1
Standby Purchase Agreements	20.0	1	424.9	8	-95.3
Insured Mortgages	466.8	19	368.0	11	+26.8
Guaranties	0.0	0	0.0	0	n.m.
State Governments	152.5	1	164.6	3	-7.4
State Agencies	12,612.2	247	10,425.4	203	+21.0
Counties & Parishes	46.5	3	46.1	2	+0.9
Cities & Towns	468.1	16	413.6	15	+13.2
District	30.2	1	9.1	3	+231.9
Local Authorities	3,810.5	95	2,314.5	73	+64.6
Colleges & Universities	8.1	1	0.0	0	n.m.
Direct Issuer	67.2	2	20.7	1	+224.6
Bank Qualified	32.5	10	4.6	1	+606.5
Qualified Sch Construction	0.0	0	0.0	0	n.m.
Other Stimulus Program	0.0	0	0.0	0	n.m.

Notes: Figures are based on issues maturing in 13 months or longer. Private placements and municipal forwards are included, but remarketings are excluded. n.m. — not meaningful. Source: Refinitiv (Jul. 23)

Housing

Senior Managers: First Half 2021

	Manager	Amt (\$mill)
1	Citi	\$2,502.2
2	RBC Capital Mkts	2,340.5
3	J P Morgan	1,822.0
4	Jefferies	1,755.2
5	Goldman Sachs	1,208.7
6	BofA Securities	977.0
7	Stifel Nicolaus	976.3
8	Wells Fargo	796.2
9	Morgan Stanley	637.3
10	Raymond James	488.2

Private placements, short-term notes, and remarketings are excluded. In issues with multiple book-runners, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Housing

Financial Advisors: First Half 2021

	Advisor	Amt (\$mill)
1	CSG Advisors Incorp	\$1,528.8
2	Caine Mitter & Assoc	1,403.2
3	Stifel Nicolaus	558.9
4	Lamont Fin Serv Corp	493.5
5	Government Consultants	216.3
6	RBC Capital Markets	211.6
7	Public Resources Adv	203.7
8	PFM Financial Adv	194.3
9	CFX Inc	155.2
10	California Fin Services	153.0

Private placements, short-term notes, and remarketings are excluded. In issues with co-advisors, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Largest Housing Issues

Date	Issuer	Amt (\$mill)	Manager(s)
Mar-16	California Housing Finance Agcy	\$1,045.3	Citi
Jun-24	NYC Housing Dev Corp. (tax)	686.3	J P Morgan Securities LLC
Mar-16	Oregon (State), GOs (tax)	610.2	Morgan Stanley/Citi
Jun-16	NYC Housing Dev Corp	600.2	Barclays
May-6	Washington St Hsg Fin Commission	572.0	Citi
Jun-16	NYC Housing Dev Corp	500.2	J P Morgan Securities LLC
Mar-24	California Community Hsg Agcy	434.2	Jefferies LLC
Jun-2	CSCDA Community Imp Auth	378.5	Goldman Sachs & Co
Apr-21	NYC Housing Dev Corp. (tax/te)	362.3	BA Securities/Wells Fargo
Apr-8	CSCDA Community Imp Auth	332.5	Goldman Sachs & Co

Key to abbreviations: amt – alternative minimum tax; cpt – competitive; nm – new money; ref – refunding; tax – taxable; te – tax exempt. Source: Refinitiv (Jul. 12)

Public Facilities: First Half

	2021		2020		Percent Change
	Volume (\$ mill)	# Issues	Volume (\$ mill)	# Issues	
Total	\$6,042.9	218	\$2,662.8	197	+126.9%
First Quarter	3,542.1	94	1,651.3	93	+114.5
Second Quarter	2,500.8	124	1,011.5	104	+147.2
Libraries & Museums	1,113.9	26	233.9	14	+376.2
Government Buildings	1,514.6	37	572.6	33	+164.5
Fire Stations & Equipment	360.0	61	219.2	54	+64.2
Correctional Facilities	343.6	13	124.5	6	+176.0
Police Stations & Equipment	40.0	2	234.7	10	−83.0
Civic & Convention Centers	1,175.6	11	247.4	6	+375.2
Stadium & Sports Complexes	551.5	2	411.7	2	+34.0
Theaters	9.5	1	0.0	0	n.m.
Park, Zoos & Beaches	634.5	46	464.5	54	+36.6
Other Recreation	299.7	19	154.4	18	+94.1
Tax-Exempt	4,996.2	175	1,892.4	178	+164.0
Taxable	1,046.7	43	770.5	19	+35.8
Minimum-Tax	0.0	0	0.0	0	n.m.
New-Money	4,150.6	142	1,872.9	145	+121.6
Refunding	1,142.0	64	728.8	46	+56.7
Combined	750.3	12	61.2	6	+1,126.0
Negotiated	4,062.1	122	1,361.1	90	+198.4
Competitive	1,826.8	80	765.5	67	+138.6
Private Placements	154.0	16	536.3	40	−71.3
Revenue	4,304.9	90	1,637.9	60	+162.8
General Obligation	1,738.0	128	1,024.9	137	+69.6
Fixed Rate	5,680.4	213	2,662.8	197	+113.3
Variable Rate (Short Put)	58.6	2	0.0	0	n.m.
Variable Rate (Long/No Put)	228.5	1	0.0	0	n.m.
Zero Coupon	3.9	1	0.0	0	n.m.
Linked Rate	71.5	1	0.0	0	n.m.
Convertible	0.0	0	0.0	0	n.m.
Bond Insurance	982.4	50	514.5	34	+90.9
Letter of Credit	0.0	0	0.0	0	n.m.
Standby Purchase Agreements	0.0	0	0.0	0	n.m.
Guaranties	0.0	0	39.7	2	−100.0
State Governments	201.4	4	135.7	2	+48.4
State Agencies	1,653.8	10	219.3	7	+654.1
Counties & Parishes	823.4	19	276.6	22	+197.7
Cities & Towns	503.9	32	802.8	42	−37.2
District	1,216.1	96	604.8	94	+101.1
Local Authorities	1,623.5	55	623.7	30	+160.3
Direct Issuer	20.8	2	0.0	0	n.m.
Bank Qualified	331.0	89	317.4	95	+4.3
Qualified Sch Construction	0.0	0	0.0	0	n.m.
Other Stimulus Program	0.0	0	0.0	0	n.m.
Notes: Figures are based on issues maturing in 13 months or longer. Private placements and municipal forwards are included, but remarketings are excluded. n.m. — not meaningful. Source: Refinitiv (Jul. 23)					

Public Facilities

Senior Managers: First Half 2021

	Manager	Amt (\$mill)
1	BofA Securities	\$743.6
2	Citi	693.9
3	J P Morgan	573.8
4	Goldman Sachs	551.5
5	Piper Sandler	397.7
6	Stifel Nicolaus	381.7
7	Wells Fargo	300.0
8	Siebert Williams Shank	259.8
9	Hilltop Securities	232.8
10	Robert W Baird	198.4
Private placements, short-term notes, and remarketings are excluded. In issues with multiple book-runners, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)		

Public Facilities

Financial Advisors: First Half 2021

	Advisor	Amt (\$mill)
1	PFM Financial Adv	\$951.2
2	Frasca & Associates	599.8
3	Public Resources Adv	439.6
4	Piper Sandler	387.0
5	Robert W Baird	211.0
6	Acacia Financial Grp	134.7
7	Ehlers & Associates	129.9
8	Hilltop Securities	104.3
9	Sperry Capital	86.4
10	Speer Financial	82.3
Private placements, short-term notes, and remarketings are excluded. In issues with co-advisors, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)		

