

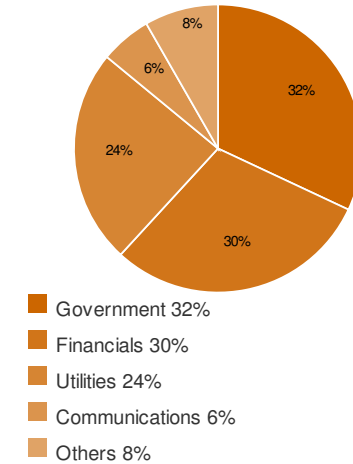
Global Green Bonds

Global Green Bonds - Corporate & Government

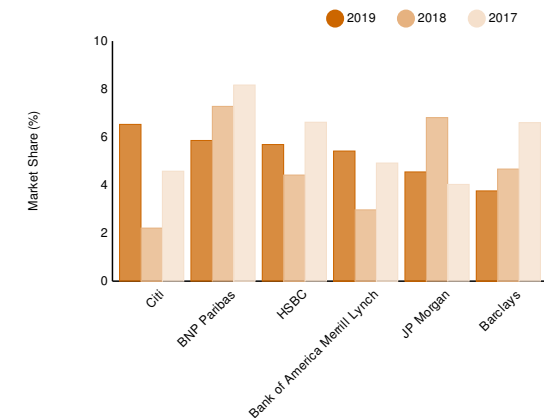
Firm	Q1 2019				Q1 2018		Mkt Share Chg(%)
	Rank	Mkt Share(%)	Volume (USD Mln)	Deal Count	Prev Rank	Prev Mkt Share(%)	
Citi	1	6.528	2,420	11	13	2.212	4.316
BNP Paribas	2	5.860	2,173	9	1	7.276	-1.416
HSBC	3	5.687	2,109	16	6	4.420	1.267
Bank of America Merrill Lynch	4	5.420	2,010	12	9	2.971	2.449
JP Morgan	5	4.547	1,686	13	2	6.812	-2.265
Barclays	6	3.756	1,393	10	5	4.673	-0.917
Credit Agricole CIB	7	3.514	1,303	9	4	6.244	-2.730
Danske Bank	8	3.314	1,229	13	16	2.109	1.205
Deutsche Bank	9	3.230	1,197	7	8	2.986	0.244
SEB	10	2.879	1,067	11	7	4.328	-1.449
Banco Santander	11	2.676	992	7	-	-	2.676
ING Groep	12	2.564	951	7	3	6.310	-3.746
Societe Generale	13	2.462	913	4	21	1.321	1.141
Swedbank	14	2.337	866	15	11	2.375	-0.038
Mizuho Financial	15	2.311	857	10	40	0.674	1.637
DNB ASA	16	2.296	851	6	27	0.894	1.402
Goldman Sachs	17	2.106	781	4	62	0.341	1.765
UniCredit	18	2.059	763	5	10	2.663	-0.604
Nomura	19	1.996	740	5	39	0.686	1.310
NatWest Markets	20	1.858	689	3	38	0.710	1.148
TOTAL		100%	37,076	121		100%	

This table consists of debt securities issued globally by corporate and government issuers whose use of proceeds are for eligible green projects. This excludes bonds with warrants, convertible securities, and credit-linked securities. Additional exclusions include municipal bonds, ABS, and project finance bonds. There is a minimum threshold of 18 months for maturities, call or put periods, and USD 50MM minimum amount for self-led securities. For more information on the governance of labelled Green Bonds and an expanded Green Bond table that includes municipal bonds, ABS, and project finance bonds, please see the Green Bonds section on BNEF <GO>.

