

2 December 2021 **Credit Strategy**

Supply for November (US\$bn)

	Corporates	Financials
November	59.5	40.6

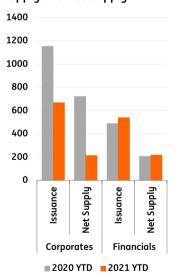
Source: ING, Dealogic

Supply FY and YTD (US\$bn)

Corporates	FY	YTD
2015	710	688
2016	697	686
2017	745	727
2018	655	645
2019	704	688
2020	1167	1157
2021	670	670
Financials	FY	YTD
Financials 2015	FY 423	YTD 402
2015	423	402
2015 2016	423 387	402 376
2015 2016 2017	423 387 422	402 376 416
2015 2016 2017 2018	423 387 422 434	402 376 416 432

Source: ING, Dealogic

Supply and Net Supply YTD



Source: Dealogic, ING

Timothy Rahill Credit Strategisttimothy.rahill@ing.com

US Dollar Credit Supply

Further fall in Reverse Yankee supply next year



Corporate supply totals US\$670bn YTD

- Corporate supply amounted to US\$60bn in November, in line with last year. However, redemptions were also large in November at US\$51bn, resulting in low net supply of US\$9bn for November. Supply is now sitting at US\$670bn YTD, with another US\$10bn or so expected in December, supply should finish around US\$680bn. This is obviously considerably lower than the past two years' totals, which means net supply has also dropped this year, particularly with larger redemptions of US\$332bn. We expect net supply to finish the year at US\$348bn, marking the lowest net supply since 2014. This has indeed been supportive for spreads. Next year we expect a further drop in USD supply to just US\$650bn. However, this is alongside a drop in redemptions to US\$265bn. This will mean an increase in net supply up to US\$385bn.
- Supply in the Utilities sector amounted to US\$16bn in November. On a YTD basis,
 Utilities are now sitting at US\$107bn, the second largest sector for supply after TMT.
 TMT supply has totalled a substantial US\$208bn YTD.
- Corporate Reverse Yankee supply came to €5bn in November. Supply is now sitting at €59bn thus far this year, which is down slightly from €68bn last year. We expect Reverse Yankee supply to fall further next year to about €55bn. This is due to there indeed being some cost saving advantage for US issuers, albeit this is limited to the long end. Additionally, Reverse Yankee supply is generally a fraction of both US corporate supply and EUR supply, both of which we expect to fall in 2022. This fall in issuance of Reverse Yankees, as well as value presented by the primary activity in general form the backbone to our view that we do see value in Reverse Yankee bonds, particularly in the primary market.

Largest financial supply on record

- Financial supply totalled US\$41bn in November, up on previous years. YTD supply is now sitting at US\$541bn. This is now US\$50bn ahead of supply last year YTD and will finish the year the highest on record.
- Financial Reverse Yankee supply was €5bn in November, with the YTD total now sitting at €39bn, up on last year's €23bn, and is now the largest supply seen since 2016.

Fig 1 USD corporate supply overview (US\$bn)

	2017	2018	2019	2020	2020 Nov	2021 Oct	2021 Nov	2020 YTD	2021 YTD	% diff
Auto	39	43	36	41	5	2	3	41	24	-42%
Consumer	105	153	97	193	2	5	4	190	71	-62%
Healthcare	72	86	108	128	9	6	10	127	81	-37%
Industrial & Chemicals	87	100	84	207	3	3	3	206	77	-63%
Real Estate	43	22	59	55	7	2	7	54	52	-5%
TMT	239	92	128	265	16	5	9	263	208	-21%
Utility	96	93	105	134	15	3	16	132	107	-19%
Others	28	31	31	50	2	2	1	50	25	-50%

Fig 2 USD financial supply overview (US\$bn)

	2017	2018	2019	2020	2020 Nov	2021 Oct	2021 Nov	2020 YTD	2021 YTD	% diff
Bank Senior	283	262	192	263	19	27	19	255	226	-11%
of which Bail-in	203	161	68	50	5	1	3	48	102	114%
of which Pref	80	101	124	213	14	26	16	207	124	-40%
Bank Capital	37	40	50	70	5	11	4	62	91	46%
Finance	49	41	45	76	4	29	6	67	99	47%
Insurance	32	37	46	69	5	1	9	67	60	-11%
Other	21	54	27	40	1	1	1	40	20	-51%

