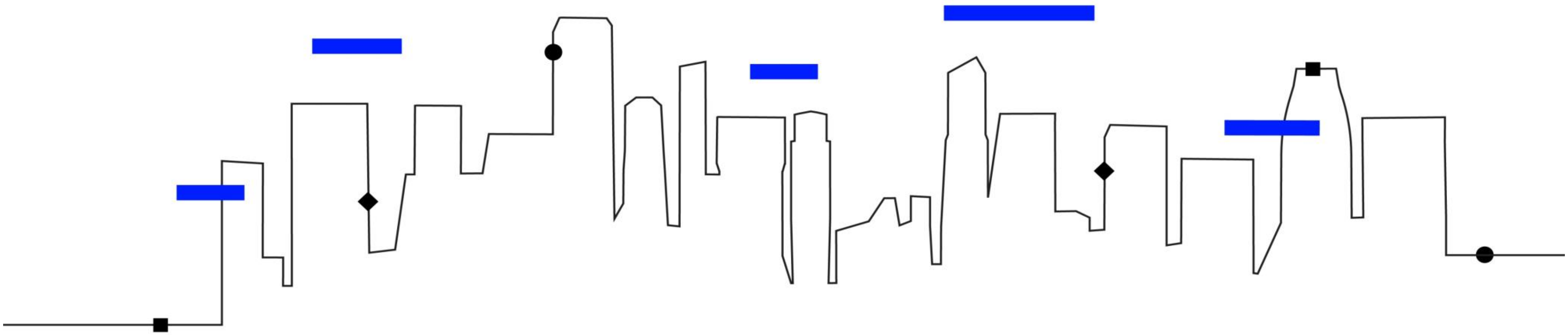
Global Debt Capital Markets Review

FULL YEAR 2021 | MANAGING UNDERWRITERS



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Global Debt Capital Markets Review

Full Year 2021 | Managing Underwriters

Global Deals Intelligence

GLOBAL DEBT CAPITAL MARKETS ACTIVITY DOWN 3% TO US$10.2 TRILLION

Overall global debt capital markets activity totaled US$10.2 trillion during full year 2021, down 3% compared to full year 2020 and the second consecutive annual period to surpass US$10.0 trillion in issuance. The number of new offerings brought to market during full year 2021 totaled 29,124, a 2% increase compared to a year ago and an all-time record. DCM issuance during the fourth quarter of 2021 has decreased 14% compared to the third quarter of this year and decreased 14%, by number of issues.

INVESTMENT GRADE CORPORATE DEBT ISSUANCE FALLS 6%

Global Investment Grade corporate debt offerings totaled US$4.6 trillion during full year 2021, a 6% decrease compared to 2020 levels and the second largest full year period for global high-grade corporate debt on record. The US dollar marketplace, which saw a record levels of issuance during 2020, totaled US$1.5 trillion during full year 2021, a 22% decline compared to a year ago and a two-year low.

GLOBAL HIGH YIELD DEBT PUSHES PAST US$600 BILLION FOR ALL-TIME RECORD

Global High Yield debt activity during full year 2021 reached US$649.4 billion, an increase of 17% compared to full year 2020 and the strongest full year period for global high yield issuance on record and the first to surpass US$600 billion. High yield offerings from issuers in the United States, United Kingdom, France and China accounted for 77% of full year 2021 issuance, down slightly from 79% during the same time last year.

GREEN BONDS BREAK ALL-TIME RECORD; AGENCY & SOVEREIGN DEBT DOWN 4%

According to figures compiled by Refinitiv and The Climate Bonds Initiative, green bond issuance totaled US$484.7 billion during full year 2021, a 98% increase compared to year ago levels and an all-time full year record. Despite the emergence of sustainability and social bonds, annual debt issuance from agency, sovereign and supranational issuers totaled US$2.9 trillion, down 4% from a year ago.

FINANCIALS, GOVERNMENT & AGENCIES AND INDUSTRIALS LEAD 2021 ISSUANCE

DCM activity from Financials, Government & Agencies, and Industrials issuers accounted for 79% of issuance during full year 2021, up from 77% during full year 2020. Global debt issuance, excluding financials and governments & agencies, totaled US$2.7 trillion during full year 2021, down 13% compared to 2020 levels and accounted for 27% of overall issuance, down from 30% a year ago.

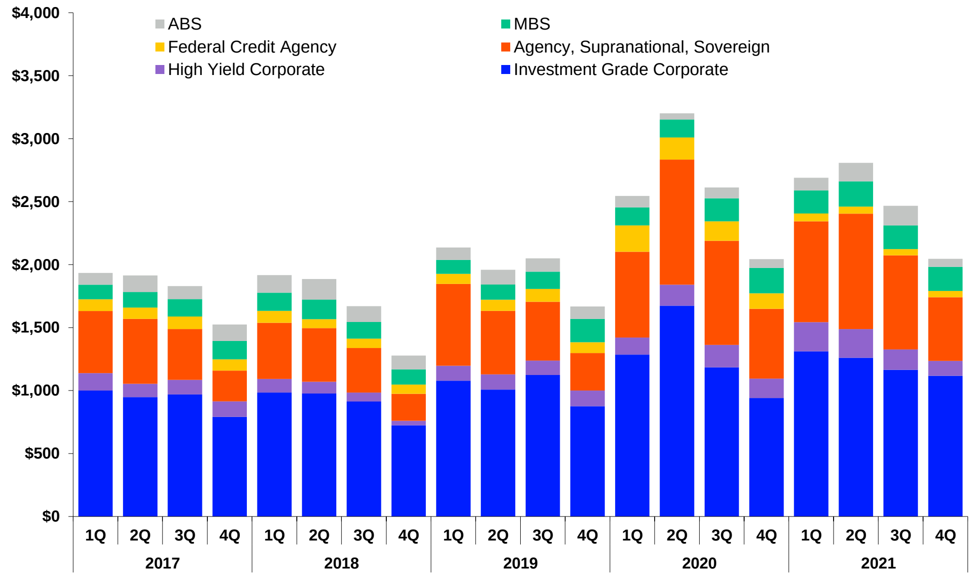
INTERNATIONAL BOND OFFERINGS DOWN 3%; EMERGING MARKETS UP 2%

International bond offerings totaled US$5.1 trillion during full year 2021, a 3% decrease compared to a year ago. Debt from emerging market corporate issuers totaled US$383.6 billion during full year 2021, up 2% compared to a year ago. Corporate debt issuers from India, Brazil, Thailand and Malaysia accounted for 43% of emerging markets activity.

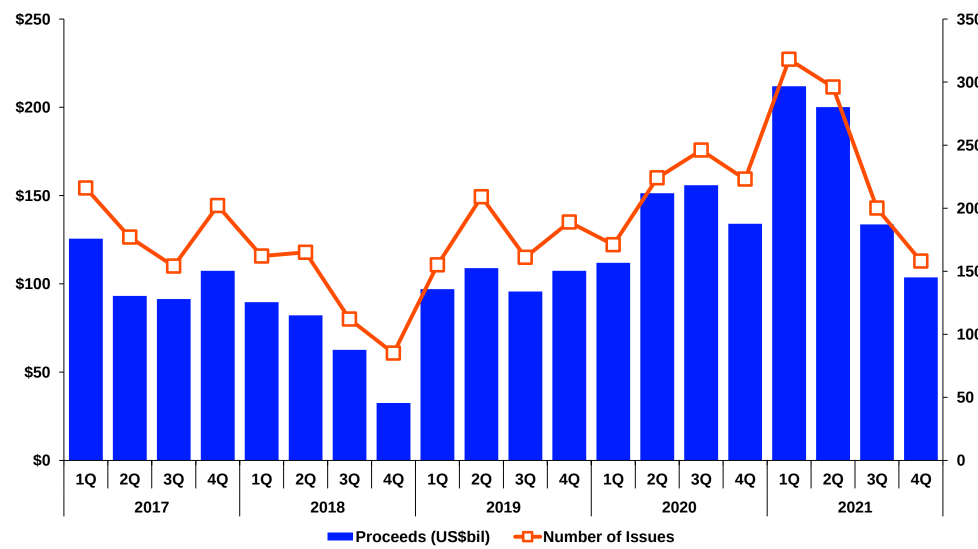
RECORD ASIA LOCAL CURRENCY DEBT; JAPANESE YEN DEBT HITS THREE-YEAR LOW

Asia local currency bond offerings totaled US$3.1 trillion during full year 2021, a 12% increase compared to a year ago and the strongest full year period for issuance since records began in 1980. China Yuan offerings have increased 13% compared to a year ago. Japanese Yen offerings have decreased 4% compared to full year 2020, totaling JPY26.7 trillion and a three-year low.

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



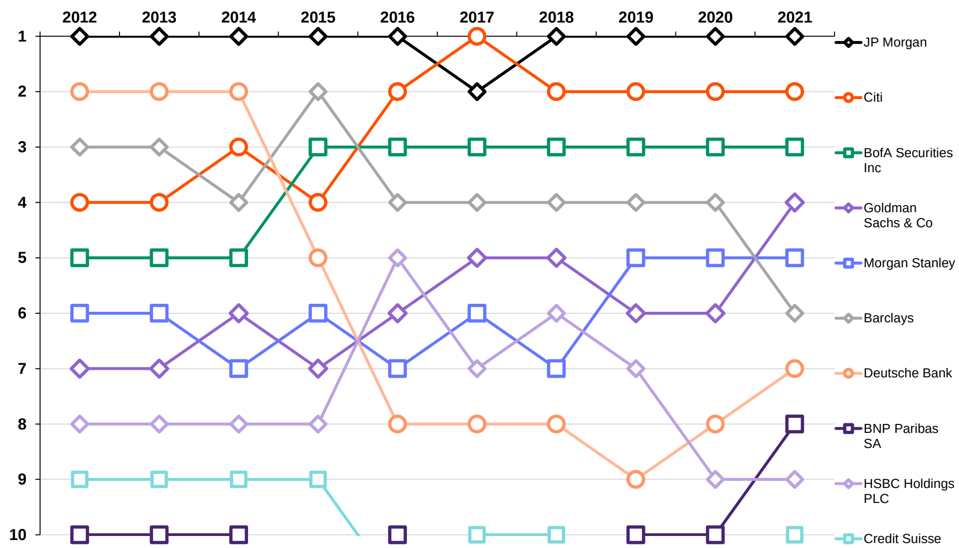
Global High Yield Corporate Debt - Quarterly Issuance



Global Insights

Full Year 2021 | Debt Capital Markets | Managing Underwriters

Global Debt Rankings by Proceeds

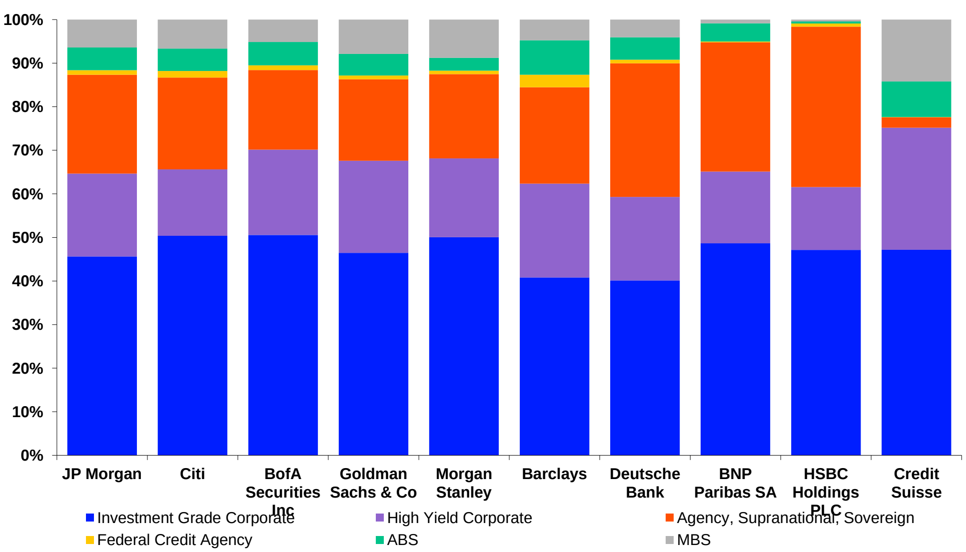


*League Table positions reflect consolidation within the banking sector. Rankings are as of the current quarter end in each calendar year.

