MANAGING UNDERWRITERS

Global Debt Capital Markets Review

First Nine Months 2023

REFINITIV®

An LSEG Business

Global Debt Capital Markets Review

First Nine Months 2023 | Managing Underwriters

Global Deals Intelligence

GLOBAL DEBT CAPITAL MARKETS ACTIVITY UP 2%, TO TWO-YEAR HIGH

Overall global debt capital markets activity totaled US$6.9 trillion during the first nine months of 2023, up 2% compared to the first nine months of 2022 and strongest opening period for DCM activity since 2021. The number of new offerings brought to market during the first nine months of 2023 totaled just over 22,150, a 3% increase compared to a year ago and a two-year high. DCM issuance during the third quarter of 2023 has decreased 13% compared to the second quarter of this year.

INVESTMENT GRADE CORPORATE DEBT ISSUANCE UP 5% FROM 2022 LEVELS

Global Investment Grade corporate debt offerings totaled US$3.4 trillion during the first nine months of 2023, up 5% compared to 2022 levels, which marked the slowest nine-month period for global high-grade corporate debt since 2019. Investment Grade debt issuance during the third quarter registered a 15% decrease compared to the second quarter of this year and marked the third consecutive quarter to surpass US$1 trillion.

GLOBAL HIGH YIELD ISSUANCE UP 51%

Global High Yield debt activity during the first nine months of 2023 totaled US$170.4 billion, an increase of 51% compared to the first nine months of 2022 and a two-year high. Third quarter high yield issuance decreased 30% compared to the second quarter of this year. High yield offerings from issuers in the United States, Canada and Germany accounted for 75% of 2023 issuance, up from 69% a year ago.

GREEN BOND ISSUANCE UP 16%; Q3 ACTIVITY FALLS 41%

According to figures compiled by Refinitiv and The Climate Bonds Initiative, green bond issuance totaled US$353.5 billion during the first nine months of 2023, a 16% increase compared to year ago levels and the largest first nine months for issuance since 2021. The third quarter of 2023 registered a 41% decline compared to the second quarter of the year, falling below US$100 billion for the first time since the fourth quarter of 2022.

CONSUMER, MEDIA AND ENERGY AND POWER LEAD ADVANCING SECTORS

DCM activity from Consumer Products, Media & Entertainment, Consumer Staples and Energy & Power issuers registered double-digit percentage increases compared to year ago levels, while Retail and Telecommunications industries lead the decliners. Financials, Government & Agency issuers accounted for 77% of issuance during the first nine months of 2023, down from 79% a year ago.

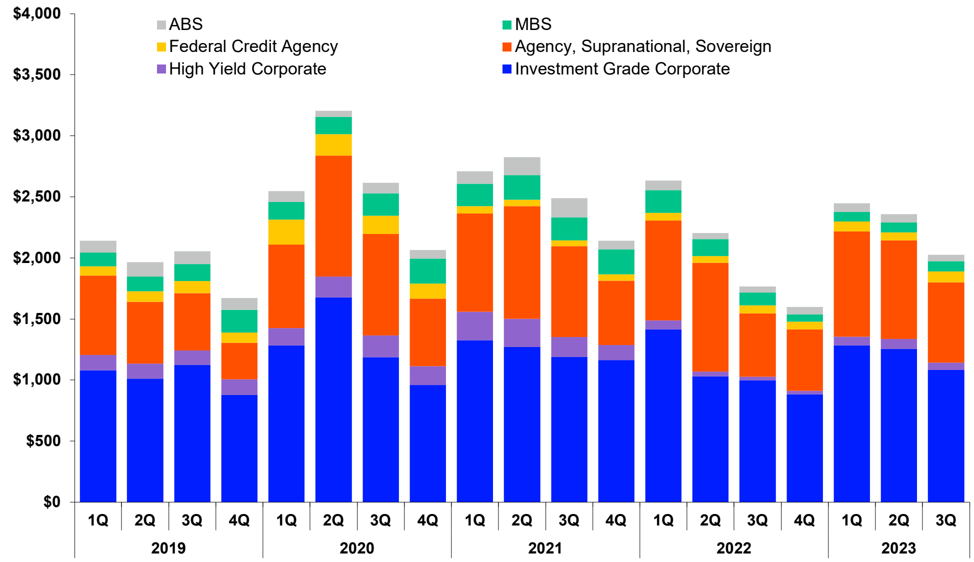
INTERNATIONAL BOND OFFERINGS UP 6%; EMERGING MARKETS UP 12%

International bond offerings totaled US$3.2 trillion during the first nine months of 2023, a 6% increase compared to a year ago. Debt from emerging market corporate issuers totaled US$200.3 billion during the first nine months of 2023, up 12% compared to a year ago. Corporate debt issuers from India, Thailand and Brazil and accounted for 53% of emerging markets activity during the first nine months of 2023.

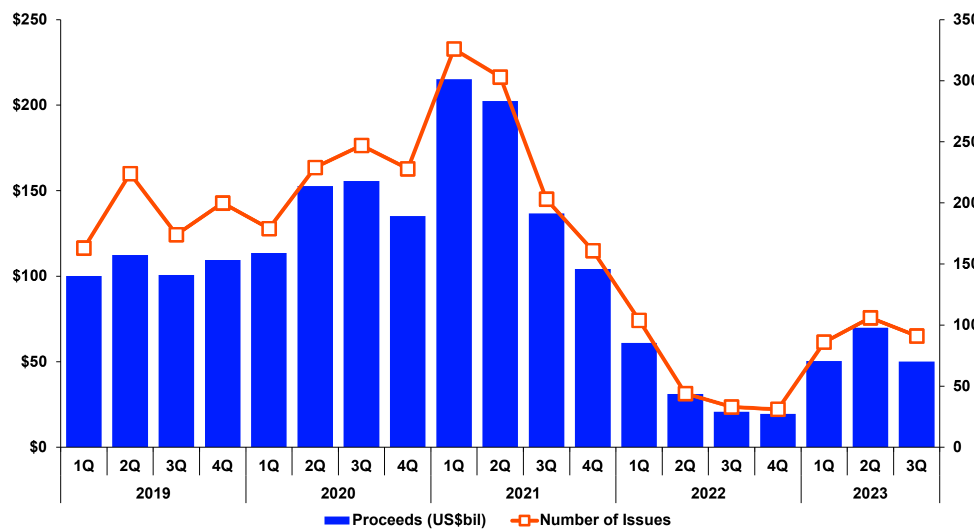
ASIA LOCAL CURRENCY DEBT UP 2%; JAPANESE YEN DEBT UP 19%

Asia local currency bond offerings totaled US$2.7 trillion during the first nine months of 2023, a 2% increase compared to a year ago and the strongest opening nine months for issuance on record. China Yuan offerings have increased 2% compared to a year ago. Japanese Yen offerings have increased 19% compared to the first nine months of 2022, totaling JPY19.0 trillion and a two-year high

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



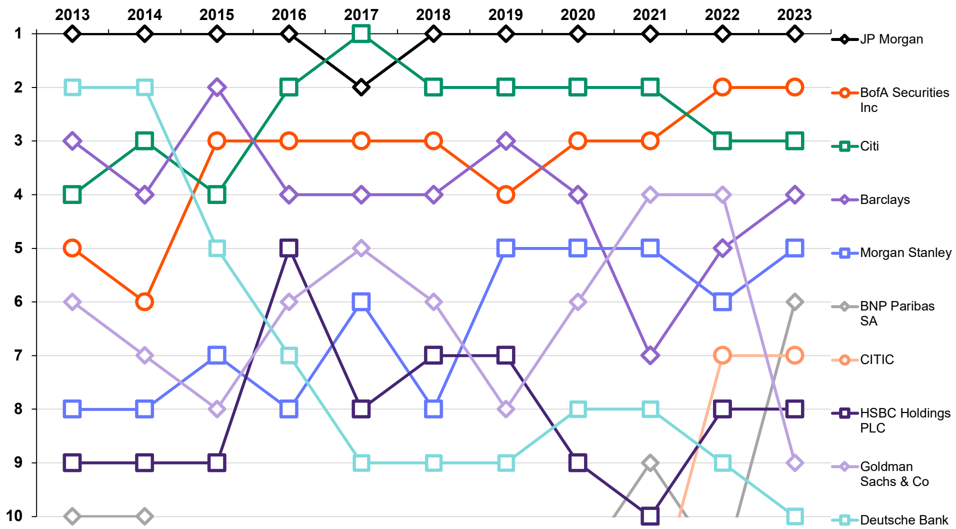
Global High Yield Corporate Debt - Quarterly Issuance



Global Insights

First Nine Months 2023 | Debt Capital Markets | Managing Underwriters

Global Debt Rankings by Proceeds

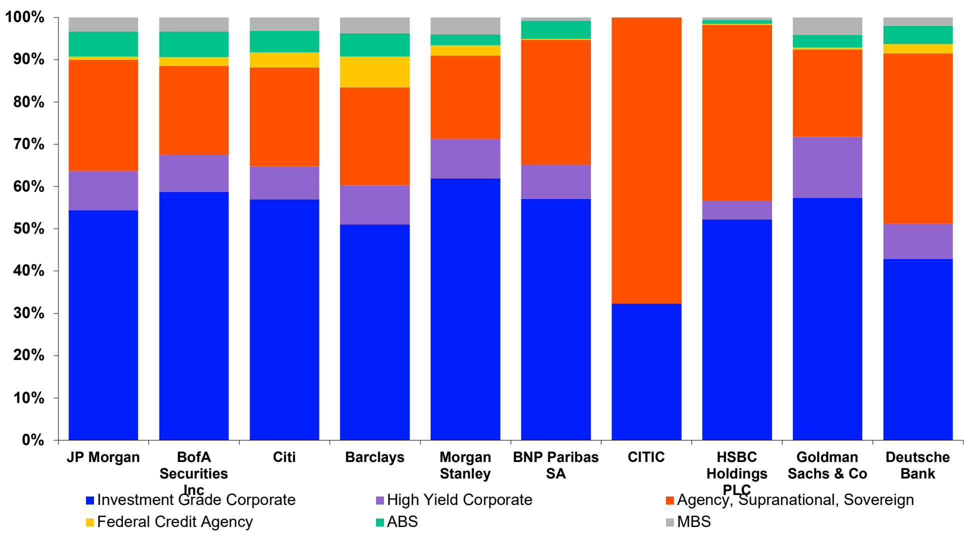


*League Table positions reflect consolidation within the banking sector. Rankings are as of the current quarter end in each calendar year.

