

GEMs Flow Talk

Though outflows, positives for EM are neg net issuance + better BofA US rates fcst

EXD relentless, back to outflows, just 1 inflow in the last 25 weeks; LDM inflows return EPFR flows (% of AUM). 2022 All EM ex-CN outflow -\$48bn vs US HY -\$38bn (-10%)

	All ex CN	EXD	LDM ex CN	Blended	EM Equity	US HY	ETF EXD	ETF LDM
1w	-0.2%	-0.5%	0.1%	0.5%	0.0%	-0.2%	0.0%	0.6%
YTD	-0.7%	-2.7 %	3.0%	2.2%	3.6%	-2.5%	3.9%	16.0%
FY 2022	-11.5%	-10.5%	-9.3%	-18.5%	1.1%	-10.5%	-0.8%	3.3%
Trend	1\	1\	1.7	7 ./		2∖		1.7

Source: BofA Global Research, EPFR. Note 1: Trend is # of consecutive wks up or down - shown 1w, YTD, & FY 2022

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2 reasons to feel positive EXD, despite outflows and this week's weak market

- No supply. Negative net issuance worsened in July at -\$32bn.
- Our new US econ forecasts are for soft landing (no recession in '24) & 10y UST is already trading near 2022 highs.

Largest since Dec'22 (-\$33bn), even worse than Mar'20 lockdown (-\$29bn Mar'20). All 3 regions negative LatAm -\$13bn, Asia -\$11bn, EMEA -\$8bn. LatAm negative net for 17 mos in a row (-\$120bn cum). But Aug is a low debt service month, with just \$20bn.

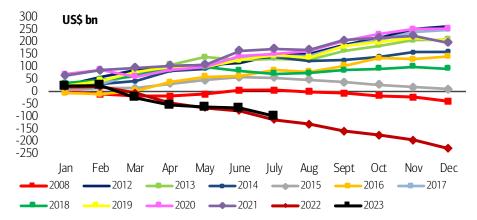
Negative net issuance has been constant for 2 yrs, since Aug 2021. January 2023 was the only month with a little buyer optimism, but that was too brief.

Foreign holdings ex-China keep improving: @ +\$5.0bn in June so far & also recovering ground in May (-\$0.3bn), at +\$8.2bn YTD. Winners: Czech Republic.

LDM Real Money Tracker: Funds increased their bond holdings and FX exposure in June. Cash levels were reduced, while duration was extended.

Exhibit 1: 2023 remains negative following the worst year ever

Cumulative sov & corp net issuance in USD & EUR



Note: Net issuance is total issuance less principal, interest and buybacks paid. Source: BofA Global Research, Bloomberg.

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GEM Fixed Income Strategy Global

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LDM debt funds ex China weekly flows

LDM flows were up +0.1% of AUM



Source: EPER Global BofA Global Research BofA GLOBAL RESEARCH

EXD debt funds weekly flows

EXD flows were down -0.5% of AUM



Source: EPFR Global, BofA Global Research BofA GLOBAL RESEARCH

Quick Links:

<<u>Foreign Holdings of LDM</u>> <<u>LDM Real</u> Money Positioning> < China>

<<u>EXD Issuance/Supply</u>> <<u>EPFR Flows</u>> < Ratings > < 40 Flows & Issuance Charts >

EM Debt Facts at your fingertips

Crossover sentiment

- End-July Crossover Credit investor survey indicates IG investors decreased EM, but again zero HY investors said that EM is their largest non-core allocation.
- US pension funds are fully funded, risk reduction may be coming.

LDM flows

- YTD LDM ex-China foreign holdings flows into govt bonds are up \$8bn
- Fleeing China: Foreign holdings of China local debt are down \$23bn YTD and China LDM funds AUM tracked by EPFR have fallen from a high of \$57bn to under \$16bn as of July 27.
- Indonesia foreign holdings share of local debt down from peak of 40% to 14%

Default statistics

- 21% (\$151bn face value) total of USD sovereign debt in in default (\$118bn) or is rated CCC or below (\$33bn).
- Of EUR-denominated sovereign bonds, 3.5% (\$15bn is in default (\$8bn) or is rated CCC or below (\$7bn)
- Currently over 9% of outstanding currently paying face value of EM sovereign USD debt is distressed with CCC+ or worse rating
- Since the pandemic started, 2023 has the fewest % downgrades.

Default rates

- In the last 3 years 5.5% of all EM sovereign bonds defaulted annually, though historically it averaged 2% annually for the last 22 years.
- As a % of high yield sovereign bonds, EM default rates have been 11% annually (32% cumulatively) for the last 3 years, though just 4% annually for 22 years.
- 18% of face value in the EMGB index in Jan 2020 has defaulted at some point in the last 3 years.
- 38% of face value of EM sovereign high yield bonds defaulted in the last 3 yrs.
- 99% of face value of EM sovereign bonds rated CCC+ or below in Jan 2020 defaulted.
- Asia: Last 12m corporate default rate by amount/count = 24.8%/15.6% for Asia HY, 45.6%/32.3% for China HY, and 62%/50% for China HY property (May 24).

EXD Issuance / stock

- There is US\$2.6tn face of index eligible debt. \$1.3tn sovs & \$1.4tn corps.
- Our 2023 forecast total sovereign & corporate issuance is \$375bn.
- Sovereign issuance was front loaded in 2023 sovereigns issued half of our annual issuance forecast in 1Q, but Corps only 30%.
- Largest remaining net 2023 sovereign issuance forecast will be from China.
- Negative net issuance since Feb 2022 (corp & sov) = -\$325bn (-10.7%),
- Negative net in 15 of the last 17 months, is money coming back to investors supporting prices.
- China EXD new issuance as % of all issuances dropped significantly from 48% in 2018 to just 10% today.
- 61% of sovereign debt measured market cap is IG, and 74% of corporate debt.
- Aug is a low issuance month (\$18bn vs monthly avg \$46bn); Sep is high \$59bn.

ESG flows

 EM ESG fund outflows in 2Q23 were -\$0.6bn vs non-ESG funds -\$5.6bn outflow.

EM TRR YTD is positive: EXD = +4.8%, LDM = +8.4%



Foreign Holdings of Local Debt Markets

We estimate weekly and monthly flows into local currency debt markets (LDM) by tracking changes in foreign holdings of domestic bonds, adjusted to account for inflation (see Methodology for details). We track data for holdings of 19 countries.

Exhibit 2: Foreign Holdings flows improving lately

Adjusted FH, new reported #s in green and red bold (changes in current period USD bn - see note on next page for adjustment methodology)

								YTD Ş wkly	2022 Ş	2021 \$	2020 Ş	2019 \$
Weekly data	28-Jul	21-Jul	14-Jul	7-Jul	30-Jun	23-Jun	16-Jun	avg	wkly avg	wkly avg	wkly avg	wkly avg
India	-0.1	0.0	0.0	0.1	-0.1	0.0	0.0	0.0	-0.1	-0.1	-0.2	0.0
Indonesia	0.1	0.4	0.3	-0.4	0.0	0.2	0.4	0.2	-0.2	-0.1	-0.1	0.2
Hungary	0.2	0.6	0.1	0.9	-1.5	-0.6	0.2	0.1	0.0	0.0	0.0	0.0
Türkiye	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Mexico	na	0.0	0.6	-1.1	0.3	-0.5	1.9	-0.2	0.0	-0.3	-0.2	-0.1

