

GEMs Flow Talk

Low liquidity, big problem

EXD keeps suffering outflows. LDM gains again, so does US IG & HY Corps.

EPFR flows (% of AUM).

	All ex CN	EXD	LDM ex CN	Blend	EM Eqty	US HY	US IG	ETF EXD	ETF LDM
1w	-0.2%	-0.1%	0.1%	-1.2%	0.0%	0.1%	0.3%	-0.2%	0.3%
YTD	-0.8%	-0. 9 %	0.3%	-2.2%	0.1%	1.2%	3.0%	-1.7%	2.8%
2023	-7.2%	- 9.9 %	-2.9%	-1.7%	1.9%	-0.5%	4.0%	1.0%	16.7%
2022	-11.5%	-10.5%	-9.3%	-18.5%	1.1%	-10.5%	5.6%	-0.8%	3.3%
Trend	1∖	2∖	2 /	1∖	2	1.7	1.∕	2∖	47

Source: BofA Global Research, EPFR. Note: Trend is # of consecutive wks up or down – shown 1w, YTD, FY 2023 & FY 2022

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Low liquidity, big problem: Liquidity (EMTA trading volume/debt outstanding) has declined for years, slowing for now, but the trend is clear.

Turnover dropped 60-70% in the last 15 years: Now 90% of outstanding external sovereign bonds turn over annually, vs 240% during the 2008 crisis, a huge drop. (p 2).

EM corporates are even less liquid. Yearly turnover is down to 40% vs 140% in 2008.

Low liquidity hurts...

Liquidity (trading volume as a percentage of outstanding debt) has been declining for years and is now 60% annually for total sovereign and corporate trading volume.

... But small issuance helps, and negative net issuance helps a lot

When there is little appetite for EM debt, it is helpful that the cash returned to investors (coupons, amortizations, and buybacks) exceeds the issuance of new bonds in the primary markets. This is the blessing of negative net issuance.

Since 2022, we've had the largest cumulative **negative** net issuance ever, reaching 12% of outstanding debt from Feb'22 - Jan'24 (issuance minus debt payments, coupons and buybacks). More on page 2.

Exhibit 1: Liquidity is a big problem, a contributor to the gapping prices we have been observing Turnover: Yearly EMTA reported trading volume vs debt outstanding from 1Q2008-3Q2023.



Source: BofA Global Research, EMTA, Bloomberg, ICE Data indices, LLC (EMGB and EMCB indices)..

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GEM Fixed Income Strategy Global

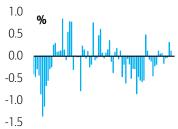
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LDM debt funds ex China weekly flows

LDM flows up +0.1% of AUM



Sep-22 Jan-23 May-23 Sep-23 Jan-24

Source: EPFR Global, BofA Global Research BofA GLOBAL RESEARCH

EXD debt funds weekly flows

EXD flows down -0.1% of AUM



Sep-22 Jan-23 May-23 Sep-23 Jan-24

Source: EPFR Global, BofA Global Research BofA GLOBAL RESEARCH

Quick Links:

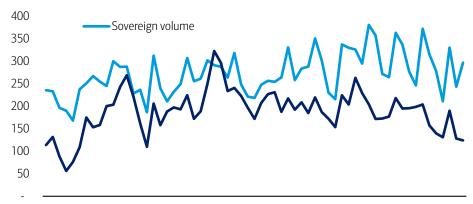
< Foreign Holdings of LDM > < LDM Real Money Positioning> < China>

< EXD Issuance/Supply> < EPFR Flows> < Ratings > < 40 Flows & Issuance Charts > The aversion to risk has made things difficult for HY issuers in the primary market. With the net cash from debt service coming back to funds, managers have been biased to deploy it to IG.

Though our US economists now forecast the rate cut cycle to begin in June (see US Economic Weekly report), with a US soft landing most likely, several EMs have already started to ease. But EM higher yields and lower risk appetite still presents low quality issuers with significant funding risk, rollover risk and future debt restructurings.

Exhibit 2: Trading volume has been relatively steady since 2009...