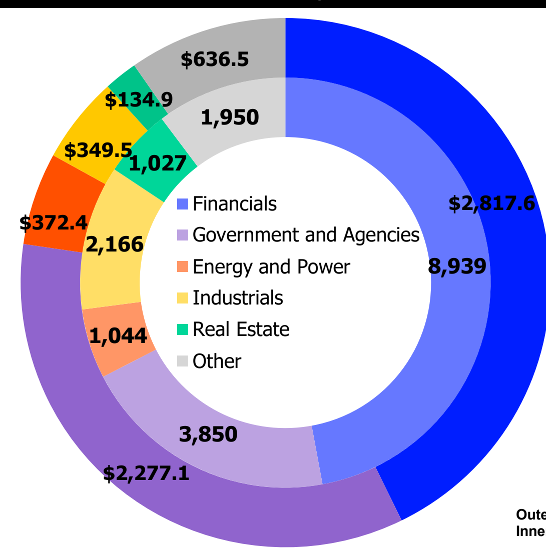
Global Scorecard

	1/1/2023- 9/30/2023 Proceeds ($mil)	# of Deals	1/1/2022- 9/30/2022 Proceeds ($mil)	# of Deals	YoY % Chg. ($)
All Global Debt (B1)	**6,940,511**	**22,151**	**6,780,842**	**21,448**	**2% ▲**
Global Long-term Debt (B2)	6,587,877	18,976	6,473,583	18,538	2% ▲
Global Long-term Debt ex MBS, ABS & Munis (B3)	6,062,542	17,717	5,704,685	16,921	6% ▲
Global High Yield Corporate Debt (B4)	170,386	283	112,956	181	51% ▲
Global Investment Grade Corporate Debt (B7)	3,413,993	12,753	3,263,283	11,973	5% ▲
US Federal Credit Agency Debt (B8)	146,921	729	107,456	576	37% ▲
Global Agency, Sovereign & Supranational (B9)	2,268,914	3,861	2,174,544	4,111	4% ▲
Global Mortgage-backed Securities (B10)	242,881	648	432,208	910	-44% ▼
Global Asset-backed Securities (B11)	282,454	611	336,690	707	-16% ▼
Global Short-term Debt (B14)	381,825	3,383	341,201	3,130	12% ▲
Global Emerging Markets Corporate Debt (B15)	200,332	960	178,948	1,210	12% ▲
All US Debt (F1)	**2,007,175**	**2,961**	**2,128,538**	**3,226**	**-6% ▼**
US Long-term Debt (F2)	1,878,636	1,903	2,021,171	2,054	-7% ▼
US Long-term Straight ex MBS, ABS & Munis (F3)	1,593,252	2,141	1,472,052	2,026	8% ▲
US Federal Credit Agency Debt (F7)	138,361	709	99,590	560	39% ▲
US High Yield Corporate Debt (F8)	129,192	187	86,897	117	49% ▲
US Investment Grade (F9)	1,018,216	699	1,018,776	690	0% ▼
Agency, Sovereign & Supranational Debt (F10)	270,691	505	220,780	616	23% ▲
US Mortgage-backed Securities (F11)	196,470	468	374,848	715	-48% ▼
US Asset-backed Securities (F14)	217,452	352	281,638	485	-23% ▼
US Taxable Municipal Debt (F15)	9,007	358	22,533	498	-60% ▼
US Short-term Debt - including MBS, ABS (F16)	128,539	1,058	107,368	1,172	20% ▲

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 Nine Months 2023 | Debt Capital Markets | Managing Underwriters

Global Debt (B1)
YoY Change ($) 2% QoQ Change ($) -13%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	290,601	4.2	-0.8	1,250
BofA Securities Inc	2	2	276,590	4.0	-0.2	1,055
Citi	3	3	255,085	3.7	-0.3	1,083
Barclays	4	5	224,309	3.2	0.2	1,012
Morgan Stanley	5	6	191,576	2.8	0.0	863
BNP Paribas SA	6	11	180,170	2.6	0.4	820
CITIC	7	7	178,547	2.6	0.0	3,004
HSBC Holdings PLC	8	8	170,589	2.5	0.2	920
Goldman Sachs & Co	9	4	169,813	2.5	-0.7	673
Deutsche Bank	10	9	168,430	2.4	0.1	856
Bank of China Ltd	11	10	150,032	2.2	-0.1	2,329
Wells Fargo & Co	12	13	140,966	2.0	-0.1	834
Credit Agricole CIB	13	20	130,775	1.9	0.3	667
RBC Capital Markets	14	19	129,863	1.9	0.2	883
ICBC	15	12	129,429	1.9	-0.3	2,118
China Securities Co Ltd	16	17	128,892	1.9	0.1	2,242
China Construction Bank	17	14	114,441	1.7	-0.3	2,097
Mizuho Financial Group	18	23	113,696	1.6	0.2	822
Agricultural Bank of China	19	15	111,303	1.6	-0.3	2,011
Huatai Securities Co Ltd	20	21	109,672	1.6	0.2	1,978
TD Securities Inc	21	25	104,804	1.5	0.2	638
China International Capital Co	22	24	100,804	1.5	0.1	1,862
Bank of Communications Co Ltd	23	18	98,521	1.4	-0.3	1,846
UBS	24	16	96,581	1.4	-0.4	622
Nomura	25	22	96,136	1.4	0.0	605
Industry Total			**6,940,511**	**100.0**		**22,151**

Global Investment Grade Corporate Debt (B7)
YoY Change ($) 5% QoQ Change ($) -15%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
BofA Securities Inc	1	2	140,067	4.1	-0.4	518
JP Morgan	2	1	124,388	3.6	-1.1	566
Citi	3	3	114,172	3.3	-0.4	495
Morgan Stanley	4	7	108,400	3.2	0.4	401
CITIC	5	4	99,123	2.9	-0.3	1,478
HSBC Holdings PLC	6	8	96,608	2.8	0.0	522
Barclays	7	11	93,032	2.7	0.4	402
BNP Paribas SA	8	10	90,173	2.6	0.2	459
Goldman Sachs & Co	9	5	80,288	2.4	-0.7	313
Mizuho Financial Group	10	14	77,384	2.3	0.6	438
China Securities Co Ltd	11	9	73,845	2.2	-0.2	1,058
UBS	12	6	72,764	2.1	-0.8	335
Deutsche Bank	13	13	67,345	2.0	0.1	332
Wells Fargo & Co	14	12	66,382	1.9	0.0	263
Credit Agricole CIB	15	19	63,780	1.9	0.4	339
RBC Capital Markets	16	18	53,767	1.6	0.1	294
Societe Generale	17	20	51,752	1.5	0.1	229
Bank of China Ltd	18	15	50,595	1.5	-0.2	551
China International Capital Co	19	16	48,667	1.4	-0.2	713
Guotai Junan Securities	20	17	47,993	1.4	-0.1	770
Sumitomo Mitsui Finl Grp Inc	21	40	45,561	1.3	0.6	306
Santander Corp & Invest Bkg	22	25	43,264	1.3	0.3	239
Huatai Securities Co Ltd	23	22	43,192	1.3	0.0	617
Mitsubishi UFJ Financial Group	24	23	42,364	1.2	-0.1	259
TD Securities Inc	25	26	41,880	1.2	0.2	235
Industry Total			**3,413,993**	**100.0**		**12,753**

Global Agency, Sovereign Corporate Debt (B9)
YoY Change ($) 4% QoQ Change ($) -19%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Bank of China Ltd	1	3	95,147	4.2	-0.3	1,718
ICBC	2	1	89,976	4.0	-0.7	1,714
Agricultural Bank of China	3	4	89,559	4.0	-0.4	1,700
China Construction Bank	4	2	89,394	3.9	-0.7	1,711
JP Morgan	5	5	81,990	3.6	-0.4	243
Bank of Communications Co Ltd	6	6	78,661	3.5	-0.4	1,474
Citi	7	8	69,721	3.1	0.2	161
Deutsche Bank	8	9	66,629	2.9	0.3	276
CITIC	9	7	66,314	2.9	0.0	1,299
BofA Securities Inc	10	13	61,623	2.7	0.4	147
Huatai Securities Co Ltd	11	11	61,520	2.7	0.3	1,265
BNP Paribas SA	12	12	61,142	2.7	0.3	148
Barclays	13	10	53,677	2.4	0.0	128
HSBC Holdings PLC	14	14	51,365	2.3	0.1	161
China International Capital Co	15	17	48,861	2.2	0.5	1,079
China Securities Co Ltd	16	21	47,891	2.1	0.5	1,035
Credit Agricole CIB	17	16	42,474	1.9	0.1	107
Goldman Sachs & Co	18	15	39,062	1.7	-0.2	94
Nomura	19	23	38,741	1.7	0.2	199
Morgan Stanley	20	20	37,819	1.7	0.1	141
RBC Capital Markets	21	22	37,546	1.7	0.2	196
TD Securities Inc	22	19	37,341	1.7	0.1	178
Industrial Bank Co Ltd	23	18	36,407	1.6	-0.1	891
UniCredit	24	26	33,666	1.5	0.4	49
Guotai Junan Securities	25	28	28,833	1.3	0.2	606
Industry Total			**2,268,914**	**100.0**		**3,861**

Global MBS (B10)
YoY Change ($) -44% QoQ Change ($) 6%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	2	30,310	12.5	1.8	82
BofA Securities Inc	2	1	25,706	10.6	-0.2	88
Goldman Sachs & Co	3	3	23,522	9.7	-0.8	76
Citi	4	4	22,455	9.3	-0.5	84
BMO Capital Markets	5	12	19,009	7.8	5.3	45
Morgan Stanley	6	5	18,311	7.5	-0.7	65
Wells Fargo & Co	7	6	17,989	7.4	0.0	72
Barclays	8	8	14,836	6.1	0.9	90
Santander Corp & Invest Bkg	9	25	7,925	3.3	2.8	26
Mizuho Financial Group	10	11	6,615	2.7	0.0	52
Nomura	11	9	4,750	2.0	-2.1	29
Deutsche Bank	12	13	4,172	1.7	-0.4	32
Truist Financial Corp	13	10	4,144	1.7	-1.8	8
National Australia Bank	14	15	4,063	1.7	0.3	29
BNP Paribas SA	15	17	3,185	1.3	0.5	30
Westpac Banking	16	24	2,969	1.2	0.7	22
Apollo Global Management Inc	17	7	2,767	1.1	-5.9	19
Lloyds Bank	18	44	2,608	1.1	1.0	16
Mitsubishi UFJ Financial Group	19	27	2,530	1.0	0.6	23
HSBC Holdings PLC	20	26	1,861	0.8	0.4	12
Commonwealth Bank of Australia	21	18	1,784	0.7	0.0	17
Natixis	22	28	1,733	0.7	0.3	15
Jefferies LLC	23	22	1,509	0.6	0.1	14
Macquarie Group	24	32	1,371	0.6	0.2	12
PNC Financial Services Group	25	29	1,261	0.5	0.1	7
Industry Total			**242,881**	**100.0**		**648**

Global ABS (B11)
YoY Change ($) -16% QoQ Change ($) 6%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	26,960	9.5	0.2	115
BofA Securities Inc	2	2	24,852	8.8	0.9	106
Wells Fargo & Co	3	6	19,279	6.8	0.9	85
Citi	4	4	17,664	6.3	-0.8	88
Barclays	5	3	16,339	5.8	-1.3	80
Mizuho Financial Group	6	10	14,412	5.1	0.9	116
BNP Paribas SA	7	12	13,734	4.9	1.0	63
RBC Capital Markets	8	7	13,118	4.6	-1.2	68
Deutsche Bank	9	9	12,490	4.4	0.0	72
Societe Generale	10	15	10,931	3.9	1.4	49
Mitsubishi UFJ Financial Group	11	14	10,660	3.8	0.7	52
TD Securities Inc	12	16	8,693	3.1	1.4	41
Goldman Sachs & Co	13	8	8,095	2.9	-2.4	44
Jefferies LLC	14	13	7,637	2.7	-0.6	15
Apollo Global Management Inc	15	5	6,841	2.4	-4.0	42
Credit Agricole CIB	16	17	6,646	2.4	0.9	29
Morgan Stanley	17	11	6,422	2.3	-1.9	31
Santander Corp & Invest Bkg	18	20	6,306	2.2	0.8	31
BMO Capital Markets	19	18	5,388	1.9	0.4	31
Sumitomo Mitsui Finl Grp Inc	20	21	4,963	1.8	0.9	28
Truist Financial Corp	21	22	3,957	1.4	0.5	37
Lloyds Bank	22	24	3,166	1.1	0.3	14
Natixis	23	23	2,530	0.9	0.0	7
Sumitomo Mitsui Trust Holdings	24	31	2,308	0.8	0.4	7
UniCredit	25	27	2,161	0.8	0.3	10
Industry Total			**282,454**	**100.0**		**611**

