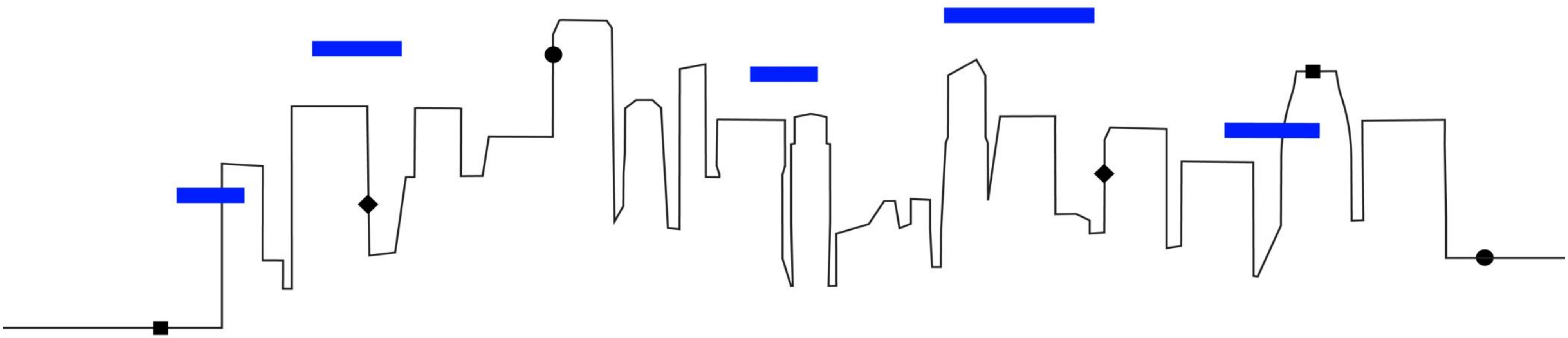
Global Debt Capital Markets Review

FIRST QUARTER 2022 | MANAGING UNDERWRITERS



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Global Debt Capital Markets Review

First Quarter 2022 | Managing Underwriters

Global Deals Intelligence

GLOBAL DEBT CAPITAL MARKETS ACTIVITY DOWN 7% TO US$2.5 TRILLION
Overall global debt capital markets activity totaled US$2.5 trillion during the first quarter of 2022, down 7% compared to first quarter 2021 and slowest opening quarter for DCM activity since the first quarter of 2019. The number of new offerings brought to market during first quarter 2022 totaled 6,738, a 6% decline compared to a year ago and a two-year low. DCM issuance during the first quarter of 2022 has increased 13% compared to the fourth quarter of last year and decreased 6% by number of issues.

INVESTMENT GRADE CORPORATE DEBT ISSUANCE UP 3%, BREAKS ALL-TIME Q1 RECORD
Global Investment Grade corporate debt offerings totaled US$1.3 trillion during the first quarter of 2022, a 3% increase compared to 2021 levels and the strongest opening quarter for global high-grade corporate debt since records began in 1980. The US dollar marketplace totaled US$447.7 billion during the first quarter of 2022, a 1% decline compared to a year ago.

GLOBAL HIGH YIELD DEBT FALLS 72% TO SIX-YEAR LOW
Global High Yield debt activity during the first quarter of 2022 totaled US$59.0 billion, a decrease of 72% compared to the first quarter of 2021 and the slowest opening quarter for global high yield issuance since 2016. High yield offerings from issuers in the United States, Netherlands, United Kingdom and France accounted for 72% of first quarter 2022 issuance, down from 75% during the same time last year.

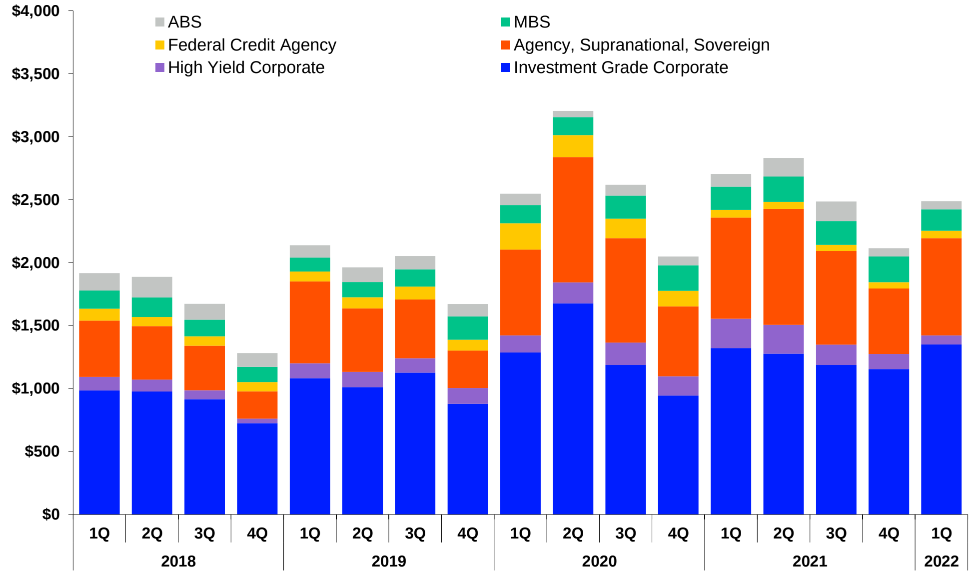
GREEN BONDS ISSUANCE DECLINES 11%; AGENCY & SOVEREIGN DEBT DOWN 3%
According to figures compiled by Refinitiv and The Climate Bonds Initiative, green bond issuance totaled US$105.7 billion during the first quarter of 2022, an 11% decrease compared to year ago levels and the fifth consecutive quarter to surpass US$100 billion. Debt issuance from agency, sovereign and supranational issuers totaled US$756.1 billion during the first quarter of 2022, down 3% from a year ago.

FINANCIALS, GOVERNMENT & AGENCIES ACCOUNT FOR 77% OF GLOBAL ISSUANCE
DCM activity from Financials, Government & Agency issuers accounted for 77% of issuance during the first quarter of 2022, up from 71% during the first quarter of 2021. Global debt issuance, excluding financials and governments & agencies, totaled US$572.8 billion during the first quarter of 2022, down 28% compared to 2021 levels and accounted for 23% of overall issuance, down from 29% a year ago.

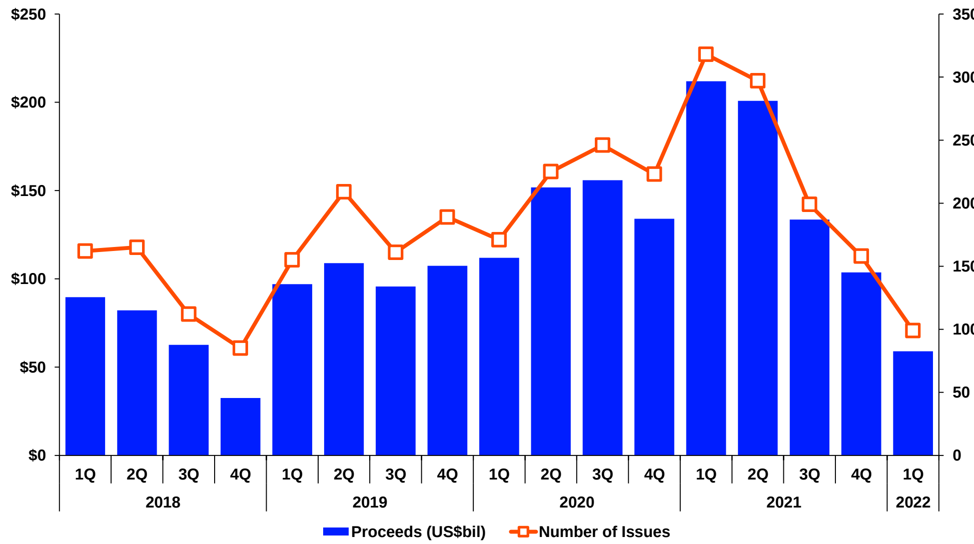
INTERNATIONAL BOND OFFERINGS DOWN 24%; EMERGING MARKETS DOWN 38%
International bond offerings totaled US$1.2 trillion during the first quarter of 2022, a 24% decrease compared to a year ago. Debt from emerging market corporate issuers totaled US$69.5 billion during the first quarter of 2022, down 38% compared to a year ago. Corporate debt issuers from India, Thailand, Malaysia and South Africa accounted for 53% of emerging markets activity during the first quarter.

RECORD ASIA LOCAL CURRENCY DEBT; JAPANESE YEN DEBT HITS FOUR-YEAR LOW
Asia local currency bond offerings totaled US$827.0 billion during the first quarter of 2022, a 31% increase compared to a year ago and the strongest opening period for issuance since records began in 1980. China Yuan offerings have increased 40% compared to a year ago. Japanese Yen offerings have decreased 10% compared to first quarter 2021, totaling JPY4.4 trillion and a four-year low.

Global Debt Capital Markets - Issue Type Composition (US$bil)



Global High Yield Corporate Debt - Quarterly Issuance



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Global Insights

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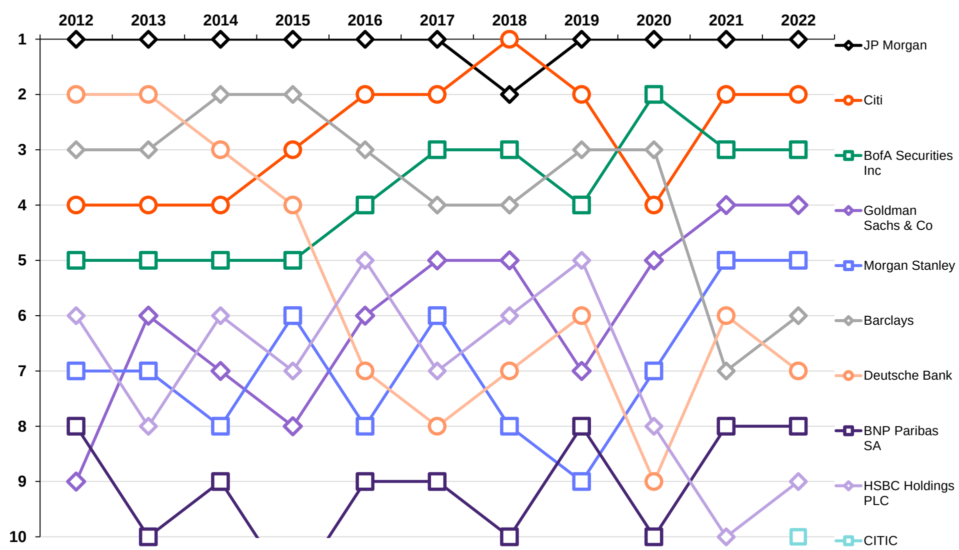
Global Debt Rankings by Proceeds

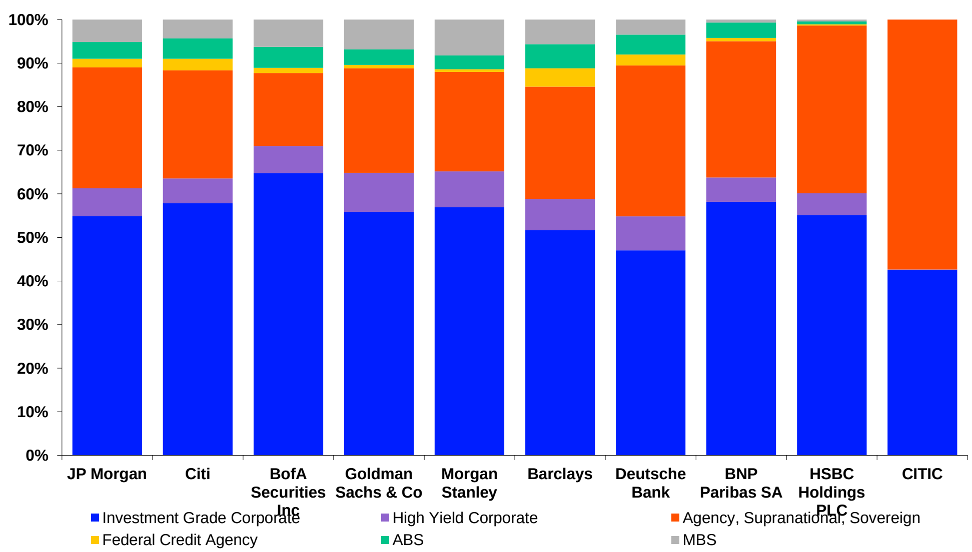


*League Table positions reflect consolidation within the banking sector. Rankings are as of the current quarter end in each calendar year.