Largest Public Facility Issues

Date	Issuer	Amt (\$mill)	Manager(s)
Feb-10	NYC Industrial Dev Agency, (tax/te)(nm/ref)	\$551.5	Goldman Sachs & Co
Mar-9	Virginia Public Building Auth, (tax/te)(cpt)(ref)	546.3	Morgan Stanley/BA Securities
Mar-25	Georgia World Congress Ctr Auth	439.6	Citi
Jan-12	Multnomah Co-Oregon, GOs (tax/te)	387.0	BA Securities/J P Morgan
Mar-31	Washington Conv Ctr Pub Facs Dt	341.5	J P Morgan Securities LLC
Jan-7	California Infrstr & Eco Dev Bank, (ref)	300.0	Wells Fargo & Co
May-5	Ohio (State)	227.9	Loop Capital Markets
Jun-29	Michigan State Building Auth	206.3	Siebert Williams Shank & Co
Apr-13	Deschutes Public Library Dt, GOs	195.0	Piper Sandler & Co
Jun-4	Kentucky St Property & Bldg Comm, (tax/te)(ref)	139.6	Citi
Key to abbreviations: GOs – general obligation bonds; nm – new-money; ref – refunding; tax – taxable; te – tax-exempt. Source: Refinitiv (Jul. 12)			

Transportation: First Half

	2021		2020		Percent Change
	Volume (\$ mill)	# Issues	Volume (\$ mill)	# Issues	
Total	\$32,709.0	271	\$22,006.3	226	+48.6%
First Quarter	16,934.8	125	12,771.3	112	+32.6
Second Quarter	15,774.2	146	9,235.0	114	+70.8
Airport	6,463.0	50	1,699.9	18	+280.2
Seaport	1,084.6	10	598.7	15	+81.2
Toll Roads, Hwys & Streets	9,517.8	128	9,458.0	135	+0.6
Bridges	1,498.8	10	602.6	5	+148.7
Tunnels	0.0	0	0.0	0	n.m.
Parking Facilities	147.7	9	107.9	7	+36.9
Mass Transportaions	13,997.2	64	9,539.2	46	+46.7
Tax-Exempt	20,976.0	203	14,485.8	179	+44.8
Taxable	7,589.6	46	6,433.5	34	+18.0
Minimum-Tax	4,143.4	22	1,087.0	13	+281.2
New-Money	19,926.8	183	10,670.1	132	+86.8
Refunding	7,653.4	68	9,318.7	77	−17.9
Combined	5,128.8	20	2,017.6	17	+154.2
Negotiated	26,251.6	164	17,945.3	146	+46.3
Competitive	4,484.3	96	3,709.1	65	+20.9
Private Placements	1,973.2	11	351.9	15	+460.7
Revenue	27,265.5	141	16,971.6	106	+60.7
General Obligation	5,443.5	130	5,034.7	120	+8.1
Fixed Rate	31,712.8	262	21,069.5	219	+50.5
Variable Rate (Short Put)	139.4	2	450.8	3	−69.1
Variable Rate (Long/No Put)	856.6	6	486.0	4	+76.3
Zero Coupon	0.3	1	0.0	0	n.m.
Linked Rate	0.0	0	0.0	0	n.m.
Convertible	0.0	0	0.0	0	n.m.
Bond Insurance	1,410.7	44	526.3	34	+168.0
Letter of Credit	0.0	0	225.8	1	−100.0
Standby Purch Agreements	0.0	0	0.0	0	n.m.
Guaranties	15.4	1	0.0	0	n.m.
State Governments	3,200.3	17	2,563.6	9	+24.8
State Agencies	14,809.2	60	12,631.1	50	+17.2
Counties & Parishes	1,002.3	27	562.8	25	+78.1
Cities & Towns	1,742.0	56	957.5	64	+81.9
District	1,071.7	42	464.9	40	+130.5
Local Authorities	10,883.6	69	4,800.1	35	+126.7
Direct Issuer	0.0	0	26.3	3	−100.0
Bank Qualified	199.6	68	228.6	70	−12.7
Qualified Sch Construction	0.0	0	0.0	0	n.m.
Other Stimulus Program	0.0	0	0.0	0	n.m.
Notes: Figures are based on issues maturing in 13 months or longer. Private placements and municipal forwards are included, but remarketings are excluded. n.m. — not meaningful. Source: Refinitiv (Jul. 23)					

Transportation

Senior Managers: First Half 2021

	Manager	Amt (\$mill)
1	BofA Securities	\$6,936.5
2	Citi	6,134.2
3	Goldman Sachs	5,596.0
4	J P Morgan	2,896.7
5	Barclays	2,013.6
6	Wells Fargo	1,644.1
7	Morgan Stanley	1,421.4
8	RBC Capital Mkts	864.7
9	UBS Financial Serv	523.9
10	Loop Capital Mkts	465.7
Private placements, short-term notes, and remarketings are excluded. In issues with multiple book-runners, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)		

Transportation

Financial Advisors: First Half 2021

	Advisor	Amt (\$mill)
1	PFM Financial Adv	\$6,575.8
2	Frasca & Associates	4,808.7
3	Public Resources Adv	4,365.5
4	Hilltop Securities	3,160.9
5	Estrada Hinojosa	1,123.9
6	Piper Sandler	964.5
7	Phoenix Capital Partners	943.0
8	Backstrom McCarley Berry	833.1
9	KNN Public Finance	431.8
10	Baker Tilly Municipal Adv	426.6
Private placements, short-term notes, and remarketings are excluded. In issues with co-advisors, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)		

Largest Transportation Issues

Date	Issuer	Amt (\$mill)	Manager(s)
Jan-21	Port Authority of NY & NJ, (amt/tax/te)	\$1,512.0	BA Securities
Apr-20	Triborough Bridge & Tunnel Auth, GOs (tax/te)(ref)	1,238.2	Goldman Sachs & Co
Apr-23	Connecticut (State)(ref/nm)	1,030.9	Goldman Sachs & Co
Jan-21	New Jersey Turnpike Authority, (tax)	995.2	Citi
Jun-2	Metro Washington Airports Auth, GOs (ref)	899.6	Citi
Jan-27	Los Angeles Dept of Airports, (tax/te/amt)(nm/ref)	893.4	Barclays
Feb-9	Washington (State), GOs (cpt)	852.5	J P Morgan Sec/BA Securities
May-5	North Texas Tollway Auth, (tax/te)	848.2	RBC Cap Mkts/J P Morgan
Feb-18	Colorado Reg Transportation Dt, (tax/te)(ref)	834.0	Goldman Sachs & Co
Jun-17	Port of Seattle-Washington, (amt/tax/te)(nm/ref)	794.6	Barclays
Key to abbreviations: amt – alternative minimum tax; GOs – general obligation bonds; nm – new-money; ref – refunding; tax – taxable; te – tax-exempt. Source: Refinitiv (Jul. 12)			