Global Debt and Loans Islamic Finance
YoY Change ($) 6% QoQ Change ($) -31%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
CIMB Group Holdings Bhd	1	3	3,851	8.1	-0.5	51
Malayan Banking Bhd	2	4	3,586	7.6	1.1	60
Standard Chartered PLC	3	8	3,118	6.6	2.0	20
JP Morgan	4	41	2,778	5.9	5.5	16
Citi	5	11	2,711	5.7	2.9	13
HSBC Holdings PLC	6	1	2,612	5.5	-4.3	32
First Abu Dhabi Bank PJSC	7	14	2,533	5.3	3.0	19
RHB	8	6	2,262	4.8	-0.8	47
Emirates NBD PJSC	9	2	2,015	4.2	-4.7	20
Intl Islamic Trade Finance	10	5	1,914	4.0	-2.0	7
MashreqBank PSC	11	50	1,747	3.7	3.4	11
BNP Paribas SA	12	54*	1,533	3.2	3.0	4
AMMB Holdings Bhd	13	9	1,430	3.0	-0.4	36
Dubai Islamic Bank PJSC	14	7	1,279	2.7	-2.0	13
Goldman Sachs & Co	15	46	1,274	2.7	2.4	3
Al Jazira Capital	16	-	1,000	2.1	-	1
Sumitomo Mitsui Finl Grp Inc	17	13	948	2.0	-0.4	4
Abu Dhabi Commercial Bank PJSC	18	23	657	1.4	0.5	8
Abu Dhabi Islamic Bank PJSC	19	35*	622	1.3	0.8	5
Islamic Development Bank	20	38	616	1.3	0.9	4
Kuwait Finance House	21	12	574	1.2	-1.6	6
Mizuho Financial Group	22	21	566	1.2	0.3	4
Arab Banking Corporation	23	30*	474	1.0	0.4	5
Societe Generale	24	29	472	1.0	0.4	3
Sharjah Islamic Bank PJSC	25	24	440	0.9	0.2	6
Industry Total			**47,504**	**100.0**		**182**

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United States Insights

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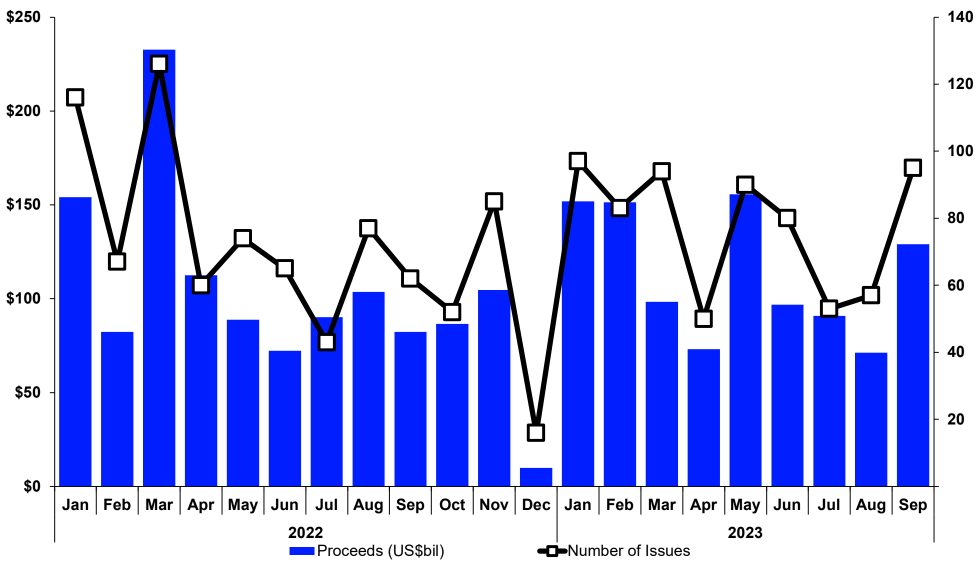
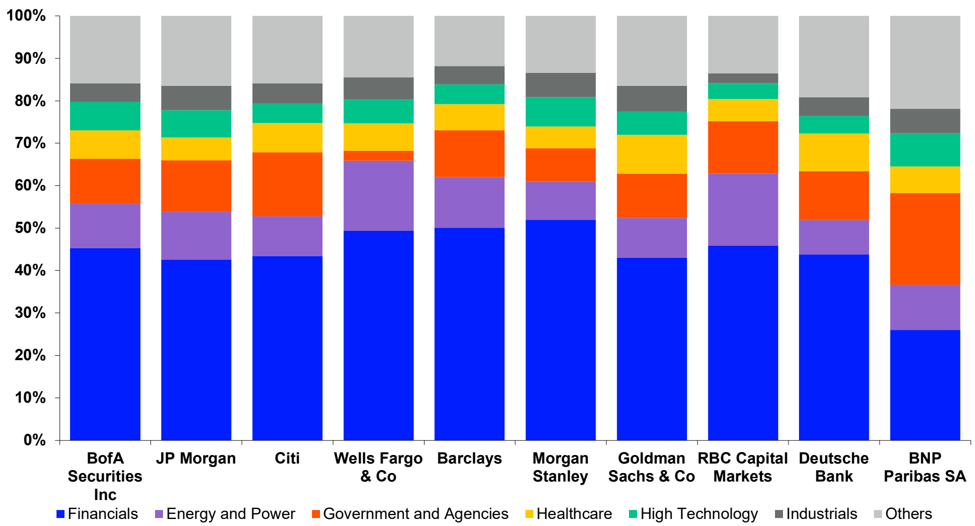
United States Marketed Monthly High Yield Volume



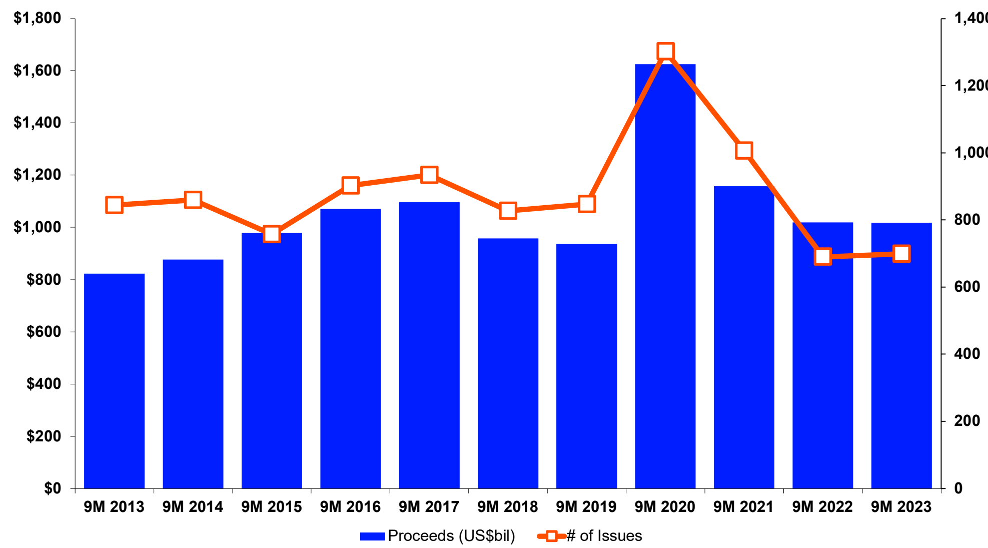
Top United States Investment Grade Corporate Deals

Issue Date	Issuer	Domicile Nation	Deal Size (US$mil)	Issue Type	Macro Sector
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
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
1/17/23	Morgan Stanley	United States	6,000	Investment Grade Corporate	Financials
5/8/23	Merck & Co Inc	United States	5,983	Investment Grade Corporate	Healthcare

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



United States Investment Grade - Proceeds



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United States Rankings

First Nine Months 2023 | Debt Capital Markets | Managing Underwriters

U.S. Debt (F1) YoY Change ($) -6% QoQ Change ($) -7%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
BofA Securities Inc	1	2	200,418	10.0	-0.1	731
JP Morgan	2	1	188,743	9.4	-1.9	754
Citi	3	3	176,150	8.8	-0.7	703
Wells Fargo & Co	4	5	127,737	6.4	0.1	698
Barclays	5	7	125,112	6.2	0.8	560
Morgan Stanley	6	6	121,410	6.1	-0.1	455
Goldman Sachs & Co	7	4	116,736	5.8	-2.0	445
RBC Capital Markets	8	8	70,584	3.5	0.2	450
BNP Paribas SA	9	14	62,838	3.1	0.9	256
Deutsche Bank	10	9	62,596	3.1	0.0	276
HSBC Holdings PLC	11	11	59,976	3.0	0.6	175
Mizuho Financial Group	12	13	59,824	3.0	0.7	318
TD Securities Inc	13	15	58,263	2.9	0.7	321
BMO Capital Markets	14	17	49,532	2.5	0.6	188
Mitsubishi UFJ Financial Group	15	16	40,991	2.0	-0.1	243
UBS	16	10	34,749	1.7	-1.0	193
Sumitomo Mitsui Finl Grp Inc	17	25	30,362	1.5	0.7	178
Scotiabank	18	23	27,996	1.4	0.6	158
Credit Agricole CIB	19	22	27,870	1.4	0.5	138
Santander Corp & Invest Bkg	20	24	27,230	1.4	0.6	129
Industry Total			**2,007,175**	**100.0**		**2,961**

U.S. High Yield Corporate Debt (F8) YoY Change ($) 49% QoQ Change ($) -27%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	11,692	9.1	-1.0	106
BofA Securities Inc	2	3	9,647	7.5	-0.3	97
Goldman Sachs & Co	3	5	9,421	7.3	0.5	86
Citi	4	2	7,831	6.1	-1.7	84
Wells Fargo & Co	5	6	6,837	5.3	0.0	74
Barclays	6	7	6,642	5.1	0.2	65
Deutsche Bank	7	9	5,984	4.6	1.4	48
Morgan Stanley	8	4	5,865	4.5	-2.6	59
RBC Capital Markets	9	11	4,857	3.8	1.1	54
Mizuho Financial Group	10	16	3,161	2.5	0.5	42
BNP Paribas SA	11	14	3,159	2.5	0.2	42
Truist Financial Corp	12	10	3,131	2.4	-0.5	50
Mitsubishi UFJ Financial Group	13	12	3,009	2.3	-0.2	41
BMO Capital Markets	14	21	2,904	2.3	0.9	33
UBS	15	8	2,713	2.1	-2.6	34
HSBC Holdings PLC	16	19	2,442	1.9	0.2	30
US Bancorp	17	27	2,167	1.7	0.8	26
Credit Agricole CIB	18	28	2,136	1.7	0.9	27
Fifth Third Bancorp	19	18	2,117	1.6	-0.3	30
TD Securities Inc	20	22	2,112	1.6	0.2	28
Industry Total			**129,192**	**100.0**		**187**

U.S. Investment Grade Debt (F9) YoY Change ($) 0% QoQ Change ($) -11%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
BofA Securities Inc	1	2	114,658	11.3	-0.9	366
JP Morgan	2	1	93,980	9.2	-3.3	366
Citi	3	3	86,546	8.5	-1.0	306
Morgan Stanley	4	5	78,753	7.7	1.0	209
Wells Fargo & Co	5	6	64,474	6.3	0.4	245
Goldman Sachs & Co	6	4	61,888	6.1	-2.2	203
Barclays	7	7	54,418	5.3	0.9	177
HSBC Holdings PLC	8	9	39,890	3.9	0.3	95
Mizuho Financial Group	9	14	38,925	3.8	1.3	177
BNP Paribas SA	10	12	32,254	3.2	0.5	137
RBC Capital Markets	11	11	31,057	3.1	0.2	149
Deutsche Bank	12	13	29,452	2.9	0.3	96
Mitsubishi UFJ Financial Group	13	10	29,029	2.9	-0.4	151
UBS	14	8	26,212	2.6	-1.4	57
TD Securities Inc	15	16	23,991	2.4	0.6	126
Sumitomo Mitsui Finl Grp Inc	16	17	23,075	2.3	1.1	121
US Bancorp	17	15	19,302	1.9	0.1	117
Scotiabank	18	21	18,265	1.8	0.8	109
Credit Agricole CIB	19	18	14,794	1.5	0.5	74
PNC Financial Services Group	20	22	14,376	1.4	0.5	86
Industry Total			**1,018,216**	**100.0**		**699**