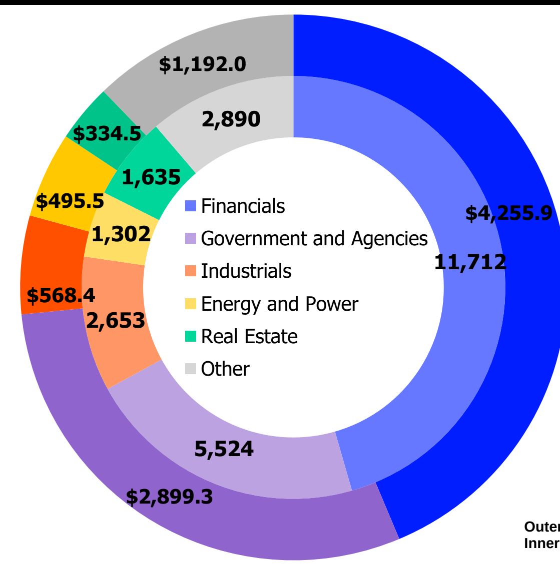
Global Scorecard

	1/1/2021 - 12/31/2021 Proceeds ($mil)	# of Deals	1/1/2020 - 12/31/2020 Proceeds ($mil)	# of Deals	YoY % Chg. ($)
All Global Debt (B1)	**10,180,802**	**29,124**	**10,459,014**	**28,557**	**-3%** ▼
Global Long-term Debt (B2)	9,745,728	25,714	9,924,126	24,662	-2% ▼
Global Long-term Debt ex MBS, ABS & Munis (B3)	8,425,968	23,349	8,957,983	22,879	-6% ▼
Global High Yield Corporate Debt (B4)	649,439	972	553,265	864	17% ▲
Global Investment Grade Corporate Debt (B7)	4,589,942	15,868	4,872,629	14,587	-6% ▼
US Federal Credit Agency Debt (B8)	125,327	638	392,112	1,336	-68% ▼
Global Agency, Sovereign & Supranational (B9)	2,891,610	5,603	3,001,792	5,879	-4% ▼
Global Mortgage-backed Securities (B10)	763,638	1,268	671,356	1,096	14% ▲
Global Asset-backed Securities (B11)	556,052	1,096	294,788	688	89% ▲
Global Short-term Debt (B14)	485,936	3,694	580,931	4,148	-16% ▼
Global Emerging Markets Corporate Debt (B15)	383,551	1,413	375,999	1,395	2% ▲
All US Debt (F1)	**3,649,609**	**5,699**	**4,033,818**	**6,402**	**-10%** ▼
US Long-term Debt (F2)	3,460,130	4,166	3,698,441	4,248	-6% ▼
US Long-term Straight ex MBS, ABS & Munis (F3)	2,529,813	3,915	3,207,636	5,107	-21% ▼
US Federal Credit Agency Debt (F7)	112,869	606	376,261	1,302	-70% ▼
US High Yield Corporate Debt (F8)	463,359	629	406,170	564	14% ▲
US Investment Grade (F9)	1,455,342	1,263	1,855,807	1,547	-22% ▼
Agency, Sovereign & Supranational Debt (F10)	392,396	1,255	493,064	1,585	-20% ▼
US Mortgage-backed Securities (F11)	673,246	1,020	598,402	874	13% ▲
US Asset-backed Securities (F14)	446,480	763	227,780	422	96% ▲
US Taxable Municipal Debt (F15)	49,530	1,052	85,678	1,342	-42% ▼
US Short-term Debt - including MBS, ABS (F16)	189,479	1,533	335,376	2,154	-44% ▼

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

Full Year 2021 | Debt Capital Markets | Managing Underwriters

Global Debt (B1)

YoY Change ($) -3% QoQ Change ($) -14%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	604,101	5.9	-0.7	2,379
Citi	2	2	464,869	4.6	-0.4	1,827
BofA Securities Inc	3	3	458,348	4.5	-0.5	1,838
Goldman Sachs & Co	4	6	399,063	3.9	0.4	1,392
Morgan Stanley	5	5	374,338	3.7	0.0	1,592
Barclays	6	4	317,814	3.1	-1.1	1,442
Deutsche Bank	7	8	307,087	3.0	0.1	1,466
BNP Paribas SA	8	10	251,014	2.5	0.0	1,170
HSBC Holdings PLC	9	9	246,115	2.4	-0.3	1,281
Credit Suisse	10	11	237,293	2.3	0.2	1,045
Wells Fargo & Co	11	7	236,049	2.3	-1.0	1,196
CITIC	12	19	219,006	2.2	0.5	3,006
Bank of China Ltd	13	14	208,490	2.1	0.3	2,693
Industrial & Comm Bank China	14	16	192,759	1.9	0.2	2,532
RBC Capital Markets	15	13	185,717	1.8	-0.2	1,156
Mizuho Financial Group	16	15	178,481	1.8	0.0	1,204
China Construction Bank	17	20	172,234	1.7	0.2	2,578
Agricultural Bank of China	18	22	156,251	1.5	0.2	2,191
China Securities Co Ltd	19	24	156,135	1.5	0.4	2,068
Nomura	20	12	151,216	1.5	-0.5	703
Credit Agricole CIB	21	18	150,121	1.5	-0.2	874
Bank of Communications Co Ltd	22	21	142,574	1.4	0.1	2,174
TD Securities Inc	23	17	132,270	1.3	-0.4	667
Societe Generale	24	23	124,475	1.2	-0.1	510
Mitsubishi UFJ Financial Group	25	27	103,322	1.0	0.1	601
Industry Total			**10,180,802**	**100.0**		**29,124**

Global Investment Grade Corporate Debt (B7)

YoY Change ($) -6% QoQ Change ($) -5%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	232,429	5.1	-0.9	921
BofA Securities Inc	2	2	201,815	4.4	-0.9	787
Citi	3	3	178,925	3.9	-0.7	792
Goldman Sachs & Co	4	5	156,887	3.4	0.0	494
Morgan Stanley	5	4	151,786	3.3	-0.7	672
CITIC	6	12	133,491	2.9	0.7	1,483
HSBC Holdings PLC	7	6	117,802	2.6	-0.5	692
China Securities Co Ltd	8	13	103,752	2.3	0.5	1,089
BNP Paribas SA	9	10	103,161	2.3	-0.3	601
Barclays	10	7	102,385	2.2	-0.7	505
Mizuho Financial Group	11	9	101,142	2.2	-0.4	607
Deutsche Bank	12	11	99,966	2.2	-0.3	492
Wells Fargo & Co	13	8	77,876	1.7	-1.0	413
Credit Suisse	14	14	76,267	1.7	0.0	377
Bank of China Ltd	15	17	75,431	1.6	0.1	719
Mitsubishi UFJ Financial Group	16	20	68,605	1.5	0.1	376
RBC Capital Markets	17	15	66,119	1.4	-0.3	396
Guotai Junan Securities	18	22	65,107	1.4	0.2	711
Industrial & Comm Bank China	19	21	62,155	1.4	0.1	563
Credit Agricole CIB	20	16	59,475	1.3	-0.3	425
China International Capital Co	21	23	59,212	1.3	0.2	638
Societe Generale	22	19	58,882	1.3	-0.1	290
Sumitomo Mitsui Finl Grp Inc	23	18	58,388	1.3	-0.1	394
Huatai Securities Co Ltd	24	31	55,046	1.2	0.4	582
UBS	25	30	54,592	1.2	0.3	341
Industry Total			**4,589,942**	**100.0**		**15,868**

Global Agency, Sovereign Corporate Debt (B9)

YoY Change ($) -4% QoQ Change ($) -32%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Bank of China Ltd	1	5	125,192	4.3	0.6	1,859
Industrial & Comm Bank China	2	3	122,653	4.2	0.4	1,892
China Construction Bank	3	4	122,615	4.2	0.5	1,895
JP Morgan	4	1	122,095	4.2	-0.9	378
Agricultural Bank of China	5	9	109,672	3.8	0.7	1,698
Bank of Communications Co Ltd	6	6	106,937	3.7	0.2	1,641
Citi	7	2	98,044	3.4	-0.8	210
Deutsche Bank	8	11	96,623	3.3	0.3	349
BofA Securities Inc	9	7	87,780	3.0	-0.4	204
HSBC Holdings PLC	10	8	87,228	3.0	-0.3	234
BNP Paribas SA	11	12	84,206	2.9	-0.1	170
Barclays	12	10	72,916	2.5	-0.6	187
CITIC	13	20	70,703	2.5	0.8	1,277
Goldman Sachs & Co	14	13	70,530	2.4	-0.5	153
Morgan Stanley	15	16	69,723	2.4	0.2	209
TD Securities Inc	16	15	59,775	2.1	-0.2	218
Credit Agricole CIB	17	17	59,773	2.1	0.0	158
Nomura	18	18	56,473	2.0	0.0	235
RBC Capital Markets	19	14	55,049	1.9	-0.5	240
Industrial Bank Co Ltd	20	21	52,813	1.8	0.3	850
China Securities Co Ltd	21	31	45,786	1.6	0.8	879
UniCredit	22	19	44,361	1.5	-0.4	78
Postal Savings Bank Of China	23	27	39,444	1.4	0.4	564
Societe Generale	24	22	39,148	1.4	0.0	67
Huatai Securities Co Ltd	25	29	38,201	1.3	0.4	807
Industry Total			**2,891,610**	**100.0**		**5,603**

Global MBS (B10)

YoY Change ($) 14% QoQ Change ($) 2%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	102,589	13.4	-1.2	160
Credit Suisse	2	3	88,104	11.5	-0.2	195
Morgan Stanley	3	4	80,904	10.6	0.2	179
Citi	4	6	80,486	10.5	2.3	156
Goldman Sachs & Co	5	7	75,341	9.9	2.9	198
Wells Fargo & Co	6	2	63,399	8.3	-4.3	138
BofA Securities Inc	7	5	58,507	7.7	-1.0	153
Nomura	8	8	29,884	3.9	-1.7	100
Barclays	9	9	27,596	3.6	0.7	115
Mizuho Financial Group	10	12	19,651	2.6	1.1	78
Deutsche Bank	11	11	19,407	2.5	0.7	78
Amherst Securities	12	10	11,045	1.5	-0.3	39
BMO Capital Markets	13	16	10,751	1.4	0.6	31
Cantor Fitzgerald LP	14	13	8,256	1.1	-0.3	22
National Australia Bank	15	17	8,108	1.1	0.3	46
Truist Financial Corp	16	-	7,355	1.0	1.0	13
Sumitomo Mitsui Finl Grp Inc	17	14	5,872	0.8	-0.1	29
Westpac Banking	18	19	5,496	0.7	0.1	30
Jefferies LLC	19	20	5,049	0.7	0.1	25
BNP Paribas SA	20	15	4,842	0.6	-0.3	22
Commonwealth Bank of Australia	21	21	3,427	0.5	0.0	21
PNC Financial Services Group	22	24	3,326	0.4	0.1	11
ANZ Banking Group	23	36	2,761	0.4	0.2	11
Standard Chartered PLC	24	25	2,755	0.4	0.1	16
Macquarie Group	25	28	2,711	0.4	0.1	17
Industry Total			**763,638**	**100.0**		**1,268**

Global ABS (B11)

YoY Change ($) 89% QoQ Change ($) -2%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Barclays	1	1	46,798	8.4	-0.3	150
JP Morgan	2	2	46,667	8.4	0.0	159
Citi	3	3	38,933	7.0	-0.1	141
Wells Fargo & Co	4	7	38,190	6.9	1.4	142
BofA Securities Inc	5	4	36,352	6.5	-0.1	134
Goldman Sachs & Co	6	6	32,943	5.9	0.1	120
Credit Suisse	7	10	31,945	5.8	0.9	122
Deutsche Bank	8	9	29,838	5.4	0.2	128
RBC Capital Markets	9	8	29,665	5.3	-0.2	108
BNP Paribas SA	10	12	25,626	4.6	1.0	77
Morgan Stanley	11	15	22,050	4.0	1.7	71
Mizuho Financial Group	12	5	21,360	3.8	-2.4	143
Jefferies LLC	13	24	18,018	3.2	2.5	56
Mitsubishi UFJ Financial Group	14	11	15,089	2.7	-1.6	59
Societe Generale	15	14	13,557	2.4	-0.2	43
Natixis	16	20	13,145	2.4	1.1	37
TD Securities Inc	17	13	8,997	1.6	-1.0	33
Santander Corp & Invest Bkg	18	18	8,370	1.5	-0.3	24
BMO Capital Markets	19	17	7,904	1.4	-0.4	33
Guggenheim Securities LLC	20	23	7,517	1.4	0.6	33
Sumitomo Mitsui Finl Grp Inc	21	16	6,462	1.2	-0.8	23
Credit Agricole CIB	22	19	5,904	1.1	-0.6	22
Sumitomo Mitsui Trust Holdings	23	26	4,360	0.8	0.2	11
Daiwa Securities Group Inc	24	25	4,311	0.8	0.2	4
Nomura	25	37	3,929	0.7	0.4	12
Industry Total			**556,052**	**100.0**		**1,096**

