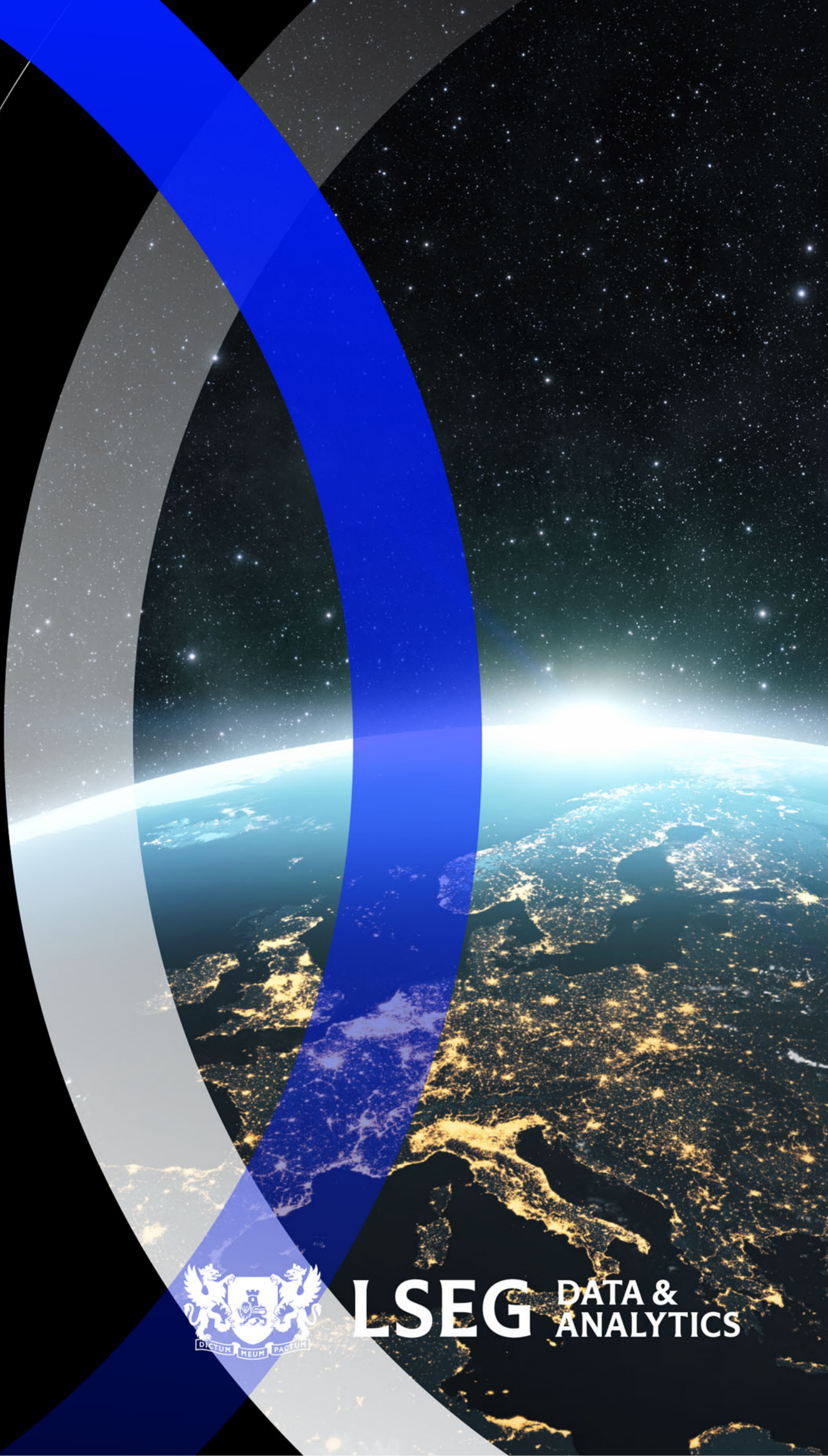
MANAGING UNDERWRITERS

Global Debt Capital Markets

Full Year 2023

LSEG Deals Intelligence



LSEG DATA & ANALYTICS

Global Debt Capital Markets Review

Full Year 2023 | Managing Underwriters

Global Deals Intelligence

GLOBAL DEBT CAPITAL MARKETS ACTIVITY UP 6%, TO TWO-YEAR HIGH

Overall global debt capital markets activity totaled US$8.9 trillion during full year 2023, up 6% compared to full year 2022 and strongest annual period for DCM activity since 2021. The number of new offerings brought to market during full year 2023 totaled just over 29,300, an 8% increase compared to a year ago and a two-year high. DCM issuance during the fourth quarter of 2023 has decreased 15% compared to the third quarter of this year.

INVESTMENT GRADE CORPORATE DEBT UP 5%; SLOWEST QUARTER SINCE 2018

Global Investment Grade corporate debt offerings totaled US$4.3 trillion during full year 2023, up 5% compared to 2022, which marked the slowest full year period for global high-grade corporate debt since 2019. Investment Grade debt issuance during the fourth quarter registered a 20% decrease compared to the third quarter of this year, marking the slowest quarter for high-grade corporate debt issuance since the fourth quarter of 2018.

GLOBAL HIGH YIELD ISSUANCE UP 66%

Global High Yield debt activity during full year 2023 totaled US$219.2 billion, an increase of 66% compared to full year 2022 and marking a two-year high. Fourth quarter high yield issuance decreased 3% compared to the third quarter of this year. High yield offerings from issuers in the United States, United Kingdom and Canada accounted for 76% full year 2023 issuance, up from72% a year ago.

GREEN BOND ISSUANCE UP 10%; LOWEST QUARTERLY TOTAL SINCE 2020

According to figures compiled by LSEG and The Climate Bonds Initiative, green bond issuance totaled US$422.3 billion during full year 2023, a 10% increase compared to year ago levels and the largest full year period for issuance since 2021. The fourth quarter of 2023 registered a 9% decline compared to the third quarter of the year, falling below US$100 billion for the second consecutive quarter and reaching a three-year quarterly low.

CONSUMER, MEDIA AND ENERGY AND POWER LEAD ADVANCING SECTORS

DCM activity from Consumer Products, Media & Entertainment, Consumer Staples and Energy & Power issuers registered strong double-digit percentage gains compared to year ago levels, while Retail and Telecommunications industries lead the decliners. Financials, Government & Agency issuers accounted for 78% of issuance during full year 2023, on par with year ago levels.

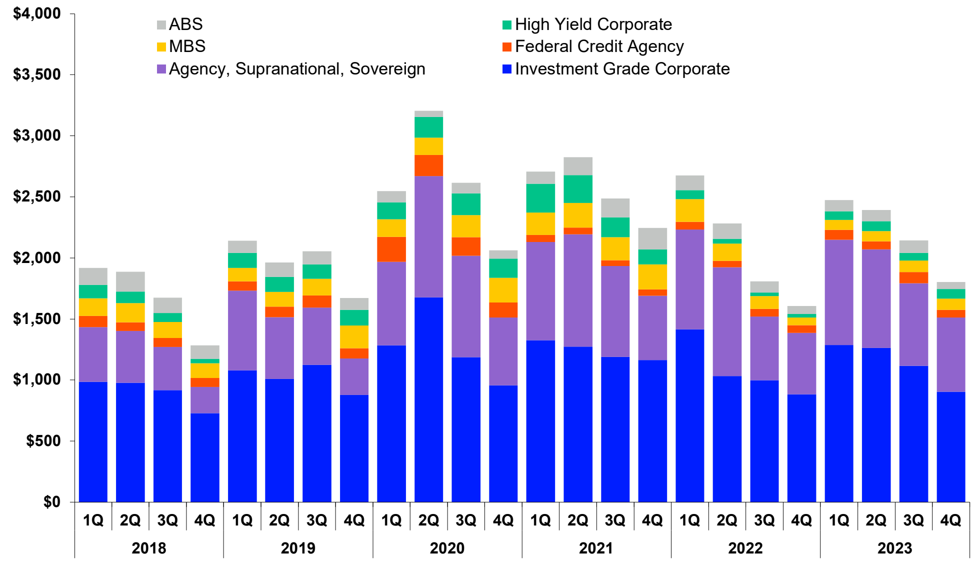
INTERNATIONAL BOND OFFERINGS UP 7%; EMERGING MARKETS UP 12%

International bond offerings totaled US$3.8 trillion during full year 2023, a 7% increase compared to a year ago. Debt from emerging market corporate issuers totaled US$268.4 billion during full year 2023, up 12% compared to a year ago. Corporate debt issuers from India, Brazil, Thailand and Malaysia accounted for 57% of emerging markets activity during full year 2023.

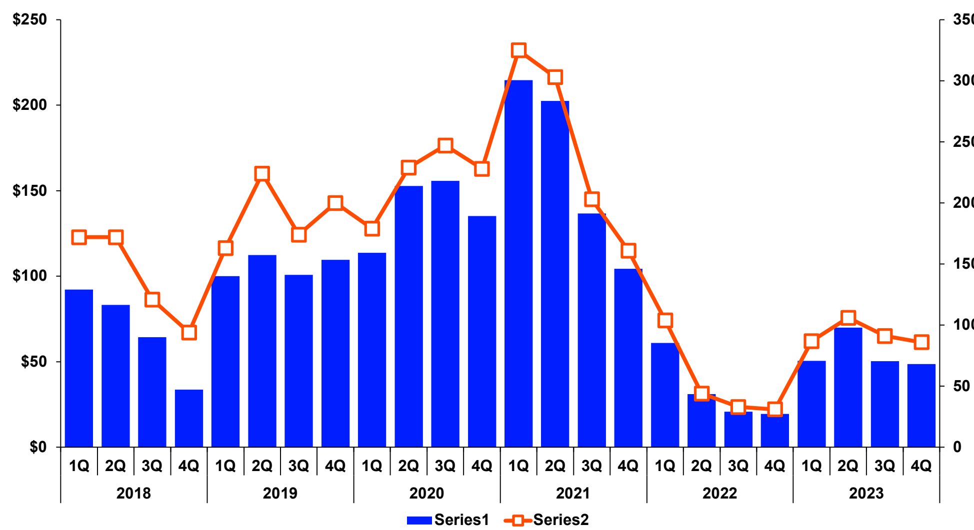
ASIA LOCAL CURRENCY DEBT UP 7%; JAPANESE YEN DEBT UP 11%

Asia local currency bond offerings totaled US$3.6 trillion during full year 2023, a 7% increase compared to a year ago and the strongest full year period for issuance on record. China Yuan offerings have increased 6% compared to a year ago. Japanese Yen offerings have increased 11% compared to full year 2022, totaling JPY25.0 trillion and a two-year high.

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



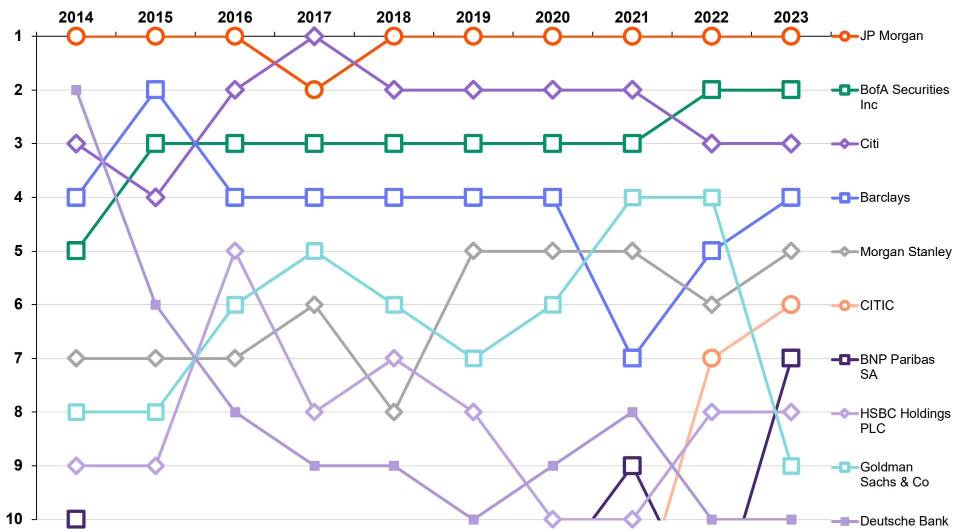
Global High Yield Corporate Debt - Quarterly Issuance



Global Insights

Full Year 2023 | Debt Capital Markets | Managing Underwriters

Global Debt Rankings by Proceeds

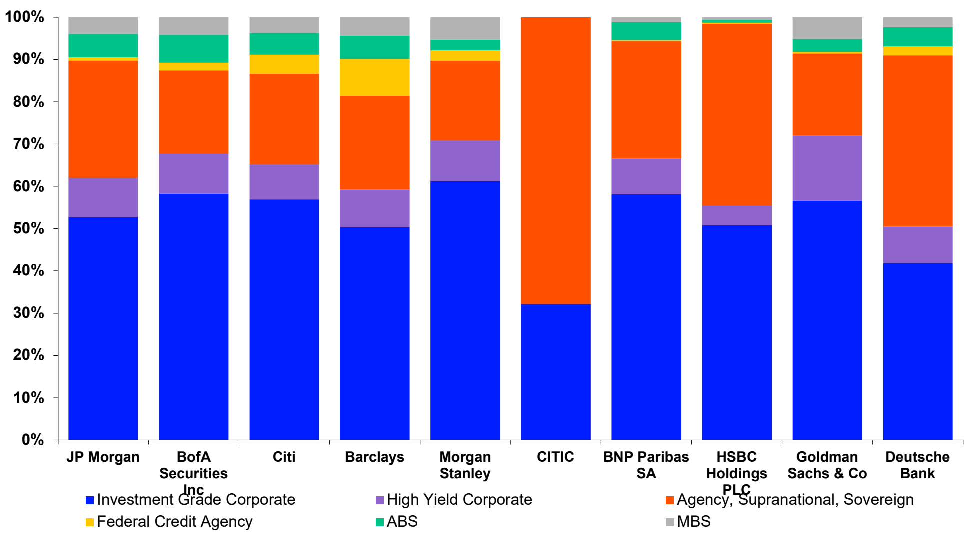


*League Table positions reflect consolidation within the banking sector. Rankings are as of the current quarter end in each calendar year.