U.S. MBS (F11) YoY Change ($) -48% QoQ Change ($) 6%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	29,341	14.9	2.8	78
BofA Securities Inc	2	3	23,903	12.2	0.9	75
Goldman Sachs & Co	3	2	22,062	11.2	-0.7	73
Citi	4	4	20,116	10.2	-0.4	69
BMO Capital Markets	5	11	19,009	9.7	7.0	45
Wells Fargo & Co	6	6	17,798	9.1	0.6	70
Morgan Stanley	7	5	16,588	8.4	-0.4	61
Barclays	8	8	11,624	5.9	1.0	70
Santander Corp & Invest Bkg	9	24	5,930	3.0	2.7	16
Mizuho Financial Group	10	12	5,075	2.6	0.2	17
Industry Total			**196,470**	**100.0**		**468**

U.S. ABS (F14) YoY Change ($) -23% QoQ Change ($) 6%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	24,328	11.2	0.9	108
BofA Securities Inc	2	2	21,509	9.9	1.9	89
Wells Fargo & Co	3	5	19,064	8.8	1.7	84
Citi	4	4	14,346	6.6	-0.9	74
Barclays	5	3	13,367	6.2	-1.7	69
RBC Capital Markets	6	7	11,983	5.5	-1.0	56
Deutsche Bank	7	9	10,450	4.8	0.2	62
Mizuho Financial Group	8	11	9,813	4.5	1.2	43
TD Securities Inc	9	16	8,451	3.9	2.0	39
Mitsubishi UFJ Financial Group	10	12	7,939	3.7	0.7	40
Industry Total			**217,452**	**100.0**		**352**

U.S. ABS ex Self & CDOs (F14b) YoY Change ($) -6% QoQ Change ($) 2%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	20,650	10.6	1.1	98
BofA Securities Inc	2	5	18,145	9.3	2.4	83
Wells Fargo & Co	3	6	14,767	7.6	0.9	72
Citi	4	3	13,813	7.1	-0.7	72
Barclays	5	2	12,460	6.4	-2.2	66
RBC Capital Markets	6	4	10,398	5.3	-1.8	52
Mizuho Financial Group	7	9	9,428	4.8	0.3	41
Deutsche Bank	8	10	8,538	4.4	0.1	56
TD Securities Inc	9	14	8,350	4.3	1.8	38
Mitsubishi UFJ Financial Group	10	11	7,939	4.1	0.2	40
Industry Total			**195,402**	**100.0**		**303**

U.S. Securitizations (ex CMBS, Agency, CMO, Self-Funded & CDOs (F20a) YoY Change ($) -16% QoQ Change ($) 0%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	4	22,566	10.2	2.6	112
BofA Securities Inc	2	3	20,503	9.3	1.4	98
Barclays	3	1	16,333	7.4	-2.3	102
Wells Fargo & Co	4	7	16,229	7.3	1.4	83
Citi	5	5	15,009	6.8	0.0	77
RBC Capital Markets	6	8	10,457	4.7	-1.0	53
Mizuho Financial Group	7	11	9,825	4.4	0.9	44
Deutsche Bank	8	9	9,255	4.2	-0.3	63
Goldman Sachs & Co	9	6	8,978	4.1	-2.5	58
TD Securities Inc	10	15	8,350	3.8	1.8	38
Industry Total			**221,284**	**100.0**		**388**

*Indicates a Tie

US Residential MBS (F13b) YoY Change ($) -57% QoQ Change ($) -16%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Goldman Sachs & Co	1	1	4,167	13.6	-3.0	26
Barclays	2	3	4,163	13.5	1.7	37
Citi	3	6	3,006	9.8	1.3	7
Morgan Stanley	4	4	2,991	9.7	0.6	22
JP Morgan	5	11	2,700	8.8	6.1	16
BofA Securities Inc	6	5	2,358	7.7	-1.3	15
ATLAS SP Partners	7	2	2,350	7.6	-6.4	17
Nomura	8	7	1,870	6.1	-0.3	17
Wells Fargo & Co	9	10	1,462	4.8	1.1	11
Performance Trust Capital	10	8	878	2.9	-1.8	9
Industry Total			**30,757**	**100.0**		**97**

All Federal Credit Agency Debt (H1) YoY Change ($) 42% QoQ Change ($) 49%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Barclays	1	2	19,880	14.5	3.6	135
Wells Fargo & Co	2	1	15,453	11.3	-0.4	210
Nomura	3	3	12,692	9.3	0.6	95
TD Securities Inc	4	5	9,763	7.1	0.0	97
Citi	5	4	8,413	6.1	-1.1	87
Daiwa Securities Group Inc	6	6	7,768	5.7	0.5	121
Academy Securities Inc	7	8	6,980	5.1	1.5	109
RBC Capital Markets	8	11	6,332	4.6	2.1	135
Loop Capital Markets	9	7	5,764	4.2	0.0	95
BofA Securities Inc	10	17	5,142	3.8	1.8	28
Industry Total			**137,001**	**100.0**		**709**

International Debt & ESG Bonds Rankings

First Nine Months 2023 | Debt Capital Markets | Managing Underwriters

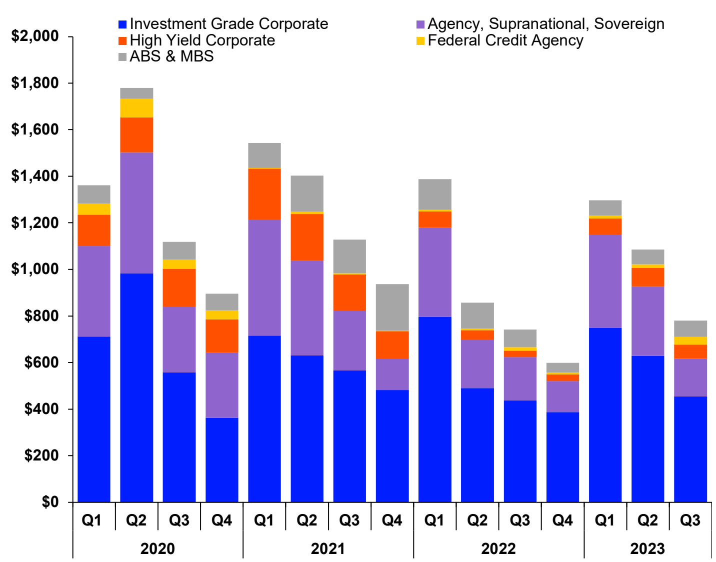
All International Bonds (J01) — YoY Change ($) 6% QoQ Change ($) -27%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	1	231,809	7.3	-1.3	1,009
BofA Securities Inc	2	2	223,307	7.0	-0.3	857
Citi	3	3	199,106	6.3	-0.8	822
Barclays	4	5	178,956	5.6	0.3	736
BNP Paribas SA	5	6	165,078	5.2	0.6	712
HSBC Holdings PLC	6	8	141,036	4.4	0.1	636
Morgan Stanley	7	7	140,245	4.4	-0.2	500
Deutsche Bank	8	9	136,719	4.3	0.2	574
Goldman Sachs & Co	9	4	135,726	4.3	-1.4	570
Credit Agricole CIB	10	11	112,398	3.5	0.5	497
Societe Generale	11	12	84,156	2.7	0.0	322
RBC Capital Markets	12	13	79,156	2.5	0.2	407
Wells Fargo & Co	13	14	70,143	2.2	0.0	398
UBS	14	10	69,242	2.2	-0.9	313
TD Securities Inc	15	15	65,764	2.1	0.1	343
Santander Corp & Invest Bkg	16	18	64,264	2.0	0.5	294
Mizuho Financial Group	17	20	63,487	2.0	0.7	381
Nomura	18	17	54,677	1.7	0.1	244
UniCredit	19	16	50,261	1.6	-0.1	248
Mitsubishi UFJ Financial Group	20	19	47,934	1.5	0.1	298
NatWest Markets	21	21	46,470	1.5	0.2	212
Natixis	22	22	44,668	1.4	0.2	230
Commerzbank AG	23	24	40,880	1.3	0.2	187
Sumitomo Mitsui Finl Grp Inc	24	32	38,445	1.2	0.5	276
ING	25	25	37,925	1.2	0.2	216
Industry Total			**3,181,222**	**100.0**		**4,164**

All Bonds In Euros (N01) — YoY Change ($) 10% QoQ Change ($) -44%

Bookrunner	Rank 2023	Rank 2022	Proceeds €mil	Market Share	Mkt. Sh Chg	# of Deals
BNP Paribas SA	1	1	86,679	7.6	-0.4	367
Credit Agricole CIB	2	3	74,468	6.5	0.4	276
JP Morgan	3	2	67,251	5.9	-0.8	265
Deutsche Bank	4	4	66,042	5.8	0.2	259
Societe Generale	5	5	62,378	5.5	0.4	222
Barclays	6	6	56,531	4.9	-0.2	232
HSBC Holdings PLC	7	7	50,530	4.4	-0.4	234
BofA Securities Inc	8	10	50,378	4.4	0.3	202
Citi	9	8	45,581	4.0	-0.6	195
UniCredit	10	9	44,730	3.9	-0.6	240
Goldman Sachs & Co	11	11	37,655	3.3	-0.6	162
Natixis	12	14	36,976	3.2	0.4	175
Santander Corp & Invest Bkg	13	15	34,768	3.0	0.4	165
Morgan Stanley	14	12	34,391	3.0	0.1	121
Commerzbank AG	15	13	32,813	2.9	0.1	154
ING	16	16	28,563	2.5	0.4	169
NatWest Markets	17	18	26,062	2.3	0.3	110
Nomura	18	22	20,429	1.8	0.3	50
BBVA	19	26	18,157	1.6	0.7	84
UBS	20	17	17,241	1.5	-0.5	104
Landesbank Baden-Wurttemberg	21	19	16,750	1.5	-0.5	108
IMI - Intesa Sanpaolo	22	23	16,042	1.4	0.1	96
DZ Bank	23	20	15,471	1.4	-0.6	94
Danske Bank	24	21	14,656	1.3	-0.2	69
Erste Group	25	27	14,030	1.2	0.3	88
Industry Total			**1,144,038**	**100.0**		**1,231**

International Bonds - Issue Type Composition (US$bil)



All Global ESG Bonds (GESG1) — YoY Change ($) 6% QoQ Change ($) -34%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
BNP Paribas SA	1	3	32,688	6.0	0.9	144
Citi	2	4	27,072	5.0	-0.1	125
BofA Securities Inc	3	2	25,747	4.7	-0.7	104
JP Morgan	4	1	25,215	4.6	-1.8	118
Credit Agricole CIB	5	6	24,450	4.5	0.0	117
HSBC Holdings PLC	6	5	23,919	4.4	-0.5	131
Deutsche Bank	7	7	20,375	3.7	-0.3	89
Barclays	8	8	17,869	3.3	-0.5	83
Morgan Stanley	9	11	15,687	2.9	0.5	84
Nomura	10	14	14,993	2.8	0.7	77
Societe Generale	11	9	14,511	2.7	-0.3	58
NatWest Markets	12	12	12,863	2.4	0.0	48
Commerzbank AG	13	28	10,090	1.9	0.9	38
ING	14	18	9,959	1.8	0.2	58
UBS	15	17	9,388	1.7	0.1	65
Mizuho Financial Group	16	16	9,312	1.7	-0.2	89
Goldman Sachs & Co	17	10	8,768	1.6	-1.2	47
TD Securities Inc	18	15	8,628	1.6	-0.4	55
RBC Capital Markets	19	21	8,540	1.6	0.4	62
Natixis	20	13	8,221	1.5	-0.6	44
Danske Bank	21	19	7,749	1.4	-0.1	52
Santander Corp & Invest Bkg	22	20	7,495	1.4	0.0	54
Bank of China Ltd	23	22	7,026	1.3	0.1	71
UniCredit	24	26	6,969	1.3	0.2	42
Standard Chartered PLC	25	29	6,707	1.2	0.2	54
Industry Total			**544,567**	**100.0**		**1,127**