Global Green Bonds - Corporate & Government: Industry Breakdown



Global Green Bonds - Corporate & Government: Manager Rankings History



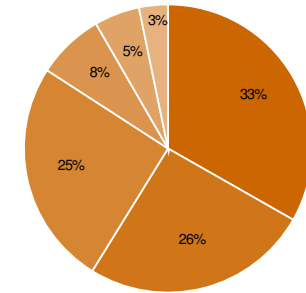
Global Green Bond Principles

Global Green Bond Principles

Firm	Q1 2019				Q1 2018		Mkt Share Chg(%)
	Rank	Mkt Share(%)	Volume (USD Mln)	Deal Count	Prev Rank	Prev Mkt Share(%)	
Citi	1	7.649	2,174	8	12	2.411	5.238
Bank of America Merrill Lynch	2	5.971	1,697	9	13	2.217	3.754
HSBC	3	5.547	1,577	11	7	4.167	1.380
BNP Paribas	4	4.905	1,394	5	1	7.636	-2.731
JP Morgan	5	4.711	1,339	9	4	5.621	-0.910
Deutsche Bank	6	4.213	1,197	7	8	3.416	0.797
Credit Agricole CIB	7	4.187	1,190	8	3	7.144	-2.957
Barclays	8	3.794	1,078	7	6	4.941	-1.147
SEB	9	3.310	941	10	5	4.952	-1.642
Banco Santander	10	3.295	937	6	-	-	3.295
Swedbank	11	3.048	866	15	10	2.717	0.331
UniCredit	12	2.685	763	5	9	2.815	-0.130
Goldman Sachs	13	2.572	731	3	54	0.390	2.182
Danske Bank	14	2.453	697	10	21	1.400	1.053
ING Groep	15	2.445	695	5	2	7.219	-4.774
DNB ASA	16	1.968	559	5	39	0.703	1.265
Nordea Bank Abp	17	1.959	557	16	72	0.149	1.810
China Citic Bank	18	1.877	533	3	61	0.221	1.656
Societe Generale	19	1.623	461	3	18	1.511	0.112
Commerzbank	20	1.615	459	3	20	1.449	0.166
TOTAL		100%	28,424	101		100%	

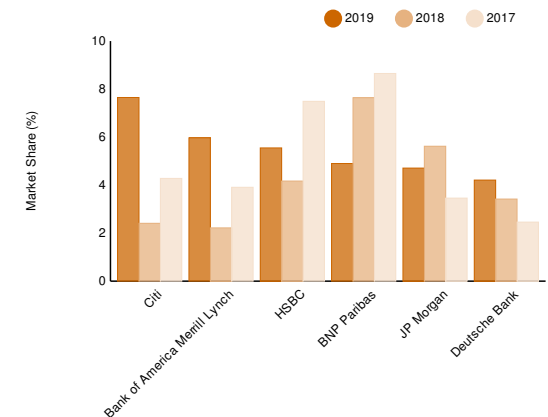
This table consists of debt securities issued globally by corporate and government issuers that align with the four ICMA Green Bond Principles (i.e. Use of Proceeds, Process for Project Evaluation and Selection, Management of Proceeds, Reporting). This excludes bonds with warrants, convertible securities, and credit-linked securities. Additional exclusions include municipal bonds, ABS, and project finance bonds. There is a minimum threshold of 18 months for maturities, call or put periods, and USD 50MM minimum amount for self-led securities. For more information on the governance of labelled Green Bonds and an expanded Green Bond table that includes municipal bonds, ABS, and project finance bonds, please see the Green Bonds section on BNEF <GO>.

Global Green Bond Principles: Industry Breakdown



- Financials 33%
- Government 26%
- Utilities 25%
- Communications 8%
- Industrials 5%
- Others 3%

Global Green Bond Principles: Manager Rankings History



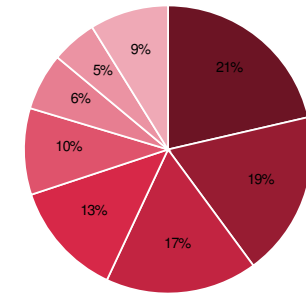
US Municipal Green Bonds

US Municipal Green Bonds (Issuer-Labelled) (Economic Credit)