na	0.0	0.6	-1.1	0.3	-0.5	1.9	-0.2	0.0	-0.3	-0.2	-U. I
											% FH flows
								Current	Foreign	Total debt	since
June	May	April	YTD (%)	YTD (\$)	2022 (\$)	2021 (\$)	2020 (\$)	Holdings	Holdings	(\$)	2/29/20
3.0	0.3	-1.8	-8%	-22.9	-30.4	86.7	78.7	294	8%	3,574	-22%
na	6.5	1.5	5%	5.7	15.9	34.0	18.8	155	21%	752	15%
-0.2	-0.1	-0.3	-7%	-1.2	-2.9	-2.6	-12.7	9	1%	1,130	-11%
1.0	0.3	0.1	7%	4.8	-10.4	-6.8	-6.8	55	16%	356	-1%
0.2	0.7	-0.4	6%	2.5	-1.7	3.5	3.1	42	36%	117	3%
1.3	-2.0	-0.1	-3%	-0.9	-0.7	2.7	-0.5	26	12%	213	-10%
5.2	5.8	-0.9	-2%	-12.1	-30.2	117.5	80.6	580	9%	6,142	-8%
1.0	-0.2	-1.2	8%	2.3	-0.2	-0.2	-1.2	35	28%	124	7%
-2.3	-1.0	2.2	13%	1.9	1.0	-1.4	0.3	18	19%	98	3%
0.2	-0.2	-0.1	-11%	-0.3	-1.5	-0.1	-1.2	1	4%	36	-21%
na	-1.2	-1.0	-12%	-4.4	0.7	-4.1	-7.0	32	15%	209	-13%
1.3	-1.0	1.2	0%	0.1	-3.2	0.5	-1.3	41	26%	157	-7%
na	na	0.9	11%	1.3	5.2	-2.1	2.4	17	26%	66	87%
-0.6	-0.3	-0.4	-8%	-3.6	-11.7	-2.6	3.6	14	9%	163	-24%
na	2.1	0.4	27%	3.9	-2.7	6.8	5.3	22	10%	216	55%
0.2	0.1	0.3	4%	0.4	-3.1	-0.5	-5.2	2	2%	118	-12%
-0.1	-1.8	2.3	1%	1.5	-15.4	-3.7	-4.4	184	15%	1,187	-4%
2.4	-0.3	-0.4	4%	3.7	-16.2	15.5	0.5	110	9%	1,163	5%
1.1	-4.1	-0.7	-6%	-5.5	-2.1	-17.6	-12.5	96	15%	617	-4%
0.0	0.8	-0.1	-2%	-0.3	-3.3	-0.8	1.3	18	38%	47	-12%
-0.7	-0.5	0.1	-8%	-2.1	3.1	2.4	2.6	27	24%	114	0%
2.8	-4.1	-1.1	-2%	-4.2	-18.6	-0.5	-8.1	251	13%	1,940	-1%
3.0	0.3	-1.8	-8%	-22.9	-30.4	86.7	78.7	294	8%	3,574	-22%
5.0	-0.3	2.0	1%	8.2	-33.9	26.6	-10.6	721		5,695	-1%
8.0	0.0	0.3	-1%	-14.8	-64.2	113.3	68.1	1015		9,269	-5%
	June 3.0 na -0.2 1.0 0.2 1.3 5.2 1.0 -2.3 0.2 na 1.3 na -0.6 na 0.2 -0.1 2.4 1.1 0.0 -0.7 2.8 3.0 5.0	June May 3.0 0.3 na 6.5 -0.2 -0.1 1.0 0.3 0.2 0.7 1.3 -2.0 5.2 5.8 1.0 -0.2 -2.3 -1.0 0.2 -0.2 na -1.2 1.3 -1.0 na na -0.6 -0.3 na 2.1 0.2 0.1 -0.1 -1.8 2.4 -0.3 1.1 -4.1 0.0 0.8 -0.7 -0.5 2.8 -4.1 3.0 0.3 5.0 -0.3	June May April 3.0 0.3 -1.8 na 6.5 1.5 -0.2 -0.1 -0.3 1.0 0.3 0.1 0.2 0.7 -0.4 1.3 -2.0 -0.1 5.2 5.8 -0.9 1.0 -0.2 -1.2 -2.3 -1.0 2.2 0.2 -0.2 -0.1 na -1.2 -1.0 1.3 -1.0 1.2 na na 0.9 -0.6 -0.3 -0.4 na 2.1 0.4 0.2 0.1 0.3 -0.1 -1.8 2.3 2.4 -0.3 -0.4 1.1 -4.1 -0.7 0.0 0.8 -0.1 -0.7 -0.5 0.1 2.8 -4.1 -1.1 3.0 0.3 -1.8 5.0 -0.3	June May April YTD (%) 3.0 0.3 -1.8 -8% na 6.5 1.5 5% -0.2 -0.1 -0.3 -7% 1.0 0.3 0.1 7% 0.2 0.7 -0.4 6% 1.3 -2.0 -0.1 -3% 5.2 5.8 -0.9 -2% 1.0 -0.2 -1.2 8% -2.3 -1.0 2.2 13% 0.2 -0.2 -0.1 -11% na -1.2 -1.0 -12% na -1.2 -1.0 -12% na na 0.9 11% -0.6 -0.3 -0.4 -8% na 2.1 0.4 27% 0.2 0.1 0.3 4% -0.1 -1.8 2.3 1% 2.4 -0.3 -0.4 4% 0.0 0.8 -0	June May April YTD (%) YTD (\$) 3.0 0.3 -1.8 -8% -22.9 na 6.5 1.5 5% 5.7 -0.2 -0.1 -0.3 -7% -1.2 1.0 0.3 0.1 7% 4.8 0.2 0.7 -0.4 6% 2.5 1.3 -2.0 -0.1 -3% -0.9 5.2 5.8 -0.9 -2% -12.1 1.0 -0.2 -1.2 8% 2.3 -2.3 -1.0 2.2 13% 1.9 0.2 -0.2 -0.1 -11% -0.3 na -1.2 -1.0 -12% -4.4 1.3 -1.0 1.2 0% 0.1 na na 1.2 0% 0.1 na na 0.9 11% 1.3 -0.6 -0.3 -0.4 -8% -3.6 na	June May April YTD (%) YTD (\$) 2022 (\$) 3.0 0.3 -1.8 -8% -22.9 -30.4 na 6.5 1.5 5% 5.7 15.9 -0.2 -0.1 -0.3 -7% -1.2 -2.9 1.0 0.3 0.1 7% 4.8 -10.4 0.2 0.7 -0.4 6% 2.5 -1.7 1.3 -2.0 -0.1 -3% -0.9 -0.7 5.2 5.8 -0.9 -2% -12.1 -30.2 1.0 -0.2 -1.2 8% 2.3 -0.2 -2.3 -1.0 2.2 13% 1.9 1.0 0.2 -0.2 -0.1 -11% -0.3 -1.5 na -1.2 -1.0 -12% -4.4 0.7 1.3 -1.0 1.2 0% 0.1 -3.2 na na na 0.9 11%	June May April YTD (%) YTD (\$) 2022 (\$) 2021 (\$) 3.0 0.3 -1.8 -8% -22.9 -30.4 86.7 na 6.5 1.5 5% 5.7 15.9 34.0 -0.2 -0.1 -0.3 -7% -1.2 -2.9 -2.6 1.0 0.3 0.1 7% 4.8 -10.4 -6.8 0.2 0.7 -0.4 6% 2.5 -1.7 3.5 1.3 -2.0 -0.1 -3% -0.9 -0.7 2.7 5.2 5.8 -0.9 -2% -12.1 -30.2 117.5 1.0 -0.2 -1.2 8% 2.3 -0.2 -0.2 -2.3 -1.0 2.2 13% 1.9 1.0 -1.4 0.2 -0.2 -0.1 -11% -0.3 -1.5 -0.1 na -1.2 -0% 0.1 -3.2 0.5	June May April YTD (%) YTD (\$) 2022 (\$) 2021 (\$) 2020 (\$) 3.0 0.3 -1.8 -8% -22.9 -30.4 86.7 78.7 na 6.5 1.5 5% 5.7 15.9 34.0 18.8 -0.2 -0.1 -0.3 -7% -1.2 -2.9 -2.6 -12.7 1.0 0.3 0.1 7% 4.8 -10.4 -6.8 -6.8 0.2 0.7 -0.4 6% 2.5 -1.7 3.5 3.1 1.3 -2.0 -0.1 -3% -0.9 -0.7 2.7 -0.5 5.2 5.8 -0.9 -2% -12.1 -30.2 117.5 80.6 1.0 -0.2 -1.2 8% 2.3 -0.2 -0.2 -1.2 -2.3 -1.0 -2.2 13% 1.9 1.0 -1.4 0.3 0.2 -0.1 -11% -0.3 <td< td=""><td>June May April YTD (%) YTD (\$) 2022 (\$) 2021 (\$) 2020 (\$) Holdings 3.0 0.3 -1.8 -8% -22.9 -30.4 86.7 78.7 294 na 6.5 1.5 5% 5.7 15.9 34.0 18.8 155 -0.2 -0.1 -0.3 -7% 4.8 -10.4 -6.8 -6.8 55 0.2 0.7 -0.4 6% 2.5 -1.7 3.5 3.1 42 1.3 -2.0 -0.1 -3% -0.9 -0.7 2.7 -0.5 26 5.2 5.8 -0.9 -2% -12.1 -30.2 117.5 80.6 580 1.0 -0.2 -1.2 8% 2.3 -0.2 -0.2 -1.2 35 -2.3 -1.0 2.2 13% 1.9 1.0 -1.4 0.3 18 0.2 -0.2 -0.1 -11% -0</td><td>June May April YTD (%) YTD (\$) 2022 (\$) 2021 (\$) 2020 (\$) Holdings Holdings 3.0 0.3 -1.8 -8% -22.9 -30.4 86.7 78.7 294 8% -0.2 -0.1 -0.3 -7% -1.2 -2.9 -2.6 -12.7 9 1% 1.0 0.3 0.1 7% 4.8 -10.4 -6.8 -6.8 55 16% 0.2 0.7 -0.4 6% 2.5 -1.7 3.5 3.1 42 36% 0.2 0.7 -0.4 6% 2.5 -1.7 3.5 3.1 42 36% 1.3 -2.0 -0.1 -3% -0.9 -0.7 2.7 -0.5 26 12% 5.2 5.8 -0.9 -2% -12.1 -30.2 117.5 80.6 580 9% 1.0 -0.2 -1.2 8% 2.3 -0.2 -0.</td><td> June May April YTD (%) YTD (\$) 2022 (\$) 2021 (\$) 2020 (\$) Holdings Holdings (\$) </td></td<>	June May April YTD (%) YTD (\$) 2022 (\$) 2021 (\$) 2020 (\$) Holdings 3.0 0.3 -1.8 -8% -22.9 -30.4 86.7 78.7 294 na 6.5 1.5 5% 5.7 15.9 34.0 18.8 155 -0.2 -0.1 -0.3 -7% 4.8 -10.4 -6.8 -6.8 55 0.2 0.7 -0.4 6% 2.5 -1.7 3.5 3.1 42 1.3 -2.0 -0.1 -3% -0.9 -0.7 2.7 -0.5 26 5.2 5.8 -0.9 -2% -12.1 -30.2 117.5 80.6 580 1.0 -0.2 -1.2 8% 2.3 -0.2 -0.2 -1.2 35 -2.3 -1.0 2.2 13% 1.9 1.0 -1.4 0.3 18 0.2 -0.2 -0.1 -11% -0	June May April YTD (%) YTD (\$) 2022 (\$) 2021 (\$) 2020 (\$) Holdings Holdings 3.0 0.3 -1.8 -8% -22.9 -30.4 86.7 78.7 294 8% -0.2 -0.1 -0.3 -7% -1.2 -2.9 -2.6 -12.7 9 1% 1.0 0.3 0.1 7% 4.8 -10.4 -6.8 -6.8 55 16% 0.2 0.7 -0.4 6% 2.5 -1.7 3.5 3.1 42 36% 0.2 0.7 -0.4 6% 2.5 -1.7 3.5 3.1 42 36% 1.3 -2.0 -0.1 -3% -0.9 -0.7 2.7 -0.5 26 12% 5.2 5.8 -0.9 -2% -12.1 -30.2 117.5 80.6 580 9% 1.0 -0.2 -1.2 8% 2.3 -0.2 -0.	June May April YTD (%) YTD (\$) 2022 (\$) 2021 (\$) 2020 (\$) Holdings Holdings (\$)