Source: ING, Dealogic

Fig 3 USD corporate supply and net supply by month (US\$bn)

Issuance	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2017	79.1	47.8	83.8	25.9	101.3	53.1	43.1	86.4	66.5	58.3	81.0	18.6	744.8
2018	25.5	58.4	89.1	41.8	73.9	83.2	10.6	59.9	85.0	58.0	59.2	10.2	654.9
2019	53.0	72.2	73.6	32.0	75.3	54.4	43.4	71.1	97.1	38.9	77.0	16.4	704.4
2020	50.5	52.3	191.1	214.8	170.5	112.7	39.6	110.5	94.5	56.9	60.7	12.9	1166.9
2021	31.8	76.1	133.3	31.9	82.9	58.3	32.4	58.5	74.8	30.4	59.5		670.1
Net Supply	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2017	53.9	23.6	46.5	12.7	67.2	12.8	28.1	61.4	31.5	22.7	45.4	-17.3	388.4
2018	-4.9	28.0	43.2	5.3	16.4	39.7	-11.2	35.6	64.2	42.7	20.6	-11.1	268.6
2019	14.6	16.8	13.7	4.9	28.5	16.8	24.7	41.8	63.3	0.2	52.9	-3.4	274.8
2020	9.9	20.1	140.4	185.2	120.5	72.5	13.2	81.6	60.2	12.7	7.7	-8.9	715.1
Redemptions	29.1	51.6	56.8	38.3	45.6	50.7	18.3	31.5	51.1	30.8	50.6	26.4	481.0
2021	2.7	24.5	76.5	-6.4	37.3	7.6	14.1	27.0	23.7	-0.4	8.9		215.5

Redemptions shown for 2021 only

Source: ING, Dealogic

Fig 4 USD financial supply and net supply by month (US\$bn)

Issuance	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2017	78.8	23.0	36.9	38.8	49.1	23.7	49.9	16.5	30.5	48.4	20.0	6.6	422.2
2018	83.2	26.3	26.5	46.4	47.8	25.4	41.7	33.9	56.0	18.4	26.4	2.1	434.1
2019	53.0	22.8	41.5	30.2	33.8	23.6	27.2	17.7	43.3	37.9	21.9	7.4	360.1
2020	61.5	29.0	69.0	59.8	71.6	48.1	18.0	33.7	33.4	32.3	33.2	28.0	517.6
2021	65.9	25.6	56.7	66.2	53.2	50.8	40.4	32.4	40.2	68.9	40.6		540.8
Net Supply	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2017	47.7	-3.2	5.8	27.0	27.7	-1.3	43.1	-3.0	1.0	32.1	5.6	-20.6	161.9
2018	38.4	1.7	-0.2	6.8	10.8	10.3	29.0	12.1	44.5	8.3	4.1	-11.0	154.8
2019	16.9	5.8	19.6	0.7	1.0	8.1	10.2	-7.5	18.8	20.0	11.1	-6.5	98.3
2020	4.8	14.0	42.7	45.8	55.0	18.3	-5.6	5.9	6.0	2.7	18.0	5.6	213.3
Redemptions	48.5	26.1	34.6	41.5	42.2	19.6	31.6	23.7	13.6	21.7	19.1	10.3	332.4
2021	17.4	-0.5	22.1	24.7	11.0	31.3	8.8	8.7	26.7	47.2	21.4		218.7

Redemptions shown for 2021

Fig 5 Corporate supply and redemptions by month, 2021 (US\$bn)