Firm	Q1 2019				Q1 2018		Mkt Share Chg(%)
	Rank	Mkt Share(%)	Volume (USD Mln)	Deal Count	Prev Rank	Prev Mkt Share(%)	
Citi	1	29.011	712	4	4	16.507	12.504
Bank of America Merrill Lynch	2	22.523	552	3	-	-	22.523
Goldman Sachs	3	9.576	235	2	-	-	9.576
Siebert Cisneros Shank & Co LLC	4	8.532	209	1	-	-	8.532
JP Morgan	5	7.404	182	2	-	-	7.404
RBC Capital Markets	6	6.627	163	3	-	-	6.627
Stifel	7	6.413	157	1	-	-	6.413
Westhoff Cone & Holmstedt	8	4.778	117	1	-	-	4.778
Piper Jaffray & Co	9	2.250	55	1	-	-	2.250
Raymond James & Associates	10	1.830	45	1	3	21.453	-19.623
Samuel A Ramirez & Co Inc	11	0.632	16	1	5	8.725	-8.093
Wells Fargo	12	0.424	10	1	-	-	0.424
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-
TOTAL		100%	2,452	16		100%	

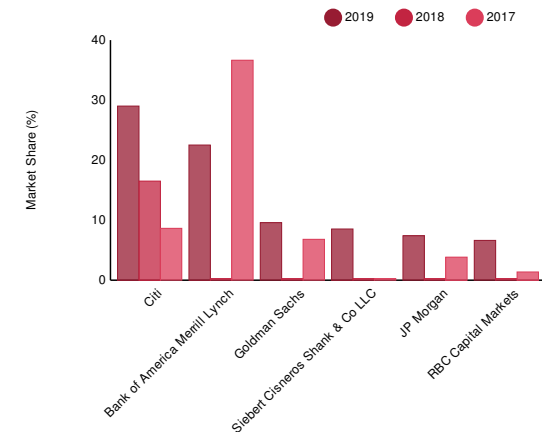
This table consists of all Green Bond issuance (fixed & adjustable rate; long & short-term) for the US Municipal Market in US Dollars that were underwritten. Remarketed deals and private placements are not included. Only issuer-designated green bond issuance is considered for this table.

Muni Industry Breakdown



- LNPOOL 21%
- PUBTRAN 19%
- SALESTAX 17%
- Economic Development & Corporate Obligors 13%
- GOVLEASE 10%
- MEL 6%
- SMFH 5%
- Others 9%

US Municipal Green Bonds (Issuer-Labelled): Manager Rankings History



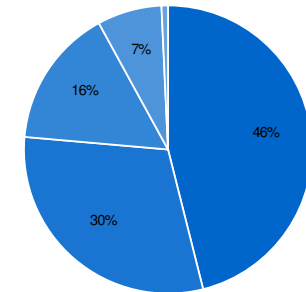
Global Green UoP Loans

Global Green UoP Loans: Bookrunner

Firm	Q1 2019				Q1 2018		Mkt Share Chg(%)
	Rank	Mkt Share(%)	Volume (USD Mln)	Deal Count	Prev Rank	Prev Mkt Share(%)	
Natixis	1	10.194	414	2	-	-	10.194
Agricultural Bank of China	2	8.815	358	1	-	-	8.815
Bank of China	2	8.815	358	1	-	-	8.815
China Everbright Bank	2	8.815	358	1	-	-	8.815
Industrial & Comm Bank of China	2	8.815	358	1	-	-	8.815
Standard Chartered Bank	2	8.815	358	1	-	-	8.815
Union National Bank PJSC	2	8.815	358	1	-	-	8.815
Intesa Sanpaolo	8	8.350	339	1	-	-	8.350
L&T Financial Services	9	4.229	172	2	8	5.779	-1.550
ANZ Banking Group	10	2.638	107	1	-	-	2.638
Barclays	10	2.638	107	1	-	-	2.638
CTBC Bank	10	2.638	107	1	-	-	2.638
Mizuho Financial	10	2.638	107	1	-	-	2.638
Yes Bank	14	2.117	86	3	6	6.479	-4.362
European Bank for Reconstruct & Dev	15	2.105	85	1	-	-	2.105
Credit Agricole CIB	16	1.626	66	2	4	8.350	-6.724
UniCredit	17	1.076	44	1	-	-	1.076
Unione di Banche Italiane SPA	17	1.076	44	1	-	-	1.076
Cathay United Bank	19	1.046	42	1	-	-	1.046
Chang Hwa Commercial Bank	19	1.046	42	1	-	-	1.046
TOTAL		100%	4,059	14		100%	