Source: BofA Global Research, Local government websites. See notes in page 3. Note: % FH face change since 2/29 is in local currency. For this column, a cpn reinvested is counted as an increase in face value

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Ex-China flows

- June ex-China flows are at **7\$5.0bn**, with **7**\$2.4bn into Brazil, \$1.3bn into South Africa and ≥\$2.3bn out from Hungary. 14/18 countries reported.
- May ex-China flows are at ≥\$0.3bn, with ≥\$4.0bn out from Mexico, ≥\$2.0bn out from Thailand and 7\$6.5bn into Korea. 17/18 countries reported.

Including China

- June flows are at \$\,2\$8.0bn so far with \$\,2\$3.0bn into China.
- May flows are at ≥\$0.0bn so far with ₹\$0.3bn into China.

Flows winners: Czech Republic

June: Czech Republic (+\$1.0bn).

Flows losers: No monthly losers were registered this week

Methodology: What makes our FH approach different?

Foreign holdings show true local bond flows

Our Foreign Holdings (FH) statistics track investments denominated in local currency. Since countries with higher inflation rates tend to pay higher coupons, we believe that FH flows should be adjusted by inflation levels to avoid overestimating their growth in the long term. We grow the prior month's holdings by annual inflation divided by 12 and compare that to the current holdings in local currency. The net foreign purchase is that difference converted to USD, applying FX rate at the end of the period. Current holdings are converted at current FX at the end of each period; YTD year-to-date growth is the sum of monthly net purchases divided by holdings at the end of last year converted to USD at the year-end FX rate.

LDM Real Money Positioning Tracker (08/02)

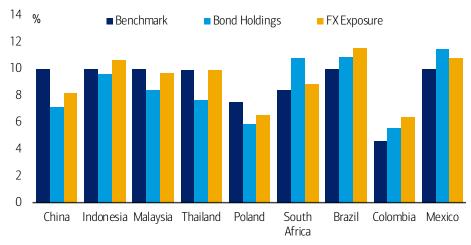
Our tracker compares the holdings of 38 large local currency debt funds (\$33bn AUM) to benchmark weights to estimate overweight and underweight positioning in bonds and FX. The funds are benchmarked to the GBI-EM local market benchmark, not Libor.

In our monthly real money positioning tracker, reporting end June positioning, we found that:

- Cash levels increased in June (at 5.8 from 7.1 in May).
- **Duration** was up in June (at 5.68 from 5.44 in May).
- Bonds exposure: South Africa (2.33% overweight) bonds continued to be most favored by funds we track followed by Mexico (1.45% overweight). In June, funds continued to remain overweight in South Africa, Brazil, Mexico, and Colombia. Funds turned underweight in Indonesia and continued to remain underweight in China, Malaysia, Thailand, and Poland.
- **FX exposure:** In June, COP (1.79% overweight) became the most favored currency by GBI-EM indexed funds we track closely followed by BRL. Funds continued to be overweight in IDR, BRL, ZAR COP, MXN and remained underweight in CNY, MYR and PLN. Funds turned slightly underweight in THB.

<u>GEMs FI & FX Strategy Watch: Real Money Tracker – Making a comeback 02 August</u> 2023

Exhibit 3: South Africa bonds and BRL most favored in EM LDM portfolios Emerging Markets Bond holdings and FX exposure in June-23



Source: BofA Global Research, Fund factsheets

Our view of large real money fund limitations to reduce bond exposure

- Their benchmark is long bonds and thus also long FX exposure.
- Liquidity declines when there is increased volatility, making it hard to trade size
 even if managers wanted to lighten up or hedge. There are fewer dealers and with
 smaller balance sheets prepared to provide bond liquidity,
- Large money managers have become even larger, and assets are concentrated so they need more liquidity to move their positions,
- Real money fund managers have more long-term money, which is "sticky" with investors who don't close out when markets decline.
- FX is far more liquid than the bond market and 2013 demonstrated that the FX is a quick, easy and better hedge than selling bonds.
- Cash buildup hurts returns in a rally → investors need to put money to work quickly.