Trading volume quarterly



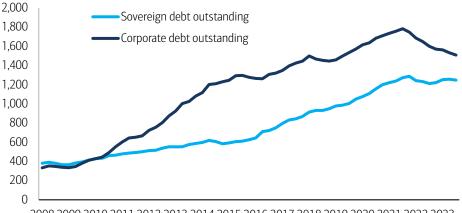
2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

Source: BofA Global Research, EMTA.

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Exhibit 3: ... But debt outstanding has grown sharply from about \$700bn in 2008 to nearly \$3,000bn currently

Debt outstanding quarterly in \$bn



2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

Source: BofA Global Research, Bloomberg, ICE Data indices, LLC (EMGB and EMCB indices).

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Real Money Tracker: In Dec, funds reduced their bond holdings and their FX exposure. Cash levels increased to 5.5% and duration rose to 5.65 years.



EM Debt Facts at your fingertips

Crossover sentiment

- End-Jan Crossover Credit investor survey indicates that US IG investors have increased their EM allocations to 13% from 8% in Nov, while HY investors have cut it to zero from 12% in Nov.
- US pension funds are fully funded, risk reduction may be coming.

LDM flows

- 2023 LDM ex-China foreign holdings flows into govt bonds are up \$26bn.
- Fleeing China: Foreign holdings of China local debt were down \$2bn in 2023 and China LDM funds AUM tracked by EPFR have fallen from a high of \$57bn to around \$13bn as of Jan 11.
- Indonesia foreign holdings share of local debt down from peak of 40% to 14%

Default statistics

- 21% total of USD sovereign debt is in default or is rated CCC or below.
- Of EUR-denominated sovereign bonds, 6% is in default or is rated CCC or below
- Since the pandemic started, 2023 has the fewest % downgrades.

Default rates

- 18% of face value in the EMGB index in Jan 2020 has defaulted at some point between 2020 and 2023.
- 32% of face value in the DGHY index in Jan 2020 has defaulted at some point between 2020 and 2023.
- 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 = 20.8%/7.5% for Asia HY, 36.3%/14.6% for China HY & 56.0%/28.6% for China HY property (Feb 9).

EXD Issuance / stock

- There is US\$2.7tn face of index eligible debt. \$1.2tn sovs & \$1.5tn corps.
- Our 2024 forecast total sovereign & corporate issuance is \$397bn.
- Negative net issuance since Feb 2022 (corp & sov) = -\$333bn (-11.8%),
- Negative net in 18 of the last 23 months means money has come back to investors to offset some of the outflows, supporting prices.
- China EXD new issuance as % of all issuances dropped significantly from 48% in 2018 to just 15% in 2023.
- 61% of sovereign debt measured market cap is IG, and 74% of corporate debt.
- Jan is a high issuance month (monthly avg \$86bn).

ESG flows

• In 2023 EM ESG outflows were 2.9% of AUM, vs 10.0% outflows from EM non-ESG funds, 30% less outflow pressure from ESG funds.

EM TRR YTD: EXD = -1.5%, LDM = -3.0%



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)

Weekly data	9-Feb	2-Feb	26-Jan	19-Jan	12-Jan	5-Jan	29-Dec	YTD \$ wkly avg	2022 \$ wkly avg	2021 \$ wkly avg	2020 \$ wkly avg	2019 \$ wkly avg
India	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	0.0
Indonesia	-0.1	-0.3	0.0	0.2	-0.3	0.4	-0.1	0.1	-0.2	-0.1	-0.1	0.2
Hungary	-0.1	-0.1	0.1	-1.5	0.5	4.7	-2.3	0.0	0.0	0.0	0.0	0.0
Türkiye	0.3	0.1	-0.1	0.0	0.5	-0.3	0.0	0.1	-0.1	-0.1	-0.1	-0.1
Mexico	na	0.2	0.3	-1.9	-0.3	0.0	0.3	-0.1	0.0	-0.3	-0.2	-0.1