Utilities: First Half

	2021		2020		Percent Change
	Volume (\$ mill)	# Issues	Volume (\$ mill)	# Issues	
Total	\$24,444.2	818	\$23,074.9	802	+5.9%
First Quarter	10,391.4	334	8,525.6	302	+21.9
Second Quarter	14,052.8	484	14,549.3	500	−3.4
Water & Sewer	18,520.6	657	18,624.8	643	−0.6
Gas	3,427.9	12	1,614.5	15	+112.3
Telephone	123.8	9	20.9	8	+492.3
Sanitation	484.3	59	604.6	63	−19.9
Food Control	205.0	19	317.2	22	−35.4
Combined-Utilities	1,682.5	62	1,892.8	51	−11.1
Tax-Exempt	19,723.5	727	16,891.2	706	+16.8
Taxable	4,715.7	90	6,028.8	93	−21.8
Minimum-Tax	5.1	1	154.9	3	−96.7
New-Money	12,148.5	369	10,830.5	374	+12.2
Refunding	9,345.1	374	8,477.2	359	+10.2
Combined	2,950.6	75	3,767.2	69	−21.7
Negotiated	18,769.0	555	18,231.1	502	+3.0
Competitive	5,238.6	226	3,223.2	223	+62.5
Private Placements	436.7	37	1,620.6	77	−73.1
Revenue	21,315.2	459	20,529.3	447	+3.8
General Obligation	3,129.0	359	2,545.6	355	+22.9
Fixed Rate	22,441.8	808	21,842.3	786	+2.7
Variable Rate (Short Put)	547.7	2	16.0	7	+3,323.1
Variable Rate (Long/No Put)	1,453.0	6	1,191.3	6	+22.0
Zero Coupon	1.7	2	0.3	2	+466.7
Linked Rate	0.0	0	25.0	1	−100.0
Convertible	0.0	0	0.0	0	n.m.
Bond Insurance	3,007.4	329	2,959.2	303	+1.6
Letter of Credit	0.0	0	0.0	0	n.m.
Standby Purchase Agreements	0.0	0	0.0	0	n.m.
Guaranties	60.8	8	37.9	4	+60.4
Other Enhancements	0.0	0	0.0	0	n.m.
State Governments	432.0	2	0.0	0	n.m.
State Agencies	2,622.0	26	2,566.3	24	+2.2
Counties & Parishes	1,795.8	32	1,054.7	29	+70.3
Cities & Towns	6,231.4	257	7,091.6	270	−12.1
District	4,397.9	368	4,675.3	351	−5.9
Local Authorities	7,298.3	130	7,682.5	127	−5.0
Direct Issuer	1,064.2	2	4.5	1	+23,548.9
Cooperative Utilities	602.5	1	0.0	0	n.m.
Bank Qualified	1,508.7	390	1,406.9	389	+7.2
Qualified Sch Construction	0.0	0	0.0	0	n.m.
Other Stimulus Program	0.0	0	0.0	0	n.m.

Notes: Figures are based on issues maturing in 13 months or longer. Private placements and municipal forwards are included, but remarketings are excluded.
n.m. — not meaningful. Source: Refinitiv (Jul. 23)

Utilities

Senior Managers: First Half 2021

	Manager	Amt (\$mill)
1	BofA Securities	\$4,100.5
2	Morgan Stanley	3,942.6
3	Citi	2,557.6
4	J P Morgan	1,933.3
5	RBC Capital Mkts	1,417.9
6	Barclays	1,094.5
7	Stifel Nicolaus	971.8
8	Robert W Baird	868.3
9	Raymond James	770.4
10	Loop Capital Mkts	574.8

Private placements, short-term notes, and remarketings are excluded. In issues with multiple book-runners, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Utilities

Financial Advisors: First Half 2021

	Advisor	Amt (\$mill)
1	PFM Financial Adv	\$3,518.7
2	Montague DeRose & Assoc	1,678.4
3	Public Res Advisory Grp	1,458.5
4	Hilltop Securities	1,329.3
5	Municipal Capital Mkts	1,220.5
6	Swap Financial Grp	1,061.1
7	Frasca & Associates	900.3
8	Robert W Baird	873.2
9	Mohanty Gargiulo	602.5
10	Stifel Nicolaus	583.9

Private placements, short-term notes, and remarketings are excluded. In issues with co-advisors, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Largest Utility Issues

Date	Issuer	Amt (\$mill)	Manager(s)
Jan-25	Texas Muni Gas Acq & Supply Corp III, (ref)	\$1,061.1	BA Sec/J P Morgan/Citi/Goldman Sachs
Jun-15	Southeast Energy Authority, GOs	660.2	Morgan Stanley
Mar-3	Baltimore Co-Maryland, GOs (cpt)	648.1	Morgan Stanley
Jun-8	Indiana Finance Authority, (ref)	641.2	BA Securities/Citi
Apr-9	Miami-Dade Co-Florida	605.6	BA Securities
Jun-23	Michigan Strategic Fund, (tax)	603.2	Citi
Apr-20	Tennergy Corporation	602.5	Morgan Stanley
Mar-11	NYC Municipal Water Fin Auth	574.8	Loop Capital Markets
Mar-22	Black Belt Energy Gas Dt	560.3	RBC Capital Markets
Feb-24	NYC Municipal Water Fin Auth	553.3	Barclays

Key to abbreviations: amt – alternative minimum tax; cpt – competitive; nm – new money; pvt – private placement; ref – refunding; te – tax exempt. Source: Refinitiv (Jul. 12)

Bank-Qualified Bonds: First Half

	2021		2020		Percent Change
	Volume (\$ mill)	# Issues	Volume (\$ mill)	# Issues	
Total	\$8,330.9	2,102	\$7,930.5	1,981	+5.0%
First Quarter	3,832.2	951	3,216.5	806	+19.1
Second Quarter	4,498.7	1,151	4,714.0	1,175	−4.6
Development	96.3	23	60.6	16	+58.9
Education	3,216.1	785	3,745.6	864	−14.1
Electric Power	63.1	12	45.6	13	+38.4
Environmental Facilities	5.9	2	3.0	2	+96.7
Healthcare	48.5	9	27.2	6	+78.3
Housing	32.5	10	4.6	1	+606.5
Public Facilities	331.0	89	317.4	95	+4.3
Transportation	199.6	68	228.6	70	−12.7
Utilities	1,508.7	390	1,406.9	389	+7.2
General Purpose	2,829.2	714	2,091.1	525	+35.3
Tax-Exempt	8,330.9	2,102	7,929.0	1,980	+5.1
Taxable	0.0	0	0.0	0	n.m.
Minimum-Tax	0.0	0	1.6	1	−100.0
New-Money	5,160.9	1,235	4,912.1	1,228	+5.1
Refunding	2,740.3	780	2,645.8	668	+3.6
Combined	429.7	87	372.6	85	+15.3
Negotiated	4,265.4	1,060	4,015.5	959	+6.2
Competitive	3,850.0	983	3,643.8	934	+5.7
Private Placements	215.5	59	271.3	88	−20.6
Revenue	1,430.5	344	1,100.6	291	+30.0
General Obligation	6,900.4	1,758	6,829.9	1,690	+1.0
Fixed Rate	8,310.6	2,091	7,899.5	1,966	+5.2
Variable Rate (Short Put)	1.6	1	1.6	1	unch
Variable Rate (Long/No Put)	0.0	0	0.0	0	n.m.
Zero Coupon	18.7	10	29.5	14	−36.6
Linked Rate	0.0	0	0.0	0	n.m.
Convertible	0.0	0	0.0	0	n.m.
Bond Insurance	2,526.4	533	2,328.3	476	+8.5
Letter of Credit	0.0	0	0.0	0	n.m.
Standby Purch Agreements	0.0	0	0.0	0	n.m.
Insured Mortgages	0.0	0	0.0	0	n.m.
Guaranties	536.8	139	1,377.5	315	−61.0
Other Enhancements	0.0	0	0.0	0	n.m.
State Governments	0.0	0	0.0	0	n.m.
State Agencies	49.6	8	28.1	9	+76.5
Counties & Parishes	496.9	104	429.5	93	+15.7
Cities & Towns	2,881.9	794	2,170.9	613	+32.8
District	4,400.0	1,096	4,859.1	1,174	−9.4
Local Authorities	420.9	86	394.1	84	+6.8
Colleges & Universities	76.0	12	44.5	7	+70.8
Direct Issuer	5.6	2	4.5	1	+24.4
Cooperative Utilities	0.0	0	0.0	0	n.m.
Bank Qualified	8,330.9	2,102	7,930.5	1,981	+5.0
Qualified Sch Construction	0.0	0	0.0	0	n.m.
Other Stimulus Program	0.0	0	0.0	0	n.m.