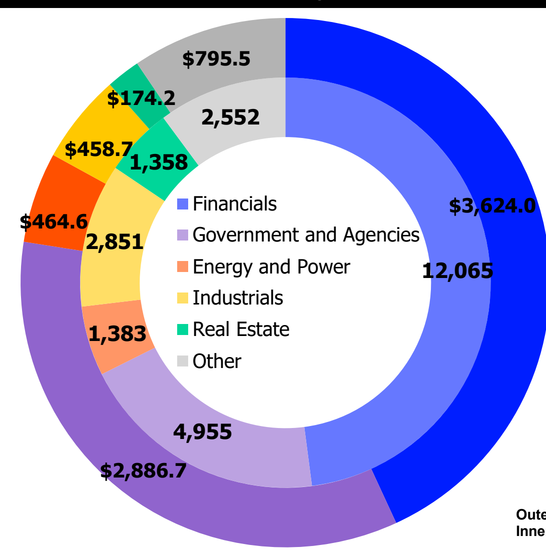
Global Scorecard

	1/1/2023- 12/31/2023 Proceeds ($mil)	# of Deals	1/1/2022- 12/31/2022 Proceeds ($mil)	# of Deals	YoY % Chg. ($)
All Global Debt (B1)	**8,871,086**	**29,344**	**8,393,637**	**27,133**	**6%** ▲
Global Long-term Debt (B2)	8,403,702	25,164	8,003,214	23,489	5% ▲
Global Long-term Debt ex MBS, ABS & Munis (B3	7,690,292	23,433	7,107,204	21,503	8% ▲
Global High Yield Corporate Debt (B4)	219,234	370	132,357	212	66% ▲
Global Investment Grade Corporate Debt (B7)	4,300,992	16,921	4,108,057	15,359	5% ▲
US Federal Credit Agency Debt (B8)	208,931	1,033	143,297	794	46% ▲
Global Agency, Sovereign & Supranational (B9)	2,878,366	4,984	2,663,603	5,036	8% ▲
Global Mortgage-backed Securities (B10)	348,382	922	492,848	1,111	-29% ▼
Global Asset-backed Securities (B11)	365,028	809	403,162	875	-9% ▼
Global Short-term Debt (B14)	504,970	4,458	432,154	3,913	17% ▲
Global Emerging Markets Corporate Debt (B15)	268,428	1,324	239,993	1,612	12% ▲
All US Debt (F1)	**2,533,161**	**3,979**	**2,526,984**	**3,959**	**0%** ▲
US Long-term Debt (F2)	2,359,145	2,546	2,385,539	2,509	-1% ▼
US Long-term Straight ex MBS, ABS & Munis (F3)	1,972,117	2,841	1,768,120	2,523	12% ▲
US Federal Credit Agency Debt (F7)	199,928	1,009	133,641	773	50% ▲
US High Yield Corporate Debt (F8)	169,343	248	101,240	132	67% ▲
US Investment Grade (F9)	1,229,858	876	1,219,967	843	1% ▲
Agency, Sovereign & Supranational Debt (F10)	317,980	651	256,494	724	24% ▲
US Mortgage-backed Securities (F11)	286,049	678	423,673	853	-32% ▼
US Asset-backed Securities (F14)	274,995	460	335,191	583	-18% ▼
US Taxable Municipal Debt (F15)	13,714	467	25,042	585	-45% ▼
US Short-term Debt - including MBS, ABS (F16)	174,016	1,433	141,445	1,450	23% ▲

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

Global Rankings

Full Year 2023 | Debt Capital Markets | Managing Underwriters

Global Debt (B1)

YoY Change ($) 6% QoQ Change ($) -14%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	367,230	4.1	-0.7	1,574
BofA Securities Inc	2	2	335,893	3.8	-0.1	1,326
Citi	3	3	317,786	3.6	-0.2	1,415
Barclays	4	5	289,693	3.3	0.3	1,380
Morgan Stanley	5	6	246,603	2.8	0.0	1,157
CITIC	6	7	241,687	2.7	0.0	4,020
BNP Paribas SA	7	12	216,045	2.4	0.3	1,050
HSBC Holdings PLC	8	8	206,951	2.3	0.0	1,163
Goldman Sachs & Co	9	4	206,522	2.3	-0.8	860
Deutsche Bank	10	10	203,760	2.3	0.0	1,100
Bank of China Ltd	11	9	194,293	2.2	-0.1	2,968
Wells Fargo & Co	12	13	184,073	2.1	0.1	1,110
China Securities Co Ltd	13	17	170,577	1.9	0.1	2,921
ICBC	14	11	167,097	1.9	-0.3	2,666
RBC Capital Markets	15	18	162,757	1.8	0.0	1,176
Credit Agricole CIB	16	20	151,462	1.7	0.1	839
Huatai Securities Co Ltd	17	22	149,890	1.7	0.2	2,590
China Construction Bank	18	14	148,633	1.7	-0.2	2,628
Agricultural Bank of China	19	15	146,151	1.7	-0.1	2,547
Mizuho Financial Group	20	21	140,210	1.6	0.1	1,089
China International Capital Co	21	24	140,062	1.6	0.2	2,423
TD Securities Inc	22	25	130,158	1.5	0.2	805
Bank of Communications Co Ltd	23	19	129,529	1.5	-0.2	2,314
Nomura	24	23	122,129	1.4	0.0	836
UBS	25	16	120,708	1.4	-0.4	781
Industry Total			**8,871,086**	**100.0**		**29,344**

Global Investment Grade Corporate Debt (B7)

YoY Change ($) 5% QoQ Change ($) -19%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
BofA Securities Inc	1	2	164,023	3.8	-0.3	635
JP Morgan	2	1	159,414	3.7	-0.6	705
Citi	3	3	139,363	3.2	-0.4	620
CITIC	4	4	135,552	3.2	-0.1	2,083
Morgan Stanley	5	7	135,202	3.1	0.3	525
HSBC Holdings PLC	6	8	115,697	2.7	-0.1	650
Barclays	7	10	113,212	2.6	0.3	533
BNP Paribas SA	8	11	110,004	2.6	0.3	586
China Securities Co Ltd	9	9	97,652	2.3	-0.1	1,451
Goldman Sachs & Co	10	5	96,771	2.3	-0.6	384
Mizuho Financial Group	11	13	93,047	2.2	0.3	584
UBS	12	6	89,032	2.1	-0.7	419
Wells Fargo & Co	13	15	83,974	2.0	0.3	337
Deutsche Bank	14	12	81,326	1.9	0.0	419
Credit Agricole CIB	15	19	76,564	1.8	0.3	436
RBC Capital Markets	16	18	66,371	1.5	0.0	369
China International Capital Co	17	16	66,229	1.5	-0.1	957
Guotai Junan Securities	18	17	65,624	1.5	0.0	1,092
Bank of China Ltd	19	14	65,238	1.5	-0.3	748
Societe Generale	20	20	63,680	1.5	0.0	308
Huatai Securities Co Ltd	21	22	58,118	1.4	0.0	864
Sumitomo Mitsui Finl Grp Inc	22	35	56,190	1.3	0.5	409
Santander Corp & Invest Bkg	23	28	54,286	1.3	0.4	292
Mitsubishi UFJ Financial Group	24	23	50,059	1.2	0.0	319
TD Securities Inc	25	26	49,034	1.1	0.1	286
Industry Total			**4,300,992**	**100.0**		**16,921**

Global Agency, Sovereign Corporate Debt (B9)

YoY Change ($) 8% QoQ Change ($) -10%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Bank of China Ltd	1	3	123,077	4.3	0.0	2,139
ICBC	2	2	117,867	4.1	-0.3	2,135
Agricultural Bank of China	3	4	117,276	4.1	-0.1	2,121
China Construction Bank	4	1	117,084	4.1	-0.3	2,131
Bank of Communications Co Ltd	5	6	102,959	3.6	-0.2	1,829
JP Morgan	6	5	98,375	3.4	-0.4	292
CITIC	7	7	90,422	3.1	0.3	1,665
Huatai Securities Co Ltd	8	10	85,860	3.0	0.6	1,609
Citi	9	8	77,805	2.7	0.1	185
Deutsche Bank	10	9	76,022	2.6	0.1	347
China International Capital Co	11	16	69,985	2.4	0.7	1,385
BofA Securities Inc	12	12	69,066	2.4	0.1	173
BNP Paribas SA	13	14	68,455	2.4	0.3	186
Barclays	14	11	65,681	2.3	0.0	170
China Securities Co Ltd	15	21	64,694	2.3	0.7	1,299
HSBC Holdings PLC	16	13	61,238	2.1	-0.1	193
TD Securities Inc	17	20	48,718	1.7	0.1	230
RBC Capital Markets	18	22	47,664	1.7	0.2	280
Industrial Bank Co Ltd	19	18	47,444	1.7	0.0	1,064
Credit Agricole CIB	20	17	44,942	1.6	-0.1	123
Goldman Sachs & Co	21	15	44,847	1.6	-0.3	112
Morgan Stanley	22	19	44,467	1.5	-0.2	181
Nomura	23	23	42,929	1.5	0.0	254
Guotai Junan Securities	24	26	41,022	1.4	0.3	795
China Dvlp Bank Sec Co Ltd	25	39	35,964	1.3	0.7	773
Industry Total			**2,878,366**	**100.0**		**4,984**

Global MBS (B10)

YoY Change ($) -29% QoQ Change ($) 2%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	43,501	12.5	1.7	126
BofA Securities Inc	2	2	36,864	10.6	0.0	125
Goldman Sachs & Co	3	3	31,947	9.2	-1.4	119
BMO Capital Markets	4	12	31,169	9.0	6.1	66
Citi	5	4	30,868	8.9	-0.7	116
Morgan Stanley	6	5	29,307	8.4	0.4	107
Wells Fargo & Co	7	6	24,506	7.0	-0.1	105
Barclays	8	8	21,188	6.1	1.1	138
Santander Corp & Invest Bkg	9	28	11,030	3.2	2.8	38
Mizuho Financial Group	10	11	9,326	2.7	-0.2	73
Nomura	11	9	6,958	2.0	-2.1	46
BNP Paribas SA	12	16	6,435	1.9	1.0	45
Deutsche Bank	13	13	6,217	1.8	-0.3	49
National Australia Bank	14	15	5,961	1.7	0.3	43
Westpac Banking	15	20	4,236	1.2	0.6	30
Commonwealth Bank of Australia	16	18	4,174	1.2	0.5	27
Truist Financial Corp	17	10	4,144	1.2	-2.5	8
Apollo Global Management Inc	18	7	3,661	1.1	-5.5	27
Natixis	19	27	3,552	1.0	0.6	23
Lloyds Bank	20	40	2,773	0.8	0.6	18
Mitsubishi UFJ Financial Group	21	26	2,555	0.7	0.2	27
HSBC Holdings PLC	22	31	2,188	0.6	0.2	14
Jefferies LLC	23	22	1,872	0.5	-0.1	18
PNC Financial Services Group	24	30	1,842	0.5	0.1	10
Performance Trust Capital	25	17	1,700	0.5	-0.3	20
Industry Total			**348,382**	**100.0**		**922**

Global ABS (B11)