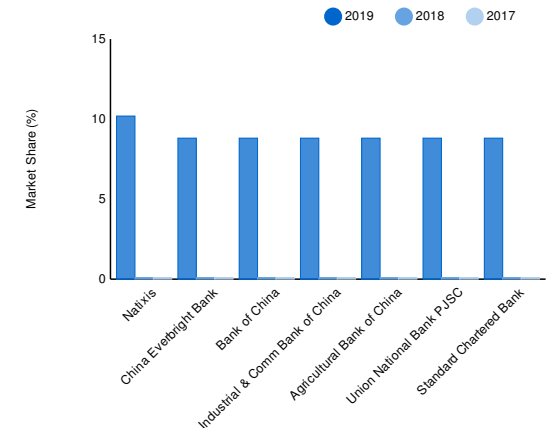
This table consists of syndicated loans that have a Use of Proceeds of "Green Bond/Loan" as they are used to finance/re-finance, in whole or in part, new and/or existing eligible Green Projects. There is a minimum threshold of 3 months for maturities. Please see League Table Standards and Guidelines for further details.

Global Green UoP Loans: Industry Breakdown



- Energy 46%
- Financials 30%
- Utilities 16%
- Industrials 7%
- Others 1%

Global Green UoP Loans: Bookrunner Rankings History



Global Green UoP Loans (Bookrunner)

Firm	Q1 2019				Q1 2018		Mkt Share Chg(%)
	Rank	Mkt Share(%)	Volume (USD Mln)	Deal Count	Prev Rank	Prev Mkt Share(%)	
Natixis	1	10.194	414	2	-	-	10.194
Agricultural Bank of China	2	8.815	358	1	-	-	8.815
Bank of China	2	8.815	358	1	-	-	8.815
China Everbright Bank	2	8.815	358	1	-	-	8.815
Industrial & Comm Bank of China	2	8.815	358	1	-	-	8.815
Standard Chartered Bank	2	8.815	358	1	-	-	8.815
Union National Bank PJSC	2	8.815	358	1	-	-	8.815
Intesa Sanpaolo	8	8.350	339	1	-	-	8.350
L&T Financial Services	9	4.229	172	2	8	5.779	-1.550
ANZ Banking Group	10	2.638	107	1	-	-	2.638
Barclays	10	2.638	107	1	-	-	2.638
CTBC Bank	10	2.638	107	1	-	-	2.638
Mizuho Financial	10	2.638	107	1	-	-	2.638
Yes Bank	14	2.117	86	3	6	6.479	-4.362
European Bank for Reconstruct & Dev	15	2.105	85	1	-	-	2.105
Credit Agricole CIB	16	1.626	66	2	4	8.350	-6.724
UniCredit	17	1.076	44	1	-	-	1.076
Unione di Banche Italiane SPA	17	1.076	44	1	-	-	1.076
Cathay United Bank	19	1.046	42	1	-	-	1.046
Chang Hwa Commercial Bank	19	1.046	42	1	-	-	1.046
TOTAL		100%	4,059	14		100%	

Global Green UoP Loans (Mandated Lead Arranger)