Notes: Figures are based on issues maturing in 13 months or longer. Private placements and municipal forwards are included, but remarketings are excluded.
n.m. — not meaningful. Source: Refinitiv (Jul. 23)

Bank-Qualified Bonds

Senior Managers: First Half 2021

	Manager	Amt (\$mill)
1	Robert W Baird	\$1,072.6
2	Piper Sandler	796.0
3	FHNC Fin Capital Mkts	509.9
4	D A Davidson	498.3
5	RBC Capital Mkts	486.2
6	Roosevelt & Cross	445.8
7	Stifel Nicolaus	431.9
8	Raymond James	412.8
9	Samco Capital Mkts	390.9
10	Northland Securities	339.5

Private placements, short-term notes, and remarketings are excluded. In issues with multiple book-runners, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Bank-Qualified Bonds

Financial Advisors: First Half 2021

	Advisor	Amt (\$mill)
1	PFM Financial Adv	\$738.5
2	Ehlers & Associates	441.5
3	Robert W Baird	268.5
4	Hilltop Securities	248.2
5	Baker Tilly Municipal Adv	236.9
6	Piper Sandler	221.6
7	Cumberland Securities	207.3
8	Fiscal Adv & Marketing	178.9
9	Masterson Advisors	156.3
10	Rathmann & Associates	148.3

Private placements, short-term notes, and remarketings are excluded. In issues with co-advisors, the par amount of the issue is divided equally among the firms. Source: Refinitiv (Jul. 12)

Top Senior Managers: All Issues

First Half 2021 - True Economics to Book-Runners

Rank	Firm	Volume	Market Share	Issues
1	BofA Securities Inc	\$32,986.5	15.0%	273
2	Citi	22,577.1	10.3	192
3	J P Morgan Securities LLC	18,785.3	8.6	180
4	Morgan Stanley	17,875.9	8.1	180
5	Goldman Sachs & Co LLC	12,983.9	5.9	70
6	RBC Capital Markets	12,594.5	5.7	313
7	Stifel Nicolaus & Co Inc	11,343.7	5.2	497
8	Wells Fargo & Co	8,947.9	4.1	112
9	Robert W Baird & Co Inc	8,193.6	3.7	584
10	Jefferies LLC	8,154.4	3.7	48

This is Refinitiv's AT1" league table. Dollar amounts are in millions. Rankings are final as of Jul. 1, 2021. Short-term notes, private placements and deals not meeting Refinitiv's T+5 policy rule are excluded. The full par amount of an issue is credited to the book-running manager; in issues with multiple bookrunners each firm is credited with the actual allocation it received.

Source: Refinitiv (as recompiled by The Bond Buyer on Jul. 1)

Top Senior Managers: Negotiated Issues

First Half 2021 - True Economics to Book-Runners

Rank	Firm	Volume	Market Share	Issues
1	BofA Securities Inc	\$23,236.8	13.9%	185
2	Citi	17,741.7	10.6	129
3	Goldman Sachs & Co LLC	12,983.9	7.8	70
4	J P Morgan Securities LLC	12,652.8	7.6	102
5	RBC Capital Markets	12,552.6	7.5	306
6	Morgan Stanley	11,728.7	7.0	93
7	Stifel Nicolaus & Co Inc	11,209.6	6.7	477
8	Jefferies LLC	7,350.3	4.4	40
9	Piper Sandler & Co	6,661.5	4.0	368
10	Barclays	6,632.5	4.0	52

This is Refinitiv's AT3" league table for negotiated offerings. Dollar amounts are in millions. Rankings are final as of Jul. 1, 2021. Short-term notes, private placements and deals not meeting Refinitiv's T+5 policy rule are excluded. The full par amount of an issue is credited to the book-running manager; in issues with multiple bookrunners each firm is credited with the allocation that it received.

Source: Refinitiv (as recompiled by The Bond Buyer on Jul. 1)

Top Senior Managers: Competitive Issues

First Half 2021 - True Economics to Book-Runners

Rank	Firm	Volume	Market Share	Issues
1	BofA Securities Inc	\$9,749.7	18.8%	88
2	Morgan Stanley	6,147.2	11.8	87
3	J P Morgan Securities LLC	6,132.5	11.8	78
4	Robert W Baird & Co Inc	5,389.6	10.4	409
5	Citi	4,835.5	9.3	63
6	Wells Fargo & Co	2,922.2	5.6	35
7	Raymond James	1,422.4	2.7	101
8	FHNC Financial Capital Markets	1,420.2	2.7	118
9	Piper Sandler & Co	1,392.8	2.7	104
10	Hilltop Securities	1,047.2	2.0	50

This is Refinitiv's AT4" league table for competitive offerings. Dollar amounts are in millions. Rankings are final as of Jul. 1, 2021. Short-term notes, private placements and deals not meeting Refinitiv's T+5 policy rule are excluded. The full par amount of an issue is credited to the book-running manager; in issues with multiple bookrunners each firm is credited with the actual allocation that it received.

Source: Refinitiv (as recompiled by The Bond Buyer on Jul. 1)

Top Senior Managers: Small Issues

First Half 2021 - True Economics to Book-Runners

Rank	Firm	Volume	Market Share	Issues
1	Robert W Baird & Co Inc	\$1,609.1	12.7%	339
2	Piper Sandler & Co	1,239.7	9.8	272
3	Stifel Nicolaus & Co Inc	979.1	7.7	188
4	Raymond James	675.1	5.3	147
5	D A Davidson & Co	657.4	5.2	185
6	RBC Capital Markets	656.7	5.2	114
7	Roosevelt & Cross Inc	571.5	4.5	138
8	FHNC Financial Capital Markets	564.9	4.5	95
9	Samco Capital Markets	532.9	4.2	122
10	Northland Securities	422.8	3.3	125

This is Refinitiv's AT2" league table for issues with composite amounts of \$10 million or less. Dollar amounts are in millions. Rankings are final as of Jul. 1, 2021. Short-term notes, private placements and deals not meeting Refinitiv's T+5 policy rule are excluded. The full par amount of an issue is credited to the book-running manager; in issues with multiple bookrunners each firm is credited with the actual allocation that it received.

Source: Refinitiv (as recompiled by The Bond Buyer on Jul. 1)

Top Co-Managers: All Issues

First Half 2021 - Equal Credit to Each Firm

Rank	Firm	Volume	Market Share	Issues
1	BofA Securities Inc	\$7,323.2	3.3%	192
2	Wells Fargo & Co	6,761.8	3.1	188
3	J P Morgan Securities LLC	6,226.8	2.8	161
4	Raymond James	6,024.7	2.7	299
5	Siebert Williams Shank & Co	5,665.5	2.6	181
6	Loop Capital Markets	5,468.6	2.5	547
7	Stifel Nicolaus & Co Inc	5,289.1	2.4	292
8	Academy Securities Inc	5,204.1	2.4	150
9	Citi	5,196.3	2.4	176
10	Ramirez & Co Inc	5,194.3	2.4	401

This is Refinitiv's AT12" league table. Dollar amounts are in millions. Rankings are final as of Jul. 1, 2021. Short-term notes, private placements and deals not meeting Refinitiv's T+5 policy rule are excluded. This table divides the par amount of an issue equally among the co-managers. Bookrunners are excluded.

Source: Refinitiv (as recompiled by The Bond Buyer on Jul. 1)

Top Financial Advisors: All Issues

First Half 2021 - Equal Credit to Each Firm

Rank	Firm	Volume	Market Share	Issues
1	PFM Financial Advisors LLC	\$30,002.1	16.5%	573
2	Public Resources Advisory Group	21,067.3	11.6	108
3	Hilltop Securities	15,762.7	8.7	330
4	Frasca & Associates	7,765.6	4.3	33
5	Piper Sandler & Co	6,494.6	3.6	135
6	Acacia Financial Group Inc	5,127.4	2.8	71
7	Swap Financial Group LLC	4,890.7	2.7	8
8	KNN Public Finance	4,438.7	2.4	35
9	RBC Capital Markets	3,934.7	2.2	80
10	Baker Tilly Municipal Advisors	3,584.6	2.0	193

This is Refinitiv's AT7" league table. Dollar amounts are in millions. Rankings are final as of Jul. 1, 2021. Short-term notes, private placements and deals not meeting Refinitiv's T+5 policy rule are excluded. Issues with multiple advisors divide the par amount equally among the advisors. Source: Refinitiv. For more Top Rankings see next page."