YoY Change ($) -9% QoQ Change ($) -22%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
BofA Securities Inc	1	2	33,564	9.2	1.2	141
JP Morgan	2	1	32,105	8.8	-1.2	142
Wells Fargo & Co	3	5	25,552	7.0	0.8	115
Citi	4	3	24,139	6.6	-0.5	116
Barclays	5	4	21,796	6.0	-1.1	104
Mizuho Financial Group	6	9	19,849	5.4	1.0	156
BNP Paribas SA	7	12	16,429	4.5	0.9	74
Deutsche Bank	8	10	16,407	4.5	0.5	97
RBC Capital Markets	9	6	15,523	4.3	-1.7	82
Societe Generale	10	15	14,193	3.9	1.4	63
Mitsubishi UFJ Financial Group	11	14	13,988	3.8	0.8	66
Jefferies LLC	12	13	10,635	2.9	-0.4	24
TD Securities Inc	13	18	10,547	2.9	1.3	51
Goldman Sachs & Co	14	8	10,041	2.8	-2.3	58
Santander Corp & Invest Bkg	15	20	9,009	2.5	1.1	42
Apollo Global Management Inc	16	7	8,661	2.4	-3.5	53
Morgan Stanley	17	11	8,475	2.3	-1.5	42
Credit Agricole CIB	18	17	7,673	2.1	0.5	33
Sumitomo Mitsui Finl Grp Inc	19	21	7,214	2.0	0.9	36
BMO Capital Markets	20	16	6,704	1.8	0.1	40
Truist Financial Corp	21	23	4,540	1.2	0.3	40
Lloyds Bank	22	24	4,012	1.1	0.4	17
UniCredit	23	31	3,348	0.9	0.5	13
Guggenheim Securities LLC	24	19	2,930	0.8	-0.7	20
National Australia Bank	25	28	2,757	0.8	0.3	30
Industry Total			**365,028**	**100.0**		**809**

Global Debt and Loans Islamic Finance

YoY Change ($) 5% QoQ Change ($) 11%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
CIMB Group Holdings Bhd	1	1	5,159	7.9	-4.4	72
Malayan Banking Bhd	2	5	4,324	6.6	0.6	78
Intl Islamic Trade Finance	3	6	4,270	6.5	1.3	19
Standard Chartered PLC	4	8	4,210	6.4	2.2	27
HSBC Holdings PLC	5	3	4,070	6.2	-2.9	48
JP Morgan	6	19	3,566	5.4	4.4	20
Citi	7	10	3,483	5.3	1.7	17
Emirates NBD PJSC	8	4	3,333	5.1	-2.5	28
First Abu Dhabi Bank PJSC	9	13	2,876	4.4	2.3	23
RHB	10	2	2,822	4.3	-5.5	55
Dubai Islamic Bank PJSC	11	7	2,047	3.1	-1.5	18
MashreqBank PSC	12	52	1,784	2.7	2.5	12
AMMB Holdings Bhd	13	9	1,700	2.6	-1.1	43
BNP Paribas SA	14	21	1,699	2.6	1.7	5
Goldman Sachs & Co	15	20	1,441	2.2	1.2	4
Al Jazira Capital	16	29	1,166	1.8	1.2	2
Sumitomo Mitsui Finl Grp Inc	17	15	1,164	1.8	0.1	6
Kuwait Finance House	18	11	1,124	1.7	-0.5	8
Abu Dhabi Commercial Bank PJSC	19	28	984	1.5	0.9	12
Abu Dhabi Islamic Bank PSJC	20	40*	761	1.2	0.8	7
Deutsche Bank	21	16	737	1.1	-0.4	6
Mizuho Financial Group	22	22	732	1.1	0.2	5
Mitsubishi UFJ Financial Group	23	33	712	1.1	0.6	6
Bank Islam Malaysia	24	23	685	1.0	0.2	10
Islamic Development Bank	25	31	666	1.0	0.5	5
Industry Total			**65,704**	**100.0**		**257**

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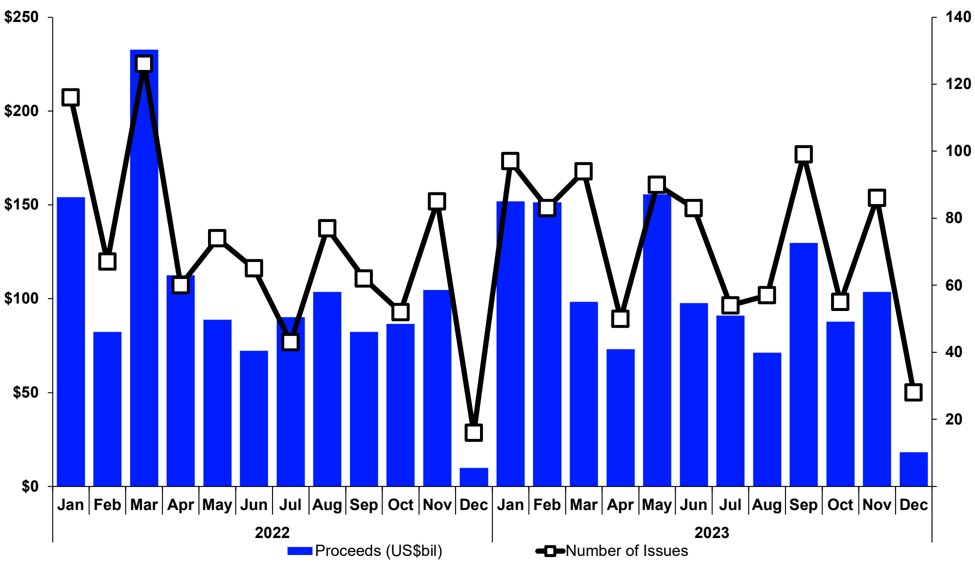
United States Insights

Full Year 2023 | Debt Capital Markets | Managing Underwriters

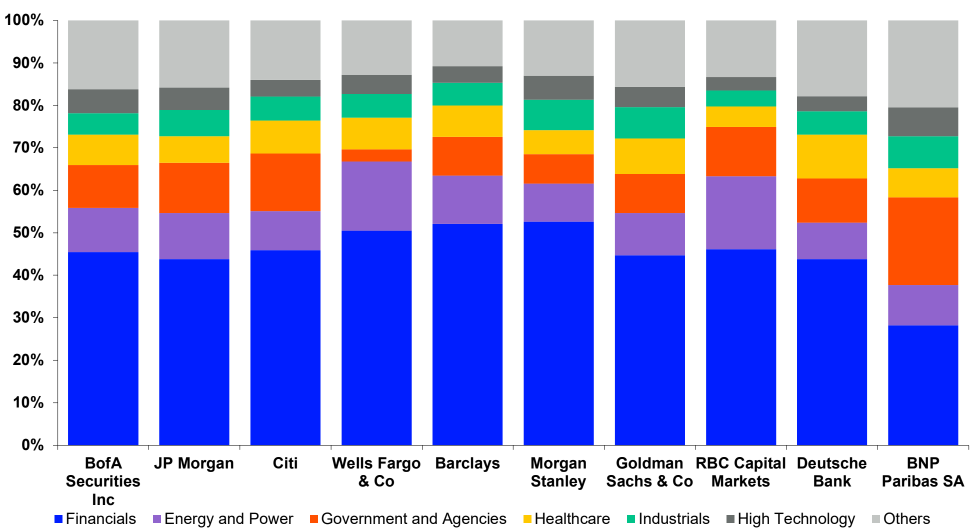
United States Marketed Monthly High Yield Volume



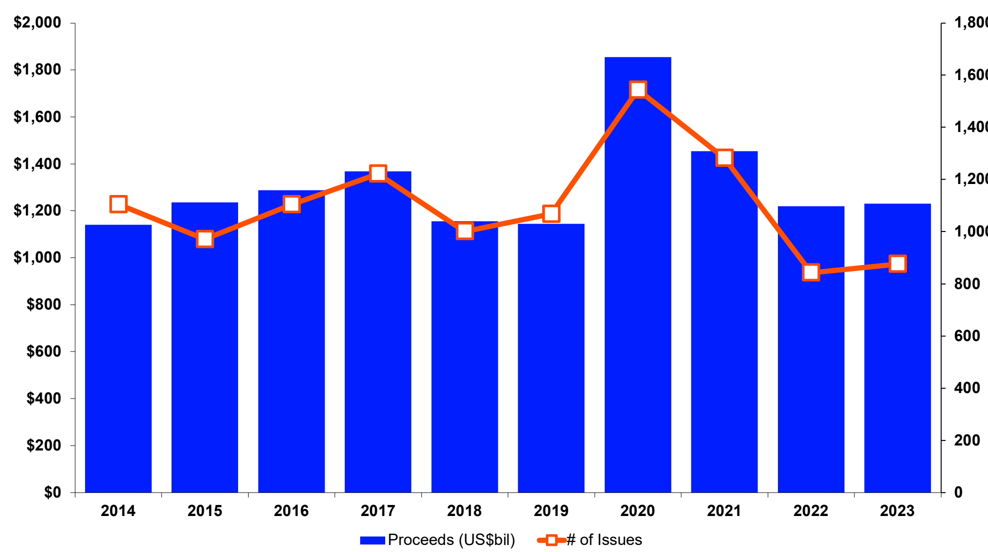
Top United States Investment Grade Corporate Deals

Issue Date	Issuer	Domicile Nation	Deal Size (US$mil)	Issue Type	Macro Sector
5/16/23	Pfizer Invest Entrps Pte Ltd	United States	30,831	Investment Grade Corporate	Financials
2/15/23	Amgen Inc	United States	23,925	Investment Grade Corporate	Healthcare
2/7/23	Intel Corp	United States	10,990	Investment Grade Corporate	High Technology
4/19/23	Bank of America Corp	United States	8,500	Investment Grade Corporate	Financials
7/18/23	Wells Fargo & Co	United States	8,500	Investment Grade Corporate	Financials
9/12/23	Bank of America Corp	United States	8,500	Investment Grade Corporate	Financials
5/1/23	Meta Platforms Inc	United States	8,484	Investment Grade Corporate	High Technology
3/8/23	Kenvue Inc	United States	7,726	Investment Grade Corporate	Consumer Products and Services
10/16/23	JPMorgan Chase & Co	United States	7,250	Investment Grade Corporate	Financials
3/2/23	HSBC Holdings PLC	United Kingdom	7,000	Investment Grade Corporate	Financials
3/23/23	UnitedHealth Group Inc	United States	6,462	Investment Grade Corporate	Healthcare
4/19/23	Morgan Stanley	United States	6,000	Investment Grade Corporate	Financials
10/16/23	Wells Fargo & Co	United States	6,000	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

Full Year 2023 | Debt Capital Markets | Managing Underwriters

U.S. Debt (F1)
YoY Change ($) 0% QoQ Change ($) -19%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	244,304	9.6	-1.4	978
BofA Securities Inc	2	2	243,867	9.6	-0.2	918
Citi	3	3	223,101	8.8	-0.6	933
Wells Fargo & Co	4	6	167,183	6.6	0.5	923
Barclays	5	7	162,473	6.4	0.8	764
Morgan Stanley	6	5	156,515	6.2	0.1	615
Goldman Sachs & Co	7	4	143,023	5.7	-2.0	587
RBC Capital Markets	8	8	88,205	3.5	0.0	589
Deutsche Bank	9	9	77,509	3.1	0.0	355
BNP Paribas SA	10	13	76,715	3.0	0.8	322
Mizuho Financial Group	11	12	74,627	3.0	0.6	412
HSBC Holdings PLC	12	10	74,189	2.9	0.2	225
TD Securities Inc	13	14	70,781	2.8	0.6	401
BMO Capital Markets	14	17	68,453	2.7	0.8	253
Mitsubishi UFJ Financial Group	15	16	49,669	2.0	-0.1	298
UBS	16	11	42,915	1.7	-0.9	249
Sumitomo Mitsui Finl Grp Inc	17	24	38,941	1.5	0.6	234
Nomura	18	18	35,358	1.4	-0.3	220
Santander Corp & Invest Bkg	19	25	34,895	1.4	0.6	165
Scotiabank	20	23	32,120	1.3	0.4	189
Industry Total			**2,533,161**	**100.0**		**3,979**