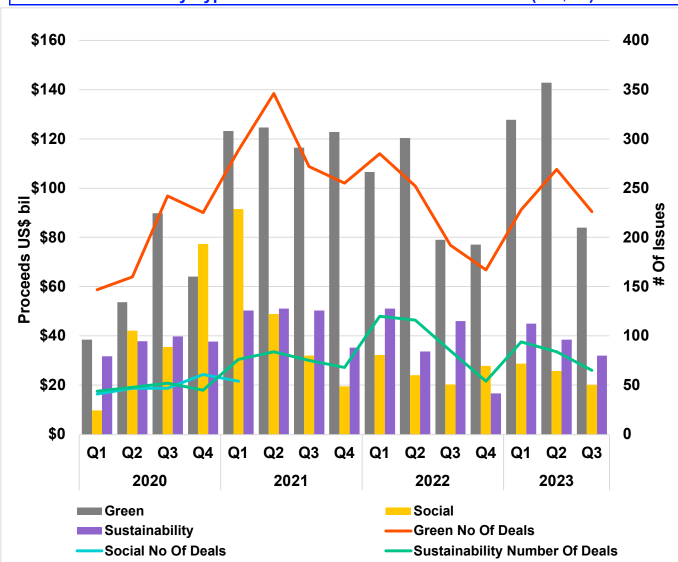
*Indicates a Tie

All Global Green Bonds (GR01)** — YoY Change ($) 16% QoQ Change ($) -41%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
BNP Paribas SA	1	2	21,367	6.0	0.7	91
BofA Securities Inc	2	1	16,099	4.5	-1.2	68
Credit Agricole CIB	3	5	15,398	4.3	-0.4	71
Citi	4	4	13,434	3.8	-1.0	76
JP Morgan	5	3	13,370	3.8	-1.3	72
Deutsche Bank	6	7	12,110	3.4	-0.4	60
HSBC Holdings PLC	7	6	11,605	3.3	-1.1	68
Barclays	8	8	10,454	3.0	-0.2	59
Morgan Stanley	9	15	9,573	2.7	0.8	53
Societe Generale	10	12	9,300	2.6	0.5	38
NatWest Markets	11	10	7,823	2.2	-0.2	27
ING	12	14	7,713	2.2	0.3	44
Danske Bank	13	11	7,575	2.1	0.0	49
Nomura	14	30	7,366	2.1	1.1	36
Commerzbank AG	15	25	7,227	2.0	0.8	28
UBS	16	13	7,128	2.0	0.0	49
Bank of China Ltd	17	1	6,398	1.8	0.0	60
Mizuho Financial Group	18	26	5,611	1.6	0.5	52
Goldman Sachs & Co	19	9	5,538	1.6	-0.9	33
UniCredit	20	20	5,329	1.5	0.0	31
SEB	21	23	5,251	1.5	0.3	46
Santander Corp & Invest Bkg	22	21	5,167	1.5	0.2	40
Sumitomo Mitsui Finl Grp Inc	23	33	4,939	1.4	0.5	37
BBVA	24	46	4,724	1.3	0.8	21
Nordea	25	24	4,667	1.3	0.1	36
Industry Total			**354,442**	**100.0**		**723**

**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 Nine Months 2023 | Debt Capital Markets | Managing Underwriters

Global High Yield Debt (B4) YoY Change ($) 51% QoQ Change ($) -28%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	1	14,981	8.8	-0.2	132
Goldman Sachs & Co	2	2	13,240	7.8	0.4	113
BofA Securities Inc	3	4	11,367	6.7	0.2	113
Citi	4	3	9,275	5.4	-1.2	97
Deutsche Bank	5	9	8,469	5.0	1.0	71
Barclays	6	7	8,440	5.0	0.4	83
Wells Fargo & Co	7	8	7,100	4.2	0.2	77
BNP Paribas SA	8	11	6,641	3.9	1.1	75
Morgan Stanley	9	5	6,396	3.8	-2.5	62
RBC Capital Markets	10	10	5,767	3.4	0.4	63
UBS	11	6	4,046	2.4	-2.6	43
Mizuho Financial Group	12	17	3,899	2.3	0.6	50
Credit Agricole CIB	13	23	3,791	2.2	1.0	45
HSBC Holdings PLC	14	14	3,748	2.2	0.2	41
Mitsubishi UFJ Financial Group	15	12	3,477	2.0	-0.2	45
BMO Capital Markets	16	21	3,380	2.0	0.6	38
Truist Financial Corp	17	13	3,254	1.9	-0.3	51
Sumitomo Mitsui Finl Grp Inc	18	24	2,839	1.7	0.6	35
UniCredit	19	27	2,609	1.5	0.7	25
TD Securities Inc	20	22	2,437	1.4	0.1	33
ING	21	38	2,341	1.4	0.8	28
Scotiabank	22	19	2,305	1.4	0.0	29
Fifth Third Bancorp	23	20	2,239	1.3	-0.1	31
US Bancorp	24	33	2,194	1.3	0.6	26
DNB ASA	25	35	2,171	1.3	0.7	32
Industry Total			**170,386**	**100.0**		**283**

Global High Yield Debt USD Denominated (B5) YoY Change ($) 46% QoQ Change ($) -27%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	1	11,692	9.0	-0.8	106
BofA Securities Inc	2	3	9,647	7.4	-0.1	97
Goldman Sachs & Co	3	5	9,432	7.2	0.4	87
Citi	4	2	7,831	6.0	-1.6	84
Wells Fargo & Co	5	6	6,837	5.2	0.1	74
Barclays	6	7	6,642	5.1	0.4	65
Deutsche Bank	7	9	5,996	4.6	1.5	49
Morgan Stanley	8	4	5,865	4.5	-2.5	59
RBC Capital Markets	9	11	4,857	3.7	1.1	54
UBS	10	8	3,393	2.6	-2.1	36
Mizuho Financial Group	11	16	3,161	2.4	0.4	42
BNP Paribas SA	12	14	3,159	2.4	0.1	42
Truist Financial Corp	13	10	3,131	2.4	-0.4	50
Mitsubishi UFJ Financial Group	14	12	3,009	2.3	-0.1	41
BMO Capital Markets	15	21	2,904	2.2	0.9	33
HSBC Holdings PLC	16	19	2,453	1.9	0.2	31
US Bancorp	17	27	2,167	1.7	0.8	26
Credit Agricole CIB	18	28	2,136	1.6	0.8	27
Fifth Third Bancorp	19	18	2,117	1.6	-0.2	30
TD Securities Inc	20	22	2,112	1.6	0.3	28
Sumitomo Mitsui Finl Grp Inc	21	23	2,089	1.6	0.3	27
Scotiabank	22	20	1,956	1.5	0.0	24
PNC Financial Services Group	23	15	1,911	1.5	-0.6	28
Capital One Financial Corp	24	24	1,706	1.3	0.2	25
DNB ASA	25	36	1,535	1.2	0.8	18
Industry Total			**130,418**	**100.0**		**192**

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
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
8/15/23	Tenneco Inc	United States	1,615.0	8.000	Industrials

Global High Yield Debt Non-USD Denominated (B6) YoY Change ($) 71% QoQ Change ($) -31%

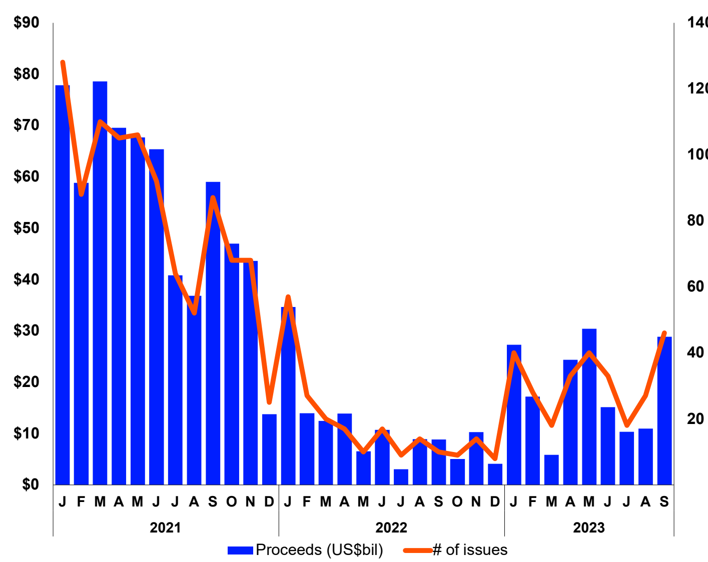
Bookrunner	Rank 2023	Rank 2022	Proceeds €mil	Market Share	Mkt. Sh Chg	# of Deals
Goldman Sachs & Co	1	1	3,510	9.5	-0.1	33
BNP Paribas SA	2	5	3,218	8.7	3.8	37
JP Morgan	3	4	3,033	8.2	2.1	30
Deutsche Bank	4	2	2,276	6.2	-1.5	26
UniCredit	5	8	2,067	5.6	1.7	23
Barclays	6	7	1,665	4.5	0.2	20
BofA Securities Inc	7	13	1,589	4.3	1.6	19
Credit Agricole CIB	8	12	1,525	4.1	1.3	20
Citi	9	11	1,324	3.6	0.7	17
HSBC Holdings PLC	10	10	1,196	3.2	0.0	14
ING	11	25	914	2.5	1.2	13
RBC Capital Markets	12	6	848	2.3	-2.2	10
Sumitomo Mitsui Finl Grp Inc	13	39*	696	1.9	1.4	9
Mizuho Financial Group	14	39*	683	1.9	1.4	10
Commerzbank AG	15	43	678	1.8	1.4	8
Societe Generale	16	18	635	1.7	-0.1	10
Nordea	17	14	610	1.7	-0.7	15
Santander Corp & Invest Bkg	18	34	606	1.6	0.8	9
UBS	19	3	603	1.6	-4.8	8
DNB ASA	20	22	587	1.6	0.0	14
NatWest Markets	21	16	540	1.5	-0.6	6
Morgan Stanley	22	9	486	1.3	-2.6	5
Natixis	23	20	453	1.2	-0.4	8
BMO Capital Markets	24	21	441	1.2	-0.4	7
Mitsubishi UFJ Financial Group	25	23	434	1.2	-0.3	7
Industry Total			**36,898**	**100.0**		**98**

*Indicates a Tie

Global High Yield Debt EURO Denominated (B06b) YoY Change ($) 89% QoQ Change ($) -37%