Supply	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Autos	2.9	3.0	2.0	2.3	0.3	2.3	0.9	2.8	2.5	2.3	2.5		23.6
Consumer	1.8	8.6	8.0	11.1	4.1	0.0	2.7	4.9	20.9	5.1	4.3		71.4
Healthcare	2.1	1.8	16.1	1.8	16.8	5.3	4.8	11.6	4.4	6.2	9.9		80.8
Industrial	5.9	13.2	8.1	4.3	9.7	6.2	1.6	8.2	13.4	3.5	3.4		77.3
Real Estate	3.5	4.3	6.1	2.6	6.5	4.2	0.5	5.3	9.6	1.8	7.2		51.6
TMT	10.0	31.1	61.5	2.6	33.7	18.8	15.0	8.5	12.6	5.4	8.8		208.0
Utility	1.9	8.1	26.6	3.1	8.2	17.0	4.8	10.5	7.0	3.2	16.4		106.7
Others	1.3	1.2	2.8	4.2	1.7	1.1	2.3	6.1	1.7	1.7	1.4		25.4
Redemptions	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Autos	3.7	4.0	5.2	6.9	2.6	0.0	3.3	1.9	3.3	2.7	5.9	0.5	39.7
Consumer	1.5	15.2	8.6	7.1	8.4	11.3	2.4	2.9	5.7	7.7	7.5	3.2	81.7
Healthcare	2.1	2.4	6.9	1.6	6.0	8.5	0.5	4.8	5.0	1.5	12.7	4.4	56.3
Industrial	8.0	4.3	10.4	9.6	9.2	3.7	2.7	5.1	8.4	5.3	8.8	2.8	78.2
Real Estate	2.2	2.8	2.2	0.6	2.4	2.0	1.6	0.4	0.9	0.3	0.5	1.7	17.8
TMT	4.2	15.0	7.9	9.2	9.9	14.7	3.0	8.5	14.8	6.9	6.7	5.8	106.7
Utility	2.9	1.5	6.5	2.2	2.7	6.5	2.4	2.9	5.2	2.4	2.5	2.1	39.8
Others	2.4	0.9	0.4	1.1	0.6	2.3	0.8	2.2	1.6	2.5	1.4	2.2	18.4

Fig 6 Financial supply and redemptions by month, 2021 (US\$bn)

Supply	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Bank Senior	37.2	8.0	24.7	50.8	27.4	28.3	20.9	14.6	11.6	26.7	19.4		269.5
of which NPS	10.8	2.4	6.2	31.0	18.5	9.8	7.8	3.5	8.3	1.0	3.1		102.2
of which Pref	26.4	5.6	18.6	19.8	8.9	18.5	13.2	11.1	3.3	25.7	16.3		167.3
Bank Capital	13.4	8.3	8.3	4.5	11.0	4.5	8.6	5.7	11.6	11.4	3.6		90.9
Finance	7.2	6.7	15.7	1.9	6.7	6.9	6.1	6.8	6.1	28.6	6.2		98.8
Insurance	7.2	0.5	5.9	6.9	5.5	6.8	3.0	4.7	8.9	1.3	9.4		59.9
Redemptions	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Bank Senior	37.0	17.2	24.1	36.1	28.5	10.9	28.9	18.3	6.8	14.6	11.7	4.9	238.9
of which NPS	6.7	3.5	5.8	0.0	9.3	1.5	4.5	3.9	2.0	2.8	0.0	4.3	44.1
of which Pref	30.3	13.7	18.3	36.1	19.2	9.4	24.4	14.5	4.8	11.8	11.7	0.6	194.9
Bank Capital	6.8	3.5	5.5	1.7	2.8	3.6	1.2	4.7	2.6	0.0	1.0	3.6	36.9
Finance .	5.7	5.3	5.0	3.1	10.4	3.0	3.1	3.8	4.2	4.7	6.1	2.7	57.2
Insurance	3.2	1.8	4.4	2.6	2.3	4.5	0.6	1.8	2.7	2.5	0.7	0.7	27.7

Source: ING, Dealogic

Fig 7 USD supply, redemptions and net supply by year (US\$bn)

Corporates	YTD	FY	Reds	Net	Financials	YTD	FY	Reds	Net
2010	345.5	366.1	285.5	80.6	2010	268.3	275.9	175.7	100.1
2011	416.8	435.6	291.9	143.7	2011	245.5	253.3	260.5	-7.2
2012	569.7	604.0	409.4	194.6	2012	252.7	264.4	250.0	14.4
2013	531.2	559.8	199.3	360.5	2013	310.9	328.4	256.3	72.1
2014	525.1	549.9	239.9	310.0	2014	399.6	412.6	255.7	156.8
2015	688.2	709.9	243.6	466.4	2015	401.9	423.4	258.4	164.9
2016	685.7	696.7	231.2	465.6	2016	375.8	386.6	295.7	90.9
2017	726.7	744.8	260.3	484.5	2017	415.6	422.2	356.3	65.9
2018	644.7	654.9	279.2	375.7	2018	431.9	434.1	386.3	47.8
2019	688.0	704.4	261.8	442.6	2019	352.6	360.1	429.6	-69.5
2020	1156.8	1166.9	304.3	862.5	2020	491.2	517.6	451.8	65.9
2021	670.1	670.1	332.4	337.7	2021	540.8	540.8	481.0	59.8
2022			264.9		2022			482.9	
2023			325.3		2023			524.6	