Global Debt and Loans Islamic Finance

YoY Change ($) 42% QoQ Change ($) 33%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
CIMB Group Holdings Bhd	1	2	5,257	7.8	-2.5	54
HSBC Holdings PLC	2	3	5,211	7.7	-1.2	36
Intl Islamic Trade Finance	3	5	5,113	7.6	2.2	16
Standard Chartered PLC	4	1	4,743	7.1	-5.6	25
Malayan Banking Bhd	5	4	4,202	6.2	-1.8	53
Emirates NBD PJSC	6	12	3,260	4.8	2.0	21
RHB	7	6	2,776	4.1	-0.8	49
Dubai Islamic Bank PJSC	8	7	2,755	4.1	-0.2	15
First Abu Dhabi Bank PJSC	9	8	2,747	4.1	-0.2	13
JP Morgan	10	10	2,691	4.0	1.1	15
Citi	11	11	2,658	4.0	1.1	13
AMMB Holdings Bhd	12	9	1,635	2.4	-1.0	27
Mitsubishi UFJ Financial Group	13	28	1,286	1.9	1.2	7
Goldman Sachs & Co	14	52	1,230	1.8	1.6	6
Oversea-Chinese Banking	15	37	1,160	1.7	1.3	10
Kuwait Finance House	16	22	1,088	1.6	0.6	11
BNP Paribas SA	17	20	1,073	1.6	0.5	5
Sumitomo Mitsui Finl Grp Inc	18	26	936	1.4	0.6	6
Societe Generale	19	29	868	1.3	0.7	4
Abu Dhabi Commercial Bank PJSC	20	-	849	1.3	-	4
Bank Islam Malaysia	21	23	830	1.2	0.3	10
Natixis	22	15	785	1.2	-0.6	3
Islamic Development Bank	23	14	705	1.1	-0.8	9
Kenanga Investment Bank Bhd	24	13	642	1.0	-1.3	11
Gulf International Bank	25	17	642	1.0	-0.4	3
Industry Total			**67,318**	**100.0**		**203**

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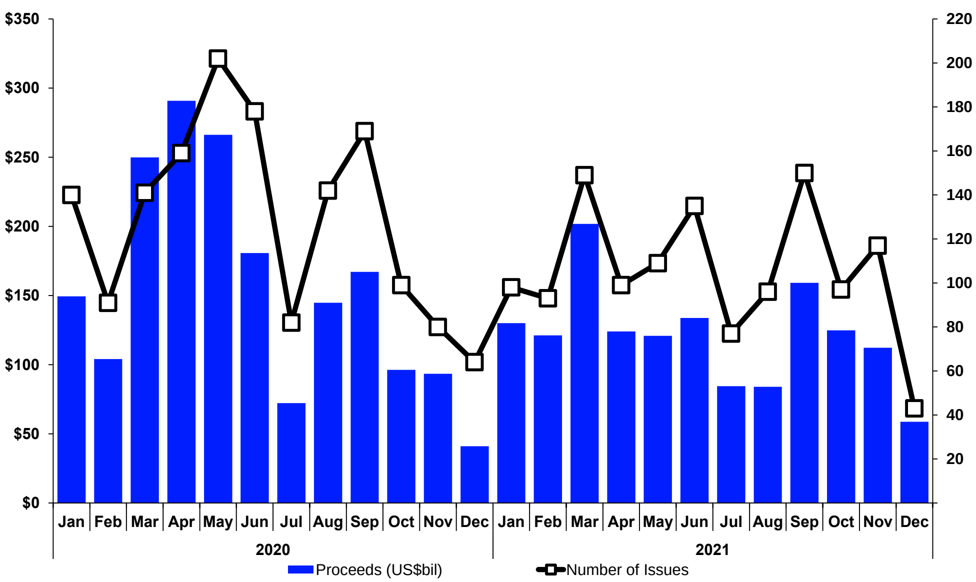
United States Insights

Full Year 2021 | Debt Capital Markets | Managing Underwriters

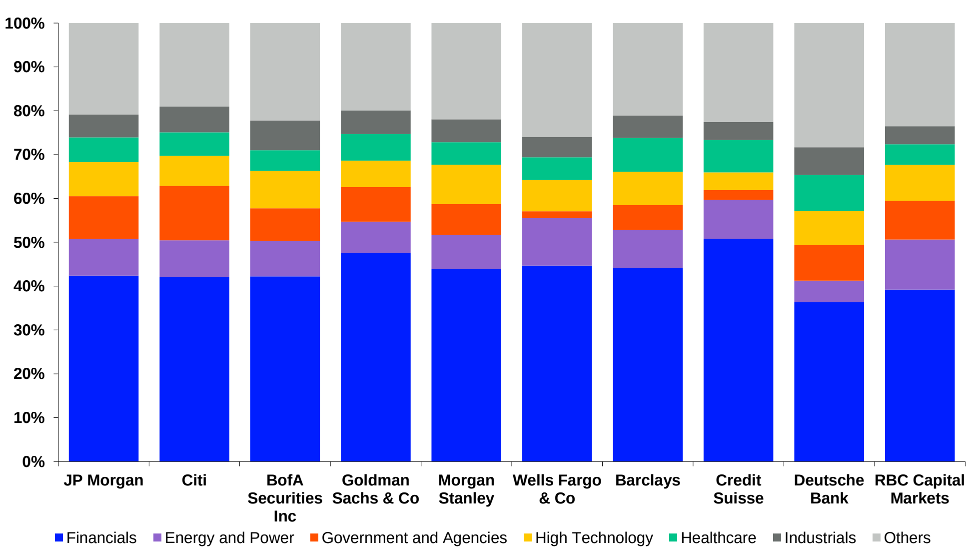
United States Marketed Monthly High Yield Volume



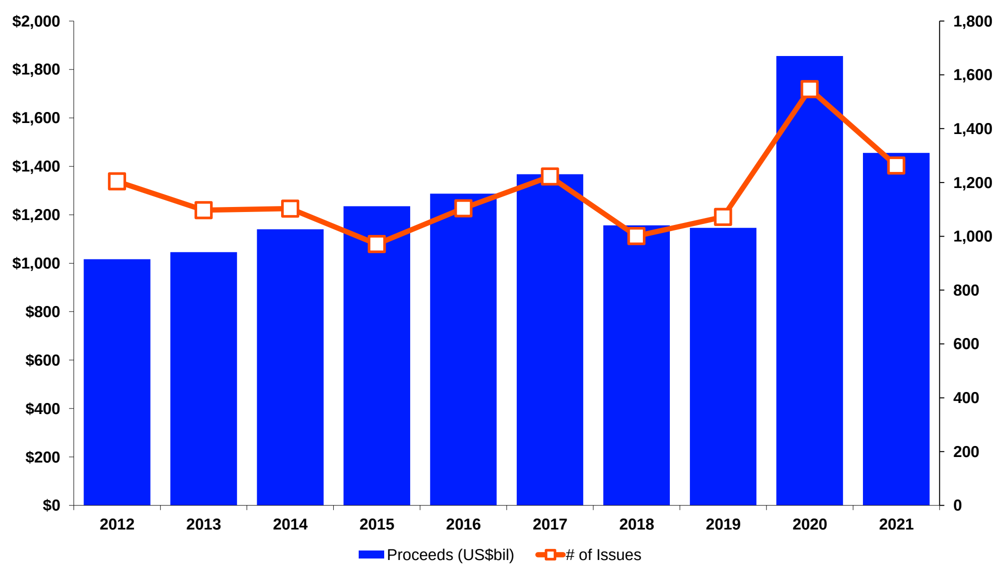
Top United States Investment Grade Corporate Deals

Issue Date	Issuer	Domicile Nation	Deal Size (US$mil)	Issue Type	Macro Sector
3/11/21	Verizon Communications Inc	United States	24,898	Investment Grade Corporate	Telecommunications
10/21/21	AerCap Ireland Capital	Ireland-Rep	20,957	Investment Grade Corporate	Financials
5/10/21	Amazon.com Inc	United States	18,437	Investment Grade Corporate	Retail
4/16/21	Bank of America Corp	United States	15,000	Investment Grade Corporate	Financials
3/22/21	Oracle Corp	United States	14,965	Investment Grade Corporate	High Technology
2/1/21	Apple Inc	United States	13,960	Investment Grade Corporate	High Technology
4/15/21	JPMorgan Chase & Co	United States	13,000	Investment Grade Corporate	Financials
1/27/21	7-Eleven Inc	Japan	10,935	Investment Grade Corporate	Retail
3/2/21	Siemens NV	Germany	9,989	Investment Grade Corporate	High Technology
1/4/21	Broadcom Inc	United States	9,971	Investment Grade Corporate	High Technology
2/2/21	Boeing Co	United States	9,825	Investment Grade Corporate	Industrials
10/18/21	Goldman Sachs Group Inc	United States	9,000	Investment Grade Corporate	Financials
7/15/21	Morgan Stanley	United States	8,500	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 2021 | Debt Capital Markets | Managing Underwriters

U.S. Debt (F1)
YoY Change ($) -10% QoQ Change ($) -12%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	430,089	11.8	-0.3	1,524
Citi	2	3	336,590	9.2	0.2	1,226
BofA Securities Inc	3	2	335,830	9.2	-0.2	1,366
Goldman Sachs & Co	4	6	283,688	7.8	1.2	996
Morgan Stanley	5	5	241,978	6.6	-0.2	872
Wells Fargo & Co	6	4	218,308	6.0	-1.5	1,060
Credit Suisse	7	8	185,024	5.1	1.0	645
Barclays	8	7	183,379	5.0	-1.6	864
Deutsche Bank	9	9	139,621	3.8	0.5	600
RBC Capital Markets	10	10	106,091	2.9	0.0	656
Mizuho Financial Group	11	14	91,397	2.5	0.2	476
HSBC Holdings PLC	12	12	84,250	2.3	-0.2	317
BNP Paribas SA	13	15	75,576	2.1	0.1	372
Mitsubishi UFJ Financial Group	14	16	74,085	2.0	0.3	367
TD Securities Inc	15	13	71,739	2.0	-0.4	334
Nomura	16	11	54,402	1.5	-1.1	202
BMO Capital Markets	17	19	52,830	1.5	0.5	251
Truist Financial Corp	18	20	39,814	1.1	0.2	333
Sumitomo Mitsui Finl Grp Inc	19	17	38,643	1.1	0.0	229
Credit Agricole CIB	20	23	36,330	1.0	0.2	186
Industry Total			**3,649,609**	**100.0**		**5,699**

U.S. High Yield Corporate Debt (F8)
YoY Change ($) 14% QoQ Change ($) -30%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	50,427	10.9	-0.4	375
BofA Securities Inc	2	2	43,151	9.3	-0.8	356
Goldman Sachs & Co	3	3	27,953	6.0	-1.3	232
Citi	4	4	27,225	5.9	-1.4	239
Barclays	5	5	26,728	5.8	-1.3	222
Wells Fargo & Co	6	6	26,583	5.7	-0.3	235
Morgan Stanley	7	7	23,880	5.2	-0.5	169
Deutsche Bank	8	8	22,787	4.9	0.1	176
Credit Suisse	9	9	20,571	4.4	0.3	173
RBC Capital Markets	10	10	18,837	4.1	0.1	174
Truist Financial Corp	11	12	12,202	2.6	0.2	129
Mizuho Financial Group	12	13	11,653	2.5	0.5	112
BNP Paribas SA	13	14	11,565	2.5	0.7	99
Jefferies LLC	14	17	10,300	2.2	0.6	53
Mitsubishi UFJ Financial Group	15	11	9,260	2.0	-0.4	88
HSBC Holdings PLC	16	16	8,624	1.9	0.2	74
BMO Capital Markets	17	15	7,830	1.7	0.0	83
TD Securities Inc	18	18	6,503	1.4	-0.2	67
PNC Financial Services Group	19	23	5,551	1.2	0.1	64
Credit Agricole CIB	20	21	5,480	1.2	0.0	50
Industry Total			**463,359**	**100.0**		**629**

U.S. Investment Grade Debt (F9)
YoY Change ($) -22% QoQ Change ($) -10%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	179,919	12.4	-0.3	606
BofA Securities Inc	2	2	166,204	11.4	-0.3	581
Citi	3	3	134,785	9.3	-0.1	490
Goldman Sachs & Co	4	5	123,824	8.5	1.1	349
Morgan Stanley	5	4	99,953	6.9	-0.6	330
Wells Fargo & Co	6	6	72,396	5.0	-1.8	385
Barclays	7	7	60,652	4.2	-0.2	251
Deutsche Bank	8	10	53,531	3.7	0.5	175
Mitsubishi UFJ Financial Group	9	13	48,849	3.4	0.8	209
HSBC Holdings PLC	10	9	45,672	3.1	-0.1	151
Mizuho Financial Group	11	8	44,686	3.1	-0.2	211
Credit Suisse	12	14	38,470	2.6	0.1	126
RBC Capital Markets	13	11	34,994	2.4	-0.4	214
BNP Paribas SA	14	12	31,579	2.2	-0.4	162
TD Securities Inc	15	16	27,833	1.9	0.1	132
Sumitomo Mitsui Finl Grp Inc	16	17	26,155	1.8	0.0	147
US Bancorp	17	15	20,017	1.4	-0.6	142
UBS	18	26	17,720	1.2	0.7	56
Scotiabank	19	18	17,261	1.2	0.0	111
Santander Corp & Invest Bkg	20	22	16,319	1.1	0.3	66
Industry Total			**1,455,342**	**100.0**		**1,263**