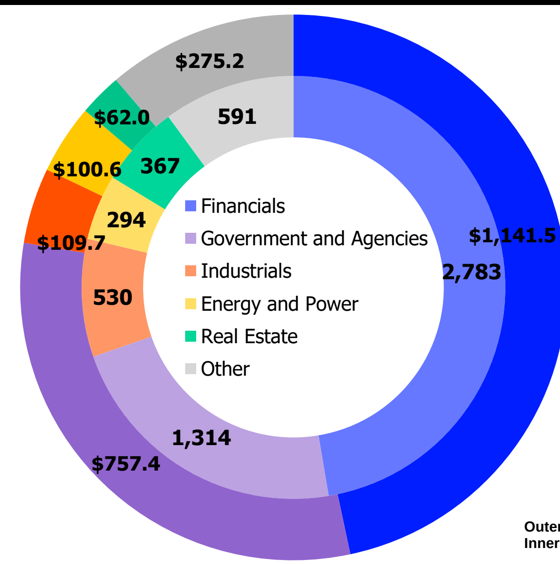
Global Scorecard

	1/1/2022- 3/31/2022 Proceeds ($mil)	1/1/2022- 3/31/2022 # of Deals	1/1/2021 - 3/31/2021 Proceeds ($mil)	1/1/2021 - 3/31/2021 # of Deals	YoY % Chg. ($)
All Global Debt (B1)	**2,536,986**	**6,738**	**2,730,582**	**7,141**	**-7%** ▼
Global Long-term Debt (B2)	2,446,422	5,879	2,613,339	6,235	-6% ▼
Global Long-term Debt ex MBS, ABS & Munis (B3)	2,175,171	5,382	2,328,684	5,712	-7% ▼
Global High Yield Corporate Debt (B4)	58,999	99	211,961	318	-72% ▼
Global Investment Grade Corporate Debt (B7)	1,297,083	3,696	1,254,390	3,867	3% ▲
US Federal Credit Agency Debt (B8)	36,575	213	31,086	160	18% ▲
Global Agency, Sovereign & Supranational (B9)	756,146	1,334	783,149	1,286	-3% ▼
Global Mortgage-backed Securities (B10)	170,267	296	183,619	306	-7% ▼
Global Asset-backed Securities (B11)	100,984	201	101,036	217	0% ▼
Global Short-term Debt (B14)	102,354	935	129,524	983	-21% ▼
Global Emerging Markets Corporate Debt (B15)	69,454	294	112,471	380	-38% ▼
All US Debt (F1)	**875,009**	**1,172**	**1,045,119**	**1,474**	**-16%** ▼
US Long-term Debt (F2)	836,834	758	986,448	999	-15% ▼
US Long-term Straight ex MBS, ABS & Munis (F3)	643,985	813	804,018	1,098	-20% ▼
US Federal Credit Agency Debt (F7)	32,458	205	28,245	149	15% ▲
US High Yield Corporate Debt (F8)	45,784	68	152,068	207	-70% ▼
US Investment Grade (F9)	447,663	284	450,782	339	-1% ▼
Agency, Sovereign & Supranational Debt (F10)	93,568	232	141,676	350	-34% ▼
US Mortgage-backed Securities (F11)	146,558	231	162,189	246	-10% ▼
US Asset-backed Securities (F14)	84,466	128	78,913	130	7% ▲
US Taxable Municipal Debt (F15)	10,148	193	14,453	281	-30% ▼
US Short-term Debt - including MBS, ABS (F16)	38,174	414	58,671	475	-35% ▼

Top 10 Global Debt Bookrunners by Proceeds - Issue Type Composition



Global Debt Capital Markets - Macro Industry Composition



Outer Ring: Proceeds (US$bil)
Inner Ring: # Deals

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Global Rankings

First Quarter 2022 | Debt Capital Markets | Managing Underwriters

Global Debt (B1) YoY Change ($) -7% QoQ Change ($) 13%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	146,217	5.8	-0.8	438
Citi	2	2	121,624	4.8	-0.6	377
BofA Securities Inc	3	3	120,741	4.8	0.0	372
Goldman Sachs & Co	4	4	102,282	4.0	-0.2	271
Morgan Stanley	5	5	81,503	3.2	-0.8	310
Barclays	6	7	80,537	3.2	-0.2	310
Deutsche Bank	7	6	78,106	3.1	-0.4	330
BNP Paribas SA	8	8	71,474	2.8	-0.4	255
HSBC Holdings PLC	9	10	65,080	2.6	-0.1	301
CITIC	10	18	61,340	2.4	0.8	852
Bank of China Ltd	11	19	52,263	2.1	0.7	774
Wells Fargo & Co	12	11	48,340	1.9	-0.6	242
Industrial & Comm Bank China	13	20	46,559	1.8	0.5	708
China Construction Bank	14	21	43,930	1.7	0.6	737
Credit Agricole CIB	15	14	42,847	1.7	-0.1	201
Credit Suisse	16	9	41,748	1.7	-1.1	190
RBC Capital Markets	17	12	41,469	1.6	-0.4	259
Agricultural Bank of China	18	25	39,609	1.6	0.6	684
China Securities Co Ltd	19	24	38,527	1.5	0.4	542
TD Securities Inc	20	17	36,950	1.5	-0.1	186
Mizuho Financial Group	21	13	36,784	1.5	-0.3	249
Bank of Communications Co Ltd	22	29	36,279	1.4	0.5	639
Societe Generale	23	16	35,578	1.4	-0.3	130
Nomura	24	15	34,367	1.4	-0.4	154
Huatai Securities Co Ltd	25	38	29,551	1.2	0.6	571
Industry Total			**2,536,986**	**100.0**		**6,738**

Global Investment Grade Corporate Debt (B7) YoY Change ($) 3% QoQ Change ($) 20%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	69,601	5.4	-0.2	209
BofA Securities Inc	2	2	66,576	5.1	0.3	202
Citi	3	3	58,042	4.5	0.3	182
Goldman Sachs & Co	4	5	52,439	4.0	0.3	110
Morgan Stanley	5	4	40,093	3.1	-0.8	135
CITIC	6	9	39,187	3.0	0.7	411
HSBC Holdings PLC	7	11	38,072	2.9	0.7	188
BNP Paribas SA	8	6	37,508	2.9	0.0	167
Barclays	9	7	31,802	2.5	0.0	126
Deutsche Bank	10	13	28,608	2.2	0.1	135
China Securities Co Ltd	11	15	27,388	2.1	0.4	278
Bank of China Ltd	12	19	23,431	1.8	0.4	200
Credit Agricole CIB	13	16	23,281	1.8	0.2	106
RBC Capital Markets	14	17	21,937	1.7	0.2	105
Mizuho Financial Group	15	8	21,746	1.7	-0.7	124
Credit Suisse	16	10	19,765	1.5	-0.7	91
Societe Generale	17	14	18,020	1.4	-0.3	87
UBS	18	21	17,882	1.4	0.1	83
Wells Fargo & Co	19	12	17,119	1.3	-0.8	91
Guotai Junan Securities	20	24	17,111	1.3	0.1	207
Industrial & Comm Bank China	21	23	16,186	1.3	0.1	131
China International Capital Co	22	26	15,498	1.2	0.1	179
Santander Corp & Invest Bkg	23	22	15,281	1.2	-0.1	71
China Construction Bank	24	29	14,530	1.1	0.2	160
Haitong Securities Co Ltd	25	34	14,501	1.1	0.3	170
Industry Total			**1,297,083**	**100.0**		**3,696**

Global Agency, Sovereign Corporate Debt (B9) YoY Change ($) -3% QoQ Change ($) 50%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	37,621	5.0	-1.3	80
Citi	2	2	31,441	4.2	-1.5	59
Deutsche Bank	3	3	28,756	3.8	-1.3	83
Industrial & Comm Bank China	4	15	28,482	3.8	1.4	563
Agricultural Bank of China	5	20	28,448	3.8	1.8	563
China Construction Bank	6	17	28,419	3.8	1.5	562
Bank of China Ltd	7	16	27,625	3.7	1.3	557
BNP Paribas SA	8	4	25,322	3.4	-1.2	39
Bank of Communications Co Ltd	9	19	25,320	3.4	1.4	506
Barclays	10	6	22,148	2.9	-0.8	43
HSBC Holdings PLC	11	5	21,151	2.8	-1.3	62
Goldman Sachs & Co	12	7	20,984	2.8	-0.9	45
BofA Securities Inc	13	8	20,476	2.7	-0.9	46
CITIC	14	24	18,534	2.5	1.2	389
Morgan Stanley	15	10	17,239	2.3	-0.5	55
TD Securities Inc	16	9	14,690	1.9	-1.1	61
Huatai Securities Co Ltd	17	33	14,452	1.9	1.1	385
Societe Generale	18	14	14,100	1.9	-0.5	20
Credit Agricole CIB	19	12	13,217	1.8	-0.7	43
Nomura	20	11	11,553	1.5	-1.0	51
BMO Capital Markets	21	22	10,912	1.4	0.0	36
RBC Capital Markets	22	13	10,848	1.4	-1.0	53
China International Capital Co	23	54	10,333	1.4	1.1	295
UniCredit	24	18	10,170	1.3	-0.7	16
China Securities Co Ltd	25	34	9,870	1.3	0.5	241
Industry Total			**756,146**	**100.0**		**1,334**

Global MBS (B10) YoY Change ($) -7% QoQ Change ($) -16%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	2	20,747	12.2	0.6	33
BofA Securities Inc	2	6	19,859	11.7	2.8	41
Goldman Sachs & Co	3	7	16,487	9.7	2.4	44
Morgan Stanley	4	3	15,655	9.2	-1.7	43
Citi	5	5	14,422	8.5	-1.8	32
Credit Suisse	6	1	12,055	7.1	-6.7	38
Wells Fargo & Co	7	4	11,182	6.6	-3.8	24
Barclays	8	9	8,139	4.8	1.2	38
Nomura	9	8	7,940	4.7	-1.0	21
Truist Financial Corp	10	-	6,659	3.9	3.9	6
Mizuho Financial Group	11	12	5,203	3.1	1.8	23
Deutsche Bank	12	10	4,032	2.4	0.0	22
Amherst Securities	13	14	3,083	1.8	0.6	8
BMO Capital Markets	14	13	2,589	1.5	0.2	9
National Australia Bank	15	17	2,160	1.3	0.4	14
Mitsubishi UFJ Financial Group	16	31	1,555	0.9	0.7	6
Credit Agricole CIB	17	-	1,475	0.9	0.9	2
Sumitomo Mitsui Finl Grp Inc	18	16	1,364	0.8	-0.2	10
Cantor Fitzgerald LP	19	11	1,278	0.8	-0.7	4
BNP Paribas SA	20	18	1,271	0.8	0.2	4
Commonwealth Bank of Australia	21	29	1,207	0.7	0.4	8
Performance Trust Capital	22	37	1,069	0.6	0.5	9
Standard Chartered PLC	23	23	952	0.6	0.3	6
Westpac Banking	24	25	899	0.5	0.2	7
Societe Generale	25	27	804	0.5	0.2	3
Industry Total			**170,267**	**100.0**		**296**

Global ABS (B11) YoY Change ($) 0% QoQ Change ($) -43%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Citi	1	11	7,843	7.8	3.1	30
Barclays	2	2	7,648	7.6	-0.8	30
BofA Securities Inc	3	8	7,363	7.3	2.2	28
JP Morgan	4	3	7,279	7.2	0.6	28
Wells Fargo & Co	5	5	6,901	6.8	0.3	30
Deutsche Bank	6	4	6,621	6.6	0.1	30
Mizuho Financial Group	7	7	6,390	6.3	0.9	45
Goldman Sachs & Co	8	12	5,822	5.8	1.6	22
Credit Suisse	9	1	5,140	5.1	-4.2	24
RBC Capital Markets	10	6	5,076	5.0	-0.5	20
BNP Paribas SA	11	10	3,973	3.9	-0.8	16
Jefferies LLC	12	14	3,936	3.9	1.5	12
Morgan Stanley	13	19	3,534	3.5	1.9	14
Mitsubishi UFJ Financial Group	14	9	3,348	3.3	-1.5	16
TD Securities Inc	15	17	2,283	2.3	0.4	8
Guggenheim Securities LLC	16	21	2,201	2.2	1.1	6
Societe Generale	17	15	1,354	1.3	-1.0	6
Truist Financial Corp	18	24	1,191	1.2	0.2	7
Santander Corp & Invest Bkg	19	16	1,175	1.2	-0.8	4
Sumitomo Mitsui Finl Grp Inc	20	22	1,172	1.2	0.1	5
Credit Agricole CIB	21	20	1,029	1.0	-0.3	6
Sumitomo Mitsui Trust Holdings	22	25	952	0.9	-0.1	4
Lloyds Bank	23	23	843	0.8	-0.3	3
BMO Capital Markets	24	13	702	0.7	-2.0	2
KKR & Co Inc	25	43*	672	0.7	0.6	3
Industry Total			**100,984**	**100.0**		**201**