Fig 8 Subordinated supply, 2020 and 2021 (US\$bn)

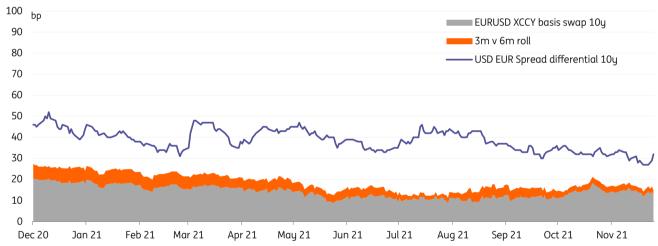
2020	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
AT1	10.3	5.3	0.0	0.0	4.3	4.9	2.0	3.5	0.9	2.9	0.2	3.0	37.2
T2	1.3	0.4	0.0	0.3	4.2	3.1	0.0	2.8	2.1	0.9	2.9	0.0	17.8
Bank Capital	11.6	5.6	0.0	0.3	8.6	8.0	2.1	6.3	2.9	3.7	3.0	3.0	55.0
2021	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
AT1	8.6	6.2	4.3	2.6	7.6	0.9	6.1	4.0	4.4	7.5	1.6		53.7
T2	4.7	1.0	1.2	1.2	1.9	0.9	1.8	0.8	3.0	3.1	1.1		20.5
Bank Capital	13.2	7.2	5.4	3.8	9.5	1.8	7.9	4.8	7.4	10.6	2.7		74.2

Fig 9 Reverse Yankee supply, 2020 and 2021 (€bn)

2020	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Corporate	5.4	15.0	6.8	6.4	7.3	9.8	0.1	0.0	13.6	3.7	0.0	0.4	68.3
Financial	3.8	3.2	6.0	4.8	0.0	5.2	0.0	0.0	0.0	0.1	0.3	0.0	23.3
Total	9.2	18.1	12.8	11.2	7.3	15.0	0.1	0.0	13.6	3.8	0.3	0.4	91.6
2021	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Corporate	1.5	5.2	11.7	2.8	4.5	0.1	0.5	3.7	13.9	9.5	5.3		58.5
Corporate Financial	1.5 2.4	5.2 3.6	11.7 3.8	2.8 5.3	4.5 4.6	0.1 0.9	0.5 0.6	3.7 0.4	13.9 5.4	9.5 6.8	5.3 5.3		58.5 38.9

Source: ING, Dealogic

Fig 10 Cross currency basis swap and USD EUR spread differential



Source: ING, ICE, Refinitiv

Fig 11 US, Yankee and Reverse Yankee supply (US\$bn)

			•				
Corporates	Domestic	Yankee	Rev Yankee (€)	Financials	Domestic	Yankee	Rev Yankee (€)
2010	306.9	70.8	9.0	2010	160.2	118.5	18.1
2011	356.0	91.7	6.4	2011	164.5	89.3	5.7
2012	483.1	140.1	16.6	2012	206.5	57.9	7.5
2013	466.5	112.4	32.5	2013	252.5	77.5	14.4
2014	466.0	114.1	42.9	2014	290.6	125.4	32.3
2015	609.9	108.9	62.1	2015	303.8	128.0	28.7
2016	588.2	114.1	65.9	2016	273.0	115.0	46.1
2017	656.5	102.4	63.9	2017	309.6	113.9	34.5
2018	525.6	131.6	31.6	2018	302.2	133.0	20.4
2019	612.7	97.1	99.3	2019	265.5	96.2	28.3
2020	1062.8	116.6	68.3	2020	394.7	124.9	23.3
2021 YTD	592.3	80.0	58.5	2021 YTD	380.5	163.8	38.9

Source: ING

Fig 12 ESG supply per month 2021 (US\$bn)