U.S. MBS (F11)
YoY Change ($) 13% QoQ Change ($) 3%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	101,527	15.1	-1.0	157
Credit Suisse	2	3	87,551	13.0	0.0	191
Citi	3	6	75,826	11.3	2.6	138
Morgan Stanley	4	4	73,589	10.9	-0.4	165
Goldman Sachs & Co	5	7	72,026	10.7	3.4	190
Wells Fargo & Co	6	2	63,241	9.4	-4.7	137
BofA Securities Inc	7	5	53,826	8.0	-0.8	137
Nomura	8	8	27,675	4.1	-1.8	98
Barclays	9	9	22,404	3.3	0.6	100
Deutsche Bank	10	11	17,133	2.5	0.8	65
Industry Total			**673,246**	**100.0**		**1,020**

U.S. ABS (F14)
YoY Change ($) 96% QoQ Change ($) -8%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	43,153	9.7	-0.5	151
Barclays	2	2	38,879	8.7	-0.9	125
Wells Fargo & Co	3	4	38,190	8.6	1.5	142
Citi	4	3	34,081	7.6	-0.1	127
BofA Securities Inc	5	5	30,815	6.9	-0.1	117
Credit Suisse	6	9	29,402	6.6	1.2	114
Goldman Sachs & Co	7	7	28,773	6.4	0.1	108
RBC Capital Markets	8	6	28,225	6.3	-0.3	98
Deutsche Bank	9	8	24,668	5.5	-0.2	111
Morgan Stanley	10	16	15,963	3.6	1.5	58
Industry Total			**446,480**	**100.0**		**763**

U.S. ABS ex Self & CDOs (F14b)
YoY Change ($) 53% QoQ Change ($) -7%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Barclays	1	1	27,069	9.1	0.3	97
JP Morgan	2	2	26,092	8.8	0.0	102
Wells Fargo & Co	3	3	23,508	7.9	0.0	99
Credit Suisse	4	9	22,384	7.5	2.1	98
BofA Securities Inc	5	5	21,963	7.4	0.6	96
Citi	6	7	21,424	7.2	0.7	94
RBC Capital Markets	7	4	21,291	7.2	0.2	84
Deutsche Bank	8	8	18,411	6.2	0.1	96
Goldman Sachs & Co	9	6	15,877	5.4	-1.1	71
Mizuho Financial Group	10	10	11,393	3.8	-1.0	40
Industry Total			**297,007**	**100.0**		**453**

U.S. Securitizations (ex CMBS, Agency, CMO, Self-Funded & CDOs (F20a)
YoY Change ($) 64% QoQ Change ($) -4%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Credit Suisse	1	1	41,050	9.7	0.8	204
BofA Securities Inc	2	2	37,057	8.7	0.4	156
Citi	3	7	36,466	8.6	2.3	133
Barclays	4	4	35,967	8.5	0.4	151
JP Morgan	5	3	34,579	8.1	-0.1	139
Wells Fargo & Co	6	6	33,342	7.8	0.9	132
Goldman Sachs & Co	7	5	28,420	6.7	-0.6	143
Deutsche Bank	8	9	21,601	5.1	-0.1	122
RBC Capital Markets	9	8	21,446	5.1	-0.3	86
Morgan Stanley	10	14	17,193	4.1	1.6	84
Industry Total			**425,023**	**100.0**		**762**

*Indicates a Tie

US Residential MBS (F13b)
YoY Change ($) 76% QoQ Change ($) -6%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Goldman Sachs & Co	1	3	19,965	14.1	2.7	86
Credit Suisse	2	1	18,801	13.3	-3.0	107
Citi	3	9	15,775	11.1	6.2	41
BofA Securities Inc	4	5	15,195	10.7	0.3	61
Morgan Stanley	5	7	13,831	9.8	4.2	62
Wells Fargo & Co	6	6	11,443	8.1	1.7	37
Nomura	7	4	11,152	7.9	-2.8	62
Barclays	8	8	9,126	6.4	1.4	55
JP Morgan	9	2	8,750	6.2	-7.2	39
Amherst Securities	10	11	4,571	3.2	1.5	24
Industry Total			**141,791**	**100.0**		**341**

All Federal Credit Agency Debt (H1)
YoY Change ($) -72% QoQ Change ($) 60%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Barclays	1	1	13,709	13.1	-9.8	83
Wells Fargo & Co	2	3	9,972	9.5	-1.3	102
Nomura	3	2	7,838	7.5	-5.6	49
Citi	4	5	6,782	6.5	-0.7	53
Daiwa Securities Group Inc	5	13	6,469	6.2	4.6	89
TD Securities Inc	6	6	6,383	6.1	0.6	55
JP Morgan	7	4	4,288	4.1	-4.5	57
StoneX Group Inc	8	12	3,875	3.7	2.1	61
Academy Securities Inc	9	22	3,565	3.4	2.6	40
BofA Securities Inc	10	7	3,563	3.4	0.0	30
Industry Total			**104,979**	**100.0**		**598**

International Debt & ESG Bonds Rankings

Full Year 2021 | Debt Capital Markets | Managing Underwriters

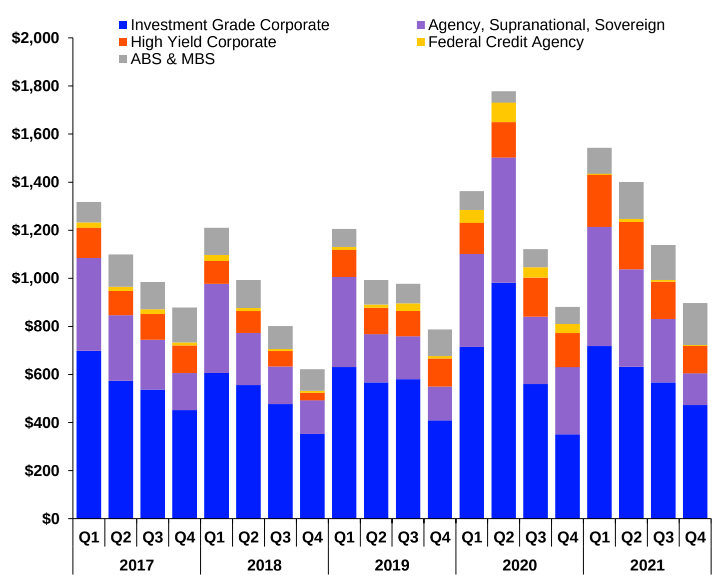
All International Bonds (J01) — YoY Change ($) -3% — QoQ Change ($) -21%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	1	437,603	8.7	-0.1	1,863
BofA Securities Inc	2	3	351,210	7.0	0.2	1,443
Citi	3	2	344,418	6.8	-0.3	1,400
Goldman Sachs & Co	4	5	285,140	5.6	0.2	1,114
Barclays	5	4	262,788	5.2	-1.1	1,155
Deutsche Bank	6	7	244,964	4.8	0.1	1,044
Morgan Stanley	7	9	243,268	4.8	0.6	917
BNP Paribas SA	8	8	235,270	4.7	0.0	1,049
HSBC Holdings PLC	9	6	221,183	4.4	-0.5	1,067
Credit Suisse	10	13	144,853	2.9	0.6	789
Credit Agricole CIB	11	10	133,647	2.6	-0.5	692
Wells Fargo & Co	12	11	125,589	2.5	-0.2	698
RBC Capital Markets	13	14	118,320	2.3	0.0	656
Societe Generale	14	12	116,540	2.3	0.0	466
TD Securities Inc	15	16	88,438	1.8	-0.2	429
Mizuho Financial Group	16	18	86,219	1.7	-0.1	556
Mitsubishi UFJ Financial Group	17	20	80,219	1.6	0.3	449
UniCredit	18	15	79,683	1.6	-0.4	328
Nomura	19	17	75,511	1.5	-0.4	300
Santander Corp & Invest Bkg	20	21	70,906	1.4	0.1	343
Natixis	21	23	70,769	1.4	0.2	316
NatWest Markets	22	19	68,024	1.4	0.0	289
UBS	23	25	58,932	1.2	0.3	351
Standard Chartered PLC	24	24	57,391	1.1	-0.1	449
Commerzbank AG	25	22	55,067	1.1	-0.1	222
Industry Total			**5,056,390**	**100.0**		**6,989**

All Bonds In Euros (N01) — YoY Change ($) -11% — QoQ Change ($) -23%

Bookrunner	Rank 2021	Rank 2020	Proceeds €mil	Market Share	Mkt. Sh Chg	# of Deals
BNP Paribas SA	1	1	118,052	8.2	-0.2	525
JP Morgan	2	2	93,423	6.5	-0.5	411
Deutsche Bank	3	4	86,217	6.0	-0.2	369
Barclays	4	6	74,667	5.2	-0.5	302
Credit Agricole CIB	5	3	74,429	5.2	-1.1	349
HSBC Holdings PLC	6	5	71,042	4.9	-0.9	345
Societe Generale	7	8	70,111	4.9	0.0	287
BofA Securities Inc	8	10	67,706	4.7	0.3	259
Goldman Sachs & Co	9	11	64,978	4.5	0.9	273
UniCredit	10	7	63,811	4.4	-1.0	304
Citi	11	9	62,875	4.4	-0.2	277
Morgan Stanley	12	14	55,244	3.8	1.5	203
Natixis	13	12	42,942	3.0	0.1	215
Commerzbank AG	14	13	40,269	2.8	-0.1	182
Santander Corp & Invest Bkg	15	16	31,257	2.2	0.1	183
NatWest Markets	16	15	30,169	2.1	-0.1	132
ING	17	17	29,279	2.0	0.2	210
Landesbank Baden-Wurttemberg	18	22	25,185	1.7	0.6	113
DZ Bank	19	20	24,750	1.7	0.2	110
Nomura	20	19	23,344	1.6	0.0	68
IMI - Intesa Sanpaolo	21	18	22,632	1.6	0.0	111
Credit Suisse	22	21	20,058	1.4	0.2	130
BBVA	23	23	18,677	1.3	0.2	115
UBS	24	26	15,268	1.1	0.3	99
Danske Bank	25	25	15,214	1.1	0.2	89
Industry Total			**1,444,725**	**100.0**		**1,818**

International Bonds - Issue Type Composition (US$bil)



All Global ESG Bonds (GESG1) — YoY Change ($) 60% — QoQ Change ($) -11%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	1	51,409	6.0	-0.3	248
BNP Paribas SA	2	2	50,551	5.9	0.1	218
BofA Securities Inc	3	7	45,125	5.3	0.9	174
Citi	4	4	42,976	5.0	-0.5	211
Credit Agricole CIB	5	3	42,443	5.0	-0.8	174
HSBC Holdings PLC	6	5	40,105	4.7	-0.7	210
Deutsche Bank	7	8	39,001	4.6	0.7	166
Barclays	8	6	30,516	3.6	-1.2	146
Morgan Stanley	9	9	26,378	3.1	-0.6	140
Goldman Sachs & Co	10	13	26,008	3.0	0.5	120
NatWest Markets	11	16	25,479	3.0	1.0	82
Societe Generale	12	10	24,063	2.8	-0.7	95
Nomura	13	12	21,542	2.5	-0.7	91
Natixis	14	15	20,671	2.4	0.1	68
TD Securities Inc	15	11	17,536	2.1	-1.2	70
Santander Corp & Invest Bkg	16	25	14,930	1.8	0.7	79
Landesbank Baden-Wurttemberg	17	33	13,358	1.6	0.9	37
DZ Bank	18	22	13,303	1.6	0.4	27
Mizuho Financial Group	19	19	12,177	1.4	-0.3	126
ING	20	20	12,015	1.4	-0.2	79
RBC Capital Markets	21	18	11,587	1.4	-0.4	73
Commerzbank AG	22	17	11,543	1.4	-0.6	37
UniCredit	23	14	11,499	1.4	-1.0	67
Danske Bank	24	24	10,865	1.3	0.2	87
BMO Capital Markets	25	23	8,851	1.0	-0.2	38
Industry Total			**854,197**	**100.0**		**1,616**