Global Debt and Loans Islamic Finance YoY Change ($) 0% QoQ Change ($) -6%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Emirates NBD PJSC	1	9	3,044	20.7	17.2	5
HSBC Holdings PLC	2	5	1,252	8.5	3.2	9
Dubai Islamic Bank PJSC	3	21	1,229	8.4	7.0	5
Kuwait Finance House	4	27	946	6.4	5.5	4
CIMB Group Holdings Bhd	5	2	911	6.2	-3.5	19
Citi	6	7	875	6.0	1.7	2
Standard Chartered PLC	7	4	717	4.9	-0.8	6
Malayan Banking Bhd	8	1	517	3.5	-8.1	12
RHB	9	3	432	2.9	-6.7	11
AMMB Holdings Bhd	10	11	396	2.7	-0.3	11
Intl Islamic Trade Finance	11	12	361	2.5	-0.5	2
Alliance Bank (Malaysia)	12	-	269	1.8	-	1
Deutsche Bank	13*	-	250	1.7	-	1
Credit Suisse	13*	26	250	1.7	0.8	1
Sharjah Islamic Bank PJSC	15*	-	229	1.6	-	3
First Abu Dhabi Bank PJSC	15*	31	229	1.6	0.9	3
Islamic Development Bank	17	30	196	1.3	0.5	3
Riyadh Bank Ltd	18*	-	188	1.3	-	1
BofA Securities Inc	18*	-	188	1.3	-	1
Saudi National Bank SJSC	18*	19	188	1.3	-0.4	2
Mizuho Financial Group	21	-	175	1.2	-	2
Bank Islam Malaysia	22	18	165	1.1	-0.9	3
Infinity Investama	23	-	140	1.0	-	1
Oversea-Chinese Banking	24	8	138	0.9	-2.9	2
Kenanga Investment Bank Bhd	25	20	136	0.9	-0.8	3
Industry Total			**14,702**	**100.0**		**60**

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United States Insights

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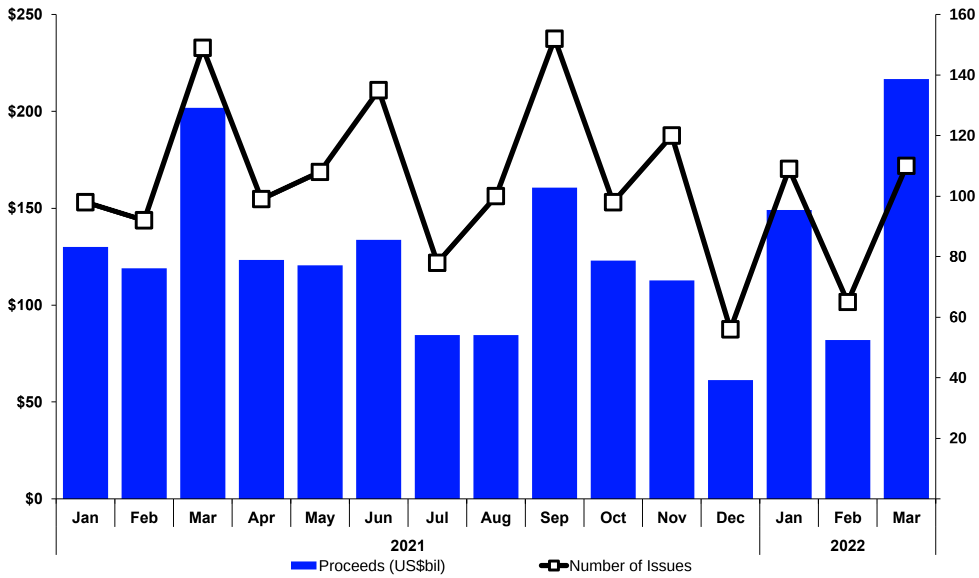
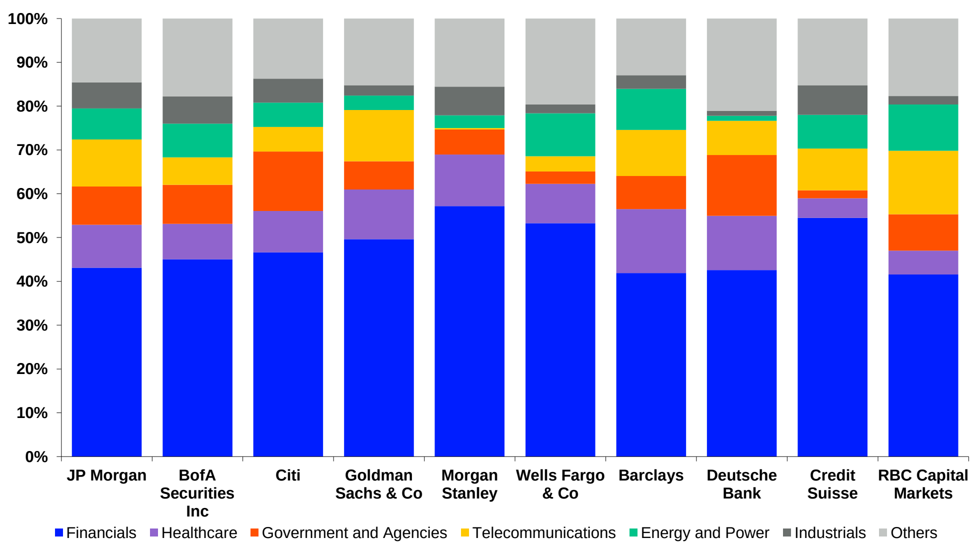
United States Marketed Monthly High Yield Volume



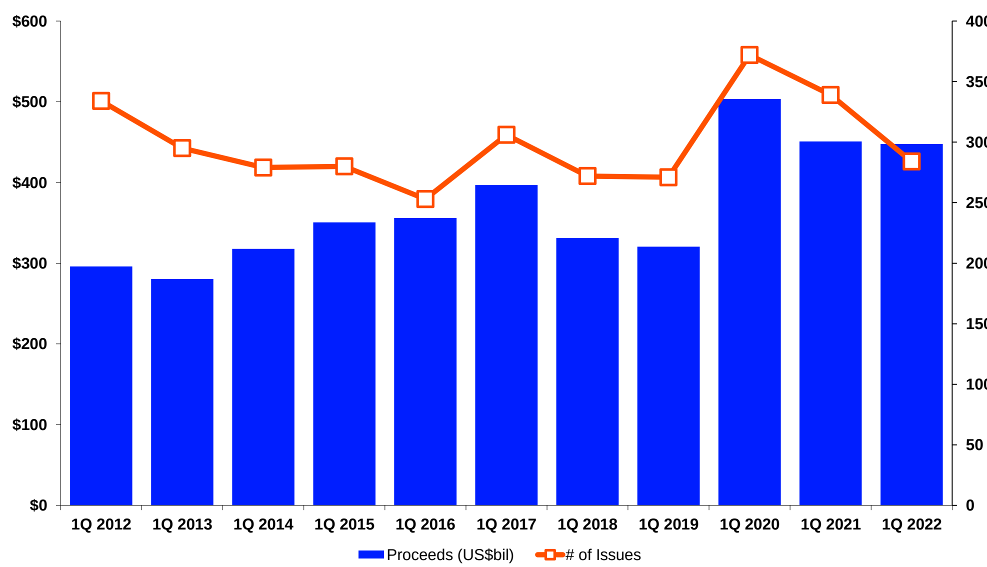
Top United States Investment Grade Corporate Deals

Issue Date	Issuer	Domicile Nation	Deal Size (US$mil)	Issue Type	Macro Sector
3/9/22	Magallanes Inc	United States	30,000	Investment Grade Corporate	Telecommunications
1/19/22	Goldman Sachs Group Inc	United States	12,000	Investment Grade Corporate	Financials
2/1/22	Bank of America Corp	United States	9,000	Investment Grade Corporate	Financials
3/7/22	Rogers Communications Inc	Canada	7,016	Investment Grade Corporate	Telecommunications
3/21/22	Gsk Consumer Healthcare	United Kingdom	6,967	Investment Grade Corporate	Healthcare
1/19/22	Morgan Stanley	United States	6,000	Investment Grade Corporate	Financials
3/31/22	Corebridge Financial Inc	United States	6,000	Investment Grade Corporate	Financials
3/10/22	Goldman Sachs Group Inc	United States	5,998	Investment Grade Corporate	Financials
2/15/22	Bristol-Myers Squibb Co	United States	5,976	Investment Grade Corporate	Healthcare
3/2/22	HCA Inc	United States	5,966	Investment Grade Corporate	Healthcare
1/18/22	Citigroup Inc	United States	5,500	Investment Grade Corporate	Financials
3/4/22	S&P Global Inc	United States	5,440	Investment Grade Corporate	Consumer Products and Services
3/10/22	Citigroup Inc	United States	5,250	Investment Grade Corporate	Financials

Top 10 United States DCM Bookrunners by Proceeds - Macro Industry Composition



United States Investment Grade - Proceeds



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United States Rankings

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U.S. Debt (F1)

YoY Change ($) -16% QoQ Change ($) 9%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	97,144	11.1	-0.2	281
BofA Securities Inc	2	2	94,942	10.9	1.7	272
Citi	3	3	89,561	10.2	1.1	251
Goldman Sachs & Co	4	5	75,215	8.6	2.1	188
Morgan Stanley	5	4	57,780	6.6	-0.2	188
Wells Fargo & Co	6	6	44,494	5.1	-0.8	213
Barclays	7	8	42,396	4.9	0.3	180
Deutsche Bank	8	9	31,739	3.6	-0.2	132
Credit Suisse	9	7	30,914	3.5	-2.2	123
RBC Capital Markets	10	10	24,073	2.8	-0.1	123
BNP Paribas SA	11	12	20,810	2.4	0.0	88
Mizuho Financial Group	12	11	20,806	2.4	-0.3	96
HSBC Holdings PLC	13	14	19,857	2.3	0.3	63
TD Securities Inc	14	13	19,421	2.2	-0.1	84
Truist Financial Corp	15	24	13,665	1.6	0.6	94
Mitsubishi UFJ Financial Group	16	15	12,975	1.5	-0.3	83
BMO Capital Markets	17	17	11,937	1.4	-0.2	49
Nomura	18	16	10,843	1.2	-0.5	47
Sumitomo Mitsui Finl Grp Inc	19	19	9,453	1.1	-0.1	56
UBS	20	22	9,351	1.1	0.1	35
Industry Total			**875,009**	**100.0**		**1,172**

U.S. High Yield Corporate Debt (F8)

YoY Change ($) -70% QoQ Change ($) -37%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Goldman Sachs & Co	1	4	3,536	7.7	1.5	29
BofA Securities Inc	2	2	3,470	7.6	-1.3	32
JP Morgan	3	1	3,322	7.3	-4.2	34
Wells Fargo & Co	4	6	2,953	6.5	0.8	27
Citi	5	3	2,790	6.1	-0.2	28
Credit Suisse	6	8	2,418	5.3	0.1	21
Barclays	7	5	2,189	4.8	-1.0	23
Deutsche Bank	8	10	2,140	4.7	0.5	20
Morgan Stanley	9	7	2,086	4.6	-0.6	18
Jefferies LLC	10	13	1,525	3.3	0.8	9
HSBC Holdings PLC	11	17	1,116	2.4	1.0	14
Truist Financial Corp	12	12	1,089	2.4	-0.2	11
RBC Capital Markets	13	9	1,061	2.3	-2.7	13
Mitsubishi UFJ Financial Group	14	14	1,024	2.2	0.0	15
BNP Paribas SA	15	15	989	2.2	0.1	11
Capital One Financial Corp	16	32	968	2.1	1.6	6
Fifth Third Bancorp	17	18	948	2.1	0.7	10
KeyBanc Capital Markets Inc	18	30	755	1.7	1.2	7
Mizuho Financial Group	19	11	708	1.6	-1.1	10
Citizens Financial Group	20	37	689	1.5	1.1	6
Industry Total			**45,784**	**100.0**		**68**

U.S. Investment Grade Debt (F9)

YoY Change ($) -1% QoQ Change ($) 51%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
BofA Securities Inc	1	2	55,977	12.5	1.6	151
JP Morgan	2	1	54,692	12.2	0.2	143
Citi	3	3	47,949	10.7	2.1	117
Goldman Sachs & Co	4	5	44,207	9.9	2.7	73
Morgan Stanley	5	4	33,881	7.6	-0.5	86
Barclays	6	7	17,313	3.9	-0.2	54
Wells Fargo & Co	7	6	16,217	3.6	-1.7	85
RBC Capital Markets	8	14	13,411	3.0	0.8	58
Deutsche Bank	9	10	12,852	2.9	-0.4	45
HSBC Holdings PLC	10	16	12,682	2.8	0.8	34
Mizuho Financial Group	11	8	11,600	2.6	-1.2	52
BNP Paribas SA	12	11	11,232	2.5	-0.6	48
Credit Suisse	13	9	9,983	2.2	-1.1	34
Mitsubishi UFJ Financial Group	14	12	9,089	2.0	-0.5	56
TD Securities Inc	15	15	8,856	2.0	-0.1	38
Sumitomo Mitsui Finl Grp Inc	16	13	7,683	1.7	-0.6	44
US Bancorp	17	20	7,161	1.6	0.5	38
Credit Agricole CIB	18	18	5,435	1.2	-0.3	20
Standard Chartered PLC	19	24	5,182	1.2	0.2	21
Scotiabank	20	23	4,884	1.1	0.0	25
Industry Total			**447,663**	**100.0**		**284**

U.S. MBS (F11)