Source: Refinitiv (as recompiled by The Bond Buyer on Jul. 1)

Top Financial Advisors: Negotiated Issues

First Half 2021 - Equal Credit to Each Firm

Rank	Firm	Volume	Market Share	Issues
1	PFM Financial Advisors LLC	\$23,245.8	17.7%	365
2	Public Resources Advisory Group	14,843.5	11.3	53
3	Hilltop Securities	10,904.5	8.3	166
4	Frasca & Associates	6,768.2	5.1	25
5	Swap Financial Group LLC	4,890.7	3.7	8
6	Acacia Financial Group Inc	3,918.7	3.0	56
7	KNN Public Finance	3,604.0	2.7	29
8	RBC Capital Markets	3,349.7	2.5	64
9	Lamont Financial Services Corp	3,098.8	2.4	21
10	Piper Sandler & Co	2,686.0	2.0	36

This is Refinitiv's AT7b" league table for negotiated offerings. Dollar amounts are in millions. Rankings are final as of Jul. 1, 2021. Short-term notes, private placements and deals not meeting Refinitiv's T+5 policy rule are excluded. Issues with multiple advisors divide the par amount equally among the advisors.

Source: Refinitiv (as recompiled by The Bond Buyer on Jul. 1)

Top Financial Advisors: Competitive Issues

First Half 2021 - Equal Credit to Each Firm

Rank	Firm	Volume	Market Share	Issues
1	PFM Financial Advisors LLC	\$6,756.3	13.5%	208
2	Public Resources Advisory Group	6,223.7	12.4	55
3	Hilltop Securities	4,858.2	9.7	164
4	Piper Sandler & Co	3,808.6	7.6	99
5	Baker Tilly Municipal Advisors	1,949.1	3.9	131
6	Davenport & Company LLC	1,468.4	2.9	43
7	Acacia Financial Group Inc	1,208.7	2.4	15
8	Ehlers & Associates	1,087.9	2.2	171
9	Frasca & Associates	997.4	2.0	8
10	Capital Markets Advisors LLC	982.8	2.0	64

This is Refinitiv's AT7c" league table for competitive offerings. Dollar amounts are in millions. Rankings are final as of Jul. 1, 2021. Short-term notes, private placements and deals not meeting Refinitiv's T+5 policy rule are excluded. Issues with multiple advisors divide the par amount equally among the advisors.

Source: Refinitiv (as recompiled by The Bond Buyer on Jul. 1)

Top Financial Advisors: Small Issues

First Half 2021 - Equal Credit to Each Firm

Rank	Firm	Volume	Market Share	Issues
1	PFM Financial Advisors LLC	\$1,059.9	11.9%	183
2	Ehlers & Associates	588.1	6.6	152
3	Hilltop Securities	536.2	6.0	107
4	Baker Tilly Municipal Advisors	438.1	4.9	96
5	Robert W Baird & Co Inc	403.1	4.5	98
6	Masterson Advisors LLC	261.4	2.9	68
7	Fiscal Advisors & Marketing Inc	254.5	2.9	76
8*	Piper Sandler & Co	234.3	2.6	46
8*	PMA Securities Inc	234.3	2.6	48
10	Phoenix Advisors LLC	222.1	2.5	37

* Tie. This is Refinitiv's AT7a" league table for issues with composite amounts of \$10 million or less. Dollar amounts are in millions. Rankings are final as of Jul. 1, 2021. Short-term notes, private placements and deals not meeting Refinitiv's T+5 policy rule are excluded. Issues with multiple advisors divide the par amount equally among the advisors.

Source: Refinitiv (as recompiled by The Bond Buyer on Jul. 1)

Top Issuers: All Issues

First Half 2021

Rank	Firm	Volume	Market Share	Issues
1	NYS Dorm Authority	\$4,662.6	2.1%	14
2	California	3,551.5	1.6	5
3	Regents of the Univ of California	2,923.3	1.3	5
4	NYC Transitional Finance Auth	2,429.6	1.1	6
5	Connecticut	2,021.4	0.9	14
6	NYC Housing Dev Corp	1,965.0	0.9	10
7	Triborough Bridge & Tunnel Auth	1,831.1	0.8	10
8	Port Authority of NY & NJ	1,698.9	0.8	5
9	Washington	1,633.1	0.7	10
10	CSCDA Community Imp Auth	1,622.4	0.7	8

This is Refinitiv's AT15" league table. Dollar amounts are in millions. Rankings are final as of Jul. 1, 2021. Short-term notes, private placements and deals not meeting Refinitiv's T+5 policy rule are excluded.

Source: Refinitiv (as recompiled by The Bond Buyer on Jul. 1)

Top Bond Counsel: All Issues

First Half 2021 - Equal Credit to Each Firm

Rank	Firm	Volume	Market Share	Issues
1	Orrick Herrington & Sutcliffe LLP	\$26,146.5	11.9%	274
2	Hawkins Delafield & Wood LLP	10,398.8	4.7	185
3	Norton Rose Fulbright	9,486.1	4.3	174
4	Kutak Rock LLP	8,047.3	3.7	234
5	Stradling Yocca Carlson & Rauth	7,402.6	3.4	115
6	Chapman and Cutler LLP	6,435.2	2.9	171
7	McCall Parkhurst & Horton LLP	6,306.5	2.9	195
8	Nixon Peabody LLP	5,755.0	2.6	54
9	Gilmore & Bell PC	5,754.2	2.6	307
10	Ballard Spahr LLP	4,837.5	2.2	77

This is Refinitiv's "AT5" league table. Dollar amounts are in millions. Rankings are final as of Jun. 30, 2021. Short-term notes, private placements, and deals not meeting Refinitiv's T+5 policy rule are excluded. In issues with co-counsel, the par amount is divided equally among the firms.

Source: Refinitiv (Jul. 16)

Top Bond Counsel: All Issues

First Half 2021 - Full Credit to Each Firm

Rank	Firm	Volume	Market Share	Issues
1	Orrick Herrington & Sutcliffe LLP	\$26,146.5	11.9%	274
2	Hawkins Delafield & Wood LLP	10,398.8	4.7	185
3	Norton Rose Fulbright	9,486.1	4.3	174
4	Kutak Rock LLP	8,047.3	3.7	234
5	Stradling Yocca Carlson & Rauth	7,402.6	3.4	115
6	Chapman and Cutler LLP	6,435.2	2.9	171
7	McCall Parkhurst & Horton LLP	6,306.5	2.9	195
8	Nixon Peabody LLP	5,755.0	2.6	54
9	Gilmore & Bell PC	5,754.2	2.6	307
10	Ballard Spahr LLP	4,837.5	2.2	77

This is a modified version of Refinitiv's "AT5" league table. Dollar amounts are in millions. Rankings are final as of Jun. 30, 2021. Short-term notes, private placements, and deals not meeting Refinitiv's T+5 policy rule are excluded. In issues with co-counsel, each firm is credited with the full par amount of the issue.