Sentiment survey of crossover investors

We publish a periodic report consolidating six crossover investor surveys in credit, equities and FX, What do crossover investors think of EM? 20 July 2023

From Crossover US credit bi-monthly investor survey (July 10-13, 2023)

- We observe that US HY investors have been shunning EM over the last 4 months now. When asked what was their largest allocation outside of their primary focus, for none of the HY participants chose EM for the 2nd consecutive survey (so 0% in the last 4 months now). The view from US IG investors is better, where EM was selected by 8%, although down from the May survey of 12% (Ex 1, 2). (Exhibits 19).
- Recession remained the #1 concern, followed by #2 Inflation and #3 Raising Interest rates (Ex 3, 4). Notably, the share worried about recession dropped to the lowest level since May 2022.

Exhibit 4: US HY investors have been shunning EM over the last 4 months

IG investors favored HY the most outside of their primary focus, while HY favored Leveraged Loans



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Credit Market Strategist: Jul '23 Credit Investor Survey: Bear retreating 14 July 2023



China vs ex-China

- **EM EXD Corp index face ex-China** fell in last 12m by \$35bn (3% decline), due to negative net issuance & defaulting bonds removed. China is 26% of EM Corp Index.
- China LDM flows up +\$3.0bn (June) vs +\$0.3bn (May), posting its 3nd inflow in the last 16 months.
- 2023 foreign CGB outflows escalated and are nearly 4 times the rate of 2022, while local commercial banks were significant buyers in both primary and secondary issues and BofA Asian analysts expect commercial bank demand to continue. Since February 2022, appetite for China bonds had disappeared, with net sellers of \$30bn (51% of foreign holdings). As of May 31 '23 the LTM default rate of China HY property bonds was 4.1%/ 7.3% (by count/ amount). BofA Asian analysts are expecting more outflows.

Exhibit 6: China got inflows in June

Foreign Holdings change Total ex-China and China



Source: BofA Global Research, Local governments' websites. Note: Mar'20 ex-China was -\$45bn BofA GLOBAL RESEARCH

Exhibit 8: China corp issuance share dropped to 10% in 2023, from 36% of all 2022, down from 48% peak in 2018.

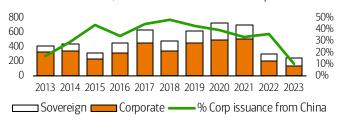
Annual USD & EUR Corporate New Issuance (US\$mn)

Country	2023 YTD	2022	2021	2020
China	14,594	74,152	171,096	196,978
Rest of EM				
corporates	126,688	129,348	342,015	295,206
Total	141,282	203,500	513,461	492,856
% China	10%	36%	33%	40%

Source: BofA Global Research, EMDL on Bloomberg

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Exhibit 10: China EXD issuance = 10% of all EXD corporate issuance EXD issuance: 2013-23, China share down to the lowest point since '12



Source: BofA Global Research, EMDL on Bloomberg

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Exhibit 5: China got inflows in June

LDM China foreign holdings (FH) growth as of 30 June- in US\$

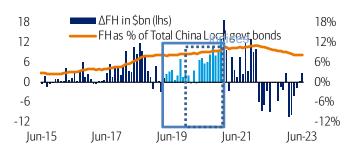
			C	hange	\$	% of YTD		
	FH June	Holdings USD (bn)	1m	3m	6m	YTD '23	flows	
China	3.0	296	3	2	-23	-23	155%	
FH ex-CN	5.0	740	5	7	8	8	-55%	
Total FH	8.0	1036	8	8	-15	-15	100%	

Source: BofA Global Research, Local government websites; Note: We think some FH may be from Central Banks, not only investors

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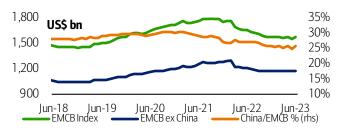
China local debt was added to 3 large benchmark indices starting in mid-2019: 1) the GBI-EM, 2) Blmbg Barclays Global Agg and 3) FTSE Russell WGBI Oct 2021-Oct 2024 (see FTSE Russell China report).

Exhibit 7: June ΔFH +\$3.0bn. FH flat at 8.2% of China GCB bonds China Foreign Holdings. Inclusion in WGBI from Oct 2021 to Oct 2024



Source: BofA Global Research, Local governments' websites. Period of light blue bars was entry into the Bloomberg Barclays Agg (solid box) and inclusion of JPM GBI EM (dotted box).

Exhibit 9: China represents 26% of corporate index-eligible debt EM Corp Index (EMCB) market value with & without China (peak 30%), Russia removed at a price of zero on 3-31-2022



Source: BofA Global Research, Bloomberg, ICE Data indices, LLC.

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Exhibit 11: China LDM issuance = 73% of all EM LDM issuance YTD LDM issuance: 2012-22 China grew from 25% of 2012 LDM issuance



Source: BofA Global Research, Bloomberg

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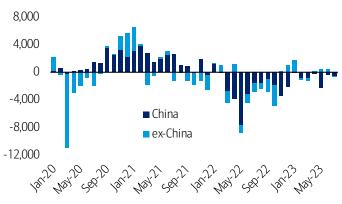


6

LDM ex-China posted outflows remain solid

- LDM ex-China funds show small inflows in 2023 vs -\$8bn outflows in 2022. The inflows in 2023 are at +\$2.1bn.
- China funds also show smaller 2023 outflows than those in 2022.
- **Foreign holdings data** shows foreign investors have been selling China in 2023.
- China ETFs also show receding outflows in 2023 but they have not turned positive yet. Around 30% of the China flows reported by EPFR are via ETFs and the ETFs appear to be representative of the total flows. ETF flows can be observed via various Bloomberg tools.
- **China funds tracked by EPFR lost over half** of their assets due to outflows since the peak in Feb'22. They were added to many benchmarks beginning in 2019.

Exhibit 12: More outflows from China than from LDM ex-China in July EPFR flows into and out of China and ex-China funds, by month (in \$mn).



Source: BofA Global Research, EPFFR Global.

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Exhibit 14: Of the China LDM ETFs, small July outflows were mostly from non-iShares ETFs

EPFR flows into China iShares ETFs & non-iShares ETFs, by month (in \$mn).



Source: BofA Global Research, EPFFR Global.

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Exhibit 13: The July China LDM outflows were mostly via funds EPFR flows into & out of China ETFs and non-ETFs, by month (in \$mn).

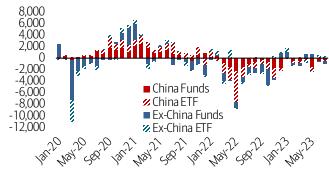


Source: BofA Global Research, EPFFR Global.

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Exhibit 15: China ETFs had become a large contributor to the EPFR headline LDM flows, although outflows have been quite big for a while

EPFR flows into China & ex-China funds, ETFs & non-ETFs, by mo (in \$mn).



Source: BofA Global Research, EPFFR Global.



Issuance: Tracker, debt service, forecasts

We track primary market issuance of external sovereign and corporate EM bonds on a gross and net basis (i.e. gross issuance minus debt service). Newly issued bonds can be purchased with cash from debt service or fund inflows. When net issuance is positive, fund inflows are required into the asset class. When net issuance is negative and fund inflows are positive, there could be higher demand for bonds in the secondary market.

Our 2023 forecast total issuance is \$376bn (\$147bn sov, \$229bn corp) vs peak pf \$707bn in 2020. Some issuers have already exceeded our original fcst. Forecasted gross issuance is 12% of the outstanding \$1.2tn EM sovereign external debt, offset with 7% principal coming due and 3% coupons being paid. Then just <u>3% inflows of this will be needed in 2023</u> to cover the new issuance.

July gross & net issuance were at \$13bn and -\$32bn. Net issuance by region: LatAm - \$13bn, Asia -\$11bn & EEMEA -\$8bn.

Very low July: gross issuance was \$13bn, and ~30% of its past 5y avg of \$41bn. 71% IG. 1 sov issued: Panama (\$0.75bn). 48% came from EEMEA, 35% from Asia and 17% from LatAm.