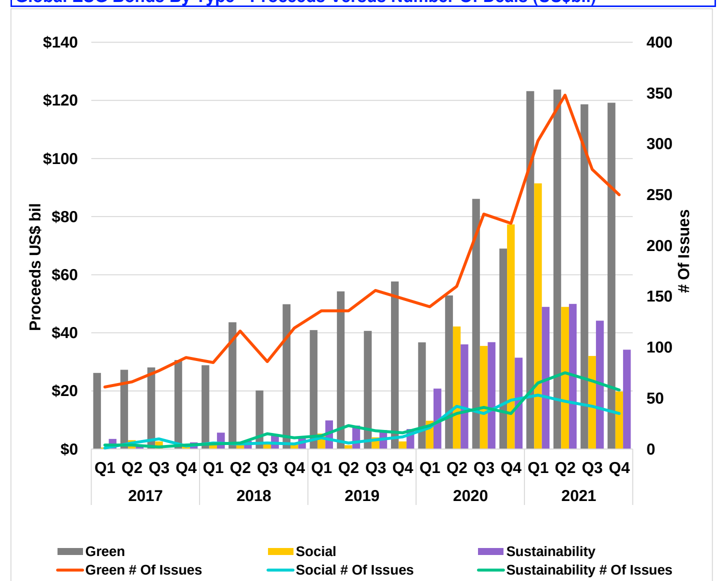
*Indicates a Tie

All Global Green Bonds (GR01)** — YoY Change ($) 98% — QoQ Change ($) 0%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	1	28,893	6.0	0.4	169
BNP Paribas SA	2	2	26,235	5.4	0.1	134
Citi	3	6	23,644	4.9	0.8	130
Credit Agricole CIB	4	3	23,469	4.8	0.3	110
Deutsche Bank	5	5	21,901	4.5	0.2	114
BofA Securities Inc	6	9	21,257	4.4	1.1	115
HSBC Holdings PLC	7	8	19,668	4.1	0.5	126
Barclays	8	4	14,694	3.0	-1.3	85
NatWest Markets	9	14	12,249	2.5	0.3	48
Goldman Sachs & Co	10	13	11,506	2.4	0.1	75
Morgan Stanley	11	7	11,258	2.3	-1.3	90
Nomura	12	25	11,191	2.3	0.9	44
TD Securities Inc	13	30	9,780	2.0	1.1	49
Danske Bank	14	15	9,656	2.0	-0.1	78
Santander Corp & Invest Bkg	15	26	9,325	1.9	0.6	53
ING	16	12	8,416	1.7	-0.9	56
Societe Generale	17	10	8,314	1.7	-1.3	54
RBC Capital Markets	18	16	7,642	1.6	-0.5	51
UniCredit	19	11	7,163	1.5	-1.1	49
Bank of China Ltd	20	39	6,989	1.4	0.9	97
UBS	21	33	6,630	1.4	0.7	60
Credit Suisse	22	21	6,133	1.3	-0.3	66
Natixis	23	27	6,065	1.3	0.0	40
Mizuho Financial Group	24	19	6,014	1.2	-0.6	77
Commerzbank AG	25	17	5,637	1.2	-0.8	25
Industry Total			**484,741**	**100.0**		**1,176**

**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 2021 | Debt Capital Markets | Managing Underwriters

Global High Yield Debt (B4)

YoY Change ($) 17% QoQ Change ($) -22%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	1	63,062	9.7	0.0	474
BofA Securities Inc	2	2	52,649	8.1	-0.5	419
Goldman Sachs & Co	3	3	39,383	6.1	-0.5	326
Barclays	4	4	38,317	5.9	-0.6	307
Deutsche Bank	5	6	34,316	5.3	0.2	300
Citi	6	5	32,932	5.1	-1.3	298
Morgan Stanley	7	7	30,946	4.8	-0.1	226
Credit Suisse	8	8	28,186	4.3	-0.3	278
Wells Fargo & Co	9	9	27,184	4.2	-0.3	241
BNP Paribas SA	10	11	21,262	3.3	0.1	203
RBC Capital Markets	11	10	20,663	3.2	0.0	191
HSBC Holdings PLC	12	12	19,412	3.0	0.5	192
Mizuho Financial Group	13	16	13,936	2.2	0.5	130
Truist Financial Corp	14	14	12,424	1.9	0.1	131
Credit Agricole CIB	15	15	11,586	1.8	0.1	111
Mitsubishi UFJ Financial Group	16	13	11,153	1.7	-0.2	105
Jefferies LLC	17	19	10,989	1.7	0.5	60
ING	18	27	8,423	1.3	0.5	77
BMO Capital Markets	19	18	8,080	1.2	-0.1	84
UBS	20	17	7,307	1.1	-0.5	104
Societe Generale	21	21	6,914	1.1	-0.1	67
TD Securities Inc	22	20	6,540	1.0	-0.2	67
UniCredit	23	26	6,357	1.0	0.2	62
Sumitomo Mitsui Finl Grp Inc	24	23	6,234	1.0	0.0	60
Santander Corp & Invest Bkg	25	36	5,856	0.9	0.4	58
Industry Total			**649,439**	**100.0**		**972**

Global High Yield Debt USD Denominated (B5)

YoY Change ($) 10% QoQ Change ($) -32%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	1	52,650	10.5	0.3	398
BofA Securities Inc	2	2	44,025	8.8	-0.7	372
Goldman Sachs & Co	3	3	28,760	5.7	-1.2	244
Citi	4	5	28,381	5.7	-1.0	258
Barclays	5	4	27,715	5.5	-1.2	241
Wells Fargo & Co	6	7	26,583	5.3	0.0	235
Deutsche Bank	7	8	24,790	4.9	0.2	226
Morgan Stanley	8	6	24,676	4.9	-0.5	185
Credit Suisse	9	9	22,327	4.5	-0.1	222
RBC Capital Markets	10	10	18,837	3.8	0.3	174
Truist Financial Corp	11	12	12,202	2.4	0.3	129
BNP Paribas SA	12	14	12,038	2.4	0.4	116
Mizuho Financial Group	13	15	12,003	2.4	0.6	113
HSBC Holdings PLC	14	13	11,159	2.2	0.2	126
Jefferies LLC	15	18	10,300	2.1	0.7	53
Mitsubishi UFJ Financial Group	16	11	9,260	1.9	-0.3	88
BMO Capital Markets	17	17	7,830	1.6	0.1	83
TD Securities Inc	18	19	6,503	1.3	-0.1	67
UBS	19	16	6,108	1.2	-0.5	93
Credit Agricole CIB	20	22	5,981	1.2	0.1	54
PNC Financial Services Group	21	24	5,551	1.1	0.1	64
Fifth Third Bancorp	22	25	5,087	1.0	0.2	70
Sumitomo Mitsui Finl Grp Inc	23	23	5,040	1.0	0.0	49
US Bancorp	24	21	4,993	1.0	-0.1	61
Scotiabank	25	20	4,788	1.0	-0.2	54
Industry Total			**501,674**	**100.0**		**767**

Top High Yield Corporate Deals

Issue Date	Issuer	Domicile Nation	Proceeds US$mil	Coupon %	Macro Sector
6/30/21	SoftBank Group Corp	Japan	7,347.2	5.250	Telecommunications
9/29/21	Medline Borrower LP	United States	7,000.0	3.875	Healthcare
3/10/21	American Airlines Inc	United States	6,500.0	5.500	Industrials
4/8/21	Organon & Co	United States	5,589.0	4.125	Healthcare
11/10/21	DISH DBS Corp	United States	5,250.0	5.250	Media and Entertainment
10/13/21	Iliad Holding Sas	France	4,244.5	5.125	Financials
4/14/21	United Airlines Inc	United States	4,000.0	4.375	Industrials
3/16/21	T-Mobile US Inc	United States	3,800.0	3.500	Telecommunications
2/10/21	Carnival Corp	United States	3,500.0	5.750	Consumer Products and Services
2/10/21	Bellis Acquisition Co PLC	United States	3,111.3	3.250	Retail
5/10/21	T-Mobile US Inc	United States	3,024.0	3.500	Telecommunications
1/11/21	T-Mobile US Inc	United States	3,000.0	2.875	Telecommunications
2/9/21	Cellnex Finance Co SAU	Spain	2,982.7	2.000	Telecommunications

Global High Yield Debt Non-USD Denominated (B6)

YoY Change ($) 49% QoQ Change ($) 20%

Bookrunner	Rank 2021	Rank 2020	Proceeds €mil	Market Share	Mkt. Sh Chg	# of Deals
Goldman Sachs & Co	1	5	8,940	7.2	1.9	96
Barclays	2	4	8,897	7.2	1.5	76
JP Morgan	3	2	8,731	7.0	-0.2	89
Deutsche Bank	4	3	7,981	6.4	-0.6	86
BNP Paribas SA	5	1	7,754	6.2	-2.6	96
BofA Securities Inc	6	11	7,274	5.9	1.6	59
HSBC Holdings PLC	7	7	6,928	5.6	0.4	72
Morgan Stanley	8	15	5,273	4.2	1.7	52
Credit Suisse	9	10	4,930	4.0	-0.3	64
UniCredit	10	9	4,727	3.8	-0.7	56
Credit Agricole CIB	11	8	4,727	3.8	-1.0	66
Citi	12	6	3,823	3.1	-2.1	46
ING	13	13	3,393	2.7	-0.2	45
Societe Generale	14	12	2,835	2.3	-0.9	36
Santander Corp & Invest Bkg	15	21	2,712	2.2	0.9	33
IMI - Intesa Sanpaolo	16	16	2,419	2.0	0.2	29
Natixis	17	18	2,250	1.8	0.2	30
NatWest Markets	18	14	1,922	1.6	-1.0	21
BBVA	19	35	1,761	1.4	0.8	23
Commerzbank AG	20	19	1,678	1.4	-0.2	19
Mizuho Financial Group	21	22	1,639	1.3	0.0	22
Mitsubishi UFJ Financial Group	22	30	1,596	1.3	0.6	19
RBC Capital Markets	23	17	1,544	1.2	-0.6	23
Lloyds Bank	24	20	1,533	1.2	-0.2	18
Cooperatieve Rabobank UA	25	29	1,275	1.0	0.2	15
Industry Total			**124,282**	**100.0**		**225**

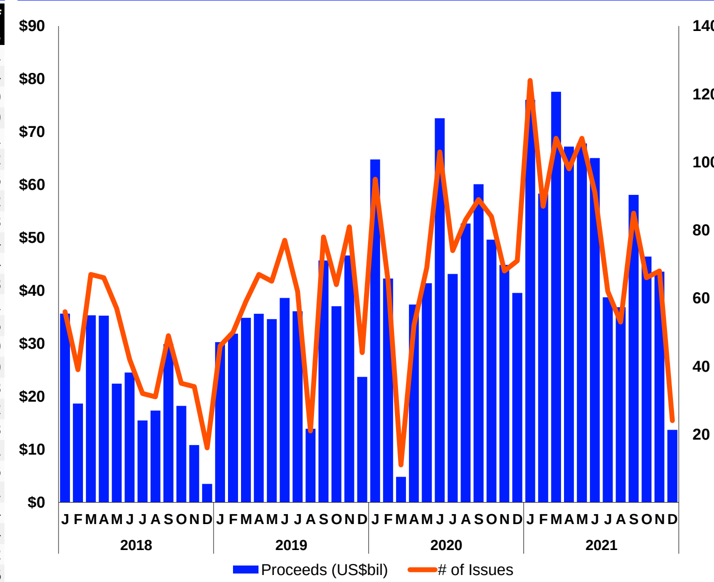
*Indicates a Tie

Global High Yield Debt EURO Denominated (B06b)

YoY Change ($) 47% QoQ Change ($) 21%

Bookrunner	Rank 2021	Rank 2020	Proceeds €mil	Market Share	Mkt. Sh Chg	# of Deals
JP Morgan	1	2	8,057	7.6	0.0	81
Goldman Sachs & Co	2	7	8,011	7.5	2.4	84
BNP Paribas SA	3	1	7,223	6.8	-2.6	89
Deutsche Bank	4	3	7,171	6.8	-0.7	79
BofA Securities Inc	5	9	6,344	6.0	1.4	51
Barclays	6	8	5,437	5.1	0.3	52
UniCredit	7	6	4,708	4.4	-0.8	56
HSBC Holdings PLC	8	11	4,669	4.4	-0.1	52
Credit Agricole CIB	9	5	4,582	4.3	-1.1	63
Credit Suisse	10	10	4,311	4.1	-0.5	54
Morgan Stanley	11	14	4,236	4.0	1.3	44
Citi	12	4	3,260	3.1	-2.5	38
ING	13	13	3,141	3.0	-0.1	41
Societe Generale	14	12	2,727	2.6	-0.9	35
IMI - Intesa Sanpaolo	15	15	2,363	2.2	0.3	29
Natixis	16	16	2,221	2.1	0.2	29
Santander Corp & Invest Bkg	17	21	2,200	2.1	0.8	28
BBVA	18	34	1,712	1.6	1.0	22
Commerzbank AG	19	19	1,672	1.6	0.0	18
Mizuho Financial Group	20	20	1,567	1.5	0.0	21
Mitsubishi UFJ Financial Group	21	36	1,478	1.4	0.9	16
RBC Capital Markets	22	18	1,416	1.3	-0.4	21
NatWest Markets	23	17	1,222	1.2	-0.6	14
Sumitomo Mitsui Finl Grp Inc	24	28	982	0.9	0.2	14
Nomura	25	29	961	0.9	0.2	12
Industry Total			**106,302**	**100.0**		**185**

Global High Yield Corporate Debt Issuance



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An LSEG Business

Emerging Markets Rankings

Full Year 2021 | Debt Capital Markets | Managing Underwriters

All International Emerging Market Bonds (L1)