YoY Change ($) -10% QoQ Change ($) -20%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	2	20,383	13.9	0.9	31
BofA Securities Inc	2	6	18,048	12.3	3.0	33
Goldman Sachs & Co	3	7	16,358	11.2	2.9	43
Morgan Stanley	4	5	14,351	9.8	-0.2	41
Citi	5	4	12,813	8.7	-2.1	26
Credit Suisse	6	1	12,055	8.2	-7.4	38
Wells Fargo & Co	7	3	11,182	7.6	-4.1	24
Barclays	8	9	7,178	4.9	1.5	34
Nomura	9	8	6,681	4.6	-1.2	20
Truist Financial Corp	10	-	6,659	4.5	4.5	6
Industry Total			**146,558**	**100.0**		**231**

U.S. ABS (F14)

YoY Change ($) 7% QoQ Change ($) -40%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Wells Fargo & Co	1	2	6,901	8.2	-0.1	30
Citi	2	9	6,889	8.2	3.1	27
Barclays	3	4	6,549	7.8	0.6	27
JP Morgan	4	3	6,239	7.4	-0.2	25
Deutsche Bank	5	5	6,197	7.3	0.8	27
BofA Securities Inc	6	7	5,975	7.1	0.7	23
Goldman Sachs & Co	7	10	5,822	6.9	2.7	22
Credit Suisse	8	1	5,140	6.1	-4.8	24
RBC Capital Markets	9	6	4,753	5.6	-0.9	18
Mizuho Financial Group	10	11	4,005	4.7	1.0	17
Industry Total			**84,466**	**100.0**		**128**

U.S. ABS ex Self & CDOs (F14b)

YoY Change ($) 4% QoQ Change ($) -14%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Citi	1	9	6,467	9.3	4.8	26
BofA Securities Inc	2	5	5,975	8.6	1.8	23
Barclays	3	3	5,684	8.2	0.9	25
RBC Capital Markets	4	7	4,753	6.9	0.4	18
JP Morgan	5	2	4,262	6.2	-1.4	20
Deutsche Bank	6	6	4,034	5.8	-0.9	23
Mizuho Financial Group	7	10	4,005	5.8	1.4	17
Wells Fargo & Co	8	4	3,879	5.6	-1.7	20
Credit Suisse	9	1	3,838	5.5	-5.9	21
Goldman Sachs & Co	10	12	3,422	4.9	1.1	14
Industry Total			**69,249**	**100.0**		**107**

U.S. Securitizations (ex CMBS, Agency, CMO, Self-Funded & CDOs (F20a)

YoY Change ($) 15% QoQ Change ($) -18%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
BofA Securities Inc	1	2	11,246	10.9	2.3	37
Barclays	2	3	8,594	8.3	1.4	45
Morgan Stanley	3	17	8,021	7.8	6.0	32
Citi	4	7	7,535	7.3	2.0	30
Credit Suisse	5	1	7,326	7.1	-5.9	44
Goldman Sachs & Co	6	8	6,400	6.2	0.9	32
JP Morgan	7	4	5,998	5.8	-0.8	26
Wells Fargo & Co	8	5	5,776	5.6	-0.8	24
Deutsche Bank	9	6	5,588	5.4	0.0	36
RBC Capital Markets	10	10	4,753	4.6	-0.2	18
Industry Total			**103,040**	**100.0**		**175**

*Indicates a Tie

US Residential MBS (F13b)

YoY Change ($) 34% QoQ Change ($) -26%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Morgan Stanley	1	6	6,138	17.6	11.8	25
BofA Securities Inc	2	4	5,270	15.2	3.1	14
Nomura	3	1	4,201	12.1	-4.0	15
Goldman Sachs & Co	4	3	3,548	10.2	-4.6	19
Credit Suisse	5	2	3,488	10.0	-6.0	23
Barclays	6	8	2,910	8.4	3.4	20
Wells Fargo & Co	7	7	2,329	6.7	1.7	5
JP Morgan	8	11	1,736	5.0	1.6	6
Deutsche Bank	9	12	1,553	4.5	3.0	13
Performance Trust Capital	10	14	1,069	3.1	2.4	9
Industry Total			**34,793**	**100.0**		**70**

All Federal Credit Agency Debt (H1)

YoY Change ($) 13% QoQ Change ($) 0%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Wells Fargo & Co	1	1	4,056	12.7	3.2	33
Barclays	2	4	3,833	12.0	4.6	27
TD Securities Inc	3	9	3,330	10.5	6.9	24
Citi	4	3	1,887	5.9	-2.4	18
Nomura	5	2	1,871	5.9	-3.5	14
Loop Capital Markets	6	26	1,800	5.7	4.5	20
Daiwa Securities Group Inc	7	6	1,402	4.4	-0.8	28
JP Morgan	8	15	1,400	4.4	2.0	19
Academy Securities Inc	9	8	1,338	4.2	0.5	19
Jefferies LLC	10	18	1,215	3.8	1.8	17
Industry Total			**31,858**	**100.0**		**204**

International Debt & ESG Bonds Rankings

First Quarter 2022 | Debt Capital Markets | Managing Underwriters

All International Bonds (J01)

YoY Change ($) -24% QoQ Change ($) 26%

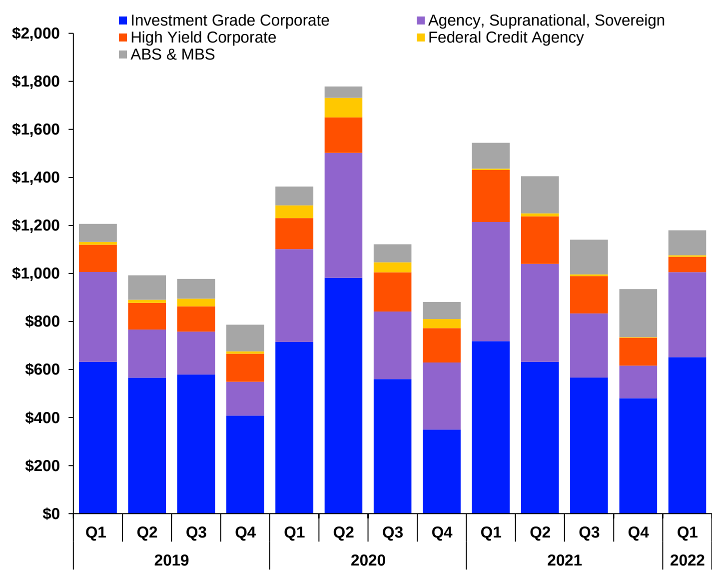
Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	1	98,159	8.2	-0.6	297
Citi	2	2	88,403	7.4	0.7	250
Goldman Sachs & Co	3	4	73,241	6.1	0.8	187
BofA Securities Inc	4	3	68,352	5.7	-0.4	241
BNP Paribas SA	5	6	62,557	5.3	0.1	211
Deutsche Bank	6	7	60,187	5.1	0.2	210
Barclays	7	5	59,893	5.0	-0.2	219
Morgan Stanley	8	8	57,324	4.8	0.0	164
HSBC Holdings PLC	9	9	55,884	4.7	0.4	234
Credit Agricole CIB	10	12	36,578	3.1	0.4	153
Societe Generale	11	11	32,800	2.8	0.0	114
Credit Suisse	12	10	26,528	2.2	-0.9	133
RBC Capital Markets	13	13	23,684	2.0	-0.4	113
UniCredit	14	19	23,498	2.0	0.3	77
TD Securities Inc	15	15	22,148	1.9	-0.2	94
Santander Corp & Invest Bkg	16	18	21,157	1.8	0.1	80
Wells Fargo & Co	17	14	19,987	1.7	-0.4	92
Nomura	18	17	18,335	1.5	-0.3	74
NatWest Markets	19	22	17,061	1.4	0.0	82
UBS	20	26	16,931	1.4	0.4	66
Natixis	21	21	16,828	1.4	0.0	70
Mizuho Financial Group	22	16	15,560	1.3	-0.5	91
BMO Capital Markets	23	27	13,855	1.2	0.2	57
Commerzbank AG	24	23	13,798	1.2	-0.1	49
Standard Chartered PLC	25	20	11,859	1.0	-0.4	82
Industry Total			**1,192,381**	**100.0**		**1,321**

All Bonds In Euros (N01)

YoY Change ($) -7% QoQ Change ($) 99%

Bookrunner	Rank 2022	Rank 2021	Proceeds €mil	Market Share	Mkt. Sh Chg	# of Deals
BNP Paribas SA	1	1	39,577	8.7	0.7	122
JP Morgan	2	2	35,539	7.8	0.6	100
Deutsche Bank	3	3	29,915	6.5	0.4	91
Credit Agricole CIB	4	9	24,569	5.4	0.9	84
Barclays	5	7	23,774	5.2	-0.1	78
HSBC Holdings PLC	6	8	23,727	5.2	0.2	93
Societe Generale	7	4	23,060	5.0	-0.7	84
Citi	8	5	21,171	4.6	-0.9	72
UniCredit	9	10	20,220	4.4	0.1	75
Goldman Sachs & Co	10	6	19,869	4.4	-0.9	58
BofA Securities Inc	11	12	14,628	3.2	-0.4	52
Morgan Stanley	12	11	14,038	3.1	-0.6	42
Natixis	13	13	13,737	3.0	0.0	59
Commerzbank AG	14	14	11,348	2.5	-0.4	41
Santander Corp & Invest Bkg	15	15	11,171	2.4	0.1	49
Landesbank Baden-Wurttemberg	16	20	8,715	1.9	0.4	44
ING	17	22	8,592	1.9	0.5	44
DZ Bank	18	18	7,495	1.6	0.0	35
NatWest Markets	19	17	7,418	1.6	-0.3	37
Nomura	20	16	7,057	1.5	-0.6	16
Danske Bank	21	25	7,021	1.5	0.7	32
UBS	22	26	6,480	1.4	0.7	26
IMI - Intesa Sanpaolo	23	23	5,210	1.1	0.0	22
Nordea	24	29	4,367	1.0	0.4	19
Erste Group	25	31	4,277	0.9	0.3	24
Industry Total			**457,166**	**100.0**		**407**

International Bonds - Issue Type Composition (US$bil)



All Global ESG Bonds (GESG1)

YoY Change ($) -27% QoQ Change ($) 8%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	2	12,218	6.5	-0.1	60
BNP Paribas SA	2	1	10,910	5.8	-1.0	48
HSBC Holdings PLC	3	6	10,310	5.5	0.4	47
Barclays	4	8	9,703	5.1	1.0	34
Deutsche Bank	5	7	9,076	4.8	0.2	35
Goldman Sachs & Co	6	10	8,639	4.6	0.7	34
BofA Securities Inc	7	3	8,289	4.4	-1.0	44
Citi	8	5	7,633	4.0	-1.3	44
Credit Agricole CIB	9	4	6,458	3.4	-1.9	40
Morgan Stanley	10	12	6,390	3.4	0.7	32
Societe Generale	11	9	4,212	2.2	-1.8	16
Natixis	12	13	4,084	2.2	-0.4	17
TD Securities Inc	13	15	3,730	2.0	-0.1	21
NatWest Markets	14	11	3,344	1.8	-1.5	18
Scotiabank	15	33	3,162	1.7	1.1	12
Santander Corp & Invest Bkg	16	20	3,120	1.7	0.0	15
RBC Capital Markets	17	28	3,076	1.6	0.7	17
Sumitomo Mitsui Finl Grp Inc	18	34	2,954	1.6	1.0	27
Standard Chartered PLC	19	29	2,929	1.6	0.7	24
Mizuho Financial Group	20	27	2,874	1.5	0.6	35
ING	21	23	2,535	1.3	0.2	13
Bank of China Ltd	22	31	2,429	1.3	0.6	34
Nomura	23	19	2,319	1.2	-0.5	23
Danske Bank	24	21	2,195	1.2	0.0	25
BMO Capital Markets	25	25	2,166	1.1	0.2	9
Industry Total			**189,340**	**100.0**		**400**