Bookrunner	Rank 2023	Rank 2022	Proceeds €mil	Market Share	Mkt. Sh Chg	# of Deals
Goldman Sachs & Co	1	1	3,273	10.5	0.1	31
BNP Paribas SA	2	5	3,218	10.3	4.3	37
JP Morgan	3	3	2,584	8.3	0.8	28
Deutsche Bank	4	2	2,227	7.1	-2.1	25
UniCredit	5	6	2,067	6.6	1.5	23
Credit Agricole CIB	6	9	1,525	4.9	1.2	20
BofA Securities Inc	7	11	1,398	4.5	1.4	18
Barclays	8	10	1,333	4.3	0.9	18
Citi	9	8	1,182	3.8	0.1	16
HSBC Holdings PLC	10	13	777	2.5	0.0	12
ING	11	21	776	2.5	1.2	13
Sumitomo Mitsui Finl Grp Inc	12	43*	696	2.2	2.0	9
Mizuho Financial Group	13	43*	683	2.2	2.0	10
Commerzbank AG	14	33	678	2.2	1.7	8
Societe Generale	15	17	635	2.0	0.0	10
Santander Corp & Invest Bkg	16	30*	606	1.9	1.3	9
UBS	17	4	553	1.8	-5.7	7
Morgan Stanley	18	7	486	1.6	-3.5	5
Natixis	19	16	453	1.5	-0.6	8
IMI - Intesa Sanpaolo	20	14	431	1.4	-1.0	7
Nordea	21	12	415	1.3	-1.5	7
Mitsubishi UFJ Financial Group	22	19	385	1.2	-0.3	6
Pareto AS	23	23	366	1.2	0.0	5
Banca Akros SpA/Oaklins Italy	24	26	323	1.0	0.0	4
DNB ASA	25	24	271	0.9	-0.3	5
Industry Total			**31,174**	**100.0**		**74**

Global High Yield Corporate Debt Issuance



Emerging Markets Rankings

First Nine Months 2023 | Debt Capital Markets | Managing Underwriters

All International Emerging Market Bonds (L1)

YoY Change ($) 26% QoQ Change ($) -14%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Citi	1	1	32,638	9.0	0.4	152
JP Morgan	2	2	31,958	8.8	1.1	135
HSBC Holdings PLC	3	3	24,129	6.6	0.3	162
BNP Paribas SA	4	4	21,893	6.0	1.8	88
Standard Chartered PLC	5	5	16,686	4.6	0.5	110
BofA Securities Inc	6	6	15,421	4.2	0.7	64
Goldman Sachs & Co	7	10	11,782	3.2	0.7	36
Credit Agricole CIB	8	8	10,629	2.9	0.0	82
Societe Generale	9	11	8,629	2.4	-0.1	39
Deutsche Bank	10	7	8,294	2.3	-0.8	37
Santander Corp & Invest Bkg	11	15	8,092	2.2	0.6	31
Morgan Stanley	12	23	7,005	1.9	0.7	33
Mizuho Financial Group	13	13	7,001	1.9	-0.5	65
UBS	14	12	6,609	1.8	-0.6	36
Barclays	15	9	6,340	1.7	-0.9	34
Bank of Communications Co Ltd	16	16	6,012	1.7	0.1	95
ING	17	22	5,503	1.5	0.3	26
Erste Group	18	26	5,276	1.5	0.5	29
Bank of China Ltd	19	14	5,240	1.4	-0.4	86
ICBC	20	21	5,101	1.4	0.2	74
Industry Total			**364,105**	**100.0**		**656**

EMEA Emerging Market Bonds (L2)

YoY Change ($) 50% QoQ Change ($) -36%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Citi	1	1	9,747	11.8	-2.2	32
JP Morgan	2	2	9,600	11.7	-1.5	31
BNP Paribas SA	3	4	7,630	9.3	1.5	28
Deutsche Bank	4	3	5,426	6.6	-2.0	15
Erste Group	5	7	5,186	6.3	0.9	28
Goldman Sachs & Co	6	5	4,704	5.7	-1.1	13
ING	7	8	4,304	5.2	0.6	17
Societe Generale	8	9	3,822	4.6	0.9	14
HSBC Holdings PLC	9	6	3,698	4.5	-1.0	8
UniCredit	10	11	2,910	3.5	1.3	14
Raiffeisen Bank International	11	19	2,313	2.8	1.7	10
Standard Chartered PLC	12	21	2,108	2.6	1.9	9
Commerzbank AG	13	14	1,998	2.4	0.6	11
IMI - Intesa Sanpaolo	14	30	1,790	2.2	1.8	8
BofA Securities Inc	15	33	1,781	2.2	1.8	6
Raiffeisen Landesbanken Hdg	16	-	1,280	1.6	1.6	2
Barclays	17	12	1,273	1.6	-0.6	6
KBC Group NV	18	-	1,065	1.3	1.3	3
Morgan Stanley	19	22	981	1.2	0.6	6
Landesbank Baden-Wurttemberg	20	31	834	1.0	0.6	7
Industry Total			**82,330**	**100.0**		**86**

Latin America Emerging Market Bonds (L3)

YoY Change ($) 31% QoQ Change ($) -6%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	9,080	15.3	1.0	25
Citi	2	2	6,684	11.3	-2.6	24
Santander Corp & Invest Bkg	3	4	6,355	10.7	2.8	22
BofA Securities Inc	4	3	5,133	8.7	-0.1	16
Scotiabank	5	7	4,257	7.2	1.8	13
BNP Paribas SA	6	12	3,159	5.3	2.8	9
Itau Unibanco	7	18	2,805	4.7	2.9	14
BBVA	8	6	2,754	4.7	-1.1	8
Morgan Stanley	9	11	2,423	4.1	1.2	10
HSBC Holdings PLC	10	10	2,151	3.6	0.6	9
UBS	11	15	1,606	2.7	0.5	8
Sumitomo Mitsui Finl Grp Inc	12	22	1,460	2.5	1.5	7
Goldman Sachs & Co	13	8	1,454	2.5	-1.7	4
Barclays	14	5	1,422	2.4	-4.7	5
Mizuho Financial Group	15	9	1,220	2.1	-0.9	7
Credit Agricole CIB	16	16	1,111	1.9	-0.3	6
Banco BTG Pactual SA	17	23	774	1.3	0.6	5
Banco Bradesco SA	18	24	634	1.1	0.4	5
Mitsubishi UFJ Financial Group	19	-	614	1.0	1.0	5
Societe Generale	20	19	610	1.0	-0.6	2
Industry Total			**59,226**	**100.0**		**55**

Asia Pacific Emerging Market Bonds (L4)

YoY Change ($) -9% QoQ Change ($) -7%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
HSBC Holdings PLC	1	1	13,945	9.0	2.3	113
Citi	2	2	8,301	5.3	-0.5	65
Standard Chartered PLC	3	3	8,271	5.3	-0.4	69
Credit Agricole CIB	4	5	8,270	5.3	1.1	69
BofA Securities Inc	5	8	7,406	4.8	1.7	38
JP Morgan	6	4	7,049	4.5	-0.1	45
BNP Paribas SA	7	6	6,314	4.1	0.5	38
Bank of Communications Co Ltd	8	11	5,962	3.8	1.0	93
Bank of China Ltd	9	9	5,000	3.2	0.2	84
UBS	10	7	4,743	3.0	-0.2	26
Industry Total			**155,765**	**100.0**		**438**

Middle East Emerging Market Bonds (L5)

YoY Change ($) 161% QoQ Change ($) -16%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Citi	1	3	7,697	12.0	4.6	28
Standard Chartered PLC	2	1	6,183	9.6	-0.7	30
JP Morgan	3	4	6,161	9.6	2.5	31
BNP Paribas SA	4	18	4,757	7.4	5.6	12
HSBC Holdings PLC	5	2	4,302	6.7	-3.4	31
Goldman Sachs & Co	6	13	4,289	6.7	3.6	10
First Abu Dhabi Bank PJSC	7	6	3,892	6.1	1.6	28
Emirates NBD PJSC	8	11	2,520	3.9	0.6	24
Saudi National Bank SJSC	9	23	1,752	2.7	1.2	2
Mizuho Financial Group	10	26	1,521	2.4	1.4	10
Industry Total			**64,324**	**100.0**		**66**

All Global Debt, by Brazilian Issuers (BR1)

YoY Change ($) 13% QoQ Change ($) -11%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Itau Unibanco	1	1	3,528	15.8	-4.9	36
Banco Bradesco SA	2	2	2,406	10.8	-3.0	23
UBS	3	4	1,358	6.1	0.6	19
Morgan Stanley	4	12	1,252	5.6	3.1	7
Santander Corp & Invest Bkg	5	6	1,239	5.6	0.6	21
BofA Securities Inc	6	11	1,235	5.5	2.5	4
Banco BTG Pactual SA	7	3	1,213	5.4	-8.1	12
Citi	8	14	1,155	5.2	3.7	10
BNP Paribas SA	9	18	1,017	4.6	3.3	3
JP Morgan	10	16	869	3.9	2.5	7
Industry Total			**22,288**	**100.0**		**87**

Domestic Brazilian Debt, in Reals (BR2)

YoY Change ($) -15% QoQ Change ($) -48%

Bookrunner	Rank 2023	Rank 2022	Proceeds R$mil	Market Share	Mkt. Sh. Chg	# of Deals
Itau Unibanco	1	1	23,827	25.1	-11.2	54
UBS	2	6	19,787	20.9	15.5	25
Banco Bradesco SA	3	2	17,290	18.2	-1.6	34
Santander Corp & Invest Bkg	4	4	9,115	9.6	-0.1	28
Banco BTG Pactual SA	5	3	5,350	5.6	-8.4	12
XP Investimentos	6	5	2,861	3.0	-2.8	9
Banco Votorantim	7	10	2,225	2.4	1.2	10
Arab Banking Corporation	8	7	1,500	1.6	-0.3	2
JP Morgan	9	-	1,300	1.4	1.4	2
BNDES	10	18	1,100	1.2	1.1	1
Industry Total			**94,873**	**100.0**		**152**

*Indicates a Tie

Global Debt, Mexican Issuers (MX1)

YoY Change ($) -4% QoQ Change ($) -47%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
BBVA	1	1	2,758	15.2	-3.6	26
JP Morgan	2	5	2,117	11.7	6.0	6
BNP Paribas SA	3	-	1,659	9.2	9.2	4
BofA Securities Inc	4	3*	1,535	8.5	-2.7	4
Casa de Bolsa Inverlat	5	6	1,167	6.4	1.5	21
Santander Corp & Invest Bkg	6	2	1,011	5.6	-9.3	16
Citi	7	7	978	5.4	1.6	9
HSBC Holdings PLC	8	14*	884	4.9	3.6	6
Goldman Sachs & Co	9	11*	641	3.5	0.6	3
Mizuho Financial Group	10	21*	617	3.4	2.7	2
Industry Total			**18,123**	**100.0**		**71**

Domestic Mexican Debt (MX3)

YoY Change ($) 12% QoQ Change ($) 32%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Casa de Bolsa Inverlat	1	3	1,385	21.7	5.3	25
BBVA	2	1	997	15.6	-9.1	24
Santander Corp & Invest Bkg	3	2	697	10.9	-11.1	17
Grupo Financiero Inbursa SA	4	14	553	8.7	7.8	3
Grupo Financiero Banorte-Ixe	5	6	510	8.0	2.8	23
Corporacion Actinver Sab de CV	6	8	419	6.6	4.1	18
Casas de Bolsa Bital, S.A.	7	4	334	5.2	-4.4	8
HSBC Holdings PLC	8	-	271	4.3	4.3	3
Industry Total			**6,387**	**100.0**		**66**