YoY Change ($) 1% QoQ Change ($) -29%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	3	64,989	8.5	1.2	331
Citi	2	1	62,494	8.2	-0.4	332
HSBC Holdings PLC	3	2	55,536	7.3	0.0	419
BofA Securities Inc	4	8	38,139	5.0	1.0	197
Standard Chartered PLC	5	4	38,074	5.0	-0.7	344
BNP Paribas SA	6	7	34,544	4.5	0.2	227
Goldman Sachs & Co	7	5	29,982	3.9	-1.1	124
Morgan Stanley	8	9	21,357	2.8	0.2	103
Credit Agricole CIB	9	10	20,212	2.7	0.2	184
Deutsche Bank	10	6	19,453	2.6	-2.0	144
Barclays	11	11	15,438	2.0	-0.4	116
Credit Suisse	12	14	15,413	2.0	-0.3	138
Bank of China Ltd	13	13	14,450	1.9	-0.4	238
Mizuho Financial Group	14	15	13,675	1.8	-0.3	145
UBS	15	12	13,382	1.8	-0.5	150
Societe Generale	16	16	12,970	1.7	-0.2	84
Santander Corp & Invest Bkg	17	25	12,700	1.7	0.7	64
Mitsubishi UFJ Financial Group	18	18	11,340	1.5	0.2	83
CITIC	19	19	10,936	1.4	0.1	267
DBS Group Holdings	20	20	10,552	1.4	0.1	143
Industry Total			**762,379**	**100.0**		**1,433**

EMEA Emerging Market Bonds (L2)

YoY Change ($) 3% QoQ Change ($) -61%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	19,558	14.5	-0.5	77
Citi	2	2	17,064	12.7	0.4	67
BNP Paribas SA	3	3	8,884	6.6	-2.7	36
Goldman Sachs & Co	4	11	7,263	5.4	1.9	25
VTB Capital	5	17	5,747	4.3	2.6	22
Standard Chartered PLC	6	15	5,681	4.2	2.3	25
BofA Securities Inc	7	13	5,325	4.0	1.6	22
Societe Generale	8	6	5,289	3.9	-0.4	27
UniCredit	9	5	5,225	3.9	-0.7	25
HSBC Holdings PLC	10	7	5,223	3.9	-0.4	22
Deutsche Bank	11	4	3,966	2.9	-1.9	17
Barclays	12	8	3,397	2.5	-1.5	17
Gazprombank	13	12	3,353	2.5	-0.6	17
Raiffeisen Bank International	14	20	3,195	2.4	0.9	11
Erste Group	15	10	3,081	2.3	-1.3	20
ING	16	9	2,504	1.9	-2.1	18
Credit Agricole CIB	17	18	1,791	1.3	-0.4	8
Sumitomo Mitsui Finl Grp Inc	18	28	1,606	1.2	0.6	12
IMI - Intesa Sanpaolo	19	16	1,594	1.2	-0.5	9
Mitsubishi UFJ Financial Group	20	25	1,549	1.2	0.6	12
Industry Total			**134,688**	**100.0**		**177**

Latin America Emerging Market Bonds (L3)

YoY Change ($) 9% QoQ Change ($) -31%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
JP Morgan	1	1	16,883	12.9	1.3	69
BofA Securities Inc	2	5	14,529	11.1	4.2	53
Citi	3	2	13,536	10.3	-0.6	54
Santander Corp & Invest Bkg	4	8	10,947	8.3	2.7	53
Morgan Stanley	5	11	9,694	7.4	3.3	35
Goldman Sachs & Co	6	3	9,336	7.1	-2.0	39
BNP Paribas SA	7	10	7,222	5.5	1.2	29
HSBC Holdings PLC	8	12	7,061	5.4	1.6	26
Scotiabank	9	6	5,908	4.5	-1.3	20
Itau Unibanco	10	7	4,054	3.1	-2.5	22
BBVA	11	9	3,915	3.0	-1.9	15
Credit Suisse	12	13	3,902	3.0	-0.6	18
Barclays	13	16	2,836	2.2	0.9	11
Credit Agricole CIB	14	22	2,297	1.8	1.2	11
Deutsche Bank	15	4	2,274	1.7	-7.2	8
Banco BTG Pactual SA	16	19	1,989	1.5	0.6	19
Banco Bradesco SA	17	17	1,889	1.4	0.3	13
Mizuho Financial Group	18	14	1,668	1.3	-1.3	10
UBS	19	24	1,598	1.2	0.8	16
Mitsubishi UFJ Financial Group	20	18	1,075	0.8	-0.3	9
Industry Total			**131,370**	**100.0**		**161**

Asia Pacific Emerging Market Bonds (L4)

YoY Change ($) 6% QoQ Change ($) -24%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
HSBC Holdings PLC	1	1	32,513	8.2	0.1	316
Citi	2	2	23,448	5.9	0.3	173
JP Morgan	3	5	20,504	5.2	0.9	145
Standard Chartered PLC	4	3	19,984	5.0	-0.5	240
BofA Securities Inc	5	7	15,864	4.0	0.3	112
Credit Agricole CIB	6	11	14,358	3.6	0.7	146
BNP Paribas SA	7	10	13,931	3.5	0.5	143
Bank of China Ltd	8	4	13,765	3.5	-0.8	233
CITIC	9	14	10,886	2.7	0.1	266
Deutsche Bank	10	13	10,818	2.7	-0.1	110
Industry Total			**398,267**	**100.0**		**948**

Middle East Emerging Market Bonds (L5)

YoY Change ($) -20% QoQ Change ($) 83%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Standard Chartered PLC	1	1	12,053	11.5	-3.8	76
HSBC Holdings PLC	2	3	10,976	10.4	-0.7	56
Citi	3	2	10,513	10.0	-1.9	40
JP Morgan	4	7	10,054	9.6	4.6	41
Goldman Sachs & Co	5	4	5,658	5.4	-2.9	18
BNP Paribas SA	6	10	4,381	4.2	1.1	18
First Abu Dhabi Bank PJSC	7	6	3,939	3.7	-1.7	25
Mitsubishi UFJ Financial Group	8	18	3,046	2.9	2.0	13
Emirates NBD PJSC	9	14	2,604	2.5	0.8	23
Mizuho Financial Group	10	15	2,464	2.3	0.9	19
Industry Total			**105,184**	**100.0**		**148**

All Global Debt, by Brazilian Issuers (BR1)

YoY Change ($) -14% QoQ Change ($) -54%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
Itau Unibanco	1	2	6,027	14.4	-0.4	85
UBS	2	25	4,184	10.0	9.7	47
Banco Bradesco SA	3	4	3,530	8.4	1.6	40
Banco BTG Pactual SA	4	6	3,293	7.9	1.5	41
Santander Corp & Invest Bkg	5	3	3,161	7.6	0.4	45
Citi	6	8	2,144	5.1	0.7	21
JP Morgan	7	5	2,126	5.1	-1.4	21
Morgan Stanley	8	11	1,904	4.6	2.1	19
HSBC Holdings PLC	9	16	1,812	4.3	3.3	8
Goldman Sachs & Co	10	12	1,564	3.7	1.5	9
Industry Total			**41,865**	**100.0**		**163**

Domestic Brazilian Debt, in Reals (BR2)

YoY Change ($) 4% QoQ Change ($) -45%

Bookrunner	Rank 2021	Rank 2020	Proceeds R$mil	Market Share	Mkt. Sh. Chg	# of Deals
Itau Unibanco	1	1	24,254	29.9	0.6	76
UBS	2	14	14,137	17.4	16.9	33
Banco BTG Pactual SA	3	3	10,400	12.8	-3.2	28
Santander Corp & Invest Bkg	4	4	8,886	11.0	3.4	37
Banco Bradesco SA	5	2	8,626	10.6	-6.3	31
Banco Votorantim	6	9	2,312	2.9	0.6	11
Arab Banking Corporation	7	10	2,185	2.7	0.9	13
Citi	8	13	2,073	2.6	1.4	5
Banco Safra SA	9	8	2,062	2.5	-0.3	8
XP Investimentos	10	6	1,613	2.0	-3.7	6
Industry Total			**81,147**	**100.0**		**143**

*Indicates a Tie

Global Debt, Mexican Issuers (MX1)

YoY Change ($) -21% QoQ Change ($) -24%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
BBVA	1	1	4,934	11.5	-3.2	69
Santander Corp & Invest Bkg	2	5	4,326	10.1	1.2	50
Citi	3	4	4,323	10.1	0.8	33
BofA Securities Inc	4	6	3,172	7.4	1.4	15
JP Morgan	5	2	2,907	6.8	-5.5	11
Goldman Sachs & Co	6	3	2,383	5.6	-6.7	10
Morgan Stanley	7	8	2,270	5.3	0.6	8
HSBC Holdings PLC	8	13	2,123	5.0	2.8	8
BNP Paribas SA	9	9	1,990	4.7	0.8	8
Casa de Bolsa Inverlat	10	11	1,932	4.5	1.9	26
Industry Total			**42,797**	**100.0**		**136**

Domestic Mexican Debt (MX3)

YoY Change ($) 9% QoQ Change ($) 4%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh. Chg	# of Deals
BBVA	1	1	2,751	21.4	-9.4	58
Santander Corp & Invest Bkg	2	2	2,385	18.6	-0.9	42
Casa de Bolsa Inverlat	3	3	1,842	14.3	2.2	27
Grupo Financiero Banorte-Ixe	4	8	1,571	12.2	9.7	32
Casas de Bolsa Bital, S.A.	5	6	1,198	9.3	2.9	20
Citi	6	5	1,177	9.2	2.1	21
Corporacion Actinver Sab de CV	7	7	1,061	8.3	4.5	16
Multibanco Comermex SNC	8	-	253	2.0	2.0	7
Invex Casa de Bolsa, SA de CV	9	-	196	1.5	1.5	4
GBM Grupo Bursatil Mexicano	10	13	134	1.0	0.4	5
Industry Total			**12,856**	**100.0**		**108**

Asia-Pacific Rankings

Full Year 2021 | Debt Capital Markets | Managing Underwriters

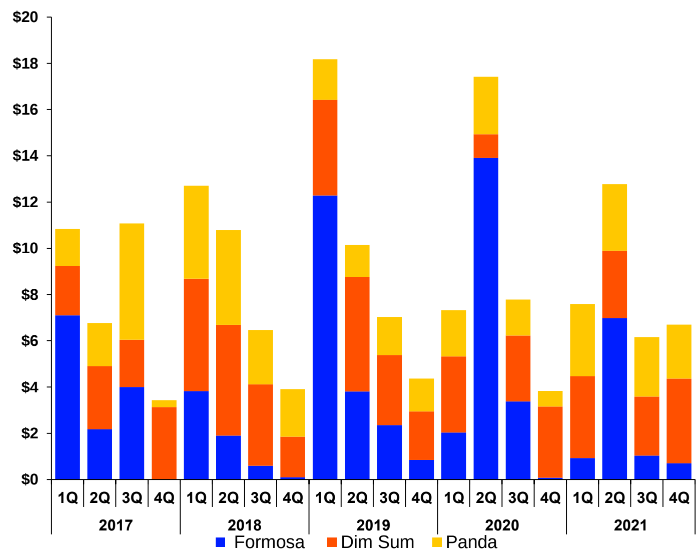
Asian G3 Bonds (ex-Japan & Australia) (AR2) YoY Change ($) 0% QoQ Change ($) -29%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
HSBC Holdings PLC	1	1	28,704	7.7	0.5	256
Citi	2	2	24,459	6.6	0.4	160
JP Morgan	3	4	20,954	5.6	1.1	130
Standard Chartered PLC	4	3	18,011	4.8	-0.4	205
BofA Securities Inc	5	5	15,443	4.1	-0.1	103
Credit Agricole CIB	6	12	13,315	3.6	0.7	100
BNP Paribas SA	7	9	12,399	3.3	0.1	124
Bank of China Ltd	8	7	11,871	3.2	-0.9	203
Deutsche Bank	9	11	11,542	3.1	0.1	102
Morgan Stanley	10	10	11,539	3.1	0.1	53
UBS	11	8	10,428	2.8	-1.0	122
Goldman Sachs & Co	12	6	10,176	2.7	-1.4	41
CITIC	13	14	9,877	2.7	0.2	247
DBS Group Holdings	14	15	8,805	2.4	-0.1	119
China International Capital Co	15	24	8,547	2.3	0.9	169
Credit Suisse	16	13	7,716	2.1	-0.8	99
Mizuho Financial Group	17	17	7,656	2.1	-0.2	93
Industrial & Comm Bank China	18	16	7,337	2.0	-0.4	140
Barclays	19	18	7,096	1.9	-0.2	65
Bank of Communications Co Ltd	20	19	6,171	1.7	-0.1	153
Guotai Junan Securities	21	22	5,689	1.5	-0.1	188
China Merchants Bank	22	25	5,230	1.4	0.0	159
China Minsheng Banking Corp	23	27	5,139	1.4	0.1	167
China Construction Bank	24	21	5,097	1.4	-0.3	128
Societe Generale	25	28	5,061	1.4	0.3	39
Industry Total			**372,896**	**100.0**		**745**