*Indicates a Tie

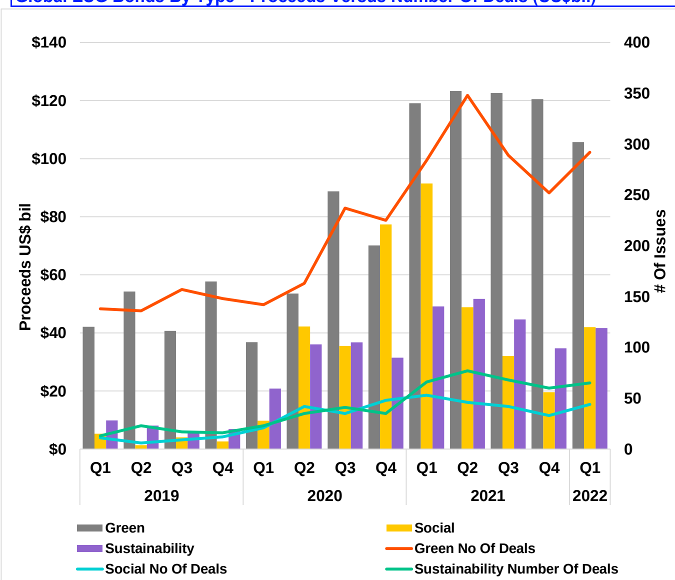
All Global Green Bonds (GR01)**

YoY Change ($) -11% QoQ Change ($) -12%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	1	6,062	5.7	-2.4	40
BNP Paribas SA	2	2	5,237	5.0	-1.8	35
HSBC Holdings PLC	3	5	4,593	4.4	0.3	32
BofA Securities Inc	4	7	4,530	4.3	0.8	29
Citi	5	4	4,106	3.9	-2.0	29
Credit Agricole CIB	6	3	3,628	3.4	-2.5	29
Barclays	7	9	2,990	2.8	0.0	20
Deutsche Bank	8	6	2,890	2.7	-1.1	23
Goldman Sachs & Co	9	14	2,730	2.6	0.5	22
Natixis	10	21	2,703	2.6	1.5	13
Morgan Stanley	11	17	2,457	2.3	0.5	18
NatWest Markets	12	8	2,419	2.3	-0.8	11
Bank of China Ltd	13	22	2,117	2.0	0.9	29
CITIC	14	48	1,950	1.9	1.5	26
RBC Capital Markets	15	29	1,924	1.8	0.9	9
ING	16	16	1,733	1.6	-0.3	11
SEB	17	30	1,695	1.6	0.7	12
Danske Bank	18	10	1,687	1.6	-0.9	23
TD Securities Inc	19	18	1,638	1.6	0.2	10
Societe Generale	20	13	1,619	1.5	-0.7	11
Scotiabank	21	26	1,603	1.5	0.5	7
China Securities Co Ltd	22	67	1,451	1.4	1.2	17
Agricultural Bank of China	23	31	1,413	1.3	0.4	20
CIBC World Markets Inc	24	44	1,348	1.3	0.8	4
BMO Capital Markets	25	36	1,319	1.3	0.6	4
Industry Total			**105,694**	**100.0**		**292**

**Totals are compiled in partnership with Climate Bonds Initiative; www.climatebonds.net

Global ESG Bonds By Type - Proceeds Versus Number Of Deals (US$bil)



High Yield Corporate Debt Rankings

First Quarter 2022 | Debt Capital Markets | Managing Underwriters

Global High Yield Debt (B4)

YoY Change ($) -72% QoQ Change ($) -43%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
Goldman Sachs & Co	1	3	4,763	8.1	1.9	37
JP Morgan	2	1	4,326	7.3	-2.8	41
BofA Securities Inc	3	2	3,838	6.5	-1.2	35
Citi	4	5	3,164	5.4	0.0	30
Credit Suisse	5	8	3,096	5.3	0.4	26
Deutsche Bank	6	7	2,976	5.0	0.0	27
Wells Fargo & Co	7	9	2,953	5.0	0.8	27
Barclays	8	4	2,809	4.8	-1.1	30
Morgan Stanley	9	6	2,774	4.7	-0.3	25
BNP Paribas SA	10	11	1,761	3.0	0.3	20
Jefferies LLC	11	16	1,553	2.6	0.7	10
HSBC Holdings PLC	12	12	1,532	2.6	-0.1	19
RBC Capital Markets	13	10	1,235	2.1	-1.6	14
Mitsubishi UFJ Financial Group	14	15	1,187	2.0	0.1	16
Truist Financial Corp	15	14	1,089	1.9	0.0	11
Capital One Financial Corp	16	42	968	1.6	1.2	6
Fifth Third Bancorp	17	21	948	1.6	0.6	10
Societe Generale	18	25	937	1.6	0.7	10
Credit Agricole CIB	19	17	874	1.5	0.0	9
UniCredit	20	23	779	1.3	0.4	6
KeyBanc Capital Markets Inc	21	41	755	1.3	0.9	7
NatWest Markets	22	36	725	1.2	0.6	5
Mizuho Financial Group	23	13	718	1.2	-0.9	11
Citizens Financial Group	24	47	689	1.2	0.9	6
PNC Financial Services Group	25	26	673	1.1	0.2	8
Industry Total			**58,999**	**100.0**		**99**

Global High Yield Debt USD Denominated (B5)

YoY Change ($) -72% QoQ Change ($) -38%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
Goldman Sachs & Co	1	4	3,686	7.9	2.1	30
BofA Securities Inc	2	2	3,470	7.5	-0.8	32
JP Morgan	3	1	3,322	7.1	-3.7	34
Wells Fargo & Co	4	7	2,953	6.4	1.2	27
Citi	5	3	2,790	6.0	0.0	28
Credit Suisse	6	6	2,490	5.4	0.1	22
Barclays	7	5	2,199	4.7	-0.8	24
Deutsche Bank	8	10	2,140	4.6	0.4	20
Morgan Stanley	9	8	2,096	4.5	-0.5	19
Jefferies LLC	10	13	1,525	3.3	1.0	9
HSBC Holdings PLC	11	16	1,198	2.6	0.7	16
Truist Financial Corp	12	12	1,089	2.3	-0.1	11
RBC Capital Markets	13	9	1,061	2.3	-2.2	13
Mitsubishi UFJ Financial Group	14	15	1,024	2.2	0.2	15
BNP Paribas SA	15	14	989	2.1	0.0	11
Capital One Financial Corp	16	35	968	2.1	1.6	6
Fifth Third Bancorp	17	18	948	2.0	0.7	10
KeyBanc Capital Markets Inc	18	34	755	1.6	1.1	7
Mizuho Financial Group	19	11	718	1.5	-1.0	11
Citizens Financial Group	20	41	689	1.5	1.2	6
PNC Financial Services Group	21	21	673	1.5	0.4	8
Societe Generale	22	28	665	1.4	0.7	6
BMO Capital Markets	23	23	569	1.2	0.2	7
Sumitomo Mitsui Finl Grp Inc	24	22	511	1.1	0.0	5
US Bancorp	25	20	448	1.0	-0.2	4
Industry Total			**46,539**	**100.0**		**73**

Top High Yield Corporate Deals

Issue Date	Issuer	Domicile Nation	Proceeds US$mil	Coupon %	Macro Sector
1/27/22	Athenahealth Inc	United States	2,500.0	6.500	High Technology
1/6/22	VZ Secured Financing B.V.	Netherlands	2,357.0	5.000	Financials
1/12/22	Fertitta Entertainment LLC	United States	2,250.0	6.750	Media and Entertainment
2/3/22	McAfee Corp	United States	2,020.0	7.375	High Technology
1/5/22	Ford Motor Credit Co	United States	2,000.0	2.300	Financials
2/10/22	NCL Corp Ltd	Hong Kong	1,600.0	5.875	Industrials
2/10/22	Castor Spa	Ireland-Rep	1,593.8	Floats	Consumer Products and Services
3/30/22	Clydesdale Acq Hldg Inc.	United States	1,542.0	Varies	Materials
1/20/22	Community Health Systems Inc	United States	1,535.0	5.250	Healthcare
3/23/22	Ford Motor Credit Co	United States	1,499.8	4.950	Financials
1/13/22	CCO Holdings, LLC	United States	1,200.0	4.750	Media and Entertainment
3/30/22	Churchill Downs Inc	United States	1,200.0	5.750	Media and Entertainment
1/18/22	Autostrade Per l'Italia SpA	Italy	1,123.6	1.625	Industrials

Global High Yield Debt Non-USD Denominated (B6)

YoY Change ($) -70% QoQ Change ($) -57%

Bookrunner	Rank 2022	Rank 2021	Proceeds €mil	Market Share	Mkt. Sh Chg	# of Deals
Goldman Sachs & Co	1	1	950	8.6	0.7	9
JP Morgan	2	3	883	8.0	0.4	8
Deutsche Bank	3	2	736	6.7	-1.0	8
BNP Paribas SA	4	8	687	6.2	1.1	10
UniCredit	5	9	683	6.2	2.1	6
Morgan Stanley	6	7	597	5.4	0.2	8
Barclays	7	4	541	4.9	-2.5	7
Credit Suisse	8	10	535	4.9	1.4	5
Credit Agricole CIB	9	11	402	3.7	0.4	4
NatWest Markets	10	19	358	3.3	1.5	3
Citi	11	12	328	3.0	-0.1	3
BofA Securities Inc	12	5	324	3.0	-2.6	5
Nordea	13	28	300	2.7	1.9	5
HSBC Holdings PLC	14	6	293	2.7	-2.9	4
IMI - Intesa Sanpaolo	15	15	274	2.5	0.4	4
Natixis	16	21	268	2.4	0.9	4
Societe Generale	17	20	240	2.2	0.5	5
UBS	18	24	218	2.0	0.9	2
Lloyds Bank	19	16	215	2.0	-0.1	2
ING	20	14	178	1.6	-0.6	3
Swedbank	21	-	173	1.6	1.6	2
Banca Akros SpA	22	23	169	1.5	0.3	2
DNB ASA	23	32	167	1.5	0.9	5
KKR & Co Inc	24	59*	163	1.5	1.5	1
RBC Capital Markets	25	29	153	1.4	0.6	3
Industry Total			**11,002**	**100.0**		**28**

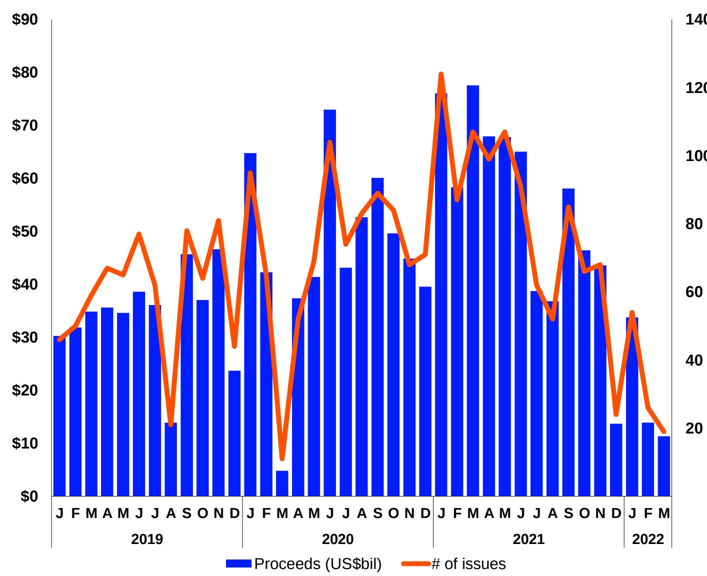
*Indicates a Tie

Global High Yield Debt EURO Denominated (B06b)

YoY Change ($) -69% QoQ Change ($) -57%

Bookrunner	Rank 2022	Rank 2021	Proceeds €mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	2	808	8.6	-0.1	7
Deutsche Bank	2	3	736	7.8	-0.1	8
Goldman Sachs & Co	3	1	727	7.7	-1.1	8
BNP Paribas SA	4	4	687	7.3	1.2	10
UniCredit	5	6	683	7.3	2.2	6
Morgan Stanley	6	8	597	6.3	2.2	8
Credit Suisse	7	10	455	4.8	1.2	5
Credit Agricole CIB	8	9	402	4.3	0.5	4
Citi	9	13	328	3.5	0.2	3
BofA Securities Inc	10	7	324	3.4	-1.6	5
IMI - Intesa Sanpaolo	11	15	274	2.9	0.5	4
Natixis	12	18	268	2.9	1.1	4
Barclays	13	5	243	2.6	-3.4	5
Societe Generale	14	17	240	2.6	0.5	5
Nordea	15	26	240	2.5	1.6	3
ING	16	14	178	1.9	-0.7	3
Banca Akros SpA	17	21	169	1.8	0.4	2
KKR & Co Inc	18	56*	163	1.7	1.6	1
RBC Capital Markets	19	30	153	1.6	1.0	3
HSBC Holdings PLC	20	11	151	1.6	-1.9	3
Swedbank	21	-	149	1.6	1.6	1
Mitsubishi UFJ Financial Group	22	19	143	1.5	-0.2	2
UBS	23	23	138	1.5	0.3	2
Cooperatieve Rabobank UA	24	35	113	1.2	0.8	2
Mediobanca	25	22	99	1.1	-0.1	1
Industry Total			**9,421**	**100.0**		**23**

Global High Yield Corporate Debt Issuance



Emerging Markets Rankings

First Quarter 2022 | Debt Capital Markets | Managing Underwriters

All International Emerging Market Bonds (L1)

YoY Change ($) -40% QoQ Change ($) 14%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Citi	1	2	15,203	10.5	1.7	56
JP Morgan	2	1	12,027	8.3	-1.3	51
HSBC Holdings PLC	3	3	9,177	6.4	-0.8	69
BNP Paribas SA	4	5	7,148	4.9	0.2	41
BofA Securities Inc	5	7	5,598	3.9	0.7	31
Standard Chartered PLC	6	4	5,558	3.8	-2.0	56
Barclays	7	12	5,495	3.8	1.2	24
Goldman Sachs & Co	8	8	5,061	3.5	0.3	23
Deutsche Bank	9	11	4,605	3.2	0.5	27
Societe Generale	10	15	4,127	2.9	1.1	20
Credit Agricole CIB	11	10	3,490	2.4	-0.3	37
Santander Corp & Invest Bkg	12	13	3,102	2.1	-0.1	8
Mizuho Financial Group	13	14	2,971	2.1	0.3	31
Bank of China Ltd	14	17	2,576	1.8	0.2	45
DBS Group Holdings	15	16	2,503	1.7	0.0	35
Mitsubishi UFJ Financial Group	16	19	2,498	1.7	0.4	18
Sumitomo Mitsui Finl Grp Inc	17	18	2,400	1.7	0.4	22
Credit Suisse	18	9	2,286	1.6	-1.4	15
Scotiabank	19	70	2,104	1.5	1.3	9
UBS	20	20	2,092	1.5	0.2	17
Industry Total			**144,616**	**100.0**		**243**