U.S. High Yield Corporate Debt (F8)
YoY Change ($) 67% QoQ Change ($) 4%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	14,884	8.8	-1.3	137
BofA Securities Inc	2	3	12,523	7.4	-0.2	126
Goldman Sachs & Co	3	5	12,299	7.3	0.6	116
Citi	4	4	10,057	5.9	-1.7	110
Wells Fargo & Co	5	7	9,337	5.5	1.0	100
Morgan Stanley	6	2	8,019	4.7	-3.3	81
Deutsche Bank	7	9	7,098	4.2	0.7	61
Barclays	8	6	6,989	4.1	-0.6	84
RBC Capital Markets	9	10	6,879	4.1	1.4	79
Truist Financial Corp	10	13	4,309	2.5	-0.1	70
Mizuho Financial Group	11	15	4,260	2.5	0.2	61
BMO Capital Markets	12	22	4,246	2.5	1.2	48
BNP Paribas SA	13	11	3,854	2.3	-0.4	55
Mitsubishi UFJ Financial Group	14	14	3,774	2.2	-0.2	52
UBS	15	8	3,462	2.0	-2.4	44
Jefferies LLC	16	16	3,455	2.0	-0.2	21
HSBC Holdings PLC	17	17	3,142	1.9	-0.1	39
Sumitomo Mitsui Finl Grp Inc	18	23	3,033	1.8	0.6	41
PNC Financial Services Group	19	12	2,732	1.6	-1.0	39
TD Securities Inc	20	21	2,718	1.6	0.2	38
Industry Total			**169,343**	**100.0**		**248**

U.S. Investment Grade Debt (F9)
YoY Change ($) 1% QoQ Change ($) -28%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
BofA Securities Inc	1	2	132,525	10.8	-0.8	449
JP Morgan	2	1	119,894	9.8	-2.1	459
Citi	3	3	104,348	8.5	-1.1	378
Morgan Stanley	4	5	97,477	7.9	1.0	266
Wells Fargo & Co	5	6	81,425	6.6	1.0	312
Goldman Sachs & Co	6	4	74,738	6.1	-2.0	253
Barclays	7	7	64,868	5.3	0.7	226
HSBC Holdings PLC	8	8	47,619	3.9	-0.1	119
Mizuho Financial Group	9	14	46,440	3.8	1.2	220
BNP Paribas SA	10	13	38,608	3.1	0.4	167
RBC Capital Markets	11	11	38,533	3.1	0.0	188
Deutsche Bank	12	12	36,012	2.9	0.1	120
Mitsubishi UFJ Financial Group	13	10	34,226	2.8	-0.5	182
UBS	14	9	31,949	2.6	-1.2	70
Sumitomo Mitsui Finl Grp Inc	15	17	28,275	2.3	1.0	152
TD Securities Inc	16	15	26,861	2.2	0.4	147
US Bancorp	17	16	23,441	1.9	0.1	149
Scotiabank	18	20	20,242	1.7	0.6	125
PNC Financial Services Group	19	18	18,652	1.5	0.3	110
Credit Agricole CIB	20	22	17,271	1.4	0.4	88
Industry Total			**1,229,858**	**100.0**		**876**

U.S. MBS (F11)
YoY Change ($) -32% QoQ Change ($) 6%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	42,246	14.8	2.5	119
BofA Securities Inc	2	3	33,841	11.8	0.7	103
BMO Capital Markets	3	11	31,169	10.9	7.7	66
Goldman Sachs & Co	4	2	30,091	10.5	-1.7	115
Citi	5	4	28,180	9.9	-0.7	98
Morgan Stanley	6	5	26,537	9.3	0.8	100
Wells Fargo & Co	7	6	24,096	8.4	0.2	101
Barclays	8	8	17,226	6.0	1.2	111
Santander Corp & Invest Bkg	9	26	8,366	2.9	2.7	25
Mizuho Financial Group	10	12	7,706	2.7	0.1	28
Industry Total			**286,049**	**100.0**		**678**

U.S. ABS (F14)
YoY Change ($) -18% QoQ Change ($) -29%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
BofA Securities Inc	1	2	28,549	10.4	2.1	118
JP Morgan	2	1	28,535	10.4	-0.9	132
Wells Fargo & Co	3	5	25,337	9.2	1.8	114
Citi	4	4	20,193	7.3	-0.4	98
Barclays	5	3	17,455	6.4	-1.3	88
RBC Capital Markets	6	6	13,943	5.1	-1.8	67
Deutsche Bank	7	9	13,213	4.8	0.6	81
Mizuho Financial Group	8	11	13,148	4.8	1.5	58
Mitsubishi UFJ Financial Group	9	12	10,399	3.8	0.9	50
TD Securities Inc	10	18	10,233	3.7	1.9	48
Industry Total			**274,995**	**100.0**		**460**

U.S. ABS ex Self & CDOs (F14b)
YoY Change ($) -5% QoQ Change ($) -33%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	24,723	10.2	-0.9	122
BofA Securities Inc	2	5	22,605	9.3	2.2	108
Wells Fargo & Co	3	6	18,542	7.7	0.6	96
Citi	4	3	18,078	7.5	-0.5	93
Barclays	5	2	15,798	6.5	-1.8	84
Mizuho Financial Group	6	9	12,762	5.3	0.9	56
RBC Capital Markets	7	4	12,357	5.1	-2.4	63
Deutsche Bank	8	10	10,510	4.3	0.4	73
Mitsubishi UFJ Financial Group	9	11	10,399	4.3	0.6	50
TD Securities Inc	10	17	10,132	4.2	1.9	47
Industry Total			**242,487**	**100.0**		**390**

U.S. Securitizations (ex CMBS, Agency, CMO, Self-Funded & CDOs (F20a)
YoY Change ($) -10% QoQ Change ($) -30%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	2	28,090	9.9	0.8	147
BofA Securities Inc	2	4	25,540	9.0	1.0	128
Barclays	3	1	22,331	7.9	-1.6	147
Wells Fargo & Co	4	6	21,056	7.5	1.3	117
Citi	5	5	19,618	6.9	-0.1	103
Mizuho Financial Group	6	11	13,398	4.7	1.2	61
RBC Capital Markets	7	8	12,416	4.4	-1.7	64
Goldman Sachs & Co	8	7	11,556	4.1	-2.0	87
Deutsche Bank	9	9	11,544	4.1	-0.1	84
ATLAS SP Partners	10	3	10,711	3.8	-4.2	70
Industry Total			**282,707**	**100.0**		**524**

*Indicates a Tie

US Residential MBS (F13b)
YoY Change ($) -39% QoQ Change ($) -15%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Barclays	1	3	6,822	14.4	2.2	64
Goldman Sachs & Co	2	1	6,355	13.4	-2.0	46
Morgan Stanley	3	5	5,484	11.6	2.8	37
JP Morgan	4	11	4,622	9.8	6.6	28
Citi	5	6	3,350	7.1	-1.1	12
ATLAS SP Partners	6	2	3,245	6.9	-6.5	25
Nomura	7	7	3,185	6.7	-0.3	30
BofA Securities Inc	8	4	2,935	6.2	-3.0	20
Wells Fargo & Co	9	10	2,515	5.3	1.8	21
Performance Trust Capital	10	8	1,554	3.3	-1.2	19
Industry Total			**47,379**	**100.0**		**154**

All Federal Credit Agency Debt (H1)
YoY Change ($) 49% QoQ Change ($) -18%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Barclays	1	1	33,076	17.1	4.8	198
Wells Fargo & Co	2	2	20,270	10.5	-0.6	268
Nomura	3	3	19,110	9.9	-0.2	137
Citi	4	5	15,876	8.2	1.6	139
TD Securities Inc	5	4	11,546	6.0	-0.8	120
Daiwa Securities Group Inc	6	6	9,982	5.2	0.0	154
Academy Securities Inc	7	7	9,539	4.9	1.0	148
RBC Capital Markets	8	9	8,587	4.4	1.0	175
BofA Securities Inc	9	19	6,558	3.4	1.7	33
Loop Capital Markets	10	8	6,443	3.3	-0.5	115
Industry Total			**193,672**	**100.0**		**965**

LSEG DATA & ANALYTICS

International Debt & ESG Bonds Rankings

Full Year 2023 | Debt Capital Markets | Managing Underwriters

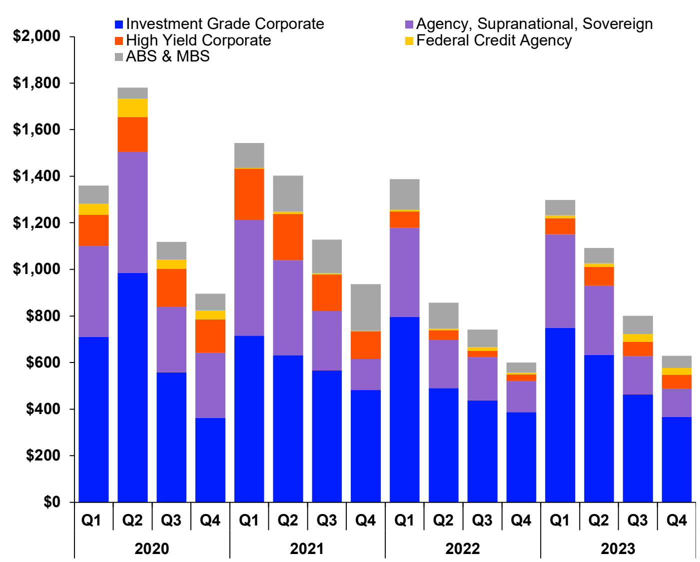
All International Bonds (J01) YoY Change ($) 7% QoQ Change ($) -22%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	1	290,823	7.6	-0.7	1,265
BofA Securities Inc	2	2	263,276	6.9	-0.3	1,063
Citi	3	3	239,837	6.2	-0.6	1,041
Barclays	4	5	226,620	5.9	0.6	986
BNP Paribas SA	5	7	195,308	5.1	0.7	901
Morgan Stanley	6	6	175,594	4.6	0.0	670
HSBC Holdings PLC	7	8	169,638	4.4	0.0	793
Goldman Sachs & Co	8	4	165,259	4.3	-1.3	723
Deutsche Bank	9	9	162,483	4.2	0.0	710
Credit Agricole CIB	10	10	128,400	3.3	0.2	619
Societe Generale	11	12	102,797	2.7	0.0	435
RBC Capital Markets	12	13	95,326	2.5	0.2	511
Wells Fargo & Co	13	14	90,782	2.4	0.3	529
UBS	14	11	81,611	2.1	-1.0	366
Mizuho Financial Group	15	21	77,173	2.0	0.6	506
TD Securities Inc	16	15	76,213	2.0	0.1	407
Santander Corp & Invest Bkg	17	18	76,052	2.0	0.5	360
Nomura	18	17	65,378	1.7	0.1	323
UniCredit	19	16	57,664	1.5	-0.4	295
Mitsubishi UFJ Financial Group	20	19	56,208	1.5	0.0	363
NatWest Markets	21	20	53,553	1.4	0.0	263
Natixis	22	22	52,427	1.4	0.1	295
Sumitomo Mitsui Finl Grp Inc	23	27	47,390	1.2	0.4	365
Commerzbank AG	24	24	46,936	1.2	0.1	224
BMO Capital Markets	25	23	43,811	1.1	0.0	228
Industry Total			**3,845,921**	**100.0**		**5,379**

All Bonds In Euros (N01) YoY Change ($) 3% QoQ Change ($) -23%

Bookrunner	Rank 2023	Rank 2022	Proceeds €mil	Market Share	Mkt. Sh Chg	# of Deals
BNP Paribas SA	1	1	101,375	7.6	0.2	453
Credit Agricole CIB	2	3	83,600	6.3	0.3	340
JP Morgan	3	2	80,542	6.1	-0.2	322
Deutsche Bank	4	4	76,058	5.7	-0.2	309
Societe Generale	5	5	74,460	5.6	0.4	283
Barclays	6	6	68,387	5.2	0.2	292
BofA Securities Inc	7	10	57,408	4.3	0.1	241
HSBC Holdings PLC	8	8	57,212	4.3	-0.3	288
Citi	9	9	53,515	4.0	-0.2	241
UniCredit	10	7	51,189	3.9	-0.9	286
Goldman Sachs & Co	11	11	46,028	3.5	-0.3	196
Natixis	12	13	42,271	3.2	0.2	219
Morgan Stanley	13	12	40,762	3.1	0.0	154
Santander Corp & Invest Bkg	14	15	40,320	3.0	0.6	204
Commerzbank AG	15	14	37,138	2.8	0.1	181
ING	16	17	32,046	2.4	0.1	203
NatWest Markets	17	18	29,951	2.3	0.2	138
Nomura	18	22	21,666	1.6	0.1	57
Landesbank Baden-Wurttemberg	19	19	20,592	1.6	-0.5	128
BBVA	20	26	20,485	1.5	0.5	103
UBS	21	16	19,293	1.5	-0.8	121
IMI - Intesa Sanpaolo	22	21	17,655	1.3	-0.3	111
DZ Bank	23	20	17,214	1.3	-0.7	107
Danske Bank	24	23	16,843	1.3	-0.1	85
Erste Group	25	27	15,022	1.1	0.2	98
Industry Total			**1,327,312**	**100.0**		**1,542**