Exhibit 16: Forecast 2023 \$376bn vs \$293bn in 2022,\$688bn in 2021, \$707bn in 2020 2023 monthly gross issuance (\$bn), YTD and yearly since 2020

											%			
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	YTD	2023F i	ssued	2022	2021	2020
Sovereign	46	7	14	11	11	5	1	0	94	147	64%	91	180	222
Corporate	27	25	14	16	20	18	12	1	134	229	58%	202	507	485
Total	73	32	29	27	31	23	13	1	228	376	61%	293	688	707

Source: BofA Global Research, Bloomberg

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Exhibit 17: Net issuance negative in June, making it the 14th neg figure in the last 16 months Total negative net issuance since Feb 2022 = -10.5%

Net issuance of USD & EUR debt (gross issuance less debt service paid, including coupons)

	!	Scheduled	i		Total	Net			Schedule	d			
Date	Total issued (\$bn)	Debt service (\$bn)	Total paid i (\$bn)	Net issuance (\$bn)	ding	issuance as % of total outstanding	Date	issue	Debt dservice (\$bn)	Total paid (\$bn)	issuanc	Total e outstandi ng (\$bn)	Net issuance as % of total outstanding
Jan-22	70	42	51	19	3,044	0.6%	Jan-23	73	50	52	20	2,826	0.7%
Feb-22	30	24	30	0	3,051	0.0%	Feb-23	32	20	28	3	2,826	0.1%
Mar-22	33	56	61	-27	2,928	-0.9%	Mar-23	29	44	54	-25	2,815	-0.9%
Apr-22	29	50	68	-39	2,890	-1.4%	Apr-23	27	47	58	-31	2,826	-1.1%
May-22	23	30	41	-19	2,886	-0.6%	May-23	31	31	38	-7	2,807	-0.3%
Jun-22	25	23	36	-11	2,883	-0.4%	Jun-23	23	18	28	-4	2,789	-0.2%
Jul-22	11	43	49	-37	2,853	-1.3%	Jul-23	13	34	28	-14	2,775	-0.5%
Aug-22	9	19	27	-17	2,838	-0.6%	YTD	227	244	286	-59	2,775	-2.1%
Sep-22	17	43	44	-27	2,812	-1.0%							
Oct-22	23	38	40	-17	2,800	-0.6%							
Nov-22	19	36	40	-21	2,801	-0.7%							
Dec-22	3	28	36	-33	2,792	-1.2%							
FY 2022	2 293	433	522	-230	2,792	-8.2%							

Note: Total outstanding is in face value of EMCB & EMGB BofA indices. Source: BofA Global Research, Bloomberg, ICE Data indices, LLC.

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Exhibit 18: Debt service - \$373bn to be paid in 2023, August is just \$20bn (5.4%)

Scheduled debt service payments expected of USD & EUR debt for next months

Month	Total	Corporates	Sovereigns	Maturities	Coupons	LatAm	EEMEA	Asia
Aug-23	20	14	6	13	7	3	6	10
Sep-23	36	28	8	26	10	7	8	20
Oct-23	37	25	11	24	12	4	10	23
Nov-23	23	18	5	15	8	3	9	12
Dec-23	14	10	4	8	6	2	5	7

Source: BofA Global Research, Bloomberg, ICE Data indices, LLC.



Exhibit 19: Issuance trends – investors want higher quality. Corp issuance in 2023 has been heavily IG @76%, like 2022, similar to early in the pandemic (Mar-Aug 2020), vs the low 60% in 2021

Issuance by category 2022 and 2021

	IG	HY	Xover/NR	Asia	EEMEA	GCC	LatAm	Total
Sovereign								
2021	62%	33%	5%	22%	32%	17%	29%	100%
2022	68%	27%	5%	14%	45%	10%	31%	100%
2023 YTD	71%	26%	3%	16%	42%	20%	21%	100%
Corporate								
2021	60%	29%	11%	60%	14%	11%	15%	100%
2022	75%	8%	17%	70%	7%	10%	12%	100%
2023 YTD	76%	14%	9%	50%	17%	21%	13%	100%

Source: BofA Global Research, Bloomberg, Bond Radar

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Exhibit 20: Gross issuance forecast for 2023 is \$147bn, net of amortizations is \$85bn, and net of amort & coupons is just \$33bn. 2022 gross issuance was \$91bn and net of amortizations was \$18bn, and also net of coupons was \$22bn.

Largest net issuance left is from China and Qatar. By region, small for LatAm & CEE (4 & 5), larger from Asia & MEAF/GCC (10 & 11)

External debt issuance forecasts - foreign currency, foreign law (in USD bn)

Total	Main Countries Non-G10	2023 Gross EXD fcst 147	2023 YTD 94	Left to go in 2023 53	Remaining 2023 EXD Prin Due 15	Remaining 2023 net Issuance 35		Main Countries	2023 Gross EXD fcs	2023 : YTD	Left to go in 2023	Remaining 2023 EXD Prin Due	Remaining 2023 net Issuance
Asia		29	15	14	4	10	MEAF/GCC		45	26	18	7	11
	China	8.4	0.0	8.4	2.8	5.7		Abu Dhabi	0.0	0.0	0.0	3.0	-3.0
	Indonesia	8.0	3.8	4.2	1.0	3.2		Bahrain	2.0	2.0	0.0	0.0	0.0
	Hong Kong	8.2	8.2	0.0	0.0	0.0		Dubai	0.0	0.0	0.0	0.7	-0.7
	Philippines	4.0	3.0	1.0	0.1	0.9		Egypt	4.5	1.5	3.0	0.5	2.5
CEE		39	29	10	3	5		Iraq	0.0	0.0	0.0	0.3	-0.3
	Hungary	5.0	4.7	0.3	0.9	-0.6		Israel	2.0	2.0	0.0	0.1	-0.1
	Poland	12.0	8.8	3.2	0.0	3.2		Jordan	1.3	1.3	0.0	0.0	0.0
	Romania	8.0	6.2	1.8	1.2	0.6		Kuwait	0.0	0.0	0.0	0.0	0.0
	Kazakhstan	2.0	0.0	2.0	0.6	1.4		Lebanon	0.0	0.0	0.0	0.0	0.0
	Serbia	1.8	1.8	0.0	0.0	0.0		Morocco	2.5	2.5	0.0	0.0	0.0
	Türkiye	10.0	7.5	2.5	3.3	-0.8		Nigeria	2.6	0.0	2.6	0.0	2.6
LatAn	1	23	19	4	1	4		Oman	0.0	0.0	0.0	0.0	0.0
	Brazil	3.0	2.3	0.8	0.0	0.8		Qatar	5.0	0.0	5.0	0.0	5.0
	Chile	4.0	3.1	0.9	0.0	0.9		Saudi Arabia	16.0	16.0	0.0	0.0	0.0
	Colombia	1.8	1.8	0.0	0.0	0.0		South Africa	1.9	0.0	1.9	0.0	1.9
	Costa Rica	3.0	1.5	1.5	0.0	1.5		Tunisia	0.5	0.0	0.5	0.7	-0.2
	Dominican Republic	2.0	0.7	1.3	0.7	0.6		Kenya	2.5	0.0	2.5	0.0	2.5
	Panama .	2.5	2.5	0.0	0.0	0.0		UAÉ	2.8	0.0	2.8	2.0	0.8
	Mexico	6.9	6.9	0.0	0.0	0.0		Sharjah	1.0	1.0	0.0	0.0	0.0
	Peru	0.0	0.0	0.0	0.0	0.0							
							All Frontie	rs	12	5	7	0	6

Note: Frontier Markets indude: Other LatAm: Argentina, Aruba, Bahamas, Bolivia, El Salvador, Guatemala, Honduras, Jamaica, Ecuador, Paraguay, Suriname, Trinidad, Uruguay, Venezuela.

Other EE: Bulgaria, Croatia, Czech Republic, Georgia, Macedonia, Armenia, Albania, Azerbaijan, Tajikistan, Uzbekistan, Srpska, Ukraine, Montenegro.