Corporate	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Green	0.9	1.2	2.7	0.1	4.7	5.4	1.5	3.5	5.7	1.0	3.0		29.5
Social	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0		0.6
Sustainable	0.0	0.8	0.0	0.3	1.0	3.2	0.0	1.0	0.0	1.0	1.3		8.6
ESG	0.9	1.9	2.7	0.4	5.7	8.7	2.1	4.5	5.7	2.0	4.2		38.6
Financial	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Green	0.0	1.0	0.8	0.0	0.0	2.3	1.7	1.3	0.4	0.5	0.1		8.0
Social	0.3	2.3	0.0	0.0	0.0	0.0	0.0	0.7	0.0	3.3	0.0		6.5
Sustainable	0.0	0.8	1.5	0.8	1.0	0.0	0.0	0.6	0.0	0.0	0.0		4.7
ESG	0.3	4.1	2.3	0.8	1.0	2.3	1.7	2.6	0.4	3.8	0.1		19.2

Fig 13 ESG supply per year and YTD (US\$bn)

Corporate	2017	2018	2019	2020	2021	2017 YTD	2018 YTD	2019 YTD	2020 YTD	2021 YTD
Green	3.6	6.3	14.3	18.4	29.5	3.5	6.3	13.3	18.4	29.5
Social	0.0	0.0	0.0	1.5	0.6	0.0	0.0	0.0	1.5	0.6
Sustainable	0.0	0.0	1.0	7.5	8.6	0.0	0.0	1.0	7.5	8.6
ESG	3.6	6.3	15.3	27.4	38.6	3.5	6.3	14.3	27.3	38.6
Financial	2017	2018	2019	2020	2021	2017 YTD	2018 YTD	2019 YTD	2020 YTD	2021 YTD
Green	1.7	4.2	7.0	7.1	8.0	1.7	4.2	7.0	7.1	8.0
Social	0.0	0.1	0.5	6.6	6.5	0.0	0.1	0.5	6.6	6.5
Sustainable	1.0	0.1	0.1	2.6	4.7	1.0	0.1	0.1	2.6	4.7
ESG	2.7	4.3	7.6	16.2	19.2	2.7	4.3	7.6	16.2	19.2

Source: ING, Dealogic

Fig 14 Investment grade issuance by maturity, 2020 and 2021 (US\$bn)

2020	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	2020
Corp 0-3yr	3.8	0.5	2.0	23.1	12.2	9.3	2.5	8.5	11.4	2.1	9.3	0.3	85.0
Corp 3-6yr	8.3	6.5	36.2	46.0	31.5	16.0	4.9	14.4	13.0	8.0	13.4	3.5	201.5
Corp 6-9yr	2.9	6.3	15.7	17.0	9.7	16.0	6.6	8.1	16.8	8.6	6.1	1.8	115.5
Corp 9-12yr	14.1	16.3	66.6	67.3	62.3	38.1	9.3	39.9	26.7	18.6	13.6	2.4	375.3
Corp 12-17yr	0.7	0.5	0.3	2.1	3.5	1.2	4.6	3.0	1.8	0.6	2.4	0.5	21.0
Corp 17yrs+	20.7	22.2	70.3	59.3	51.3	32.1	11.7	36.6	24.9	19.0	16.0	4.5	368.6
Fin 0-3yr	19.2	3.8	3.5	6.2	6.6	7.1	2.1	3.2	3.4	2.3	6.5	3.6	67.3
Fin 3-6yr	8.4	2.9	9.5	8.5	17.6	8.9	3.0	5.8	9.3	7.8	4.9	6.1	92.7
Fin 6-9yr	4.9	6.1	3.6	15.6	10.2	10.6	2.4	2.0	8.1	2.9	7.3	7.3	81.1
Fin 9-12yr	17.3	10.6	32.3	13.0	23.6	9.4	4.4	6.4	6.5	7.8	5.0	2.2	138.5
Fin 12-17yr	0.1	0.2	0.0	0.0	0.2	2.2	0.5	4.0	1.5	0.2	4.0	0.0	12.9
Fin 17yrs+	11.7	5.4	20.1	16.6	13.4	9.9	5.6	12.4	4.6	11.2	5.5	8.8	125.3
2021	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Corp 0-3yr	2.3	12.3	30.1	3.8	14.5	6.3	4.5	6.7	10.9	8.0	7.6		106.7
Corp 3-6yr	4.7	16.5	18.3	5.1	12.8	4.1	5.4	5.2	7.5	2.2	5.5		87.2
Corp 6-9yr	2.7	5.8	11.8	3.7	6.5	6.6	5.2	4.5	8.7	2.9	4.2		62.5
Corp 9-12yr	10.7	16.3	35.4	10.8	22.9	15.9	7.6	21.3	21.1	8.7	19.6		190.3
Corp 12-17yr	1.9	1.0	1.3	1.0	0.4	2.1	0.6	0.4	2.3	1.4	0.6		13.1
Corp 17yrs+	9.5	24.4	36.6	7.6	25.9	23.4	9.1	20.4	24.3	7.1	22.2		210.3
Fin 0-3yr	13.8	3.7	11.9	7.5	9.5	8.0	0.6	7.5	6.5	11.9	7.3		88.2
Fin 3-6yr	10.4	5.2	9.6	8.9	16.9	8.8	5.2	6.3	8.2	10.5	6.6		96.7
Fin 6-9yr	13.3	2.4	11.5	12.7	4.1	17.6	5.8	6.8	9.8	11.9	7.6		103.5
Fin 9-12yr	12.3	4.5	8.9	20.3	12.3	5.1	15.1	3.0	1.3	19.0	10.8		112.7
Fin 12-17yr	0.0	0.2	0.2	0.0	0.0	1.4	0.2	0.7	5.4	3.0	0.4		11.6
Fin 17yrs+	16.1	9.5	14.6	16.8	10.4	9.8	13.4	8.1	8.9	12.5	7.9		128.1