International Bonds - Issue Type Composition (US$bil)



All Global ESG Bonds (GESG1) YoY Change ($) 2% QoQ Change ($) -23%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
BNP Paribas SA	1	6	38,029	5.9	1.4	180
Citi	2	5	30,741	4.7	0.1	146
JP Morgan	3	1	29,951	4.6	-0.9	139
Credit Agricole CIB	4	3	27,959	4.3	-0.6	143
HSBC Holdings PLC	5	4	27,750	4.3	-0.3	161
BofA Securities Inc	6	2	27,307	4.2	-1.0	118
Deutsche Bank	7	7	21,332	3.3	-0.8	100
Barclays	8	8	20,845	3.2	-0.6	107
Societe Generale	9	9	18,069	2.8	-0.1	81
Morgan Stanley	10	10	17,452	2.7	-0.1	101
Nomura	11	13	16,792	2.6	0.5	102
NatWest Markets	12	12	13,601	2.1	-0.3	57
Mizuho Financial Group	13	15	11,496	1.8	-0.1	121
Commerzbank AG	14	28	11,455	1.8	0.8	50
TD Securities Inc	15	14	10,949	1.7	-0.2	71
RBC Capital Markets	16	22	10,725	1.7	0.3	79
ING	17	17	10,691	1.7	0.0	70
UBS	18	18	10,486	1.6	0.0	77
Goldman Sachs & Co	19	11	10,374	1.6	-1.2	60
Danske Bank	20	24	9,799	1.5	0.2	75
Santander Corp & Invest Bkg	21	23	9,733	1.5	0.2	65
Natixis	22	16	9,666	1.5	-0.3	57
UniCredit	23	25	9,562	1.5	0.2	55
Bank of China Ltd	24	20	8,524	1.3	-0.1	97
BBVA	25	42	8,101	1.3	0.8	41
Industry Total			**647,860**	**100.0**		**1,557**

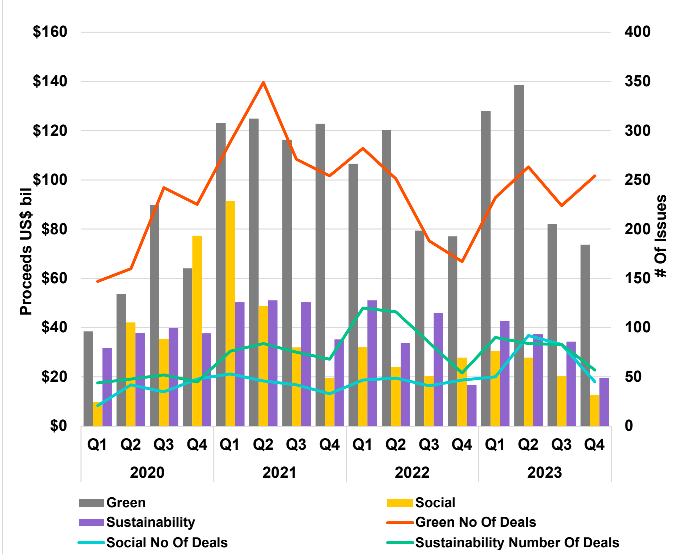
*Indicates a Tie

All Global Green Bonds (GR01)** YoY Change ($) 10% QoQ Change ($) -10%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
BNP Paribas SA	1	2	24,448	5.8	1.1	116
Credit Agricole CIB	2	3	18,433	4.4	-0.2	92
BofA Securities Inc	3	1	16,956	4.0	-1.0	77
JP Morgan	4	4	15,997	3.8	-0.7	83
Citi	5	5	14,976	3.6	-0.5	90
HSBC Holdings PLC	6	6	12,933	3.1	-0.9	86
Deutsche Bank	7	7	12,933	3.1	-0.7	67
Barclays	8	8	12,819	3.0	0.0	75
Morgan Stanley	9	10	11,178	2.7	0.5	65
Societe Generale	10	15	11,014	2.6	0.7	54
Danske Bank	11	16	9,475	2.2	0.4	70
NatWest Markets	12	11	8,499	2.0	-0.2	35
Commerzbank AG	13	29	8,273	2.0	0.9	37
UBS	14	14	8,137	1.9	-0.1	60
ING	15	12	7,985	1.9	-0.2	54
Nomura	16	32	7,858	1.9	0.8	48
UniCredit	17	1	7,701	1.8	0.1	42
Bank of China Ltd	18	13	7,664	1.8	-0.3	83
SEB	19	20	7,229	1.7	0.3	73
Mizuho Financial Group	20	30	7,142	1.7	0.6	74
Goldman Sachs & Co	21	9	6,650	1.6	-1.1	43
Nordea	22	27	6,642	1.6	0.3	59
Santander Corp & Invest Bkg	23	23	6,537	1.6	0.3	48
Sumitomo Mitsui Finl Grp Inc	24	34	5,850	1.4	0.5	52
BBVA	25	47	5,472	1.3	0.8	27
Industry Total			**422,337**	**100.0**		**973**

**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

Full Year 2023 | Debt Capital Markets | Managing Underwriters

Global High Yield Debt (B4)

YoY Change ($) 66% QoQ Change ($) -3%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	1	18,521	8.5	-0.6	166
Goldman Sachs & Co	2	2	16,794	7.7	0.6	148
BofA Securities Inc	3	4	14,625	6.7	0.3	147
Citi	4	5	11,607	5.3	-1.1	125
Deutsche Bank	5	8	10,121	4.6	0.5	90
Wells Fargo & Co	6	9	9,632	4.4	0.9	104
Barclays	7	7	8,951	4.1	-0.5	104
Morgan Stanley	8	3	8,669	4.0	-3.0	85
BNP Paribas SA	9	10	8,094	3.7	0.6	97
RBC Capital Markets	10	11	7,861	3.6	0.7	89
Mizuho Financial Group	11	16	5,072	2.3	0.4	70
UBS	12	6	4,916	2.2	-2.5	54
Credit Agricole CIB	13	20	4,789	2.2	0.9	57
HSBC Holdings PLC	14	12	4,750	2.2	0.0	54
BMO Capital Markets	15	21	4,722	2.2	0.9	53
Truist Financial Corp	16	15	4,442	2.0	0.0	72
Mitsubishi UFJ Financial Group	17	13	4,348	2.0	-0.1	59
Sumitomo Mitsui Finl Grp Inc	18	25	3,950	1.8	0.7	52
Jefferies LLC	19	18	3,606	1.6	-0.2	22
UniCredit	20	26	3,089	1.4	0.5	32
TD Securities Inc	21	23	3,075	1.4	0.1	44
ING	22	39	3,029	1.4	0.8	37
Scotiabank	23	19	2,957	1.4	0.0	38
DNB ASA	24	37	2,786	1.3	0.7	43
PNC Financial Services Group	25	14	2,764	1.3	-0.7	40
Industry Total			**219,234**	**100.0**		**370**

Global High Yield Debt USD Denominated (B5)

YoY Change ($) 64% QoQ Change ($) 4%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	1	14,884	8.7	-1.1	137
BofA Securities Inc	2	3	12,523	7.3	-0.1	126
Goldman Sachs & Co	3	5	12,311	7.2	0.5	117
Citi	4	4	10,057	5.9	-1.5	110
Wells Fargo & Co	5	7	9,337	5.5	1.1	100
Morgan Stanley	6	2	8,019	4.7	-3.1	81
Deutsche Bank	7	9	7,109	4.2	0.8	62
Barclays	8	6	6,989	4.1	-0.5	84
RBC Capital Markets	9	10	6,879	4.0	1.3	79
Truist Financial Corp	10	13	4,309	2.5	0.0	70
Mizuho Financial Group	11	15	4,260	2.5	0.3	61
BMO Capital Markets	12	22	4,246	2.5	1.3	48
UBS	13	8	4,143	2.4	-2.0	46
BNP Paribas SA	14	11	3,854	2.3	-0.3	55
Mitsubishi UFJ Financial Group	15	14	3,774	2.2	-0.1	52
Jefferies LLC	16	16	3,455	2.0	-0.1	21
HSBC Holdings PLC	17	17	3,153	1.9	-0.2	40
Sumitomo Mitsui Finl Grp Inc	18	23	3,033	1.8	0.6	41
PNC Financial Services Group	19	12	2,732	1.6	-0.9	39
TD Securities Inc	20	21	2,718	1.6	0.3	38
Credit Agricole CIB	21	24	2,630	1.5	0.5	34
US Bancorp	22	28	2,604	1.5	0.7	33
Scotiabank	23	20	2,576	1.5	0.1	32
Capital One Financial Corp	24	25	2,440	1.4	0.4	36
Fifth Third Bancorp	25	18	2,423	1.4	-0.2	36
Industry Total			**170,570**	**100.0**		**253**

Top High Yield Corporate Deals

Issue Date	Issuer	Domicile Nation	Proceeds US$mil	Coupon %	Macro Sector
5/19/23	Venture Global LNG Inc	United States	4,000.0	8.125	Energy and Power
10/19/23	Venture Global LNG Inc	United States	3,988.2	9.500	Energy and Power
4/4/23	Cloud Software Group Inc	United States	3,031.7	9.000	High Technology
9/20/23	Gtcr W-2 Merger Sub LLC	United States	2,915.6	7.500	Financials
5/4/23	Emerald Debt Merger Sub LLC	United States	2,776.0	6.625	Financials
1/30/23	Mauser Pkg Solutions Hldg Co	United States	2,750.0	7.875	Materials
1/3/23	Ford Motor Credit Co	United States	2,746.9	6.950	Financials
6/22/23	Civitas Resources Inc	United States	2,700.0	8.375	Energy and Power
2/3/23	Uniti Group LP	United States	2,600.0	10.500	Telecommunications
5/24/23	Diamond Escrow Issuer LLC	United States	2,377.1	9.750	Materials
1/23/23	Caesars Entertainment Inc	United States	2,000.0	7.000	Media and Entertainment
9/20/23	Bayer AG	Germany	1,853.7	Floats	Materials
6/5/23	Ford Motor Credit Co	United States	1,750.0	6.950	Financials

Global High Yield Debt Non-USD Denominated (B6)

YoY Change ($) 70% QoQ Change ($) -25%

Bookrunner	Rank 2023	Rank 2022	Proceeds €mil	Market Share	Mkt. Sh Chg	# of Deals
Goldman Sachs & Co	1	1	4,133	9.2	0.8	40
BNP Paribas SA	2	5	3,919	8.7	3.7	47
JP Morgan	3	3	3,356	7.5	1.0	35
Deutsche Bank	4	2	2,776	6.2	-0.6	34
UniCredit	5	8	2,475	5.5	1.6	30
Credit Agricole CIB	6	11	1,994	4.4	1.7	27
BofA Securities Inc	7	14	1,946	4.3	1.8	25
Barclays	8	6	1,815	4.0	-0.7	23
HSBC Holdings PLC	9	13	1,477	3.3	0.7	21
Citi	10	15	1,422	3.2	0.8	20
ING	11	22	1,061	2.4	1.0	18
RBC Capital Markets	12	9	916	2.0	-1.7	11
Nordea	13	16	895	2.0	-0.2	22
Sumitomo Mitsui Finl Grp Inc	14	39	851	1.9	1.2	13
Natixis	15	17	851	1.9	-0.1	13
Societe Generale	16	10	845	1.9	-0.9	12
Commerzbank AG	17	42	840	1.9	1.3	11
DNB ASA	18	23	776	1.7	0.3	21
Mizuho Financial Group	19	34	752	1.7	0.8	12
Santander Corp & Invest Bkg	20	20	735	1.6	0.1	12
UBS	21	4	714	1.6	-4.1	11
Morgan Stanley	22	7	597	1.3	-2.8	8
NatWest Markets	23	18	581	1.3	-0.5	7
Pareto AS	24	30	575	1.3	0.3	12
Mitsubishi UFJ Financial Group	25	27	533	1.2	0.0	10
Industry Total			**44,967**	**100.0**		**127**