Other MEAF/GCC: Angola, Benin, Cameroon, Gabon, Ghana, Rwanda, Ethiopia, Senegal, Namibia, Tanzania, Zambia, Ivory Coast.

Other Asia: Fiji, Malaysia, India, Korea, Pakistan, Mongolia, Singapore, Sri Lanka, Thailand, Maldives, Vietnam.

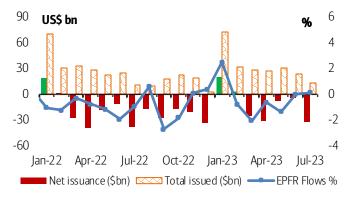
Note: Net issuance is only net of scheduled principal payments, not buybacks/tenders nor coupons, as of 6 Dec 22.

Source: BofA Global Research



Exhibit 21: Net issuance was negative again in July

Gross and net monthly issuance (Sbn) and EPFR flows into EXD (%, blue), as of July 31th. Positive net issuance in green, negative in red.

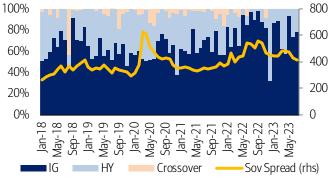


Source: BofA Global Research, Bloomberg, ICE Data indices, LLC., EPFR Global

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Exhibit 23: HY issuance had nearly disappeared by Sept, but has been recovering some since. Large Türkiye HY issuance dominated Dec Monthly % of gross issuance by rating bucket and general sovereign

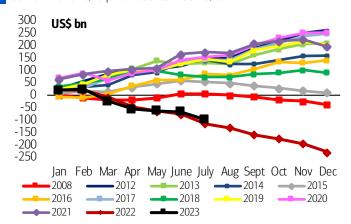
spreads (without concessions, rhs) since Jan´18 – Jul´23 MTD



Source: BofA Global Research, Bloomberg Bond Radar, JPEIDISP Index (Sovereign spreads).

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Exhibit 25: 2023 remains negative following the worst year ever Cumulative sov & corp net issuance in USD & EUR



Note: Net issuance is total issuance less principal, interest and buybacks paid. **Source:** BofA Global Research, Bloomberg.

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Exhibit 22: Aug debt service payment will be low.

Debt service payment (EM Corporate, EMCB, and Sovereign, EMGB)

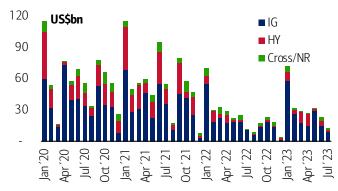


Source: BofA Global Research, Bloomberg, ICE Data indices, LLC.

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Exhibit 24: Low June with large IG component

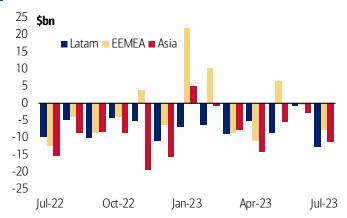
Monthly gross issuance by rating since Jan´20 – Jul´23 MTD



Source: BofA Global Research, Bloomberg Bond Radar.

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Exhibit 26: Net issuance negative for the 17th consec month for LatAm Monthly net issuance by region



Note: Net issuance is total issuance less principal, interest and buybacks paid. **Source**: BofA Global Research, Bloomberg,



Fund Flows: EPFR data - focus on ex-China

EPFR (Emerging Portfolio Fund Research) tracks fund flows from a sample of funds that invest in external debt (EXD) and local debt markets (LDM). EPFR data is monitored by investors because it is a proxy for flows to the overall asset class. However, EPFR data requires careful interpretation due to its small sample (around 11% of the asset class, concentrated among European funds). We make our own adjustments to the data to improve its relevance (see Methodology for details).

Exhibit 27: Total EM Debt flows in 2022 were twice that of US HY flows in \$bn. Total EM flows = LDM ex-China + China LDM + EXD + Blend EPFR fund flows (% of AUM or USD mn), omitting the 34% of the local funds that invest in the same country they were domiciled in

	1w (%)	1w (USD mn)	YTD (%)	YTD (USD mn)	2022 (%)	2022 (USD mn)	2021 (%)
LDM Funds ex China	0.1	113	3.0	2,685	-9.3	-7,626	-5.8
- LDM ETF	0.6	261	16.0	5,654	3.3	1,076	-1.6
- LDM non-ETF	-0.3	-148	-5.5	-2,969	-11.3	-8,702	0.0
China LDM	-1.1	-185	-18.9	-3,786	-58.0	-28,520	77.8
- China ETF	-0.4	-24	-14.6	-1,111	-68.0	-16,523	76.8
- China non-ETF	-1.6	-161	-21.7	-2,675	-44.0	-11,997	0.0
EXD Funds	-0.5	-1,069	-2.7	-6,285	-10.5	-27,818	4.5
- Corp flows	-0.4	-220	-7.4	-3,944	-16.8	-10,866	10.9
- EXD ETF	0.0	23	3.9	1,669	-0.8	-321	9.5
- EXD non-ETF	-0.6	-1,092	-4.4	-7,954	-10.8	-27,498	0.0
Blended Funds	0.5	234	2.2	1,090	-18.5	-10,807	7.1
All EM debt	-0.2	-907	-1.6	-6,295	-16.4	-74,770	6.6
All EM debt ex China	-0.2	-722	-0.7	-2,509	-11.5	-46,250	2.7
EM Equity	0.0	-199	3.6	43,911	1.1	17,981	6.3
US HÝ Corp	-0.2	-455	-2.5	-7,614	-10.5	-38,118	-0.5
US IG Corp	0.0	120	3.9	14,987	5.6	19,277	2.4

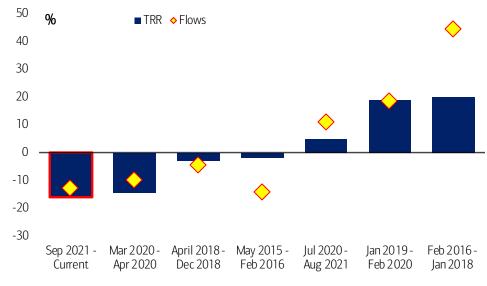
Note: We remove ~ \$61bn of the local funds that were domiciled in BG, CN, CO, IN, KR, MY, RO, RU, TH, TR and VN and of ETFs registered locally that invest in local debt (-\$6bn).

Source: BofA Global Research, Bloomberg, ICE Data indices, LLC, EPFR.

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Exhibit 28: Current period is most extreme case of large price correction (red box) with modest outflows (diamond).

EXD inflows and outflows periods when the flow does not always match the performance



Source: BofA Global Research, EPFR Global, Bloomberg

Exhibit 29: Most of EPFR-tracked funds are European domiciled; about 65% are EXD; fund AUM is just 9% of outstanding external debt and even less of local debt, but reflects fairly well the percentage inflows

AUM in EPFR flows for three classes: Small retail, high net worth ex-ETF, ETF (\$bn), including China

					US HY	US IG
AUM (USDbn)	EXD	LDM	Total EM	EM Equity	Corp	Corp
Small retail	59	20	79	-	-	-
High net worth ex. ETF	121	67	189	-	-	-
ETF	51	27	78	-	-	-
Total	231	115	346	1,259	294	395
Europe domiciled	173	94	268	639	-	-
US domiciled	43	7	50	487	294	395
Asia & Others domiciled	15	13	28	133	-	-
Blend	-	-	51	-		-
Market Value of Benchmark (in \$bn)	2,435	5,410	7,845	6,874	1,224	7,800
Percent of EPFR that is US-domiciled	19%	7%	15%	39%		
Percent of market cap covered by EPFR	9%	2%	4%	18%		
Percent of EPFR that is ETF	22%	24%	23%			

Note: Market Cap of Benchmark is (EMGB + EMCB) for EXD no caps, LDMP for LDM (is capped), H0A0 for USHY, C0A0 for USIG and MXEF for equity; omitting the 34% of the local funds that invest in the same country they were domiciled in (mostly large Thai funds, and around 8% from China funds).