EMEA Emerging Market Bonds (L2)

YoY Change ($) -33% QoQ Change ($) 64%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Citi	1	2	4,423	16.5	6.7	13
JP Morgan	2	1	3,022	11.3	-2.1	14
Goldman Sachs & Co	3	7	2,972	11.1	6.2	10
Deutsche Bank	4	9	2,074	7.8	4.8	7
BNP Paribas SA	5	3	2,028	7.6	0.9	8
HSBC Holdings PLC	6	5	1,927	7.2	1.3	7
Erste Group	7	16	1,410	5.3	3.1	7
Societe Generale	8	8	1,034	3.9	-0.8	4
ING	9	37	872	3.3	2.9	2
Sumitomo Mitsui Finl Grp Inc	10	12	788	3.0	0.4	5
Kuwait Finance House	11*	-	750	2.8	2.8	1
Dubai Islamic Bank PJSC	11*	-	750	2.8	2.8	1
Barclays	13	11	728	2.7	-0.1	4
UniCredit	14	10	355	1.3	-1.7	4
Commerzbank AG	15	45*	332	1.2	1.1	1
Standard Chartered PLC	16	6	271	1.0	-4.4	2
Mizuho Financial Group	17	30	260	1.0	0.4	6
Chapel Hill Denham Group	18	-	250	0.9	0.9	1
Nomura	19*	-	218	0.8	0.8	4
Daiwa Securities Group Inc	19*	-	218	0.8	0.8	4
Industry Total			**26,746**	**100.0**		**29**

Latin America Emerging Market Bonds (L3)

YoY Change ($) -31% QoQ Change ($) 48%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Citi	1	2	6,019	19.2	8.1	12
JP Morgan	2	1	4,800	15.3	-0.8	11
Santander Corp & Invest Bkg	3	3	2,930	9.3	-0.5	6
BofA Securities Inc	4	6	2,819	9.0	3.3	10
Barclays	5	9	2,158	6.9	2.7	4
Scotiabank	6	32	2,078	6.6	6.5	8
BBVA	7	10	1,735	5.5	1.4	3
HSBC Holdings PLC	8	8	1,247	4.0	-1.3	2
BNP Paribas SA	9	7	1,122	3.6	-2.0	5
Credit Agricole CIB	10	13	976	3.1	0.6	3
Goldman Sachs & Co	11	5	860	2.7	-3.4	6
Societe Generale	12	-	709	2.3	2.3	2
Morgan Stanley	13	4	652	2.1	-7.3	5
Credit Suisse	14	12	581	1.9	-1.2	4
Itau Unibanco	15	14	471	1.5	-0.8	4
Sumitomo Mitsui Finl Grp Inc	16	25	333	1.1	0.7	2
Mizuho Financial Group	17*	16	298	1.0	-0.6	1
RBC Capital Markets	17*	20*	298	1.0	0.3	1
BMO Capital Markets	17*	20*	298	1.0	0.3	1
UBS	20	17	250	0.8	-0.1	3
Industry Total			**31,400**	**100.0**		**26**

Asia Pacific Emerging Market Bonds (L4)

YoY Change ($) -33% QoQ Change ($) 8%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
HSBC Holdings PLC	1	1	5,492	7.0	-0.8	54
Standard Chartered PLC	2	4	4,842	6.1	0.2	50
Citi	3	2	4,646	5.9	-1.1	31
JP Morgan	4	3	3,921	5.0	-1.0	26
BNP Paribas SA	5	5	3,653	4.6	0.8	27
DBS Group Holdings	6	7	2,503	3.2	-0.2	35
Bank of China Ltd	7	9	2,446	3.1	0.0	44
Societe Generale	8	23	2,437	3.1	1.5	13
Mizuho Financial Group	9	15	2,405	3.1	0.9	25
Credit Agricole CIB	10	10	2,381	3.0	0.0	33
Industry Total			**78,895**	**100.0**		**173**

Middle East Emerging Market Bonds (L5)

YoY Change ($) -71% QoQ Change ($) -47%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
HSBC Holdings PLC	1	3	936	9.2	-0.9	8
Barclays	2	7	839	8.2	4.8	3
JP Morgan	3	4	590	5.8	-3.7	2
First Abu Dhabi Bank PJSC	4	15	559	5.5	3.4	5
Citi	5	2	540	5.3	-5.4	2
Jefferies LLC	6	-	499	4.9	4.9	1
Standard Chartered PLC	7	1	467	4.6	-8.6	5
Abu Dhabi Commercial Bank PJSC	8	30	463	4.5	4.0	3
Credit Suisse	9	10	438	4.3	1.6	2
Goldman Sachs & Co	10	5	424	4.2	-1.5	1
Industry Total			**10,184**	**100.0**		**17**

All Global Debt, by Brazilian Issuers (BR1)

YoY Change ($) -59% QoQ Change ($) -26%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
BofA Securities Inc	1	18	495	11.0	9.3	3
Itau Unibanco	2	1	410	9.1	-3.4	5
Barclays	3*	9*	298	6.6	3.6	1
Mizuho Financial Group	3*	15*	298	6.6	4.6	1
RBC Capital Markets	3*	9*	298	6.6	3.6	1
BMO Capital Markets	3*	9*	298	6.6	3.6	1
Morgan Stanley	7	6	295	6.5	1.3	4
Goldman Sachs & Co	8	19	280	6.2	4.5	3
UBS	9	7	250	5.5	0.5	3
Santander Corp & Invest Bkg	10	2	247	5.5	-6.9	3
Industry Total			**4,515**	**100.0**		**9**

Domestic Brazilian Debt, in Reals (BR2)

YoY Change ($) -96% QoQ Change ($) -97%

Bookrunner	Rank 2022	Rank 2021	Proceeds R$mil	Market Share	Mkt. Sh. Chg	# of Deals
Itau Unibanco	1	1	450	100.0	76.1	1
Industry Total			**450**	**100.0**		**1**

*Indicates a Tie

Global Debt, Mexican Issuers (MX1)

YoY Change ($) -24% QoQ Change ($) 40%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
BBVA	1	4	1,914	17.0	8.2	13
Santander Corp & Invest Bkg	2	1	1,905	16.9	3.5	7
Barclays	3*	5	1,860	16.5	8.0	3
BofA Securities Inc	3*	21	1,860	16.5	15.6	3
Scotiabank	5*	-	542	4.8	4.8	3
JP Morgan	5*	10	542	4.8	0.9	3
Citi	7	2	472	4.2	-6.4	5
Casa de Bolsa Inverlat	8	16	294	2.6	1.3	5
Sumitomo Mitsui Finl Grp Inc	9*	15	250	2.2	0.8	1
HSBC Holdings PLC	9*	7	250	2.2	-3.4	1
Industry Total			**11,255**	**100.0**		**33**

Domestic Mexican Debt (MX3)

YoY Change ($) -50% QoQ Change ($) -71%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Casa de Bolsa Inverlat	1	4	294	22.2	15.0	5
Santander Corp & Invest Bkg	2	3	212	16.0	1.0	5
Citi	3	8	181	13.6	11.1	3
BBVA	4	1	179	13.5	-13.3	10
Grupo Financiero Banorte-Ixe	5	5	119	9.0	3.5	8
Casas de Bolsa Bital, S.A.	6	2	117	8.8	-16.7	4
Multibanco Comermex SNC	7	6*	81	6.1	2.4	2
NatWest Markets	8	-	59	4.4	4.4	1
Vector Casa de Bolsa SA de CV	9	13	46	3.5	2.8	6
Corporacion Actinver Sab de CV	10	12	17	1.3	0.4	5
Industry Total			**1,325**	**100.0**		**28**

Asia-Pacific Rankings

First Quarter 2022 | Debt Capital Markets | Managing Underwriters

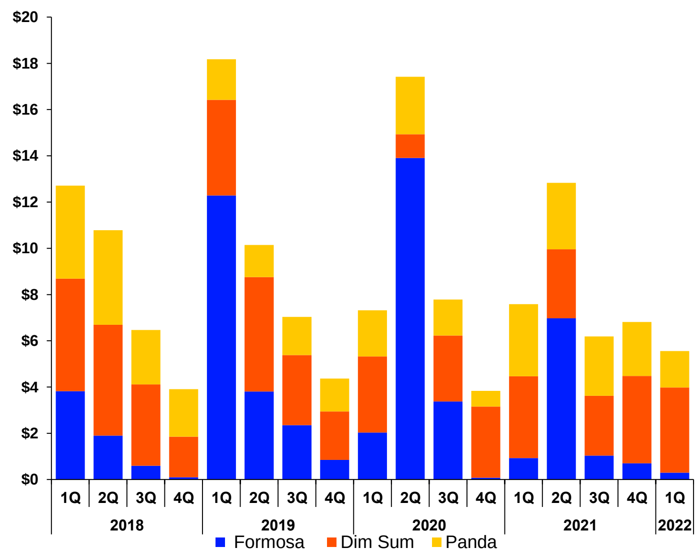
Asian G3 Bonds (ex-Japan & Australia) (AR2) YoY Change ($) -35% QoQ Change ($) 21%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
Standard Chartered PLC	1	4	4,693	6.3	0.7	46
HSBC Holdings PLC	2	1	4,682	6.3	-1.3	34
Citi	3	2	4,525	6.0	-1.6	27
JP Morgan	4	3	3,679	4.9	-1.6	20
BofA Securities Inc	5	5	3,325	4.4	-0.2	19
Deutsche Bank	6	12	3,313	4.4	1.6	18
BNP Paribas SA	7	7	3,294	4.4	0.8	24
Bank of China Ltd	8	9	2,245	3.0	-0.2	40
DBS Group Holdings	9	11	2,165	2.9	0.1	30
Mizuho Financial Group	10	16	2,129	2.8	0.7	21
Credit Agricole CIB	11	10	1,868	2.5	-0.5	24
Mitsubishi UFJ Financial Group	12	19	1,845	2.5	0.8	13
CITIC	13	13	1,790	2.4	0.0	50
Societe Generale	14	25	1,657	2.2	0.9	10
UBS	15	15	1,656	2.2	0.0	11
Morgan Stanley	16	6	1,655	2.2	-2.0	6
Industrial Bank Co Ltd	17	31	1,597	2.1	1.2	53
China International Capital Co	18	14	1,502	2.0	-0.3	41
China Construction Bank	19	27	1,297	1.7	0.4	26
Industrial & Comm Bank China	20	17	1,247	1.7	-0.4	30
Barclays	21	20	1,221	1.6	-0.1	9
RBC Capital Markets	22	40*	1,149	1.5	1.1	2
Sumitomo Mitsui Finl Grp Inc	23	24	1,112	1.5	0.1	13
Bank of Communications Co Ltd	24	23	1,092	1.5	0.0	32
Credit Suisse	25	8	1,029	1.4	-2.1	8
Industry Total			**74,900**	**100.0**		**136**

Asian G3 High Yield Bonds (ex Japan & Australia) (AR10) YoY Change ($) -87% QoQ Change ($) -20%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
Deutsche Bank	1	3	332	14.8	8.7	3
Barclays	2	13	255	11.4	9.1	3
JP Morgan	3	8	245	10.9	6.7	2
DBS Group Holdings	4	42	188	8.4	7.9	1
Arctic Securities ASA	5*	-	150	6.7	6.7	1
Pareto AS	5*	-	150	6.7	6.7	1
Goldman Sachs & Co	5*	24	150	6.7	5.2	1
HSBC Holdings PLC	8	2	140	6.3	-0.1	3
Credit Suisse	9	6	130	5.8	0.5	2
Bank of Communications Co Ltd	10	20	98	4.4	2.7	2
Industrial & Comm Bank China	11*	22	88	3.9	2.3	1
Bank of China Ltd	11*	11	88	3.9	1.3	1
Standard Chartered PLC	13	10	68	3.0	0.0	2
Axis Bank Ltd	14	-	57	2.6	2.6	1
ANZ Banking Group	15*	-	10	0.5	0.5	1
Morgan Stanley	15*	9	10	0.5	-3.0	1
Mizuho Financial Group	15*	32*	10	0.5	-0.2	1
CTBC Financial Holding Co Ltd	15*	-	10	0.5	0.5	1
UBS	15*	5	10	0.5	-4.8	1
Nomura	15*	31	10	0.5	-0.2	1
Huatai Securities Co Ltd	15*	-	10	0.5	0.5	1
CITIC	15*	1	10	0.5	-6.4	1
Shanghai Pudong Development Bk	15*	56*	10	0.5	0.3	1
Bank of East Asia Ltd	15*	18	10	0.5	-1.4	1
Industry Total			**2,240**	**100.0**		**7**

Dim Sum, Panda and Formosa Bond Issuance (ex self-funded) (US$mil)