Asia-Pacific Rankings

First Nine Months 2023 | Debt Capital Markets | Managing Underwriters

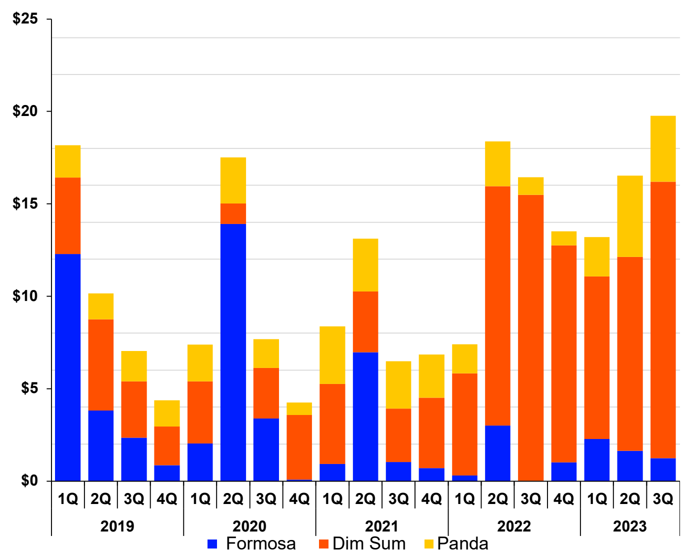
Asian G3 Bonds (ex-Japan & Australia) (AR2) YoY Change ($) -29% QoQ Change ($) -5%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
HSBC Holdings PLC	1	2	11,718	9.5	4.0	74
Citi	2	1	10,340	8.4	1.1	60
BofA Securities Inc	3	5	9,409	7.6	3.1	38
JP Morgan	4	4	8,456	6.9	1.8	41
Credit Agricole CIB	5	7	7,292	5.9	1.9	52
BNP Paribas SA	6	6	6,988	5.7	1.5	37
Standard Chartered PLC	7	3	6,965	5.7	0.2	50
Morgan Stanley	8	10	4,193	3.4	0.8	16
UBS	9	9	3,600	2.9	0.2	19
Barclays	10	25	3,194	2.6	1.3	13
Mizuho Financial Group	11	11	2,690	2.2	-0.3	29
Nomura	12	19	2,612	2.1	0.7	5
Deutsche Bank	13	8	2,590	2.1	-1.7	9
Mitsubishi UFJ Financial Group	14	28	2,467	2.0	0.8	21
Societe Generale	15	18	2,390	1.9	0.2	15
DBS Group Holdings	16	17	2,224	1.8	0.0	19
Bank of China Ltd	17	14	2,167	1.8	-0.5	44
TD Securities Inc	18	20	1,869	1.5	0.1	2
BMO Capital Markets	19	30	1,869	1.5	0.3	3
CITIC	20	12	1,531	1.2	-1.2	62
RBC Capital Markets	21	27	1,372	1.1	-0.1	1
ICBC	22	24	1,335	1.1	-0.2	27
Industrial Bank Co Ltd	23	15	1,223	1.0	-1.1	52
ANZ Banking Group	24	39	1,205	1.0	0.4	9
Bank of Communications Co Ltd	25	21	1,121	0.9	-0.5	40
Industry Total			**123,298**	**100.0**		**210**

Asian G3 High Yield Bonds (ex Japan & Australia) (AR10) YoY Change ($) -29% QoQ Change ($) 9%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
UBS	1	11*	680	45.0	41.1	2
Standard Chartered PLC	2*	23*	106	7.0	6.5	2
Deutsche Bank	2*	1	106	7.0	-5.9	2
JP Morgan	2*	3*	106	7.0	-1.8	2
HSBC Holdings PLC	2*	11*	106	7.0	3.1	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*	23*	33	2.2	1.7	1
DBS Group Holdings	8*	3*	33	2.2	-6.6	1
Barclays	8*	2	33	2.2	-7.1	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)

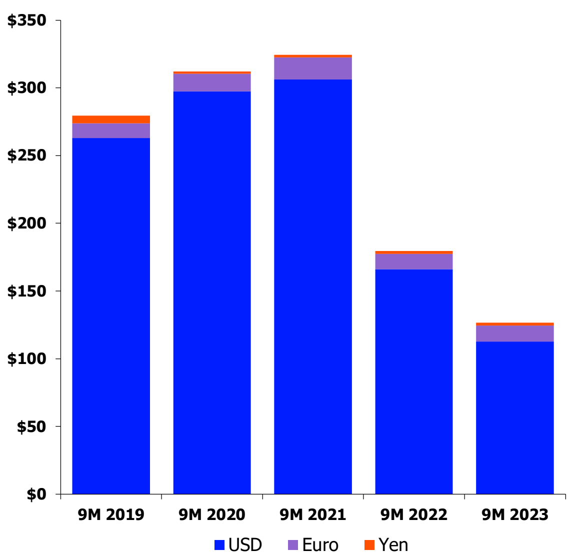


All Asian Currencies (ex Japan & Australia) (AS1) YoY Change ($) 2% QoQ Change ($) 0%

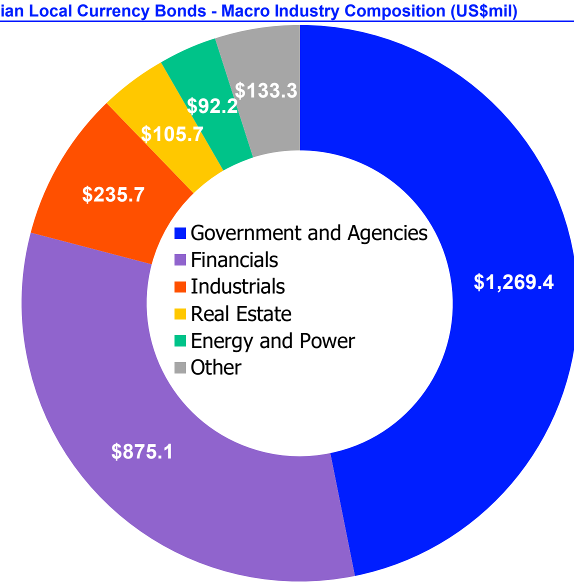
Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
CITIC	1	1	177,015	6.5	0.0	2,936
Bank of China Ltd	2	2	144,481	5.3	-0.3	2,278
China Securities Co Ltd	3	6	128,088	4.7	0.2	2,215
ICBC	4	3	123,571	4.6	-0.9	2,064
China Construction Bank	5	4	113,248	4.2	-0.8	2,071
Agricultural Bank of China	6	5	110,271	4.1	-0.5	1,986
Huatai Securities Co Ltd	7	8	109,115	4.0	0.4	1,948
China International Capital Co	8	9	99,665	3.7	0.3	1,817
Bank of Communications Co Ltd	9	7	97,386	3.6	-0.6	1,805
Guotai Junan Securities	10	10	83,961	3.1	0.3	1,483
Industrial Bank Co Ltd	11	11	73,006	2.7	0.1	1,562
China Merchants Bank	12	12	51,114	1.9	-0.3	1,031
Orient Securities Co Ltd	13	13	44,353	1.6	0.1	758
Shenwan Hongyuan Securities Co	14	24	38,619	1.4	0.4	671
Postal Savings Bank Of China	15	17	38,367	1.4	0.1	601
China Dvlp Bank Sec Co Ltd	16	22	37,922	1.4	0.3	777
Haitong Securities Co Ltd	17	16	37,823	1.4	0.1	746
Shanghai Pudong Development Bk	18	14	36,248	1.3	-0.2	871
China Galaxy Securities Co	19	19	35,725	1.3	0.2	726
Everbright Securities Co Ltd	20	15	35,174	1.3	0.0	745
HSBC Holdings PLC	21	23	29,366	1.1	0.1	400
China Merchants Securities Co	22	21	28,262	1.0	-0.1	374
China Minsheng Banking Corp	23	18	25,992	1.0	-0.2	594
Ping An Securities Ltd	24	28	23,700	0.9	0.2	343
China Everbright Bank	25	20	21,668	0.8	-0.3	370
Industry Total			**2,711,307**	**100.0**		**13,524**

*Indicates a Tie

Asian G3 Bond Volume - Currency (US$mil)



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



Australia & China Rankings

First Nine Months 2023 | Debt Capital Markets | Managing Underwriters

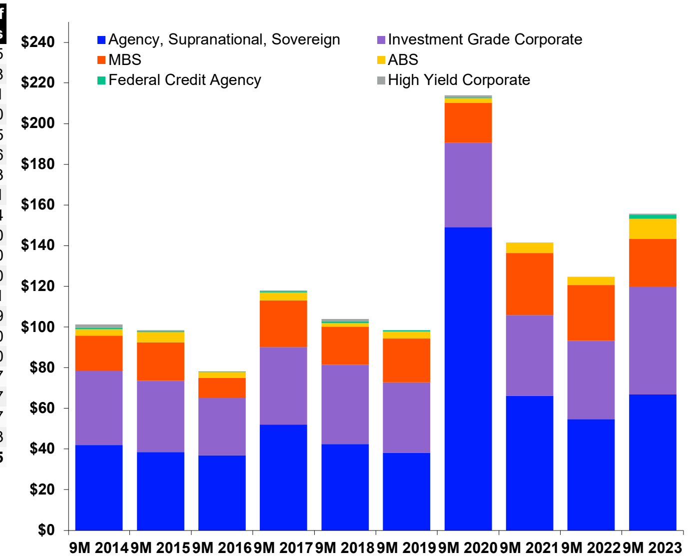
All Australian Debt (ex self-funded) (AJ3a) YoY Change ($) 25% QoQ Change ($) -40%

Bookrunner	Rank 2023	Rank 2022	Proceeds AU$mil	Market Share	Mkt. Sh Chg	# of Deals
National Australia Bank	1	1	22,774	14.7	-3.0	96
ANZ Banking Group	2	3	22,231	14.3	2.8	89
Westpac Banking	3	4	19,088	12.3	0.9	102
Commonwealth Bank of Australia	4	2	18,855	12.1	-2.7	77
Deutsche Bank	5	5	11,172	7.2	0.3	34
UBS	6	6	9,455	6.1	0.0	44
RBC Capital Markets	7	7	8,503	5.5	1.7	59
Nomura	8	9	7,844	5.1	2.1	51
TD Securities Inc	9	8	5,672	3.7	0.3	45
JP Morgan	10	10	3,847	2.5	-0.2	28
Barclays	11	17	2,544	1.6	0.5	19
BofA Securities Inc	12	11	2,416	1.6	0.1	10
Citi	13	14	2,200	1.4	0.0	15
Macquarie Group	14	16	2,099	1.4	0.1	11
Mizuho Financial Group	15	21	1,668	1.1	0.2	13
Mitsubishi UFJ Financial Group	16	23	1,577	1.0	0.4	9
HSBC Holdings PLC	17	19	1,450	0.9	0.0	9
Standard Chartered PLC	18	15	1,446	0.9	-0.5	11
Daiwa Securities Group Inc	19	20	1,089	0.7	-0.2	20
ING	20	25	1,001	0.6	0.0	4
Industry Total			**155,265**	**100.0**		**296**

All Australian International Bonds (AJ7) YoY Change ($) 16% QoQ Change ($) 2%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
Citi	1	1	4,857	7.5	-2.7	25
HSBC Holdings PLC	2	2	4,789	7.4	-2.0	28
JP Morgan	3	4	4,457	6.9	-0.5	21
BofA Securities Inc	4	3	4,438	6.8	-2.3	20
BNP Paribas SA	5	11	3,901	6.0	2.6	15
Barclays	6	15	3,796	5.8	3.2	16
UBS	7	5	3,201	4.9	-1.6	13
National Australia Bank	8	6	3,148	4.8	-0.4	11
RBC Capital Markets	9	8	2,834	4.4	-0.2	14
Westpac Banking	10	10	2,617	4.0	0.0	10
Deutsche Bank	11	18	2,381	3.7	1.8	10
ANZ Banking Group	12	13	2,310	3.6	0.5	10
Goldman Sachs & Co	13	14	2,250	3.5	0.5	11
Societe Generale	14	7	2,205	3.4	-1.8	9
Morgan Stanley	15	12	2,119	3.3	0.2	10
Commonwealth Bank of Australia	16	9	1,969	3.0	-1.6	10
TD Securities Inc	17	16	1,596	2.5	-0.1	7
Mitsubishi UFJ Financial Group	18	21	1,492	2.3	1.2	7
Wells Fargo & Co	19	28	1,267	2.0	1.5	7
Santander Corp & Invest Bkg	20	-	989	1.5	1.5	3
Industry Total			**64,978**	**100.0**		**95**