Source: Refinitiv (Jul. 16)

Top Bond Counsel: Negotiated Issues

First Half 2021 - Equal Credit to Each Firm

Rank	Firm	Volume	Market Share	Issues
1	Orrick Herrington & Sutcliffe LLP	\$24,032.6	14.2%	219
2	Hawkins Delafield & Wood LLP	7,961.7	4.7	101
3	Norton Rose Fulbright	7,592.7	4.5	96
4	Kutak Rock LLP	6,879.2	4.1	219
5	Stradling Yocca Carlson & Rauth	6,357.4	3.8	97
6	Chapman and Cutler LLP	5,700.6	3.4	125
7	Nixon Peabody LLP	4,934.3	2.9	42
8	McCall Parkhurst & Horton LLP	4,817.4	2.9	134
9	Gilmore & Bell PC	4,461.0	2.6	226
10	Ballard Spahr LLP	4,091.5	2.4	68

This is Refinitiv's "AT5a" league table for negotiated offerings. Dollar amounts are in millions. Rankings are final as of Jun. 30, 2021 Short-term notes, private placements, and deals not meeting Refinitiv's T+5 policy rule are excluded. In issues with co-counsel, the par amount is divided equally among the firms.

Source: Refinitiv (Jul. 16)

Top Bond Counsel: Competitive Issues

First Half 2021 - Equal Credit to Each Firm

Rank	Firm	Volume	Market Share	Issues
1	Hawkins Delafield & Wood LLP	\$2,437.1	4.8%	84
2	Orrick Herrington & Sutcliffe LLP	2,113.9	4.1	55
3	Locke Lord LLP	2,053.9	4.0	113
4	Norton Rose Fulbright	1,893.3	3.7	78
5	Foster Garvey PC	1,793.2	3.5	13
6	Bass Berry & Sims PLC	1,664.7	3.3	51
7	McKennon Shelton & Henn LLP	1,656.0	3.2	15
8	McCall Parkhurst & Horton LLP	1,489.2	2.9	61
9	Gilmore & Bell PC	1,293.2	2.5	81
10	Gray Pannell & Woodward LLP	1,219.4	2.4	10

This is Refinitiv's "AT5b" league table for competitive offerings. Dollar amounts are in millions. Rankings are final as of Jun. 30, 2021 . Short-term notes, private placements, and deals not meeting Refinitiv's T+5 policy rule are excluded. In issues with co-counsel, the par amount is divided equally among the firms.

Source: Refinitiv (Jul. 16)

Top Trustee Banks: All Issues

First Half 2021 - Ranked by Dollar Volume

Rank	Firm	Volume	Market Share	Issues
1	The Bank of New York Mellon	\$41,151.7	38.5%	348
2	US Bank NA	40,428.3	37.9	555
3	Wilmington Trust NA	6,336.9	5.9	58
4	Wells Fargo Bank	6,086.0	5.7	72
5	UMB Bank NA	3,052.9	2.9	121
6	Zions Bank	2,939.8	2.8	96
7	Regions Bank	2,742.2	2.6	49
8	MUFG	999.9	0.9	7
9	Amalgamated Bank of Chicago	651.3	0.6	5
10	BOKF NA	502.6	0.5	8

This is Refinitiv's "AT8" league table. Dollar amounts are in millions. Rankings are final as of Jun. 30, 2021 Short-term notes, private placements, and deals not meeting Refinitiv's T+5 policy rule are excluded.

Source: Refinitiv (Jul. 16)

Top Underwriter's Counsel: All Issues

First Half 2021 - Equal Credit to Each Firm

Rank	Firm	Volume	Market Share	Issues
1	Orrick Herrington & Sutcliffe LLP	\$9,717.5	7.8%	101
2	Norton Rose Fulbright	9,168.4	7.3	106
3	Hawkins Delafield & Wood LLP	7,982.5	6.4	46
4	Nixon Peabody LLP	7,709.6	6.2	60
5	Kutak Rock LLP	5,211.3	4.2	104
6	Stradling Yocca Carlson & Rauth	5,047.4	4.0	65
7	Ballard Spahr LLP	5,006.5	4.0	45
8	Katten Muchin Rosenman LLP	4,593.8	3.7	28
9	O'Melveny & Myers	3,500.7	2.8	8
10	Greenberg Traurig LLP	3,219.3	2.6	38

This is Refinitiv's "AT6" league table. Dollar amounts are in millions. Rankings are final as of Jun. 30, 2021. Short-term notes, private placements, and deals not meeting Refinitiv's T+5 policy rule are excluded. In issues with co-counsel, the par amount is divided equally among the firms.

Source: Refinitiv (Jul. 16)

Top Underwriter's Counsel: All Issues

First Half 2021 - Full Credit to Each Firm

Rank	Firm	Volume	Market Share	Issues
1	Orrick Herrington & Sutcliffe LLP	\$9,717.5	7.8%	101
2	Norton Rose Fulbright	9,168.4	7.3	106
3	Hawkins Delafield & Wood LLP	7,982.5	6.4	46
4	Nixon Peabody LLP	7,709.6	6.2	60
5	Kutak Rock LLP	5,211.3	4.2	104
6	Stradling Yocca Carlson & Rauth	5,047.4	4.0	65
7	Ballard Spahr LLP	5,006.5	4.0	45
8	Katten Muchin Rosenman LLP	4,593.8	3.7	28
9	O'Melveny & Myers	3,500.7	2.8	8
10	Greenberg Traurig LLP	3,219.3	2.6	38

This is a modified version of Refinitiv's "AT6" league table. Dollar amounts are in millions. Rankings are final as of Jun. 30, 2021 . Short-term notes, private placements, and deals not meeting Refinitiv's T+5 policy rule are excluded. In issues with co-counsel, each firm is credited with the full par amount of the issue.

Source: Refinitiv (Jul. 16)

Top Disclosure Counsel: All Issues

First Half 2021 - Equal Credit to Each Firm

Rank	Firm	Volume	Market Share	Issues
1	Orrick Herrington & Sutcliffe LLP	\$8,980.5	14.9%	63
2	Stradling Yocca Carlson & Rauth	8,335.3	13.9	93
3	Kutak Rock LLP	3,888.5	6.5	56
4	Chapman and Cutler LLP	2,744.2	4.6	78
5	Nixon Peabody LLP	2,703.7	4.5	17
6	Hawkins Delafield & Wood LLP	1,874.4	3.1	16
7	Hogan Lovells US LLP	1,757.1	2.9	4
8	Squire Patton Boggs	1,692.7	2.8	11
9	Norton Rose Fulbright	1,638.1	2.7	21
10	McCall Parkhurst & Horton LLP	1,583.4	2.6	41

This is Refinitiv's "AT23" league table for competitive offerings. Dollar amounts are in millions. Rankings are final as of Jun. 30, 2021 . Short-term notes, private placements, and deals not meeting Refinitiv's T+5 policy rule are excluded. In issues with co-counsel, each firm is credited with the full par amount of the issue.

Source: Refinitiv (Jul. 16)

Top Letter-of-Credit Providers: All Issues

First Quarter 2021 - Ranked by Enhanced Amount

Rank	Firm	Volume	Market Share	Issues
1	BofA Securities Inc	\$75.0	50.9%	1
2	Wells Fargo & Co	50.0	33.9	1
3	The Frazer Lanier Company Inc	22.5	15.3	1

This is Refinitiv's "AT29" league table modified to include domestic and foreign banks. Dollar amounts are in millions. Rankings are final as of Mar. 31, 2021 Short-term notes, private placements, and deals not meeting Refinitiv's T+5 policy rule are excluded. Each firm is credited with the actual amount that it enhanced within the issue.