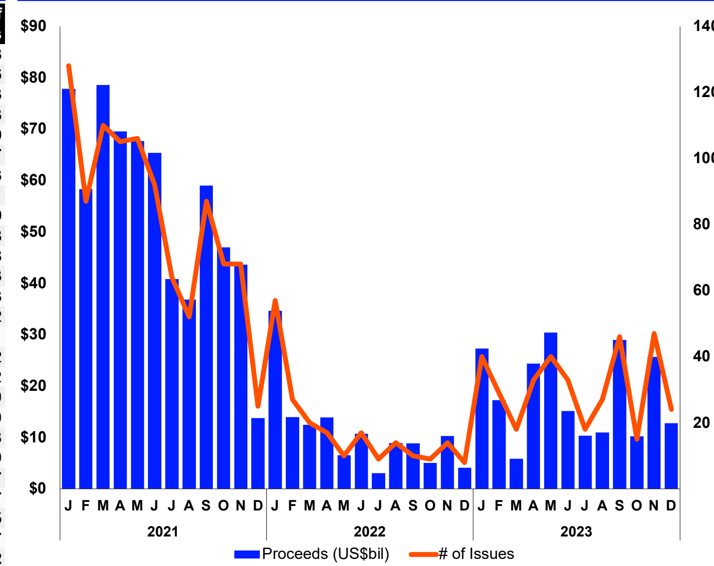
*Indicates a Tie

Global High Yield Debt EURO Denominated (B06b)

YoY Change ($) 82% QoQ Change ($) -16%

Bookrunner	Rank 2023	Rank 2022	Proceeds €mil	Market Share	Mkt. Sh Chg	# of Deals
Goldman Sachs & Co	1	1	3,897	10.1	1.3	38
BNP Paribas SA	2	5	3,878	10.1	4.2	46
JP Morgan	3	3	2,907	7.6	-0.2	33
Deutsche Bank	4	2	2,726	7.1	-0.8	33
UniCredit	5	7	2,475	6.4	1.5	30
Credit Agricole CIB	6	9	1,994	5.2	1.8	27
BofA Securities Inc	7	13	1,714	4.5	1.8	23
Barclays	8	8	1,483	3.9	-0.2	21
Citi	9	11	1,280	3.3	0.2	19
HSBC Holdings PLC	10	16	1,017	2.7	0.7	18
ING	11	20	923	2.4	0.9	18
Sumitomo Mitsui Finl Grp Inc	12	38	851	2.2	1.7	13
Natixis	13	14	851	2.2	-0.3	13
Societe Generale	14	10	845	2.2	-1.0	12
Commerzbank AG	15	31	840	2.2	1.4	11
Mizuho Financial Group	16	32	752	2.0	1.3	12
Santander Corp & Invest Bkg	17	19	735	1.9	0.3	12
UBS	18	4	664	1.7	-4.7	10
Nordea	19	15	619	1.6	-0.9	10
Morgan Stanley	20	6	597	1.6	-3.6	8
Mitsubishi UFJ Financial Group	21	25	483	1.3	0.1	9
Pareto AS	22	22	471	1.2	-0.1	7
IMI - Intesa Sanpaolo	23	12	431	1.1	-1.8	7
Banca Akros SpA/Oaklins Italy	24	29	406	1.1	0.1	5
DNB ASA	25	26	342	0.9	-0.2	7
Industry Total			**38,420**	**100.0**		**92**

Global High Yield Corporate Debt Issuance



Emerging Markets Rankings

Full Year 2023 | Debt Capital Markets | Managing Underwriters

All International Emerging Market Bonds (L1)

YoY Change ($) 24% QoQ Change ($) -20%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	2	39,464	8.9	1.3	173
Citi	2	1	37,788	8.5	0.5	189
HSBC Holdings PLC	3	3	29,336	6.6	-0.2	210
BNP Paribas SA	4	5	26,022	5.9	1.9	123
Standard Chartered PLC	5	4	19,339	4.4	0.2	139
BofA Securities Inc	6	6	18,642	4.2	0.5	78
Goldman Sachs & Co	7	7	14,365	3.2	0.0	43
Credit Agricole CIB	8	9	13,681	3.1	0.2	115
Societe Generale	9	10	10,731	2.4	-0.2	59
Deutsche Bank	10	8	10,286	2.3	-0.8	49
Santander Corp & Invest Bkg	11	15	10,020	2.3	0.5	39
Bank of Communications Co Ltd	12	14	8,847	2.0	0.1	126
Mizuho Financial Group	13	13	8,422	1.9	-0.3	87
Morgan Stanley	14	21	7,888	1.8	0.6	44
Barclays	15	11	7,596	1.7	-0.6	48
UBS	16	12	7,344	1.7	-0.5	43
ING	17	25	7,025	1.6	0.5	41
Bank of China Ltd	18	16	6,594	1.5	-0.3	120
ICBC	19	20	6,057	1.4	0.2	103
Erste Group	20	22	5,710	1.3	0.2	33
Industry Total			**444,928**	**100.0**		**895**

EMEA Emerging Market Bonds (L2)

YoY Change ($) 35% QoQ Change ($) 22%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	13,142	12.9	-0.4	47
Citi	2	2	11,682	11.5	-1.5	45
BNP Paribas SA	3	5	9,013	8.9	2.1	33
Deutsche Bank	4	3	6,368	6.3	-2.1	17
Erste Group	5	6	5,620	5.5	0.1	32
Goldman Sachs & Co	6	4	5,068	5.0	-2.8	15
ING	7	9	5,062	5.0	1.5	23
HSBC Holdings PLC	8	7	4,920	4.8	-0.2	13
Societe Generale	9	8	4,860	4.8	0.7	21
UniCredit	10	10	3,074	3.0	0.6	16
Raiffeisen Bank International	11	19	2,626	2.6	1.5	13
Standard Chartered PLC	12	28	2,331	2.3	1.8	12
Commerzbank AG	13	18	2,287	2.3	0.9	13
BofA Securities Inc	14	11	2,166	2.1	-0.2	9
IMI - Intesa Sanpaolo	15	37	1,790	1.8	1.5	8
Barclays	16	16	1,490	1.5	-0.1	7
Morgan Stanley	17	25	1,380	1.4	0.8	11
Emirates NBD PJSC	18	22	1,376	1.4	0.6	9
Raiffeisen Landesbanken Hdg	19	36	1,280	1.3	1.0	2
Santander Corp & Invest Bkg	20	13	1,156	1.1	-0.8	6
Industry Total			**101,570**	**100.0**		**125**

Latin America Emerging Market Bonds (L3)

YoY Change ($) 36% QoQ Change ($) -36%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	11,294	15.7	2.4	31
Citi	2	2	8,398	11.7	-0.1	29
Santander Corp & Invest Bkg	3	4	7,562	10.5	1.5	27
BofA Securities Inc	4	3	7,272	10.1	0.9	23
Scotiabank	5	6	4,626	6.4	0.3	15
BBVA	6	8	3,924	5.5	0.6	11
Itau Unibanco	7	16	3,864	5.4	3.3	16
BNP Paribas SA	8	10	3,395	4.7	1.9	10
HSBC Holdings PLC	9	7	3,089	4.3	-1.3	12
Morgan Stanley	10	13	2,735	3.8	1.4	12
Goldman Sachs & Co	11	9	1,690	2.4	-2.1	5
UBS	12	17	1,668	2.3	0.3	9
Barclays	13	5	1,483	2.1	-4.4	6
Sumitomo Mitsui Finl Grp Inc	14	22	1,460	2.0	1.2	7
Mizuho Financial Group	15	12	1,282	1.8	-0.7	8
Credit Agricole CIB	16	11	1,279	1.8	-0.8	8
Banco BTG Pactual SA	17	24	837	1.2	0.5	6
Societe Generale	18	20	715	1.0	-0.3	3
Banco Bradesco SA	19	25	713	1.0	0.3	7
Mitsubishi UFJ Financial Group	20	-	614	0.9	0.9	5
Industry Total			**71,973**	**100.0**		**70**

Asia Pacific Emerging Market Bonds (L4)

YoY Change ($) 0% QoQ Change ($) -20%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
HSBC Holdings PLC	1	1	16,372	8.4	1.8	145
Citi	2	2	10,272	5.3	-0.1	85
Credit Agricole CIB	3	4	10,217	5.3	1.0	96
Standard Chartered PLC	4	3	10,010	5.2	-0.1	88
Bank of Communications Co Ltd	5	6	8,790	4.5	1.0	123
BNP Paribas SA	6	8	8,085	4.2	1.0	63
JP Morgan	7	5	7,961	4.1	-0.2	53
BofA Securities Inc	8	10	7,938	4.1	1.2	41
Bank of China Ltd	9	9	5,949	3.1	0.0	116
UBS	10	7	5,415	2.8	-0.5	32
Industry Total			**194,245**	**100.0**		**598**

Middle East Emerging Market Bonds (L5)

YoY Change ($) 87% QoQ Change ($) -24%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Citi	1	3	7,470	9.8	2.6	29
JP Morgan	2	4	7,256	9.6	2.7	41
Standard Chartered PLC	3	1	6,917	9.1	-3.6	38
Goldman Sachs & Co	4	5	6,112	8.1	3.6	12
BNP Paribas SA	5	8	5,496	7.2	3.8	16
HSBC Holdings PLC	6	2	5,080	6.7	-5.0	39
First Abu Dhabi Bank PJSC	7	6	4,371	5.8	2.0	33
Emirates NBD PJSC	8	12	3,042	4.0	1.3	29
Saudi National Bank SJSC	9	21	1,918	2.5	1.0	3
Mizuho Financial Group	10	19	1,906	2.5	0.8	14
Industry Total			**75,958**	**100.0**		**86**

All Global Debt, by Brazilian Issuers (BR1)

YoY Change ($) 63% QoQ Change ($) -45%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Santander Corp & Invest Bkg	1	5	5,997	16.3	11.6	32
Itau Unibanco	2	1	5,892	16.0	-6.4	57
Banco Bradesco SA	3	3	4,387	11.9	-1.7	51
UBS	4	4	2,860	7.8	2.6	33
Banco BTG Pactual SA	5	2	1,955	5.3	-8.4	24
XP Investimentos	6	6	1,565	4.3	-0.4	19
JP Morgan	7	18	1,555	4.2	3.0	9
Citi	8	15	1,423	3.9	2.6	13
Morgan Stanley	9	13	1,315	3.6	1.4	8
BNP Paribas SA	10	20	1,272	3.5	2.4	4
Industry Total			**36,783**	**100.0**		**159**

Domestic Brazilian Debt, in Reals (BR2)

YoY Change ($) 8% QoQ Change ($) -40%

Bookrunner	Rank 2023	Rank 2022	Proceeds R$mil	Market Share	Mkt. Sh. Chg	# of Deals
Itau Unibanco	1	1	40,807	24.4	-9.1	92
Santander Corp & Invest Bkg	2	4	28,902	17.3	4.9	41
Banco Bradesco SA	3	2	28,771	17.2	-1.7	64
UBS	4	5	28,656	17.2	12.6	41
Banco BTG Pactual SA	5	3	10,360	6.2	-7.5	26
XP Investimentos	6	6	7,738	4.6	0.4	19
Banco Votorantim	7	11	2,435	1.5	0.5	12
Arab Banking Corporation	8	10	2,334	1.4	-0.2	4
BNP Paribas SA	9	12	2,300	1.4	0.9	3
Citi	10	13	1,725	1.0	0.6	6
Industry Total			**167,023**	**100.0**		**255**

*Indicates a Tie

Global Debt, Mexican Issuers (MX1)

YoY Change ($) 6% QoQ Change ($) 101%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
BBVA	1	1	4,505	18.1	-2.3	42
Casa de Bolsa Inverlat	2	5	2,711	10.9	3.3	36
Citi	3	7	2,158	8.7	5.3	12
JP Morgan	4	6	2,117	8.5	3.9	6
Santander Corp & Invest Bkg	5	2	1,790	7.2	-8.8	29
BNP Paribas SA	6	23*	1,659	6.7	6.0	4
BofA Securities Inc	7	3	1,568	6.3	-3.4	5
HSBC Holdings PLC	8	16*	884	3.6	2.5	6
Grupo Financiero Inbursa SA	9	15	753	3.0	1.7	6
Grupo Financiero Banorte-Ixe	10	13	735	3.0	1.0	35
Industry Total			**24,903**	**100.0**		**108**

Domestic Mexican Debt (MX3)

YoY Change ($) 40% QoQ Change ($) 146%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Casa de Bolsa Inverlat	1	3	2,929	21.8	3.1	40
BBVA	2	1	2,876	21.4	-6.2	41
Santander Corp & Invest Bkg	3	2	1,476	11.0	-11.9	30
Citi	4	5	1,305	9.7	4.5	8
Corporacion Actinver Sab de CV	5	8	805	6.0	4.2	34
Casas de Bolsa Bital, S.A.	6	4	753	5.6	-2.5	12
Grupo Financiero Inbursa SA	7	7	753	5.6	2.5	6
Grupo Financiero Banorte-Ixe	8	6	735	5.5	0.7	35
HSBC Holdings PLC	9	-	271	2.0	2.0	3
BofA Securities Inc	10	-	246	1.8	1.8	2
Industry Total			**13,432**	**100.0**		**104**