Asian G3 High Yield Bonds (ex Japan & Australia) (AR10) YoY Change ($) -26% QoQ Change ($) -56%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
Deutsche Bank	1	6	2,692	7.0	2.0	57
HSBC Holdings PLC	2	8	2,517	6.5	2.7	54
CITIC	3	4	2,420	6.3	0.2	67
Guotai Junan Securities	4	5	2,331	6.0	0.1	76
Haitong Securities Co Ltd	5	3	1,905	4.9	-1.6	70
UBS	6	2	1,860	4.8	-1.9	55
Credit Suisse	7	1	1,790	4.6	-3.6	50
JP Morgan	8	18	1,759	4.6	2.6	25
Standard Chartered PLC	9	10	1,373	3.6	0.2	36
China International Capital Co	10	28	1,336	3.5	2.6	31
Morgan Stanley	11	11	978	2.5	-0.8	18
China Merchants Bank	12	16	946	2.5	0.1	34
Barclays	13	12	900	2.3	-0.9	21
China Construction Bank	14	17	889	2.3	0.3	32
BofA Securities Inc	15	7	849	2.2	-1.9	18
Bank of Communications Co Ltd	16	19	837	2.2	0.7	28
Bank of China Ltd	17	9	790	2.0	-1.5	25
Bank of East Asia Ltd	18	22	787	2.0	0.7	25
China Minsheng Banking Corp	19	21	771	2.0	0.7	30
Citi	20	23	754	2.0	0.8	16
BNP Paribas SA	21	14	687	1.8	-1.2	20
Nomura	22	31	546	1.4	0.6	9
DBS Group Holdings	23	25	502	1.3	0.3	13
HeungKong Group Ltd	24	24	460	1.2	0.1	16
Goldman Sachs & Co	25	13	457	1.2	-1.9	11
Industry Total			**38,662**	**100.0**		**137**

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

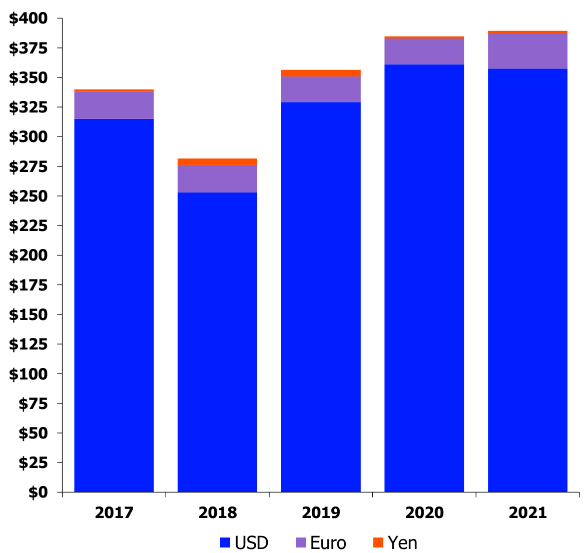


All Asian Currencies (ex Japan & Australia) (AS1) YoY Change ($) 12% QoQ Change ($) -9%

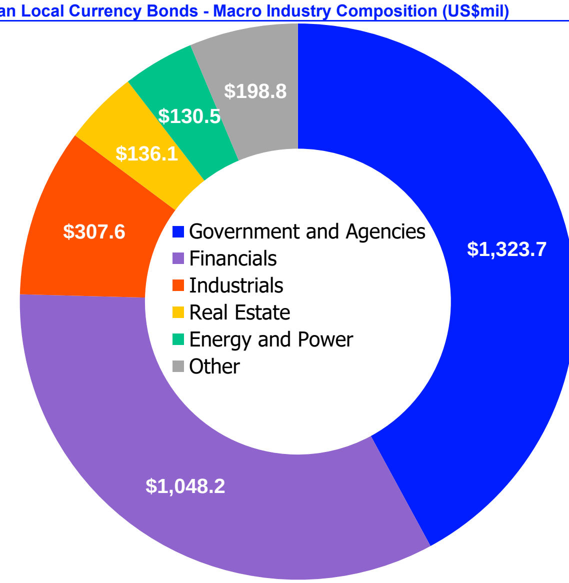
Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
CITIC	1	3	208,309	6.6	0.7	2,738
Bank of China Ltd	2	1	191,275	6.1	-0.1	2,447
Industrial & Comm Bank China	3	2	181,945	5.8	-0.1	2,356
China Construction Bank	4	4	165,900	5.3	-0.1	2,433
China Securities Co Ltd	5	7	153,480	4.9	0.8	1,993
Agricultural Bank of China	6	6	151,985	4.8	0.2	2,084
Bank of Communications Co Ltd	7	5	135,763	4.3	-0.4	2,007
Huatai Securities Co Ltd	8	10	98,310	3.1	0.6	1,437
Industrial Bank Co Ltd	9	8	97,983	3.1	0.1	1,469
Guotai Junan Securities	10	9	87,447	2.8	0.1	1,183
China International Capital Co	11	12	74,465	2.4	0.3	920
China Merchants Bank	12	11	70,383	2.2	-0.1	1,017
Haitong Securities Co Ltd	13	13	63,285	2.0	0.1	897
Postal Savings Bank Of China	14	16	55,098	1.8	0.1	730
Shanghai Pudong Development Bk	15	15	49,868	1.6	-0.2	788
China Merchants Securities Co	16	19	47,863	1.5	0.4	434
China Minsheng Banking Corp	17	14	46,189	1.5	-0.4	830
Orient Securities Co Ltd	18	25	45,713	1.5	0.7	816
Everbright Securities Co Ltd	19	17	39,653	1.3	0.1	643
Shenwan Hongyuan Securities Co	20	20	34,120	1.1	0.1	387
Guosen Securities Co Ltd	21	24	30,792	1.0	0.2	414
KB Financial Group Inc	22	21	29,396	0.9	0.0	699
NH Investment & Securities Co	23	23	27,847	0.9	0.0	606
China Galaxy Securities Co	24	43	26,049	0.8	0.4	340
China Everbright Bank	25	18	25,712	0.8	-0.3	411
Industry Total			**3,144,973**	**100.0**		**14,451**

*Indicates a Tie

Asian G3 Bond Volume - Currency (US$mil)



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



REFINITIV

Australia & China Rankings

Full Year 2021 | Debt Capital Markets | Managing Underwriters

All Australian Debt (ex self-funded) (AJ3a)

YoY Change ($) -36% QoQ Change ($) -54%

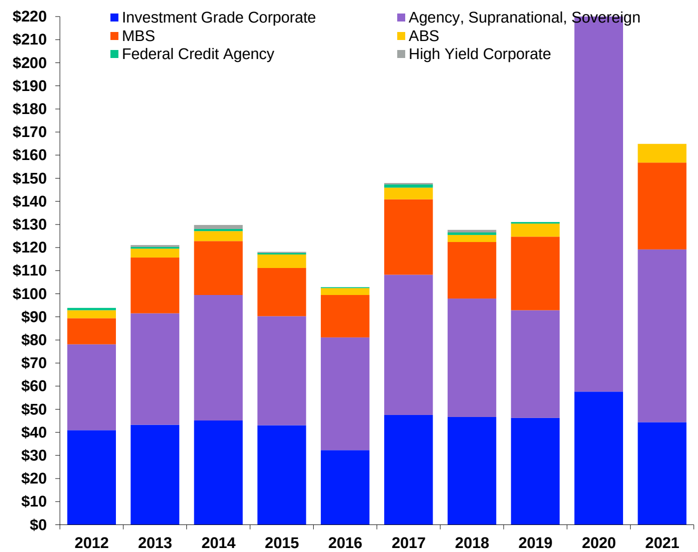
Bookrunner	Rank 2021	Rank 2020	Proceeds AU$mil	Market Share	Mkt. Sh Chg	# of Deals
Westpac Banking	1	1	24,507	14.9	1.6	103
National Australia Bank	2	5	24,193	14.7	5.6	121
Commonwealth Bank of Australia	3	4	22,557	13.7	0.9	97
ANZ Banking Group	4	2	22,164	13.4	0.3	110
UBS	5	3	11,802	7.2	-5.9	32
Deutsche Bank	6	6	11,524	7.0	0.0	38
RBC Capital Markets	7	13	6,311	3.8	2.8	35
TD Securities Inc	8	10	5,761	3.5	0.9	59
Nomura	9	11	4,287	2.6	1.1	38
Citi	10	7	3,958	2.4	-4.2	16
Macquarie Group	11	12	3,599	2.2	0.9	20
JP Morgan	12	8	2,881	1.8	-4.6	21
Standard Chartered PLC	13	14	2,628	1.6	0.7	13
BofA Securities Inc	14	9	2,576	1.6	-3.7	11
Sumitomo Mitsui Finl Grp Inc	15	17	2,561	1.6	0.9	13
Mitsubishi UFJ Financial Group	16	15	1,830	1.1	0.3	12
Mizuho Financial Group	17	18	1,656	1.0	0.5	13
HSBC Holdings PLC	18	16	1,644	1.0	0.2	10
Natixis	19	20	1,605	1.0	0.6	8
Bank of China Ltd	20	22	1,309	0.8	0.5	10
Industry Total			**164,909**	**100.0**		**348**

All Australian International Bonds (AJ7)

YoY Change ($) 43% QoQ Change ($) 47%

Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
Citi	1	1	8,142	14.1	0.8	28
HSBC Holdings PLC	2	2	5,943	10.3	-0.7	27
JP Morgan	3	4	4,967	8.6	0.7	18
BofA Securities Inc	4	3	4,238	7.3	-3.0	16
Westpac Banking	5	8	3,237	5.6	1.1	7
Goldman Sachs & Co	6	6	3,075	5.3	0.3	9
BNP Paribas SA	7	10	2,950	5.1	1.2	14
Morgan Stanley	8	15	2,627	4.5	2.1	7
TD Securities Inc	9	11	2,418	4.2	0.7	5
Commonwealth Bank of Australia	10	9	2,054	3.6	-0.5	6
UBS	11	12	1,951	3.4	0.4	9
RBC Capital Markets	12	7	1,915	3.3	-1.2	7
National Australia Bank	13	13	1,621	2.8	0.0	10
Macquarie Group	14	18	1,528	2.6	1.3	7
Deutsche Bank	15	14	1,522	2.6	0.0	9
Barclays	16	17	1,410	2.4	0.3	8
Wells Fargo & Co	17	23	1,389	2.4	1.8	6
Credit Suisse	18	19	1,268	2.2	1.0	7
Credit Agricole CIB	19	-	858	1.5	1.5	4
Sumitomo Mitsui Finl Grp Inc	20	24	698	1.2	0.6	6
Industry Total			**57,906**	**100.0**		**75**

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



China G3 Currency Bonds (AR5)

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

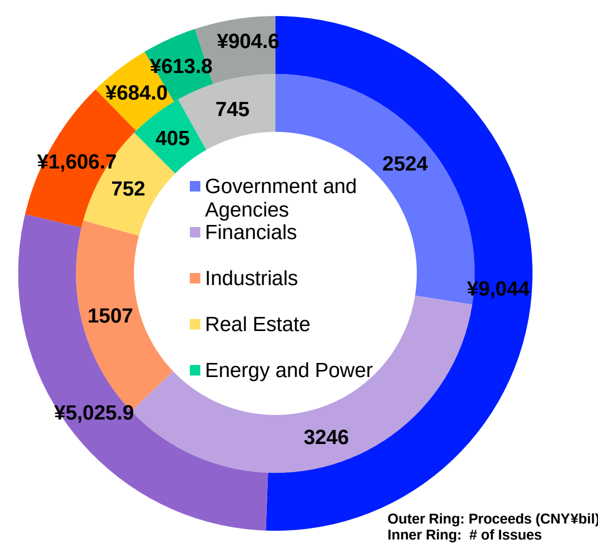
Bookrunner	Rank 2021	Rank 2020	Proceeds US$mil	Market Share	Mkt. Sh Chg	# of Deals
CITIC	1	4	7,461	4.8	0.8	198
Bank of China Ltd	2	1	7,409	4.8	-1.2	155
China International Capital Co	3	17	7,090	4.6	2.0	138
HSBC Holdings PLC	4	2	7,000	4.5	-0.5	90
JP Morgan	5	5	6,168	4.0	0.0	48
Industrial & Comm Bank China	6	6	5,560	3.6	-0.3	110
Citi	7	9	5,104	3.3	-0.1	55
Standard Chartered PLC	8	7	4,941	3.2	-0.5	91
Guotai Junan Securities	9	15	4,818	3.1	0.4	156
Bank of Communications Co Ltd	10	18	4,671	3.0	0.5	114
Morgan Stanley Huaxin Securities	11	24	4,446	2.9	1.1	27
BofA Securities Inc	12	11	4,289	2.8	-0.4	42
UBS	13	8	4,097	2.6	-0.9	71
China Merchants Bank	14	22	3,861	2.5	0.4	125
Credit Agricole CIB	15	10	3,855	2.5	-0.8	40
China Minsheng Banking Corp	16	23	3,848	2.5	0.5	133
Industrial Bank Co Ltd	17	28	3,792	2.4	1.1	136
Haitong Securities Co Ltd	18	12	3,662	2.4	-0.8	137
China Construction Bank	19	13	3,658	2.4	-0.5	90
Shanghai Pudong Development Bk	20	21	3,528	2.3	0.2	133
Industry Total			**155,362**	**100.0**		**398**