Source: Refinitiv (Apr. 1)

Top Trustee Banks: All Issues

First Half 2021 - Ranked by Number of Issues

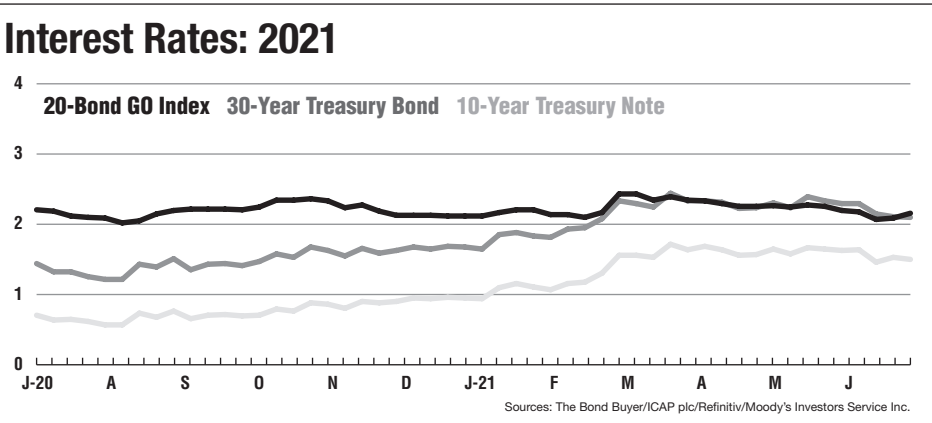
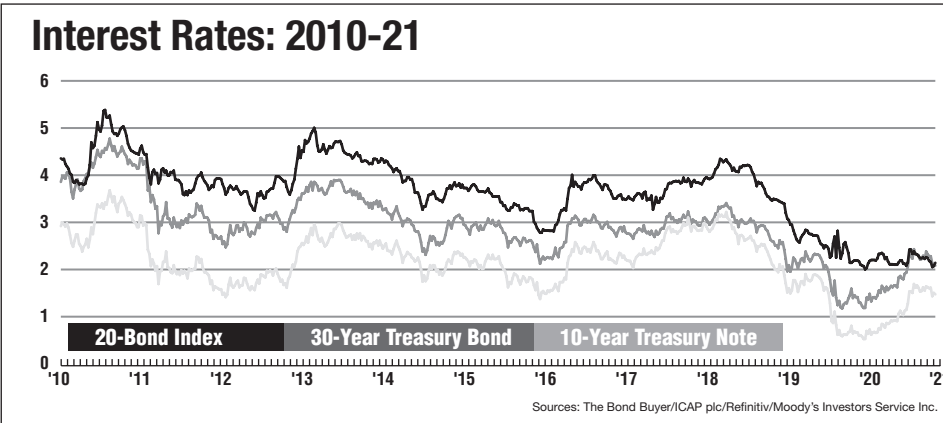
Rank	Firm	Issues	Market Share	Volume
1	US Bank NA	555	40.9%	\$40,428.3
2	The Bank of New York Mellon	348	25.6	41,151.7
3	UMB Bank NA	121	8.9	3,052.9
4	Zions Bank	96	7.1	2,939.8
5	Wells Fargo Bank	72	5.3	6,086.0
6	Wilmington Trust NA	58	4.3	6,336.9
7	Regions Bank	49	3.6	2,742.2
8	Huntington National Bank	11	0.8	334.2
9	BOKF NA	8	0.6	502.6
10*	MUFG	7	0.5	999.9
10*	TD Bank NA	7	0.5	356.2

*Tie. This is Refinitiv's "AT9" league table. Dollar amounts are in millions. Rankings are final as of Jun. 30, 2021. Short-term notes, private placements, and deals not meeting Refinitiv's T+5 policy rule are excluded.

Source: Refinitiv (Jul. 16)

Top Special Tax Counsel: All Issues				
First Half 2021 - Ranked by Tax Amount				
Rank	Firm	Volume	Market Share	Issues
1	Orrick Herrington & Sutcliffe LLP	\$3,476.2	57.6%	12
2*	Soeder & Associates LLC	495.3	8.2	12
2*	Robinson & Cole LLP	495.3	8.2	12
4	Hunton Andrews Kurth LLP	444.1	7.4	3
5	Gilmore & Bell PC	387.3	6.4	5
6	Bracewell LLP	301.5	5.0	2
7	Ballard Spahr LLP	198.7	3.3	1
8	McCall Parkhurst & Horton LLP	65.3	1.1	17
9*	Greenberg Traurig LLP	51.0	0.8	1
9*	Law Offices of Debi V Rumph	51.0	0.8	1
*Tie. Dollar amounts are in millions. Rankings are final as of Jun. 30, 2021. Short-term notes, private placements, and deals not meeting Refinitiv's T+5 policy rule are excluded. Each firm is credited with the actual amount that it enhanced within the issue. Source: Refinitiv (Jul. 16)				

Top Standby Purchase Agreement Providers: All Issues				
First Half 2021 - Ranked by Enhanced Amount				
Rank	Firm	Volume	Market Share	Issues
1	Royal Bank of Canada	\$125.0	86.2%	2
2	Federal Home Loan Bk of Topeka	20.0	13.8	1
Dollar amounts are in millions. Rankings are final as of Jun. 30, 2021. Short-term notes, private placements, and deals not meeting Refinitiv's T+5 policy rule are excluded. Each firm is credited with the actual amount that it enhanced within the issue. Source: Refinitiv (Aug. 2)				



Interest Rate Indexes: 2020-21									
Date	Municipal Bond Index			Weekly Bond Indexes					
	6% Index	Yield to Per Call	Yield to Maturity	20-Bond Gen Obl	11-Bond Gen Obl	25-Bond Revenue	1-Year Note	10-Year Treasury	30-Year Treasury
Jul-20	2 133-27	2.63	3.63	2.21	0.68	1.43	0.00	0.68	1.43
	9 134-06	2.58	3.61	2.19	0.61	1.31	0.00	0.61	1.31
	16 135-02	2.45	3.57	2.12	0.62	1.31	0.00	0.62	1.31
	23 135-21	2.37	3.54	2.10	0.59	1.24	0.00	0.59	1.24
	30 135-29	2.33	3.53	2.09	0.54	1.20	0.00	0.54	1.20
Aug	6 136-21	2.22	3.50	2.02	0.54	1.20	0.00	0.54	1.20
	13 136-25	2.19	3.49	2.05	0.71	1.42	0.00	0.71	1.42
	20 135-29	2.31	3.53	2.15	0.65	1.38	0.00	0.65	1.38
	27 135-06	2.40	3.56	2.20	0.74	1.50	0.00	0.74	1.50
Sep	3 134-31	2.43	3.57	2.22	0.63	1.34	0.00	0.63	1.34
	10 134-27	2.44	3.58	2.22	0.68	1.42	0.00	0.68	1.42
	17 134-29	2.48	3.57	2.22	0.69	1.43	0.00	0.69	1.43
	24 134-27	2.48	3.57	2.21	0.67	1.40	0.00	0.67	1.40
Oct	1 134-13	2.54	3.59	2.25	0.68	1.46	0.00	0.68	1.46
	8 133-20	2.65	3.62	2.35	0.77	1.57	0.00	0.77	1.57
	15 133-22	2.63	3.62	2.35	0.74	1.52	0.00	0.74	1.52
	22 133-16	2.65	3.63	2.37	0.86	1.67	0.00	0.86	1.67
	29 133-23	2.62	3.62	2.34	0.84	1.62	0.00	0.84	1.62
Nov	5 134-21	2.48	3.58	2.24	0.78	1.54	0.00	0.78	1.54
	12 134-24	2.47	3.57	2.28	0.88	1.65	0.00	0.88	1.65
	19 136-01	2.27	3.51	2.19	0.86	1.58	0.00	0.86	1.58
	25 136-02	2.26	3.51	2.13	0.88	1.62	0.00	0.88	1.62
Dec	3 136-20	2.18	3.49	2.13	0.93	1.67	0.00	0.93	1.67
	10 136-31	2.12	3.47	2.13	0.92	1.64	0.00	0.92	1.64
	17 137-06	2.08	3.46	2.12	0.94	1.68	0.00	0.94	1.68
	24 137-06	2.08	3.46	2.12	0.93	1.67	0.00	0.93	1.67
	31 137-05	2.07	3.46	2.12	0.92	1.64	0.00	0.92	1.64
Jan-21	7 137-03	2.07	3.46	2.17	1.70	2.56	0.00	1.08	1.85
	14 136-29	2.09	3.47	2.21	1.74	2.58	0.00	1.14	1.88
	21 137-02	2.07	3.46	2.21	1.74	2.58	0.00	1.09	1.83
	28 137-24	1.96	3.43	2.14	1.67	2.51	0.00	1.05	1.81
Feb	4 138-01	1.96	3.41	2.14	1.67	2.51	0.00	1.14	1.93
	11 138-15	1.89	3.39	2.10	1.63	2.47	0.00	1.16	1.95
	18 137-17	2.02	3.43	2.17	1.70	2.54	0.00	1.29	2.08
	25 135-00	2.38	3.55	2.44	1.97	2.80	0.00	1.55	2.34
Mar	4 135-08	2.35	3.55	2.44	1.97	2.80	0.00	1.55	2.30
	11 136-06	2.21	3.51	2.35	1.88	2.71	0.00	1.52	2.25
	18 136-13	2.32	3.54	2.40	1.93	2.76	0.00	1.71	2.45
	25 135-25	2.26	3.53	2.35	1.88	2.71	0.00	1.63	2.34
Apr	1 135-29	2.23	3.52	2.34	1.87	2.70	0.00	1.68	2.34
	8 136-17	2.13	3.49	2.30	1.83	2.66	0.00	1.63	2.32
	15 137-09	2.02	3.46	2.26	1.79	2.62	0.00	1.55	2.23
	22 137-12	2.00	3.46	2.26	1.79	2.62	0.00	1.56	2.24
	29 137-08	2.01	3.46	2.27	1.80	2.63	0.00	1.64	2.31
May	6 137-15	1.97	3.45	2.25	1.78	2.61	0.00	1.57	2.24
	13 137-12	1.98	3.45	2.28	1.81	2.64	0.00	1.66	2.40
	20 137-20	1.93	3.44	2.26	1.79	2.62	0.00	1.64	2.34
	27 137-29	1.89	3.43	2.20	1.73	2.56	0.00	1.62	2.30
Jun	3 137-31	1.87	3.43	2.18	1.71	2.54	0.00	1.63	2.30
	10 138-23	1.75	3.39	2.07	1.60	2.43	0.00	1.45	2.15
	17 138-11	1.80	3.41	2.09	1.62	2.45	0.00	1.52	2.11
	24 138-04	1.83	3.42	2.16	1.69	2.53	0.00	1.49	2.10
12-Month Average									
135-88 2.22 3.51 2.21 1.24 2.02 0.00 1.09 1.82									