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



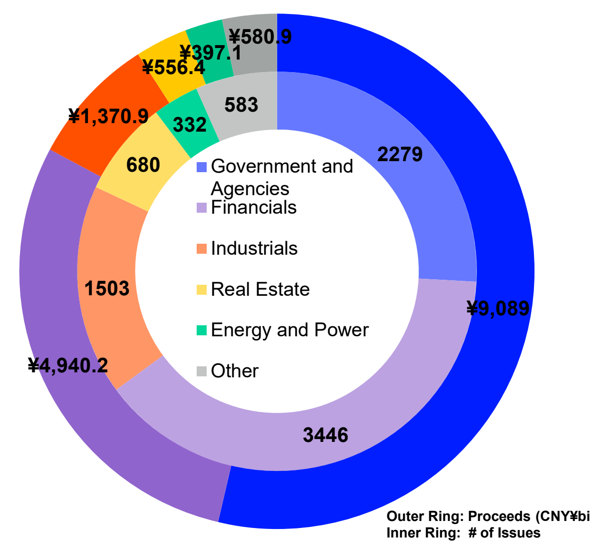
China G3 Currency Bonds (AR5) YoY Change ($) -54% QoQ Change ($) 75%

Bookrunner	Rank 2023	Rank 2022	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
Credit Agricole CIB	1	7	2,026	7.5	4.3	23
Citi	2	5	1,282	4.7	1.3	15
HSBC Holdings PLC	3	17	1,236	4.6	2.5	12
CITIC	4	1	1,197	4.4	-1.4	56
Industrial Bank Co Ltd	5	2	1,053	3.9	-1.6	48
BMO Capital Markets	6	36	996	3.7	2.8	2
ICBC	7	14	993	3.7	1.0	22
JP Morgan	8	49	962	3.6	3.2	4
Bank of Communications Co Ltd	9	11	926	3.4	0.5	34
Bank of China Ltd	10	4	895	3.3	-0.7	31
China International Capital Co	11	3	802	3.0	-2.0	35
Agricultural Bank of China	12	16	712	2.6	0.1	22
Huaxia Bank Co Ltd	13	26	675	2.5	1.0	30
Barclays	14	29	613	2.3	1.1	5
China Construction Bank	15	15	603	2.2	-0.4	21
China Minsheng Banking Corp	16	12	586	2.2	-0.6	21
Shanghai Pudong Development Bk	17	13	554	2.0	-0.8	28
BNP Paribas SA	18	25	552	2.0	0.5	4
BofA Securities Inc	19	39	532	2.0	1.3	2
Nomura	20	52	499	1.8	1.5	1
Industry Total			**27,135**	**100.0**		**86**

Chinese Yuan Bonds (ex-Self Funded) (AS24) YoY Change ($) 8% QoQ Change ($) 6%

Bookrunner	Rank 2023	Rank 2022	Proceeds CN¥mil	Market Share	Mkt. Sh Chg	# of Deals
CITIC	1	1	1,247,988	7.4	0.1	2,936
Bank of China Ltd	2	3	981,600	5.8	-0.3	2,272
China Securities Co Ltd	3	6	903,043	5.3	0.3	2,215
ICBC	4	2	870,391	5.1	-1.0	2,064
China Construction Bank	5	4	797,673	4.7	-0.9	2,071
Agricultural Bank of China	6	5	776,632	4.6	-0.6	1,986
Huatai Securities Co Ltd	7	8	769,481	4.5	0.5	1,948
China International Capital Co	8	9	702,661	4.2	0.4	1,817
Bank of Communications Co Ltd	9	7	686,209	4.1	-0.6	1,805
Guotai Junan Securities	10	10	593,173	3.5	0.4	1,482
Industrial Bank Co Ltd	11	11	515,004	3.0	0.1	1,562
China Merchants Bank	12	12	360,867	2.1	-0.4	1,031
Orient Securities Co Ltd	13	13	311,930	1.8	0.1	758
Shenwan Hongyuan Securities Co	14	23	271,990	1.6	0.5	671
Postal Savings Bank Of China	15	17	271,408	1.6	0.2	601
Haitong Securities Co Ltd	16	16	267,088	1.6	0.2	746
China Dvlp Bank Sec Co Ltd	17	22	266,979	1.6	0.4	777
Shanghai Pudong Development Bk	18	14	255,774	1.5	-0.2	871
China Galaxy Securities Co	19	19	251,698	1.5	0.3	726
Everbright Securities Co Ltd	20	15	247,766	1.5	0.0	745
Industry Total			**16,934,690**	**100.0**		**8,823**

Chinese Yuan Bonds - Macro Industry Composition



Outer Ring: Proceeds (CNY¥bil)
Inner Ring: # of Issues

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An LSEG Business

Japan Rankings

First Nine Months 2023 | Debt Capital Markets | Managing Underwriters

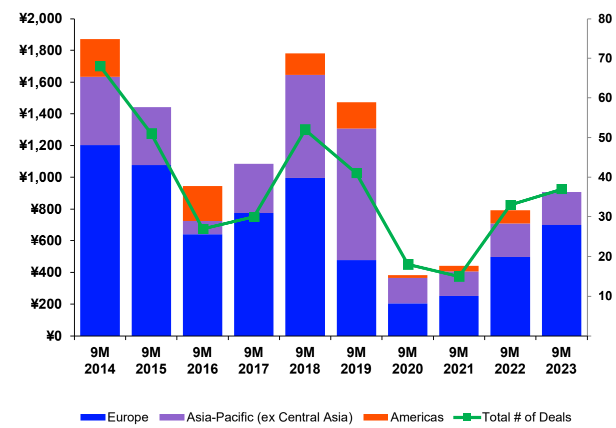
Samurai Bonds (AP01) YoY Change (¥) 15% QoQ Change (¥) 100%

Lead Manager	Rank 2023	Rank 2022	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Mizuho Financial Group	1	2*	184	20.2	0.0	32
Sumitomo Mitsui Finl Grp Inc	2	4	170	18.7	2.1	34
Daiwa Securities Group Inc	3	5	145	16.0	0.6	20
Nomura	4	2*	133	14.6	-5.6	16
Mitsubishi UFJ Morgan Stanley	5	1	123	13.6	-8.1	19
BNP Paribas SA	6	-	46	5.1	5.1	5
Natixis	7	6	40	4.4	0.8	8
Credit Agricole CIB	8	-	26	2.9	2.9	6
Citi	9*	-	14	1.5	1.5	4
HSBC Holdings PLC	9*	7	14	1.5	-0.9	4
BofA Securities Inc	9*	-	14	1.5	1.5	4
Industry Total			**909**	**100.0**		**37**

All Bonds Targeted in Japan (AP04) YoY Change (¥) 20% QoQ Change (¥) 14%

Lead Manager	Rank 2023	Rank 2022	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Mizuho Financial Group	1	1	4,340	24.0	-1.2	587
Daiwa Securities Group Inc	2	3	2,920	16.2	-1.2	421
Sumitomo Mitsui Finl Grp Inc	3	5	2,858	15.8	10.1	429
Nomura	4	2	2,840	15.7	-4.7	442
Mitsubishi UFJ Morgan Stanley	5	4	2,806	15.5	-1.4	377
Mitsubishi UFJ Financial Group	6	6	515	2.9	0.1	26
Sumitomo Mitsui Trust Holdings	7	9	335	1.9	0.5	24
Goldman Sachs & Co	8	11	256	1.4	0.1	26
Tokai Tokyo Financial Holdings	9	7	190	1.1	-0.7	69
SBI Holdings Inc	10	13	173	1.0	0.3	20
Norinchukin Bank	11	10	157	0.9	-0.5	12
Okasan Securities Group Inc	12	14	151	0.8	0.3	52
Barclays	13	8	126	0.7	-0.8	18
Shinkin Central Bank	14	12	96	0.5	-0.4	42
BNP Paribas SA	15	17	89	0.5	0.2	25
Industry Total			**18,079**	**100.0**		**908**

Samurai Bonds Issuance - Domicile Region



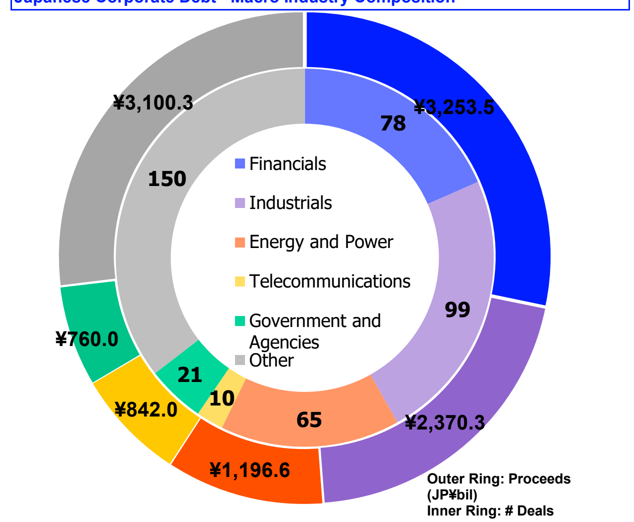
Japanese Securitizations (AP02) YoY Change (¥) -17% QoQ Change (¥) 30%

Lead Manager	Rank 2023	Rank 2022	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Mizuho Financial Group	1	1	764	28.1	-1.8	111
Mitsubishi UFJ Financial Group	2	2	515	18.9	6.0	26
Sumitomo Mitsui Trust Holdings	3	6	335	12.3	5.7	24
Sumitomo Mitsui Finl Grp Inc	4	8	211	7.8	2.0	26
Daiwa Securities Group Inc	5	5	186	6.8	0.1	7
Norinchukin Bank	6	7	157	5.8	-0.7	12
Mitsubishi UFJ Morgan Stanley	7	4	145	5.3	-3.7	5
Barclays	8	9	105	3.9	-1.3	7
Goldman Sachs & Co	9	10	101	3.7	1.0	4
Nomura	10	3	75	2.8	-6.5	3
SBI Holdings Inc	11	16	58	2.1	2.0	4
BNP Paribas SA	12	11	47	1.7	0.2	17
BofA Securities Inc	13	14	19	0.7	-0.3	1
ORIX Corp	14	15	5	0.2	0.0	1
Industry Total			**2,723**	**100.0**		**209**

Japanese Corporate Debt (AP03) YoY Change (¥) 37% QoQ Change (¥) 23%

Lead Manager	Rank 2023	Rank 2022	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Mizuho Financial Group	1	1	2,885	25.0	-1.0	317
Mitsubishi UFJ Morgan Stanley	2	4	2,094	18.2	-1.0	244
Sumitomo Mitsui Finl Grp Inc	3	5	2,053	17.8	13.6	282
Daiwa Securities Group Inc	4	3	2,000	17.4	-3.8	259
Nomura	5	2	1,934	16.8	-6.0	287
Okasan Securities Group Inc	6	9	113	1.0	0.5	43
SBI Holdings Inc	7	8	111	1.0	-0.2	14
Shinkin Central Bank	8	7	86	0.7	-0.7	38
Tokai Tokyo Financial Holdings	9	6	84	0.7	-1.3	45
Goldman Sachs & Co	10	10	56	0.5	0.1	10
BofA Securities Inc	11	13	45	0.4	0.1	19
Rakuten Securities Inc	12	11	40	0.4	0.0	1
Barclays	13	14	11	0.1	0.0	4
Citi	14	12	7	0.1	-0.3	2
Aozora Bank Ltd	15	-	4	0.0	0.0	1
Industry Total			**11,523**	**100.0**		**423**

Japanese Corporate Debt - Macro Industry Composition



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Debt Capital Markets Criteria

First Nine Months 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 September 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, 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.