Fig 15 Corporate supply per S&P rating (US\$bn)

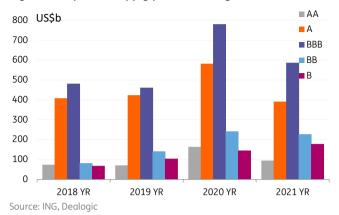


Fig 17 Corporate supply per country (US\$bn)



Fig 16 Financial supply per S&P rating (US\$bn)

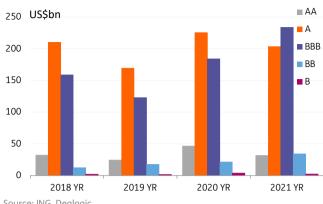
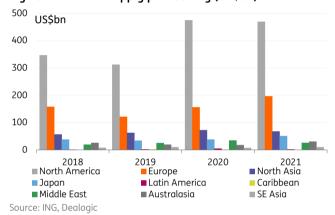


Fig 18 Financial supply per country (US\$bn)



Disclaimer

This publication has been prepared by the Economic and Financial Analysis Division of ING Bank N.V. ("ING") solely for information purposes without regard to any particular user's investment objectives, financial situation, or means. ING forms part of ING Group (being for this purpose ING Group N.V. and its subsidiary and affiliated companies). The information in the publication is not an investment recommendation and it is not investment, legal or tax advice or an offer or solicitation to purchase or sell any financial instrument. Reasonable care has been taken to ensure that this publication is not untrue or misleading when published, but ING does not represent that it is accurate or complete. ING does not accept any liability for any direct, indirect or consequential loss arising from any use of this publication. Unless otherwise stated, any views, forecasts, or estimates are solely those of the author(s), as of the date of the publication and are subject to change without notice.

The distribution of this publication may be restricted by law or regulation in different jurisdictions and persons into whose possession this publication comes should inform themselves about, and observe, such restrictions.

Copyright and database rights protection exists in this report and it may not be reproduced, distributed or published by any person for any purpose without the prior express consent of ING. All rights are reserved. ING Bank N.V. is authorised by the Dutch Central Bank and supervised by the European Central Bank (ECB), the Dutch Central Bank (DNB) and the Dutch Authority for the Financial Markets (AFM). ING Bank N.V. is incorporated in the Netherlands (Trade Register no. 33031431 Amsterdam). In the United Kingdom this information is approved and/or communicated by ING Bank N.V., London Branch. ING Bank N.V., London Branch is deemed authorised by the Prudential Regulation Authority and is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. The nature and extent of consumer protections may differ from those for firms based in the UK. Details of the Temporary Permissions Regime, which allows EEA-based firms to operate in the UK for a limited period while seeking full authorisation, are available on the Financial Conduct Authority's website. ING Bank N.V., London branch is registered in England (Registration number BR000341) at 8-10 Moorgate, London EC2 6DA. For US Investors: Any person wishing to discuss this report or effect transactions in any security discussed herein should contact ING Financial Markets LLC, which is a member of the NYSE, FINRA and SIPC and part of ING, and which has accepted responsibility for the distribution of this report in the United States under applicable requirements.

Additional information is available on request. For more information about ING Group, please visit https://www.ing.com.