Explanation of the Indexes

The Municipal Bond Index

The Bond Buyer Municipal Bond Index is a daily price index based on 40 long-term municipal bonds. The index's value is expressed in points and 32ds. The figures shown are weekly averages of the index's daily figures for each week ending Thursday.

The index contains 40 long-term municipal bonds. Taxable bonds, variable-rate bonds, and private placements are excluded, but bonds subject to the alternative minimum tax and fixed-rate remarketings can be included. The index is based on price quotations provided by Standard & Poor's Securities Evaluations. It is calculated every business day using prices as of 4 p.m. Eastern time.

The index's value is calculated by taking the dollar bid price for each bond, converting it to represent what the price would be if the bond had a standard 6% coupon rate, averaging the converted prices, and multiplying the result by the current value of the coefficient. The coefficient compensates for the changes made twice a month in the composition of the index.

The average yield to par call is calculated using the average coupon rate, average par call date, and average dollar price. The average yield to maturity is calculated using the average maturity date.

The Weekly Bond Indexes

The three weekly bond indexes are calculated every Thursday (or Wednesday if Thursday or Friday is a legal holiday). They represent theoretical yields rather than actual price or yield quotations. Municipal bond dealers and banks are asked to estimate what a current-coupon bond for each issuer would yield if the bond was sold at par value. The indexes are simple averages of the average estimated yields of the bonds.

The 20-Bond Index consists of 20 general obligation bonds that mature in 20 years. The average rating of the 20 bonds is roughly equivalent to Moody's Investors Service's Aa2 and Standard & Poor's Corp.'s AA. (No average Fitch rating is provided because Fitch does not rate all of the bonds in the index.)

The 11-Bond Index uses a select group of 11 bonds in the 20-Bond Index. The average rating of the 11 bonds is roughly equivalent to Moody's Aa1 rating and S&P's AA-plus. (No average Fitch rating is provided.)

The bonds currently used in the two indexes are listed below. The bonds in the 11-Bond Index are marked with an asterisk.

	Moody's/S&P/Fitch		Moody's/S&P/Fitch		Moody's/S&P/Fitch
Baltimore, Md.	Aa2 / AA / NR	*Massachusetts.	Aa1 / AA / AA+	Pennsylvania.	Aa3 / A+ / AA-
California	Aa2 / AA- / AA	Memphis, Tenn.	Aa2 / AA / AA	*Phoenix, Ariz	Aa1 / AA+ / AAA
*Denver, Colo.	Aaa / AAA / AAA	Miami-Dade Co., Fla.	Aa2 / AA / AA	*Seattle, Wash.	Aaa / AAA / AAA
*Florida	Aaa / AAA / AAA	Milwaukee, Wis.	A2 / A / AA-	*South Carolina	Aaa / AA+ / AAA
*Georgia	Aaa / AAA / AAA	New York City	Aa2 / AA / AA-	*Texas	Aaa / AAA / AAA
Houston, Tex.	Aa3 / AA / AA	*New York State	Aa2 / AA+ / AA+	*Washington	Aaa / AA+ / AA+
*Maryland	Aaa / AAA / AAA	North Carolina	Aaa / AAA / AAA		

The Revenue Bond Index

The Revenue Bond Index consists of 25 various revenue bonds that mature in 30 years. The average rating is roughly equivalent to Moody's A1 and S&P's A-plus. (No average Fitch rating is provided because Fitch does not rate all the bonds in the index.) The bonds currently used in the index and their ratings are listed below.

	Moody's	S&P	Fitch
Atlanta, Ga., airport (AMT)	Aa3	A+	AA-
Connecticut Housing Finance Authority	Aaa	AAA	NR
Dallas-Fort Worth International Airport Board, Tex. (AMT)	A1	A	A+
Energy Northwest (formerly WPPSS), Wash., power revenue	Aa2	AA-	AA-
Illinois Financing Authority (Northwestern Memorial Healthcare)	Aa2	AA+	NR
Illinois Housing Development Authority, multifamily	A1	AA-	NR
Intermountain Power Agency, Utah	A1	A+	AA-
JEA (formerly Jacksonville Electric Authority), Fla. electric revenue	A2	A+	AA
Kentucky Turnpike Authority	Aa3	A-	A+
Los Angeles Department of Water and Power, Calif., electric revenue	Aa2	AA-	AA-
Massachusetts Port Authority (AMT)	Aa2	AA-	AA
MEAG Power (formerly Municipal Electric Authority of Georgia)	A1	A	A-
Nebraska Public Power District, power supply	A1	A+	A+
New Jersey Turnpike Authority, turnpike revenue	A2	A+	A
New York State Power Authority, general purpose	Aa2	AA	AA
North Carolina Municipal Power Agency No. 1, Catawba electric revenue	NR	A	A
Port Authority of New York and New Jersey, consolidated (AMT)	Aa3	A+	A+
Puerto Rico Electric Power Authority	Ca	D	D
Salt River Project Agricultural Improvement and Power District, Ariz., electric revenue	Aa1	AA+	NR
South Carolina Public Service Authority, electric revenue	A2	A-	A+
Texas Municipal Power Agency	A1	A+	A+
Virginia Housing Development Authority	Aa1	AA+	NR

U.S. Treasury 10-Year Note and 30-Year Bond

The U.S. Treasury 10-year note and 30-year bond yields are Refinitiv quotes as of 3:30 p.m. Eastern time.



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