US IG Corp and US HY Corp are funds that invest strictly in Corporates, and do not include govts, agencies, mortgages, etc. LDM AUM Includes China focused funds

Source: BofA Global Research, EPFR Global

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Exhibit 30: Asia focused funds represent over 12% of EPFR EXD AUM and 14% for LDM ex China AUM by asset class by Geo Focus (in \$bn)

Fund Focus	EXD	LDM ex CN*	Total EM
ETFs - Global Emerging Markets	49	15	64
Non-ETFs - Global Emerging Markets	150	61	211
Asia ex-Japan Regional	29	13	42
Other	5	8	13
Total	233	98	331

Source: BofA Global Research, EPFR Global. Note: Based on daily data that may differ slightly from weekly or monthly data, omitting the 34% of the local funds that invest in the same country they were domiciled in (mostly large Thai funds). 20% of the GEMs LDM funds are ETFs: 30% of the GEMs LDM ETFs are ishares: 40% of the LDM ETFs are China ETFs and 80% of the

China ETFs are iShares. China LDM funds AUM have fallen from a high of \$57bn to near \$16bn as of 08/03/23.

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Methodology: What makes our EPFR approach different?

EPFR data requires special care and cautious interpretations

Although EPFR covers a small percentage of outstanding debt, investors persist in watching them, perhaps because of the larger proportionate representation in equities. It is an unreliable measure, and the flows appear small. EPFR's AUM includes a larger and larger percent of ETFs because they are growing fast, report daily and are thus accessible. EFPR base is mainly high net worth and smaller institutions. EPFR EM debt AUM is heavily weighted toward Europe, rather than US.

We clean LDM flows

We remove funds representing 34% of EPFR AUM. These are locally registered mutual funds or ETFs investing in same local debt, almost all local money market funds because they do not reflect global flows (32% are domestic local Thai mutual funds, 2% are other EM country domestic mutual funds investing in local debt).



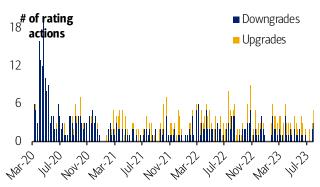
Ratings actions, 2022 61% downgrades

- Negative week: 3 down & 2 up this week, vs 2 down & 1 up last week.
- 2023 downgrades running at neutral.
 About 50% of EM ratings or outlooks have been downgrades
- 2020 downgrades were exceptionally high at 93%

See our **Default Primer**, Sept 2022.

Exhibit 32: After balanced upgrades and downgrades in 2021, downgrades have exceeded upgrades in 2022

Downgrades and upgrades in rating or outlook since Covid



Source: BofA Global Research, Bloomberg Note: Suriname, Belize, Ecuador and Argentina were upgraded after restructurings of debt.

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Exhibit 34: Defaulted debt cumulated \$195bn since 2020

Defaulted sovereign debt by country and year since 2020 (\$bn)

Year	Country	Amt Defaulted (\$bn)
2020	Argentina	61.5
2020	Ecuador	17.4
2020	Lebanon	24.1
2020	Suriname	0.7
2020	Zambia	2.3
2021	Belize	0.6
2022	Sri Lanka	12.6
2022	Russia	36.6
2022	Belarus	3.3
2022	Ukraine	22.8
2022	Ghana	13.2

Source: BofA Global Research, Bloomberg.

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- In 2020, 6% of the 78 countries defaulted or restructured, 9% of the EMGB index face value (\$107bn/\$1.2tn).
- In 2021, only one defaulted and restructured, 1% of issuers.
- In 2022, 6% of the 78 countries defaulted or restructured, 7% of the EMGB index face value (\$89bn/\$1.2tn).

Exhibit 31: Downgrades were 93% of all ratings actions from March 2020 - YE 2020, but around 50% in 2021 and 60% in 2022 Number of sovereign ratings actions, including outlooks

	Down	Up	% Downgrades
1/1/20-3/4/20	10	7	59%
3/4/00-YE2020	194	15	93%
2021	57	58	50%
2022	103	65	61%
2023 YTD	37	42	47%

Source: BofA Global Research, Bloomberg. Note: Suriname, Belize, Ecuador and Argentina were upgraded after restructurings of debt

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Exhibit 33: Sovereign defaults in 2020 hit 9% of face value of all sov bonds, (out of \$1.2tn face value). Avg 2% in 22yrs, 5.5% in last 3y. As a % of only EM sovereign high yield bonds avg 4% in 22y & 11% in 3y. EM sovereign default rates as % of EM sov debt (USD & EUR)



Source: BofA Global Research, Bloomberg, ICE Data indices, LLC.

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Comps: 2001 Argentina \$95bn of sovereign debt, but only \$45bn of that was in the index and the index was just \$294bn back then, so Argentina was 15% of the face. 2017 Venezuela sovereign default was less than 4% of the EM sovereign index at the time, but if we include PDVSA which was a quasi, it was more. We do not include quasis in our sovereign index. In both the Argentina and Venezuela cases, they were the main defaulters in their respective years. 2020 had 3 big defaults. That is key here.

In this environment, watch those low BBBs.

2 BBB- and 1 lower Croatia, Cyprus, and Trinidad.

3 BBB- Romania and India

2 BBB- and 1 higher Russia, Kazakhstan, Colombia and Italy.1 BBB- and rest higher Mexico, Uruguay, Hungary and Portugal.

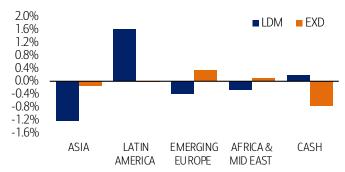
See <u>Default Primer Sept 2022</u> and <u>How sovereign fallen angels lost</u> their wings: Mx, Col, Uru

The default rate was 7% for sovereign debt in 2022, after the prior 22y average of 2%. But there are not many low rated issuers in EM anymore. For 2023, there are just 4 issuers that are CCC and have a price <\$50. That is not really a default price, per se, but if they all defaulted, the face value of default would be \$85bn (7%). The loss upon would not be that high because the prices are already so low. The mkt value of those bonds is just \$27bn.



EM debt fund flows charts

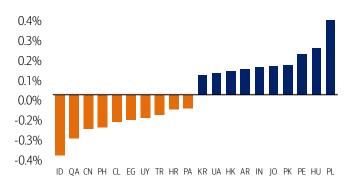
Exhibit 35: Regional allocations – LDM into LatAm, EXD into EE LDM and EXD 3m change in EPFR regional allocation 3m change 3/31/23-6/30/2023



Note: Reported on 7/23 for fund positions on 6/30. **Source:** BofA Global Research, EPFR Global BofA GLOBAL RESEARCH

Exhibit 37: EXD country allocations - Large loses in market value from ID & QA assets, relative growth in PL & HU

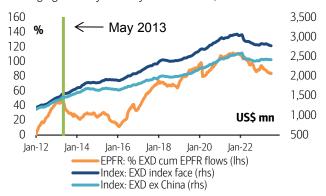
EXD EPFR 3m allocation change 3/31/23-6/30/2023



Note: Reported on 7/23 for fund positions on 6/30. **Source:** BofA Global Research, EPFR Global BofA GLOBAL RESEARCH

Exhibit 39: Size of EXD market vs. inflows - Total EM corp and sov debt both rise at a faster pace faster with inflows, sharp drop. Close to \$100bn Russia bonds removed at a price of 0 on 3-31-2022

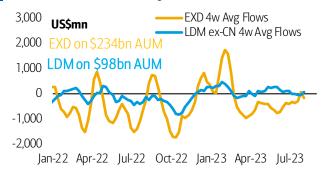
EXD total index eligible face value for EM corp and sov (face = new issues - bonds aging out of 1y maturity & retirements)



Note: EM Corp and Sov indices are EMCB and EMGB. **Source:** BofA Global Research, EPFR Global BofA GLOBAL RESEARCH

Exhibit 36: Fund flow trends - EXD flows are more volatile than LDM. EXD flows are very volatile and turning positive while LDM ex-CN flows are negative though small