Firm	Q1 2019				Q1 2018		Mkt Share Chg(%)
	Rank	Mkt Share(%)	Volume (USD Mln)	Deal Count	Prev Rank	Prev Mkt Share(%)	
Bank of China	1	8.993	503	2	19	1.782	7.211
Natixis	2	7.399	414	2	43	0.349	7.050
Agricultural Bank of China	3	6.398	358	1	-	-	6.398
China Everbright Bank	3	6.398	358	1	-	-	6.398
Industrial & Comm Bank of China	3	6.398	358	1	16	2.127	4.271
Standard Chartered Bank	3	6.398	358	1	37	0.647	5.751
Union National Bank PJSC	3	6.398	358	1	-	-	6.398
ING Groep	8	5.508	308	5	1	8.507	-2.999
DBS Group	9	3.474	194	2	-	-	3.474
L&T Financial Services	10	3.069	172	2	5	4.565	-1.496
Banco Santander	11	3.030	169	1	11	3.199	-0.169
Intesa Sanpaolo	11	3.030	169	1	35	0.996	2.034
Sumitomo Mitsui Financial	13	3.019	169	2	3	5.775	-2.756
ANZ Banking Group	14	2.794	156	2	13	2.956	-0.162
Oversea-Chinese Banking Corp	15	2.595	145	1	-	-	2.595
Barclays	16	1.915	107	1	-	-	1.915
CTBC Bank	16	1.915	107	1	-	-	1.915
Mizuho Financial	16	1.915	107	1	8	4.342	-2.427
Landesbank Hessen-Thuringen Girozentrale	19	1.567	88	1	-	-	1.567
National Australia Bank	19	1.567	88	1	14	2.616	-1.049
TOTAL		100%	5,593	21		100%	

APAC ex-Japan Green UoP Loans (Bookrunner)

Firm	Q1 2019				Q1 2018		Mkt Share Chg(%)
	Rank	Mkt Share(%)	Volume (USD Mln)	Deal Count	Prev Rank	Prev Mkt Share(%)	
L&T Financial Services	1	21.104	172	2	3	20.219	0.885
ANZ Banking Group	2	13.168	107	1	-	-	13.168
Barclays	2	13.168	107	1	-	-	13.168
CTBC Bank	2	13.168	107	1	-	-	13.168
Mizuho Financial	2	13.168	107	1	-	-	13.168
Yes Bank	6	10.565	86	3	2	22.669	-12.104
Cathay United Bank	7	5.220	42	1	-	-	5.220
Chang Hwa Commercial Bank	7	5.220	42	1	-	-	5.220
Fubon Financial Holding	7	5.220	42	1	-	-	5.220
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
TOTAL		100%	813	7		100%	

APAC ex-Japan Green UoP Loans (Mandated Lead Arranger)

Firm	Q1 2019				Q1 2018		Mkt Share Chg(%)
	Rank	Mkt Share(%)	Volume (USD Mln)	Deal Count	Prev Rank	Prev Mkt Share(%)	
DBS Group	1	11.848	194	2	-	-	11.848
L&T Financial Services	2	10.470	172	2	1	11.423	-0.953
ANZ Banking Group	3	9.529	156	2	4	7.396	2.133
Bank of China	4	8.852	145	1	9	4.458	4.394
Oversea-Chinese Banking Corp	4	8.852	145	1	-	-	8.852
Sumitomo Mitsui Financial	4	8.852	145	1	6	5.190	3.662
Barclays	7	6.532	107	1	-	-	6.532
CTBC Bank	7	6.532	107	1	-	-	6.532
Mizuho Financial	7	6.532	107	1	12	3.871	2.661
Yes Bank	10	5.241	86	3	3	8.043	-2.802
ABN Amro Bank NV	11	2.997	49	1	17	2.252	0.745
Export Development Canada	11	2.997	49	1	20	1.619	1.378
ING Groep	11	2.997	49	1	-	-	2.997
Cathay United Bank	14	2.590	42	1	-	-	2.590
Chang Hwa Commercial Bank	14	2.590	42	1	-	-	2.590
Fubon Financial Holding	14	2.590	42	1	-	-	2.590
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
TOTAL		100%	1,639	9		100%	

Global Green Loan Principles: Mandated Lead Arranger

Firm	Q1 2019				Q1 2018		Mkt Share Chg(%)
	Rank	Mkt Share(%)	Volume (USD Mln)	Deal Count	Prev Rank	Prev Mkt Share(%)	
Bank of China	1	25.000	145	1	-	-	25.000
DBS Group	1	25.000	145	1	-	-	25.000
Oversea-Chinese Banking Corp	1	25.000	145	1	-	-	25.000
Sumitomo Mitsui Financial	1	25.000	145	1	-	-	25.000
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
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-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
TOTAL		100%	580	1		100%	