LSEG DATA & ANALYTICS

Asia-Pacific Rankings

Full Year 2023 | Debt Capital Markets | Managing Underwriters

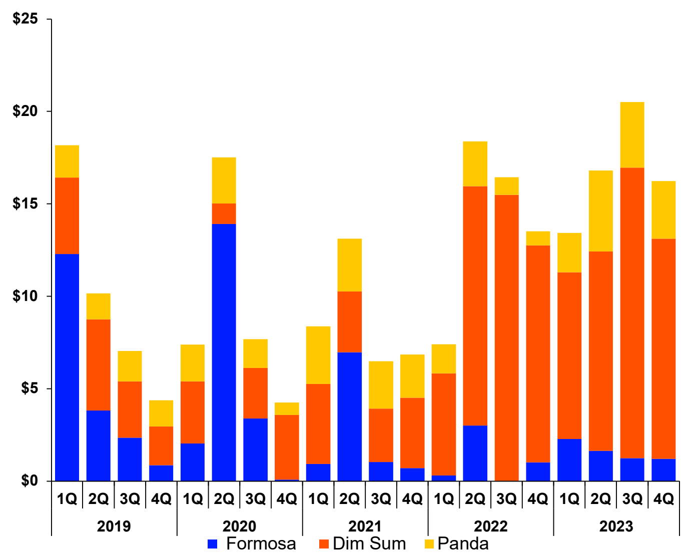
Asian G3 Bonds (ex-Japan & Australia) (AR2) YoY Change ($) -22% QoQ Change ($) -36%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
HSBC Holdings PLC	1	2	13,736	9.4	3.9	100
Citi	2	1	11,863	8.1	1.2	78
BofA Securities Inc	3	5	9,777	6.7	2.4	40
JP Morgan	4	4	9,133	6.3	1.3	47
Credit Agricole CIB	5	6	8,890	6.1	2.0	73
Standard Chartered PLC	6	3	8,589	5.9	0.6	66
BNP Paribas SA	7	7	7,729	5.3	1.3	49
Morgan Stanley	8	10	4,304	3.0	0.3	18
UBS	9	9	4,058	2.8	0.0	23
Barclays	10	29	3,246	2.2	1.0	16
Mizuho Financial Group	11	13	3,172	2.2	-0.2	39
Bank of China Ltd	12	14	2,819	1.9	-0.4	67
Deutsche Bank	13	8	2,775	1.9	-1.6	11
Mitsubishi UFJ Financial Group	14	31	2,760	1.9	0.7	25
Nomura	15	19	2,731	1.9	0.5	7
Societe Generale	16	18	2,497	1.7	-0.1	17
DBS Group Holdings	17	17	2,487	1.7	-0.1	29
CITIC	18	11	2,137	1.5	-1.0	97
TD Securities Inc	19	26	1,869	1.3	0.0	2
BMO Capital Markets	20	33	1,869	1.3	0.2	3
ICBC	21	24	1,726	1.2	-0.1	46
Industrial Bank Co Ltd	22	15	1,679	1.2	-0.9	77
Bank of Communications Co Ltd	23	21	1,544	1.1	-0.3	59
Agricultural Bank of China	24	30	1,430	1.0	-0.2	45
China International Capital Co	25	16	1,413	1.0	-1.0	57
Industry Total			**145,884**	**100.0**		**289**

Asian G3 High Yield Bonds (ex Japan & Australia) (AR10) YoY Change ($) -33% QoQ Change ($) -100%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
UBS	1	11*	680	45.0	41.3	2
Standard Chartered PLC	2*	24*	106	7.0	6.5	2
Deutsche Bank	2*	1	106	7.0	-5.2	2
JP Morgan	2*	3*	106	7.0	-1.3	2
HSBC Holdings PLC	2*	11*	106	7.0	3.3	2
Citi	6*	-	73	4.8	4.8	1
Emirates NBD PJSC	6*	-	73	4.8	4.8	1
BNP Paribas SA	8*	-	33	2.2	2.2	1
Mizuho Financial Group	8*	24*	33	2.2	1.7	1
DBS Group Holdings	8*	3*	33	2.2	-6.1	1
Barclays	8*	2	33	2.2	-6.6	1
Sumitomo Mitsui Finl Grp Inc	8*	-	33	2.2	2.2	1
Natixis	8*	-	33	2.2	2.2	1
Mitsubishi UFJ Financial Group	8*	-	33	2.2	2.2	1
Societe Generale	8*	-	33	2.2	2.2	1
Industry Total			**1,513**	**100.0**		**4**

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

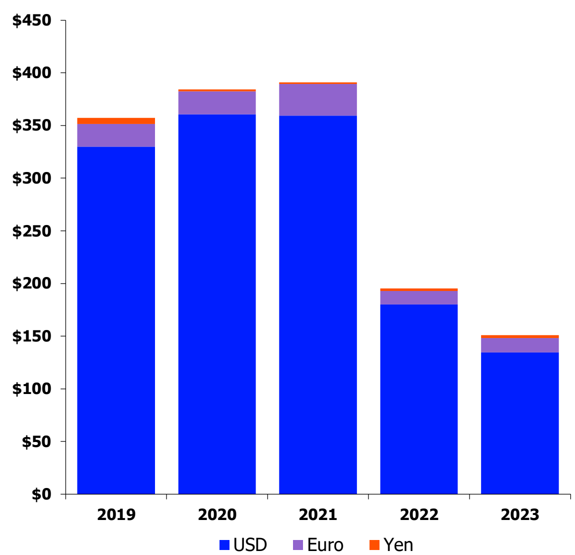


All Asian Currencies (ex Japan & Australia) (AS1) YoY Change ($) 7% QoQ Change ($) -11%

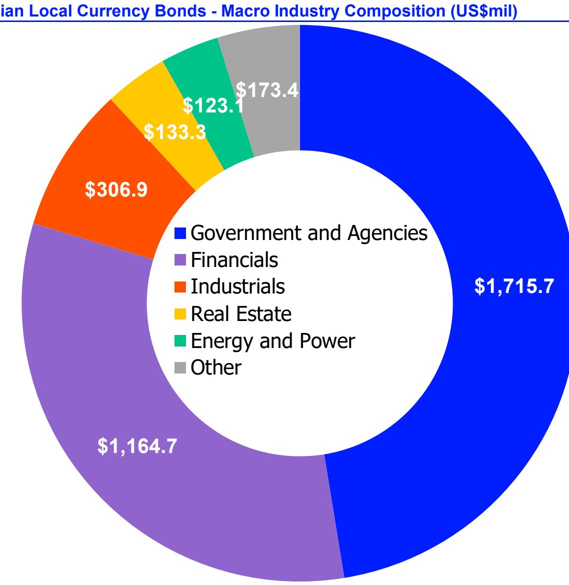
Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
CITIC	1	1	239,469	6.6	0.2	3,913
Bank of China Ltd	2	2	187,933	5.2	-0.2	2,903
China Securities Co Ltd	3	6	169,439	4.7	0.3	2,879
ICBC	4	3	160,170	4.4	-0.8	2,588
Huatai Securities Co Ltd	5	8	148,851	4.1	0.5	2,536
China Construction Bank	6	4	146,946	4.1	-0.6	2,581
Agricultural Bank of China	7	5	144,753	4.0	-0.4	2,505
China International Capital Co	8	9	138,492	3.8	0.5	2,357
Bank of Communications Co Ltd	9	7	127,971	3.5	-0.6	2,253
Guotai Junan Securities	10	10	116,126	3.2	0.4	2,019
Industrial Bank Co Ltd	11	11	96,013	2.7	0.1	1,951
China Merchants Bank	12	12	68,065	1.9	-0.4	1,330
Orient Securities Co Ltd	13	14	57,985	1.6	0.1	969
Shenwan Hongyuan Securities Co	14	22	55,298	1.5	0.4	887
Everbright Securities Co Ltd	15	15	54,057	1.5	0.1	1,063
Haitong Securities Co Ltd	16	17	51,846	1.4	0.2	978
Postal Savings Bank Of China	17	16	51,320	1.4	0.0	765
China Galaxy Securities Co	18	19	51,284	1.4	0.2	983
Shanghai Pudong Development Bk	19	13	50,538	1.4	-0.1	1,118
China Dvlp Bank Sec Co Ltd	20	23	49,698	1.4	0.3	943
China Merchants Securities Co	21	20	40,174	1.1	0.0	486
HSBC Holdings PLC	22	24	38,081	1.1	0.1	530
China Minsheng Banking Corp	23	18	33,530	0.9	-0.3	718
Ping An Securities Co Ltd	24	27	32,104	0.9	0.0	462
Guosen Securities Co Ltd	25	26	31,301	0.9	0.0	550
Industry Total			**3,617,160**	**100.0**		**17,725**

*Indicates a Tie

Asian G3 Bond Volume - Currency (US$mil)



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



Australia & China Rankings

Full Year 2023 | Debt Capital Markets | Managing Underwriters

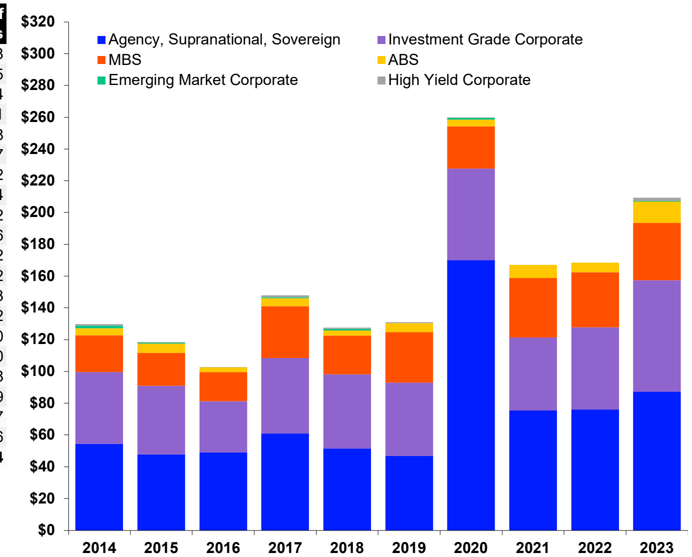
All Australian Debt (ex self-funded) (AJ3a) YoY Change ($) 24% QoQ Change ($) 30%

Bookrunner	Rank 2023	Rank 2022	Proceeds AU$mil	Market Share	Mkt. Sh Chg	# of Deals
National Australia Bank	1	1	30,585	14.6	-0.8	132
Commonwealth Bank of Australia	2	2	27,996	13.4	0.3	109
Westpac Banking	3	3	27,955	13.4	0.4	138
ANZ Banking Group	4	4	27,749	13.3	0.9	117
UBS	5	5	13,846	6.6	-1.1	58
Deutsche Bank	6	6	13,229	6.3	0.4	44
RBC Capital Markets	7	8	10,223	4.9	1.0	69
Nomura	8	9	9,438	4.5	1.4	64
TD Securities Inc	9	10	6,372	3.1	0.1	51
JP Morgan	10	7	6,023	2.9	-1.8	35
Barclays	11	16	5,176	2.5	1.2	29
BofA Securities Inc	12	14	4,670	2.2	0.9	18
Citi	13	12	2,592	1.2	-0.1	17
Macquarie Group	14	11	2,450	1.2	-0.1	13
Mitsubishi UFJ Financial Group	15	27	2,335	1.1	0.6	15
Mizuho Financial Group	16	20	2,022	1.0	0.3	17
Standard Chartered PLC	17	13	1,793	0.9	-0.4	13
HSBC Holdings PLC	18	22	1,500	0.7	0.1	10
Natixis	19	18	1,284	0.6	-0.2	8
Industry Total			**208,972**	**100.0**		**384**

All Australian International Bonds (AJ7) YoY Change ($) 6% QoQ Change ($) -34%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
Citi	1	1	5,932	7.7	-3.0	28
JP Morgan	2	4	5,708	7.4	0.2	25
BofA Securities Inc	3	2	5,690	7.3	-1.6	24
HSBC Holdings PLC	4	3	5,343	6.9	-1.3	31
Barclays	5	13	4,298	5.5	1.7	18
BNP Paribas SA	6	12	4,240	5.5	1.6	17
Westpac Banking	7	10	3,726	4.8	0.6	12
UBS	8	5	3,610	4.7	-0.9	14
National Australia Bank	9	8	3,440	4.4	-0.2	12
RBC Capital Markets	10	7	3,336	4.3	-0.5	16
Morgan Stanley	11	16	3,013	3.9	1.5	12
ANZ Banking Group	12	14	2,929	3.8	0.0	12
Goldman Sachs & Co	13	9	2,625	3.4	-0.9	13
Societe Generale	14	11	2,575	3.3	-0.8	12
Deutsche Bank	15	17	2,381	3.1	1.3	10
Commonwealth Bank of Australia	16	6	1,969	2.5	-2.5	10
TD Securities Inc	17	15	1,887	2.4	-0.8	8
Wells Fargo & Co	18	29	1,642	2.1	1.7	9
Mitsubishi UFJ Financial Group	19	24	1,492	1.9	1.0	7
Macquarie Group	20	19	1,054	1.4	-0.1	6
Industry Total			**77,534**	**100.0**		**114**