EXD and LDM ex-CN 4-week average flows (\$mn)

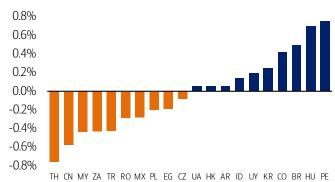


Source: BofA Global Research, EPFR Global

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Exhibit 38: LDM country allocations – Large loses in market value from TH & CN assets, relative growth into PE & HU

LDM EPFR 3m allocation change 3/31/23-6/30/2023



Note: Reported on 7/23 for fund positions on 6/30. **Source:** BofA Global Research, EPFR Global BofA GLOBAL RESEARCH

Exhibit 40: Two measures of inflows, EPFR funds vs foreign holdings (FH). FH ex-China growing faster than EPFR rate

LDM Foreign holdings, with EPFR reported flows (% change in foreign holdings and EPFR cum flows)

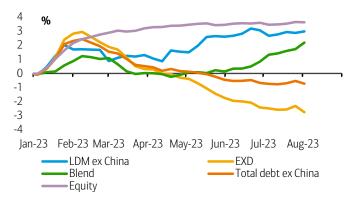


Source: BofA Global Research, local governments websites, EPFR Global



Exhibit 41: Equity and LDM gained inflows YTD until July

Cumulative EM debt and equity fund flows since Jan 23

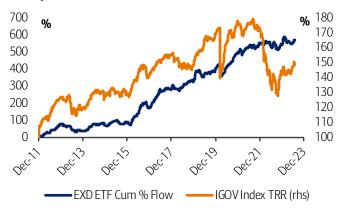


Source: BofA Global Research, EPFR Global

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Exhibit 43: ETF-only EXD flows had moved strongly with performance until 2021, but not any more

ETF-only EXD flows vs IGOV Index returns since Dec'11

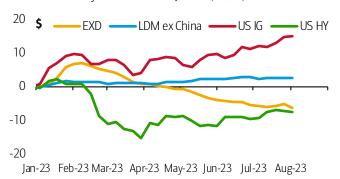


Source: BofA Global Research, Bloomberg, ICE Data indices, LLC, EPFR Global.

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Exhibit 42: US IG Corp asset class is 5x larger than US HY corp and IG has steady inflows, even while EM EXD and LDM ex China got soft. US HY outflows have been striking YTD

Cumulative flows by asset class since Jan '23 (in \$bn)



Source: BofA Global Research, EPFR Global, US Corp mkt is COAO, US HY mkt is HOAO

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Exhibit 44: ETFs in \$: EM equity (rhs) inflows increasing steadily as is trend for US IG, but EXD drifting lower, but US HY doing worse Cumulative flows of ETF by asset class since Jan'23 (in \$bn)



Note: This chart shows aggregate EPFR data, it names no specific ETF. **Source:** BofA Global Research, EPFR Global

Exhibit 45: Asia ex-China LDM flows peaked in May 2023

Asia ex-China foreign purchases of LDM by country in current period USDbn $\,$



Source: BofA Global Research, local governments websites, Haver.

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Exhibit 47: Asia LDM flows including China (scale rhs)

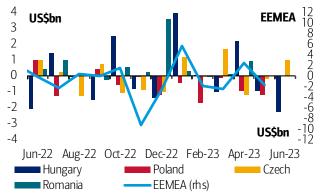
Asia foreign purchases of LDM by country in current period USDbn (China axis is 3x larger than rest of countries and swamps other inflows)



Source: BofA Global Research, local governments websites, Haver.

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Exhibit 49: EEMEA LDM flows – Weak flows overall, except HU EEMEA foreign purchases by country in current period USDbn



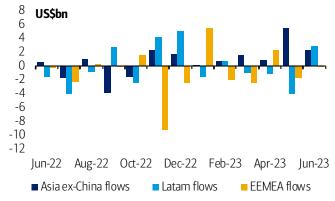
Note: EEMEA is the sum of all 8 EEMEA countries

Source: BofA Global Research, local governments websites, Haver.

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Exhibit 46: Foreign holdings of LDM – Flows turning negative

By region EM foreign purchases in current period USDbn

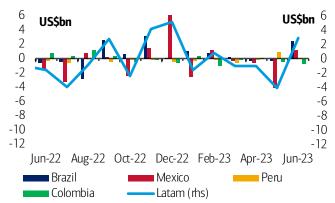


Source: BofA Global Research, local governments websites, Haver.

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Exhibit 48: LatAm LDM flows - Low flows in 2023

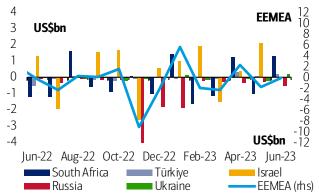
LatAm foreign purchases of LDM by country in current period USDbn



Source: BofA Global Research, local governments websites, Haver.

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Exhibit 50: EEMEA LDM flows – Weak flows overall, except ZA & IL EEMEA foreign purchases by country in current period USDbn



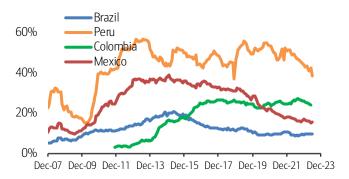
Note: EEMEA is the sum of all 8 EEMEA countries

Source: BofA Global Research, local governments websites, Haver.



Exhibit 51: Foreign holdings share in LatAm-steepest decline is in Mex (outflows + big issuance). Peru now the largest (almost 50%)

LatAm foreign bond holdings share (% of foreign holdings)



Source: BofA Global Research, local governments websites, Haver.

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Exhibit 53: Foreign holdings shares in EEMEA - All declining since mid-2020

EEMEA foreign bond holdings share (% of foreign holdings)



Source: BofA Global Research, local governments websites, Haver.

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Exhibit 55: IIF portfolio flows have been recovering lately

Total EM foreign purchases of local debt (including China) versus IIF portfolio flows



Note: Total portfolio inflows (IIF) are net non-resident purchases of EM stocks and bonds. Recent IIF points are estimates. BofA points are from countries that have already reported. Source: BofA Global Research, IIF

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Exhibit 52: Foreign holdings share in Asia – sharp decline in Indon (due to outflows + big issuance), declined from 40% to 14%

Asia foreign bond holdings share (% of foreign holdings)



Source: BofA Global Research, local governments websites, Haver.

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Exhibit 54: Foreign holdings share and 3m change - Declined the most in Peru and Colombia

Foreign holdings share and 3m change



Note: Countries are ranked from highest to lowest % of foreign holding. Source: BofA Global Research, local governments websites, Haver.

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Exhibit 56: IIF debt flows also indicate EM local debt flows have been doing better in the last few months

Total EM foreign purchases of local debt (including China) versus IIF **DEBT flows**



Note: Recent IIF points are estimates. BofA points are from countries that have already reported.

Source: BofA Global Research, IIF.

Exhibit 57: Ex-China flows have been positive in the last few months

Ex-China Total EM foreign purchases of local debt versus IIF portfolio flows ex-China



Note: Total portfolio inflows (IIF) are net non-resident purchases of EM stocks and bonds. Recent IIF points are estimates. BofA points are from countries that have already reported. **Source:** BofA Global Research IIF

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Exhibit 58: Ex-China outflows have been challenging since Oct '21 Ex-China Total EM foreign purchases of local debt versus IIF DEBT flows ex-China



Note: Recent IIF points are estimates. BofA points are from countries that have already reported. **Source:** BofA Global Research, IIF.

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Acronyms

EM: Emerging Markets // DM: Developed Markets // EXD: External debt // LDM: Local debt markets ESG: Environmental, Social & Governance // AUM: Assets under management // Sov: Sovereign // Corp: Corporate // GCC: Gulf Cooperation Council (political and economic alliance of countries: Saudi Arabia, Kuwait, United Arab Emirates, Qatar, Bahrain and Oman // MEAF: Middle East & Africa // EEMEA: Eastern Europe, Middle East & Africa // EMTA: Emerging Markets Trader Association // FH: Foreign Holdings //

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