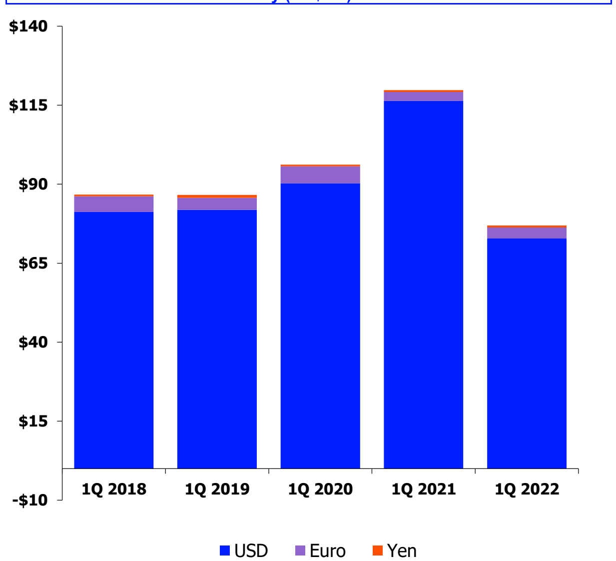


All Asian Currencies (ex Japan & Australia) (AS1) YoY Change ($) 31% QoQ Change ($) 0%

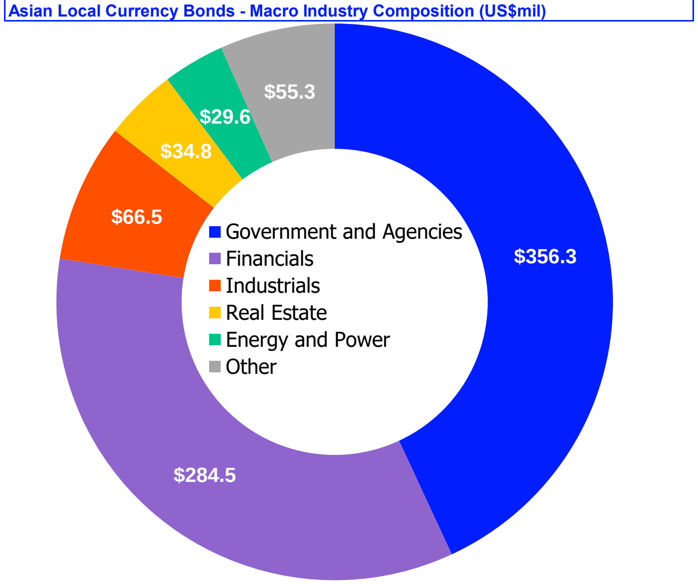
Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
CITIC	1	1	59,288	7.2	0.9	800
Bank of China Ltd	2	2	48,442	5.9	0.6	725
Industrial & Comm Bank China	3	3	44,478	5.4	0.4	672
China Construction Bank	4	4	42,593	5.2	0.7	712
Agricultural Bank of China	5	6	38,542	4.7	0.5	658
China Securities Co Ltd	6	5	38,103	4.6	0.1	528
Bank of Communications Co Ltd	7	7	35,176	4.3	0.7	608
Huatai Securities Co Ltd	8	10	29,156	3.5	0.8	557
China International Capital Co	9	11	25,679	3.1	0.9	447
Guotai Junan Securities	10	9	22,905	2.8	0.0	376
China Merchants Bank	11	12	20,690	2.5	0.4	296
Industrial Bank Co Ltd	12	8	20,202	2.4	-0.9	403
Haitong Securities Co Ltd	13	14	15,522	1.9	0.1	214
Orient Securities Co Ltd	14	22	12,682	1.5	0.4	212
Shanghai Pudong Development Bk	15	16	11,071	1.3	-0.2	221
Postal Savings Bank Of China	16	17	10,450	1.3	0.0	177
China Minsheng Banking Corp	17	13	10,242	1.2	-0.6	181
China Everbright Bank	18	32	10,063	1.2	0.5	126
China Dvlp Bank Sec Co Ltd	19	65	9,824	1.2	0.9	210
Everbright Securities Co Ltd	20	15	9,458	1.1	-0.4	271
China Galaxy Securities Co	21	27	9,191	1.1	0.3	204
KB Financial Group Inc	22	18	7,169	0.9	-0.4	164
Bank of Beijing	23	44	7,040	0.9	0.4	83
China Merchants Securities Co	24	23	6,993	0.9	-0.2	90
HSBC Holdings PLC	25	24	6,777	0.8	-0.1	96
Industry Total			**826,985**	**100.0**		**3,707**

*Indicates a Tie

Asian G3 Bond Volume - Currency (US$mil)



Asian Local Currency Bonds - Macro Industry Composition (US$mil)



Australia & China Rankings

First Quarter 2022 | Debt Capital Markets | Managing Underwriters

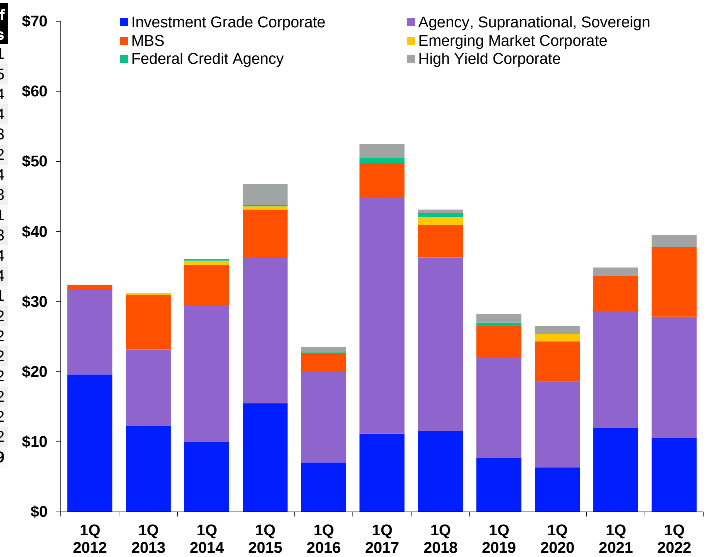
All Australian Debt (ex self-funded) (AJ3a) YoY Change ($) 13% QoQ Change ($) 57%

Bookrunner	Rank 2022	Rank 2021	Proceeds AU$mil	Market Share	Mkt. Sh Chg	# of Deals
National Australia Bank	1	2	6,004	15.2	2.4	28
ANZ Banking Group	2	3	5,483	13.9	2.2	24
Commonwealth Bank of Australia	3	1	4,885	12.4	-3.2	24
Westpac Banking	4	4	3,775	9.6	-1.0	21
TD Securities Inc	5	6	2,271	5.7	-0.8	19
RBC Capital Markets	6	9	2,159	5.5	1.5	15
Deutsche Bank	7	10	2,045	5.2	1.5	12
Nomura	8	13	2,003	5.1	2.6	13
JP Morgan	9	8	1,827	4.6	0.3	11
UBS	10	7	1,305	3.3	-1.1	8
United Overseas Bank Ltd	11	-	1,169	3.0	3.0	5
Sumitomo Mitsui Finl Grp Inc	12	16	1,067	2.7	1.5	5
Citi	13	5	827	2.1	-5.4	4
Daiwa Securities Group Inc	14	-	736	1.9	1.9	8
BofA Securities Inc	15	11	665	1.7	-1.4	3
Barclays	16	-	621	1.6	1.6	4
Standard Chartered PLC	17	15	453	1.2	-0.4	2
Mizuho Financial Group	18	12	450	1.1	-1.5	4
Mitsubishi UFJ Financial Group	19	14	371	0.9	-1.3	2
Industry Total			**39,534**	**100.0**		**81**

All Australian International Bonds (AJ7) YoY Change ($) 106% QoQ Change ($) 53%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
HSBC Holdings PLC	1	2	2,947	11.4	-0.4	11
Citi	2	1	2,933	11.3	-8.4	5
BofA Securities Inc	3	5	2,358	9.1	-0.1	4
National Australia Bank	4	9	2,157	8.3	4.1	4
RBC Capital Markets	5	-	1,602	6.2	6.2	3
Commonwealth Bank of Australia	6	8	1,255	4.9	0.5	2
BNP Paribas SA	7	6	1,140	4.4	-1.4	4
Barclays	8	16*	1,045	4.0	2.8	3
JP Morgan	9	4	950	3.7	-6.9	1
Societe Generale	10	-	926	3.6	3.6	3
Credit Suisse	11	10	908	3.5	-0.2	4
UBS	12	16*	904	3.5	2.3	4
Morgan Stanley	13	3	900	3.5	-7.2	1
Goldman Sachs & Co	14	7	833	3.2	-1.6	2
ANZ Banking Group	15	16*	726	2.8	1.6	2
NatWest Markets	16	-	652	2.5	2.5	2
TD Securities Inc	17	14	625	2.4	0.9	2
Macquarie Group	18	11*	554	2.1	-0.7	2
Westpac Banking	19	15	509	2.0	0.6	2
Mitsubishi UFJ Financial Group	20	19	508	2.0	1.3	2
Industry Total			**25,890**	**100.0**		**19**

All Australian Debt - Issue Type Composition (AU$mil)



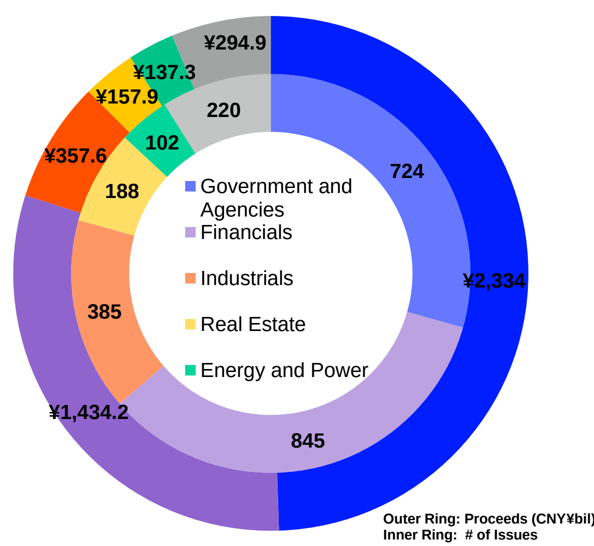
China G3 Currency Bonds (AR5) YoY Change ($) -49% QoQ Change ($) -33%

Bookrunner	Rank 2022	Rank 2021	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
CITIC	1	8	1,362	6.1	2.2	39
Industrial Bank Co Ltd	2	21	1,331	5.9	4.1	47
China International Capital Co	3	4	1,219	5.4	0.7	33
Bank of China Ltd	4	6	1,119	5.0	0.8	29
China Construction Bank	5	19	990	4.4	2.3	19
Standard Chartered PLC	6	16	887	4.0	1.3	17
China Merchants Bank	7	15	749	3.3	0.5	24
Industrial & Comm Bank China	8	11	742	3.3	0.0	21
Haitong Securities Co Ltd	9	10	736	3.3	-0.2	29
Agricultural Bank of China	10	20	705	3.1	1.2	20
Shanghai Pudong Development Bk	11	22	689	3.1	1.3	24
Bank of Communications Co Ltd	12	14	682	3.0	0.1	23
DBS Group Holdings	13	23	670	3.0	1.4	16
HSBC Holdings PLC	14	9	664	3.0	-0.8	13
Guotai Junan Securities	15	7	647	2.9	-1.1	23
Credit Agricole CIB	16	25	564	2.5	1.0	10
Citi	17	3	505	2.3	-2.8	8
China Everbright Bank	18	27	459	2.0	0.9	14
China Zheshang Bank Co Ltd	19	-	444	2.0	2.0	25
Deutsche Bank	20	24	426	1.9	0.4	6
Industry Total			**22,464**	**100.0**		**75**

Chinese Yuan Bonds (ex-Self Funded) (AS24) YoY Change ($) 37% QoQ Change ($) -2%

Bookrunner	Rank 2022	Rank 2021	Proceeds CN¥mil	Market Share	Mkt. Sh Chg	# of Deals
CITIC	1	1	375,787	8.0	0.5	798
Bank of China Ltd	2	2	305,891	6.5	0.3	722
Industrial & Comm Bank China	3	3	281,679	6.0	0.1	670
China Construction Bank	4	4	269,686	5.7	0.3	710
Agricultural Bank of China	5	6	243,950	5.2	0.2	656
China Securities Co Ltd	6	5	241,749	5.1	-0.2	528
Bank of Communications Co Ltd	7	7	222,723	4.7	0.5	606
Huatai Securities Co Ltd	8	10	184,990	3.9	0.7	557
China International Capital Co	9	11	162,825	3.5	0.9	447
Guotai Junan Securities	10	9	145,182	3.1	-0.2	375
China Merchants Bank	11	12	130,774	2.8	0.4	294
Industrial Bank Co Ltd	12	8	127,858	2.7	-1.2	401
Haitong Securities Co Ltd	13	14	98,428	2.1	0.0	214
Orient Securities Co Ltd	14	20	80,471	1.7	0.4	212
Shanghai Pudong Development Bk	15	16	69,818	1.5	-0.2	219
Postal Savings Bank Of China	16	17	66,284	1.4	-0.1	177
China Minsheng Banking Corp	17	13	64,898	1.4	-0.7	180
China Everbright Bank	18	25	63,440	1.4	0.5	124
China Dvlp Bank Sec Co Ltd	19	49	62,330	1.3	0.9	210
Everbright Securities Co Ltd	20	15	59,988	1.3	-0.4	271
Industry Total			**4,716,070**	**100.0**		**2,464**