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



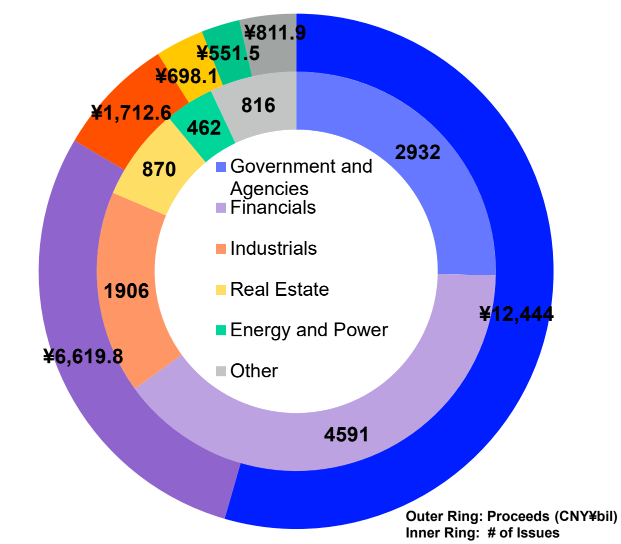
China G3 Currency Bonds (AR5) YoY Change ($) -45% QoQ Change ($) -19%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
Credit Agricole CIB	1	5	2,374	6.6	3.0	31
CITIC	2	1	1,738	4.8	-1.0	86
HSBC Holdings PLC	3	17	1,484	4.1	2.1	22
Industrial Bank Co Ltd	4	2	1,472	4.1	-1.3	70
Citi	5	8	1,349	3.7	0.5	18
Bank of China Ltd	6	4	1,324	3.7	-0.3	48
ICBC	7	13	1,319	3.6	0.8	36
Bank of Communications Co Ltd	8	11	1,303	3.6	0.8	50
China International Capital Co	9	3	1,131	3.1	-1.9	50
Agricultural Bank of China	10	16	1,030	2.8	0.2	36
JP Morgan	11	48	999	2.8	2.3	6
BMO Capital Markets	12	36	996	2.8	2.0	2
Shanghai Pudong Development Bk	13	14	951	2.6	-0.1	45
China Construction Bank	14	15	935	2.6	0.0	36
Huaxia Bank Co Ltd	15	23	915	2.5	0.9	39
China Merchants Bank	16	9	767	2.1	-0.9	31
Huatai Securities Co Ltd	17	24	765	2.1	0.5	37
BNP Paribas SA	18	26	755	2.1	0.6	10
China Minsheng Banking Corp	19	10	744	2.1	-0.9	28
China Galaxy Securities Co	20	33	741	2.0	1.0	42
Industry Total			**36,246**	**100.0**		**125**

Chinese Yuan Bonds (ex-Self Funded) (AS24) YoY Change ($) 13% QoQ Change ($) -11%

Bookrunner	Rank 2023	Rank 2022	Proceeds CN¥mil	Market Share	Mkt. Sh Chg	# of Deals
CITIC	1	1	1,700,619	7.5	0.3	3,912
Bank of China Ltd	2	2	1,296,701	5.7	-0.2	2,895
China Securities Co Ltd	3	6	1,202,577	5.3	0.4	2,878
ICBC	4	3	1,136,135	5.0	-0.8	2,587
Huatai Securities Co Ltd	5	8	1,057,889	4.6	0.6	2,535
China Construction Bank	6	4	1,042,407	4.6	-0.7	2,580
Agricultural Bank of China	7	5	1,027,185	4.5	-0.4	2,504
China International Capital Co	8	9	984,491	4.3	0.5	2,356
Bank of Communications Co Ltd	9	7	908,442	4.0	-0.5	2,252
Guotai Junan Securities	10	10	826,062	3.6	0.4	2,018
Industrial Bank Co Ltd	11	11	681,715	3.0	0.1	1,950
China Merchants Bank	12	12	483,629	2.1	-0.5	1,329
Orient Securities Co Ltd	13	14	410,737	1.8	0.2	969
Shenwan Hongyuan Securities Co	14	22	392,848	1.7	0.5	887
Everbright Securities Co Ltd	15	15	384,815	1.7	0.2	1,063
Haitong Securities Co Ltd	16	17	368,714	1.6	0.2	977
Postal Savings Bank Of China	17	16	365,228	1.6	0.1	765
China Galaxy Securities Co	18	19	364,281	1.6	0.3	983
Shanghai Pudong Development Bk	19	13	359,290	1.6	-0.1	1,117
China Dvlp Bank Sec Co Ltd	20	23	352,576	1.5	0.3	943
Industry Total			**22,837,530**	**100.0**		**11,577**

Chinese Yuan Bonds - Macro Industry Composition



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LSEG DATA & ANALYTICS

Japan Rankings

Full Year 2023 | Debt Capital Markets | Managing Underwriters

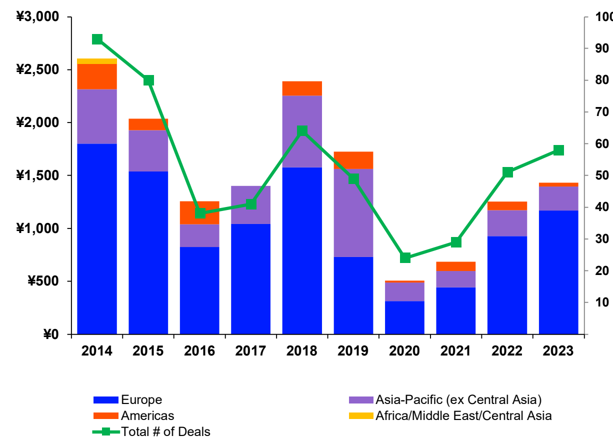
Samurai Bonds (AP01) — YoY Change (¥) 14% QoQ Change (¥) 19%

Lead Manager	Rank 2023	Rank 2022	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Sumitomo Mitsui Finl Grp Inc	1	1	274	19.2	-11.5	46
Nomura	2	2*	264	18.4	1.4	27
Mizuho Financial Group	3	2*	261	18.2	1.2	45
Daiwa Securities Group Inc	4	5	239	16.7	4.7	27
Mitsubishi UFJ Morgan Stanley	5	4	201	14.0	-3.0	31
Natixis	6	6	69	4.8	1.4	13
BNP Paribas SA	7	-	46	3.2	3.2	5
Credit Agricole CIB	8	8	26	1.8	0.6	6
Citi	9	-	24	1.7	1.7	8
BofA Securities Inc	10*	-	14	1.0	1.0	4
HSBC Holdings PLC	10*	7	14	1.0	-0.5	4
Industry Total			**1,432**	**100.0**		**58**

All Bonds Targeted in Japan (AP04) — YoY Change (¥) 10% QoQ Change (¥) -24%

Lead Manager	Rank 2023	Rank 2022	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Mizuho Financial Group	1	1	5,513	23.4	-2.3	783
Nomura	2	2	4,043	17.2	-3.0	619
Daiwa Securities Group Inc	3	3	3,823	16.2	-1.6	559
Sumitomo Mitsui Finl Grp Inc	4	5	3,719	15.8	8.4	575
Mitsubishi UFJ Morgan Stanley	5	4	3,718	15.8	0.3	535
Mitsubishi UFJ Financial Group	6	6	629	2.7	0.3	33
Sumitomo Mitsui Trust Holdings	7	9	400	1.7	0.2	33
Goldman Sachs & Co	8	8	352	1.5	-0.1	43
Tokai Tokyo Financial Holdings	9	7	253	1.1	-0.7	84
SBI Holdings Inc	10	12	181	0.8	-0.1	24
Okasan Securities Group Inc	11	15	166	0.7	0.2	64
Norinchukin Bank	12	11	166	0.7	-0.3	15
Barclays	13	10	126	0.5	-0.5	18
Shinkin Central Bank	14	13	116	0.5	-0.3	50
BNP Paribas SA	15	16	101	0.4	0.1	32
Industry Total			**23,581**	**100.0**		**1,241**

Samurai Bonds Issuance - Domicile Region



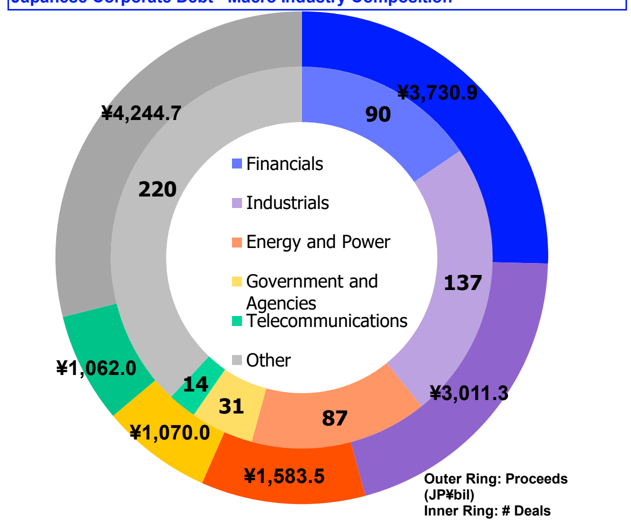
Japanese Securitizations (AP02) — YoY Change (¥) -18% QoQ Change (¥) -19%

Lead Manager	Rank 2023	Rank 2022	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Mizuho Financial Group	1	1	1,067	31.2	1.2	147
Mitsubishi UFJ Financial Group	2	2	629	18.4	6.3	33
Sumitomo Mitsui Trust Holdings	3	5	400	11.7	4.1	33
Sumitomo Mitsui Finl Grp Inc	4	7	231	6.8	0.4	33
Daiwa Securities Group Inc	5	6	214	6.3	-0.5	9
Mitsubishi UFJ Morgan Stanley	6	4	185	5.4	-2.8	9
Norinchukin Bank	7	8	166	4.9	-0.5	15
Goldman Sachs & Co	8	10	142	4.2	1.5	6
Nomura	9	3	141	4.1	-6.0	7
Barclays	10	9	105	3.1	-1.2	7
SBI Holdings Inc	11	15	62	1.8	1.6	5
BNP Paribas SA	12	12	50	1.5	-0.3	22
BofA Securities Inc	13	11	19	0.6	-1.6	1
ORIX Corp	14	16	5	0.2	0.0	2
Industry Total			**3,419**	**100.0**		**276**

Japanese Corporate Debt (AP03) — YoY Change (¥) 22% QoQ Change (¥) -30%

Lead Manager	Rank 2023	Rank 2022	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Mizuho Financial Group	1	1	3,543	23.8	-3.9	424
Mitsubishi UFJ Morgan Stanley	2	4	2,765	18.6	1.3	343
Nomura	3	2	2,703	18.2	-4.0	397
Sumitomo Mitsui Finl Grp Inc	4	5	2,671	18.0	12.6	376
Daiwa Securities Group Inc	5	3	2,592	17.4	-4.0	345
Okasan Securities Group Inc	6	10	121	0.8	0.4	51
SBI Holdings Inc	7	7	114	0.8	-0.6	16
Shinkin Central Bank	8	8	102	0.7	-0.5	45
Tokai Tokyo Financial Holdings	9	6	97	0.7	-1.1	50
Goldman Sachs & Co	10	9	62	0.4	0.0	15
BofA Securities Inc	11	13	51	0.3	0.2	21
Rakuten Securities Inc	12	11	41	0.3	-0.1	2
Barclays	13	14	11	0.1	0.0	4
Citi	14	12	7	0.0	-0.3	2
Aozora Bank Ltd	15	15	4	0.0	0.0	1
Industry Total			**14,882**	**100.0**		**583**

Japanese Corporate Debt - Macro Industry Composition



*Indicates a Tie

Debt Capital Markets Criteria

Full Year 2023 | 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 December 29, 2023.

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, LSEG Data & Analytics 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.

ABOUT LSEG DATA & ANALYTICS

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ABOUT DEALS INTELLIGENCE

Deals Intelligence, a part of LSEG's Data & Analytics division, brings up to the minute market intelligence to the deal making community and the financial media through a variety of research reports including Daily Deals Insight, weekly Investment Banking Scorecard, monthly Deals Snapshots and our industry-leading quarterly reviews highlighting trends in M&A and Capital Markets. For more insights, go to https://www.lseg.com/en/data-analytics/products/deals-intelligence

League tables are based on LSEG Data & Analytics standard league table criteria.

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