Chinese Yuan Bonds (ex-Self Funded) (AS24)

YoY Change ($) 5% QoQ Change ($) -9%

Bookrunner	Rank 2021	Rank 2020	Proceeds CN¥mil	Market Share	Mkt. Sh Chg	# of Deals
CITIC	1	3	1,343,218	7.5	0.8	2,735
Bank of China Ltd	2	1	1,210,396	6.8	-0.3	2,436
Industrial & Comm Bank China	3	2	1,171,066	6.6	-0.2	2,349
China Construction Bank	4	4	1,068,646	6.0	-0.2	2,426
China Securities Co Ltd	5	7	988,624	5.5	0.8	1,990
Agricultural Bank of China	6	6	979,301	5.5	0.3	2,078
Bank of Communications Co Ltd	7	5	870,481	4.9	-0.5	1,998
Huatai Securities Co Ltd	8	10	633,840	3.6	0.8	1,436
Industrial Bank Co Ltd	9	8	631,681	3.5	0.1	1,467
Guotai Junan Securities	10	9	563,791	3.2	0.1	1,181
China International Capital Co	11	12	479,676	2.7	0.3	917
China Merchants Bank	12	11	453,783	2.5	-0.1	1,013
Haitong Securities Co Ltd	13	13	407,830	2.3	0.1	894
Postal Savings Bank Of China	14	16	355,081	2.0	0.1	730
Shanghai Pudong Development Bk	15	15	321,484	1.8	-0.2	784
China Merchants Securities Co	16	19	308,246	1.7	0.5	432
China Minsheng Banking Corp	17	14	297,367	1.7	-0.5	825
Orient Securities Co Ltd	18	23	294,701	1.7	0.8	816
Everbright Securities Co Ltd	19	17	255,770	1.4	0.0	642
Shenwan Hongyuan Securities Co	20	20	219,992	1.2	0.0	386
Industry Total			**17,879,075**	**100.0**		**9,179**

Chinese Yuan Bonds - Macro Industry Composition



*Indicates a Tie

Japan Rankings

Full Year 2021 | Debt Capital Markets | Managing Underwriters

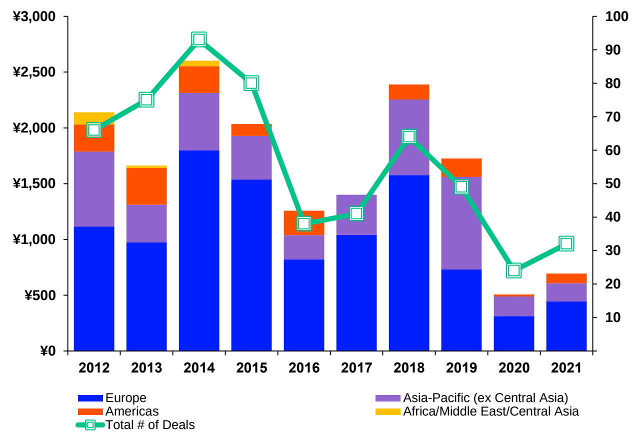
All Bonds in Yen (AP05) YoY Change (¥) -4% QoQ Change (¥) 20%

Lead Manager	Rank 2021	Rank 2020	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Mizuho Financial Group	1	1	6,057	22.7	-0.6	791
Nomura	2	3	4,562	17.1	0.3	598
Mitsubishi UFJ Morgan Stanley	3	5	4,504	16.9	0.8	577
Sumitomo Mitsui Finl Grp Inc	4	2	4,238	15.9	-2.0	576
Daiwa Securities Group Inc	5	4	4,150	15.5	-0.6	534
Sumitomo Mitsui Trust Holdings	6	8	620	2.3	1.1	35
Goldman Sachs & Co	7	6	440	1.7	-0.2	51
Mitsubishi UFJ Financial Group	8	7	417	1.6	-0.2	29
Tokai Tokyo Financial Holdings	9	10	275	1.0	0.2	73
BofA Securities Inc	10	9	273	1.0	0.0	36
Barclays	11	12	239	0.9	0.4	22
SBI Holdings Inc	12	17	139	0.5	0.3	21
Okasan Securities Group Inc	13	13	128	0.5	0.2	43
Shinkin Central Bank	14	11	115	0.4	-0.3	37
Norinchukin Bank	15	18	113	0.4	0.2	5
Industry Total			**26,729**	**100.0**		**1,294**

Samurai Bonds (AP01) YoY Change (¥) 37% QoQ Change (¥) -100%

Lead Manager	Rank 2021	Rank 2020	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Sumitomo Mitsui Finl Grp Inc	1	1	300	43.3	15.1	20
Nomura	2	3	115	16.6	-3.4	22
Mizuho Financial Group	3	4	90	13.0	1.0	17
Daiwa Securities Group Inc	4	2	86	12.3	-9.3	17
Mitsubishi UFJ Morgan Stanley	5	5	51	7.4	-3.3	8
Natixis	6	7*	35	5.0	3.2	6
Industry Total			**694**	**100.0**		**32**

Samurai Bonds Issuance - Domicile Region (JP¥bil)



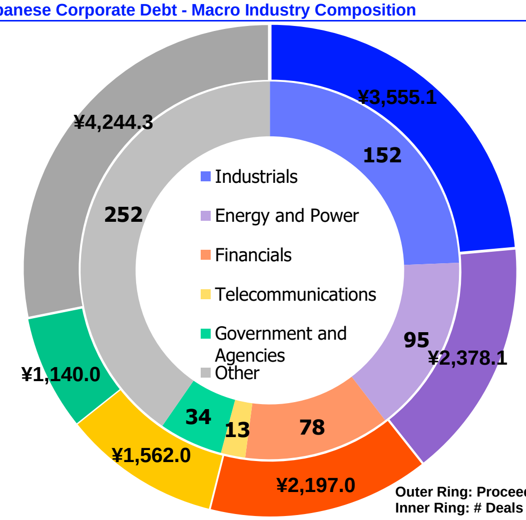
Japanese Securitizations (AP02) YoY Change (¥) 16% QoQ Change (¥) -25%

Lead Manager	Rank 2021	Rank 2020	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Mizuho Financial Group	1	1	1,509	28.4	-2.2	156
Mitsubishi UFJ Morgan Stanley	2	7	675	12.7	7.0	17
Sumitomo Mitsui Finl Grp Inc	3	2	629	11.8	-2.5	31
Sumitomo Mitsui Trust Holdings	4	5	620	11.7	4.7	35
Daiwa Securities Group Inc	5	3	486	9.1	-2.7	11
Nomura	6	6	399	7.5	0.6	12
Mitsubishi UFJ Financial Group	7	4	340	6.4	-3.9	25
Goldman Sachs & Co	8	8	155	2.9	-1.7	7
Barclays	9	10	146	2.8	0.8	7
Norinchukin Bank	10	11	113	2.1	0.9	5
BNP Paribas SA	11	14	111	2.1	1.7	5
BofA Securities Inc	12	9	103	1.9	-1.3	3
ORIX Corp	13	13	25	0.5	0.0	4
Resona Holdings Inc	14	-	4	0.1	0.1	1
North Pacific Bank Ltd	15	-	3	0.1	0.1	1
Industry Total			**5,320**	**100.0**		**277**

Japanese Corporate Debt (AP03) YoY Change (¥) -9% QoQ Change (¥) 36%

Lead Manager	Rank 2021	Rank 2020	Proceeds JPY¥bil	Market Share	Mkt. Sh. Chg	# of Deals
Mizuho Financial Group	1	1	3,495	23.2	-0.4	470
Nomura	2	2	3,021	20.0	0.6	387
Mitsubishi UFJ Morgan Stanley	3	3	2,792	18.5	-0.1	365
Daiwa Securities Group Inc	4	5	2,773	18.4	1.3	366
Sumitomo Mitsui Finl Grp Inc	5	4	2,337	15.5	-2.8	360
SBI Holdings Inc	6	10	137	0.9	0.6	20
Tokai Tokyo Financial Holdings	7	8	120	0.8	0.3	44
BofA Securities Inc	8	9	103	0.7	0.3	30
Goldman Sachs & Co	9	7	100	0.7	0.0	24
Shinkin Central Bank	10	6	93	0.6	-0.3	31
Citi	11	13	41	0.3	0.2	14
Okasan Securities Group Inc	12	12	40	0.3	0.2	25
Barclays	13	-	12	0.1	0.1	4
Aozora Bank Ltd	14	14	8	0.1	0.0	2
JP Morgan	15	-	3	0.0	0.0	2
Industry Total			**15,077**	**100.0**		**624**

Japanese Corporate Debt - Macro Industry Composition



Outer Ring: Proceeds (JP¥bil)
Inner Ring: # Deals

*Indicates a Tie

Debt Capital Markets Criteria

Full Year 2021 | 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 31, 2021.

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

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

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

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

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

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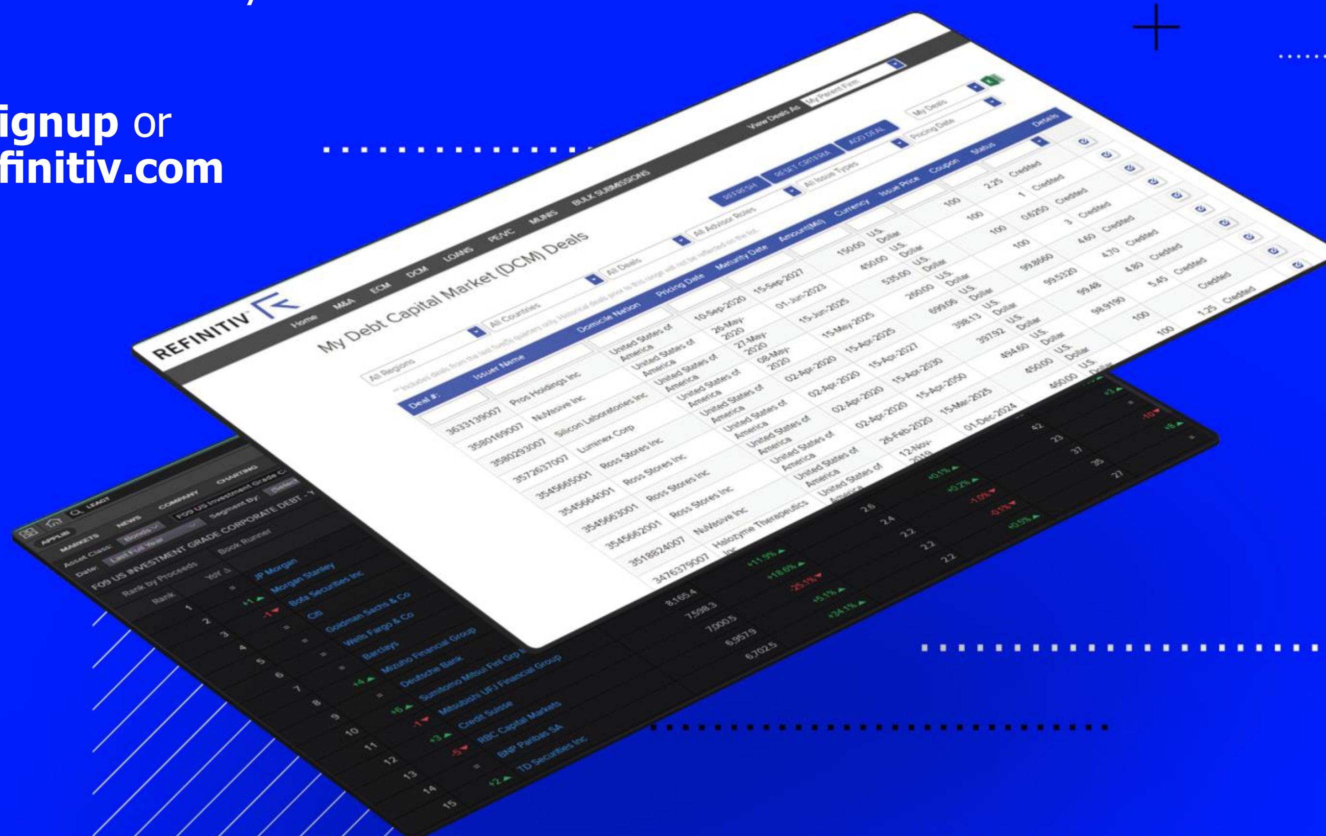

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