Chinese Yuan Bonds - Macro Industry Composition



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Japan Rankings

First Quarter 2022 | Debt Capital Markets | Managing Underwriters

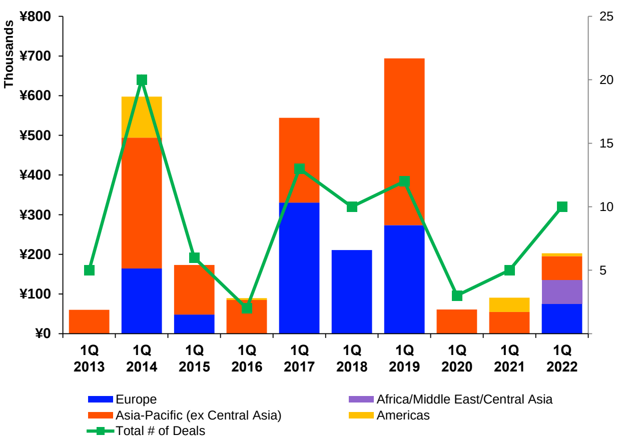
All Bonds in Yen (AP05) — YoY Change (¥) -10% — QoQ Change (¥) -42%

Lead Manager	Rank 2022	Rank 2021	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Mizuho Financial Group	1	1	1,158	26.1	4.7	140
Nomura	2	3	787	17.8	0.9	108
Daiwa Securities Group Inc	3	5	538	12.1	-2.0	70
Sumitomo Mitsui Finl Grp Inc	4	2	535	12.1	-5.0	66
Mitsubishi UFJ Morgan Stanley	5	4	511	11.5	-4.0	82
Mitsubishi UFJ Financial Group	6	8	279	6.3	4.5	12
Sumitomo Mitsui Trust Holdings	7	6	142	3.2	-1.0	10
Goldman Sachs & Co	8	9	54	1.2	-0.4	7
SBI Holdings Inc	9	24	49	1.1	1.0	4
Norinchukin Bank	10	7	49	1.1	-1.1	2
BofA Securities Inc	11	11	47	1.1	0.1	3
Tokai Tokyo Financial Holdings	12	12	46	1.0	0.3	14
JP Morgan	13	17	43	1.0	0.8	1
Resona Holdings Inc	14	22	43	1.0	0.9	1
Industry Total			**4,430**	**100.0**		**246**

Samurai Bonds (AP01) — YoY Change (¥) 123% — QoQ Change (¥) -19%

Lead Manager	Rank 2022	Rank 2021	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Sumitomo Mitsui Finl Grp Inc	1	1	97	48.0	-46.5	5
Nomura	2*	-	35	17.3	17.3	5
Mizuho Financial Group	2*	-	35	17.3	17.3	5
Daiwa Securities Group Inc	2*	2	35	17.3	11.8	5
Industry Total			**203**	**100.0**		**10**

Samurai Bonds Issuance - Domicile Region (JP¥bil)



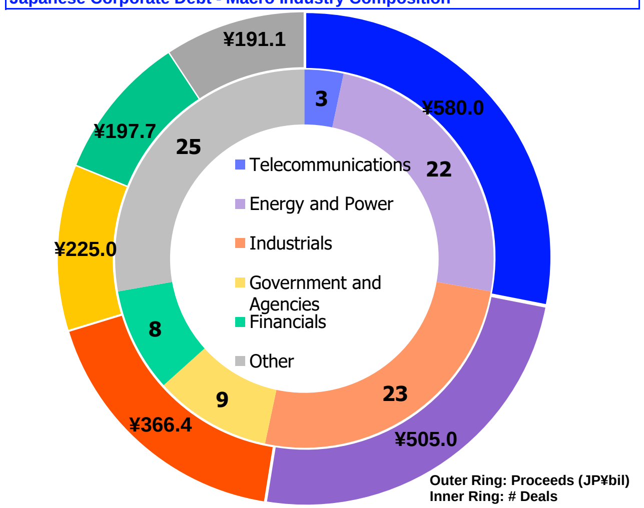
Japanese Securitizations (AP02) — YoY Change (¥) -8% — QoQ Change (¥) 27%

Lead Manager	Rank 2022	Rank 2021	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Mizuho Financial Group	1	1	429	30.4	8.6	45
Mitsubishi UFJ Financial Group	2	7	279	19.8	13.9	12
Sumitomo Mitsui Trust Holdings	3	3	142	10.1	-3.2	10
Nomura	4	4	124	8.8	-2.2	3
Sumitomo Mitsui Finl Grp Inc	5	5	93	6.6	-4.1	6
Mitsubishi UFJ Morgan Stanley	6	2	70	5.0	-9.3	2
Norinchukin Bank	7	6	49	3.4	-3.7	2
Resona Holdings Inc	8	14	43	3.0	2.7	1
BNP Paribas SA	9	8	41	2.9	-2.7	2
Daiwa Securities Group Inc	10	10	40	2.8	0.5	1
Shizuoka Bank Ltd	11	-	40	2.8	2.8	1
Goldman Sachs & Co	12	9	30	2.1	-2.1	1
Barclays	13	13	27	1.9	1.2	2
ORIX Corp	14	12	5	0.4	-0.5	1
Industry Total			**1,413**	**100.0**		**80**

Japanese Corporate Debt (AP03) — YoY Change (¥) -24% — QoQ Change (¥) -57%

Lead Manager	Rank 2022	Rank 2021	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Mizuho Financial Group	1	1	564	27.3	3.4	66
Nomura	2	2	446	21.6	1.0	65
Daiwa Securities Group Inc	3	3	365	17.7	-2.3	46
Mitsubishi UFJ Morgan Stanley	4	4	314	15.2	-1.1	50
Sumitomo Mitsui Finl Grp Inc	5	5	276	13.4	-2.8	33
SBI Holdings Inc	6	15	45	2.2	2.1	2
Tokai Tokyo Financial Holdings	7	6	17	0.8	-0.2	8
Shinkin Central Bank	8	10	16	0.8	0.6	8
Okasan Securities Group Inc	9	7	10	0.5	0.0	4
Citi	10	11	6	0.3	0.1	1
BofA Securities Inc	11	8	4	0.2	-0.2	2
Goldman Sachs & Co	12	9	1	0.1	-0.2	1
Industry Total			**2,065**	**100.0**		**90**

Japanese Corporate Debt - Macro Industry Composition



*Indicates a Tie

Debt Capital Markets Criteria

First Quarter 2022 | Managing Underwriters

If you would like to participate in the submission process, receive quarterly press releases, or have questions about our full league table criteria please contact:

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Database coverage includes all US public, Euro public and Rule 144a fee-eligible global debt transactions (including Global bonds, Euro/144a transactions, Yankee Bonds, Eurobonds, Foreign Bonds and preferred stock) as well as MBS, ABS & Taxable Munis.

Transactions must be received within 5 business days of pricing for league table accreditation. (Rule 144a transactions sold exclusively in the US market, MBS, ABS transactions in all markets and all Federal Credit Agency transactions must be received within 5 business days of settlement.) Transactions not received by the applicable deadline are entered into the database but classified as rank ineligible and are not included in league tables for the current calendar year.

All league tables are based on deal proceeds (total issue amount multiplied by the issue price) unless otherwise stated; and current data and previous year's data is as of 9:00am EST on March 31, 2022.

Full credit is given to the bookrunner, equal if joint books. In cases of underwriter consolidation, credit is given to the surviving/parent firm. Non-US dollar denominated transactions are converted to the US dollar equivalent at the time of announcement.

Long-term league tables exclude deals with a minimum life of less than 1.5 years (or 18 months), except for Asian local currency denominated bonds and all securitized tranches, which require a minimum life of more than 360 days. Minimum life is defined as the difference between the settlement date and the earliest maturity date or first call/put option.

US marketplace league tables include US dollar denominated domestic, Yankee, Global and Euro/144a bond and preferred stock transactions. Global bond league tables include domestic, foreign, Global, Euromarket and Euro/144a bond and preferred stock transactions issued in any currency.
League table volumes for Mitsubishi UFJ Financial Group and Morgan Stanley, included herein, reflect changes after the commencement of their jointly established securities firms in Japan: (1) Mitsubishi UFJ Morgan Stanley Securities and (2) Morgan Stanley MUFG Securities. Credit for the newly established joint ventures rolls up to Morgan Stanley. For Japanese involvement league tables Morgan Stanley will be represented as "Mitsubishi UFJ Morgan Stanley."

League table volumes for Huaxin Securities and Morgan Stanley, included herein, reflect changes after the commencement of their jointly established securities firm in China: Morgan Stanley Huaxin Securities. Credit for the newly established joint ventures rolls up to Morgan Stanley. For Chinese involvement league tables Morgan Stanley will be represented as "Morgan Stanley Huaxin Securities".

As concluded following our 2014 DCM Roundtable in Tokyo, Refinitiv will begin publishing domestic Japanese rankings on an "Anbun Hoshiki" (Proportional) basis beginning with Japanese Fiscal Year 2014 - 2015 after April 1st, 2014. Please note that the Samurai Bonds ranking (AP1) will be consistent with all other international bonds rankings and will remain on the "Equal-to-Each" allocation basis.
Following our mid-year League Table Inquiry, all 2014 US mortgage-related securitizations have been classified as mortgage backed regardless of risk category or deal structure.

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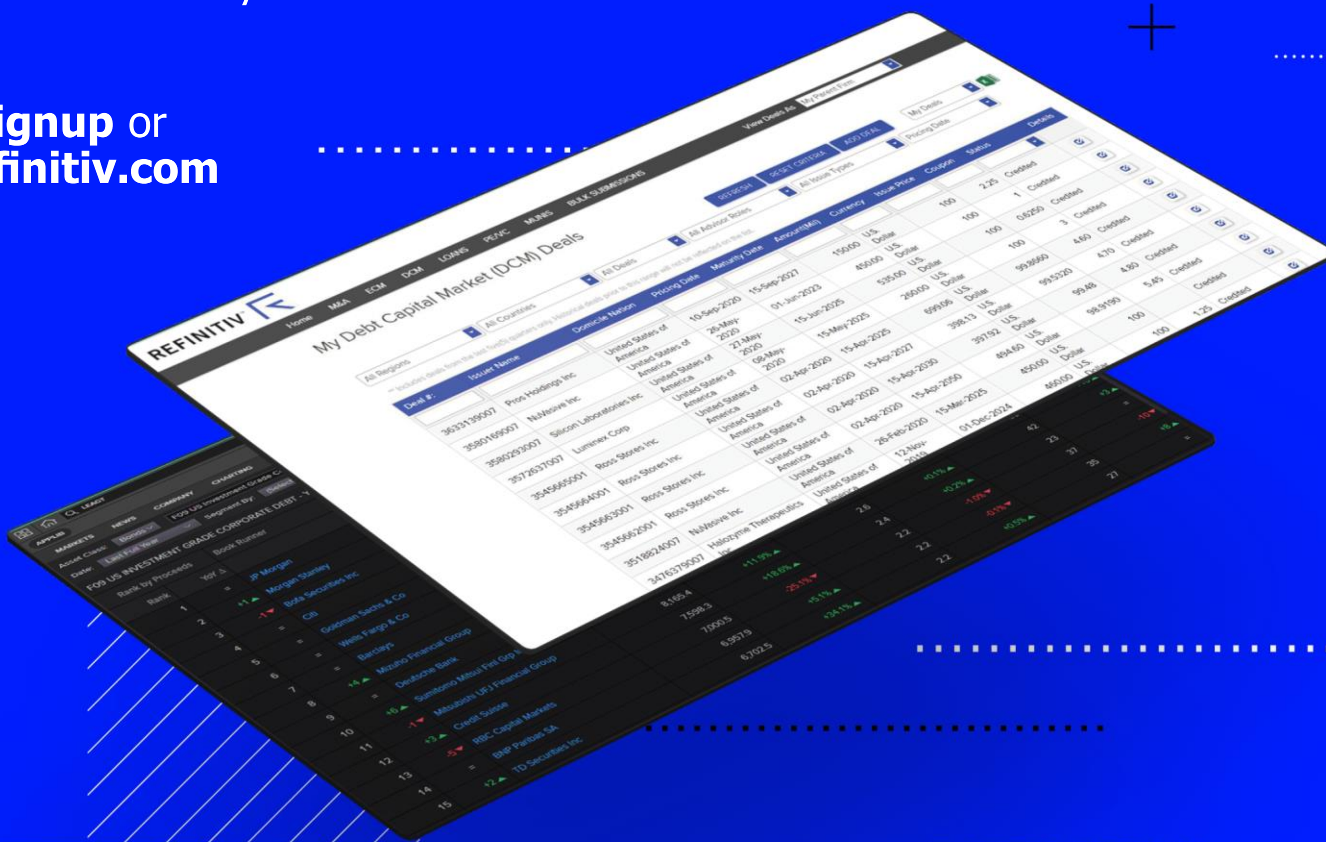

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