IVIEXICO	IId	0.2	0.5	-1.9	-0.5	0.0	0.5	-U. I	0.0	-0.5	-0.2	-U. I
												% FH flows
									Current	Foreign	Total debt	since
Monthly Data	January	December	November	YTD (%)	YTD (\$)	2022 (\$)	2021 (\$)	2020 (\$)	Holdings	Holdings	(\$)	2/29/20
China	na	13.5	15.9	-1%	-2.2	-30.4	86.7	78.7	323	8%	4,133	0%
Korea	na	na	1.4	14%	15.6	15.9	34.0	18.8	172	22%	788	18%
India	0.1	0.0	0.5	-6%	-1.1	-2.9	-2.6	-12.7	9	1%	1,224	-3%
Indonesia	-0.1	0.4	1.4	5%	3.7	-10.4	-6.8	-6.8	55	15%	369	7%
Malaysia	na	-0.2	0.6	6%	2.4	-1.7	3.5	3.1	44	34%	128	7%
Thailand	na	-0.5	0.0	-6%	-1.7	-0.7	2.7	-0.5	26	11%	231	-6%
Asia	0.0	13.3	19.7	3%	16.8	-30.2	117.5	80.6	628	9%	6,875	5%
Czech Republic	na	11.1	-0.6	47%	12.7	-0.2	-0.2	-1.2	49	35%	138	44%
Hungary	na	-3.4	-0.2	-7%	-1.1	1.0	-1.4	0.3	17	16%	104	-18%
Ukraine	na	0.0	-0.1	-20%	-0.6	-1.5	-0.1	-1.2	1	3%	40	-12%
Poland	na	0.5	-0.3	-19%	-6.8	0.7	-4.1	-7.0	35	14%	257	-20%
South Africa	na	-1.7	1.5	0%	0.2	-3.2	0.6	-1.2	47	26%	182	-1%
Romania	na	na	na	13%	1.4	5.2	-2.1	2.4	17	26%	65	67%
Russia	na	-0.3	-0.1	-15%	-6.2	-11.7	-2.6	3.6	12	7%	168	-17%
Israel	na	-1.0	-2.5	18%	2.6	-2.7	6.8	5.3	23	10%	229	37%
Türkiye	0.0	1.7	1.6	49%	4.1	-3.1	-0.5	-5.2	6	6%	112	34%
EEMEA	0.0	7.0	-0.7	3%	6.4	-15.4	-3.6	-4.3	208	16%	1,295	2%
Brazil	na	-2.5	-0.3	8%	6.8	-16.2	15.5	0.5	122	9%	1,291	7%
Mexico	-1.7	5.0	0.4	-2%	-1.8	-2.1	-17.6	-12.5	110	15%	718	4%
Peru	na	0.0	-0.1	-7%	-1.5	-3.3	-0.8	1.3	17	38%	45	-10%
Colombia	-0.9	-0.6	0.1	-25%	-6.2	3.1	2.4	2.6	29	21%	137	-32%
LatAm	-2.7	1.9	0.1	-1%	-2.7	-18.6	-0.5	-8.1	278	13%	2,191	1%
China	na	13.5	15.9	-1%	-2.2	-30.4	86.7	78.7	323	8%	4,133	0%
Total ex China	-2.7	8.6	3.3	3%	22.6	-33.8	26.8	-10.5	792		6,228	4%
Total so far	-2.7	22.1	19.2	2%	20.4	-64.2	113.5	68.3	1115		10,361	3%

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

- Jan ex-China flows are at ≥\$2.7bn, with ≥\$1.7bn out from Mexico and ≥\$0.9bn from Colombia, and ≥\$0.1bn into India. 5/18 countries reported.
- Dec ex-China flows are at <a>↑\$8.6bn, with <a>↑\$11.1bn into Czech Republic,
 <a>↑\$5.0bn into Mexico and <a>↑\$3.5bn out from Hungary. 16/18 countries reported.

Including China

- Jan flows are at ≥\$2.7bn so far. China has not reported yet.
- Dec flows are at [→]\$22.1bn so far with [→]\$13.8bn into China.

Flows winners: Poland and India

Jan: India (+\$0.1bn). // Dec: Poland (+\$0.5bn).

Flows losers: Mexico and Israel

• Jan: Mexico (-\$1.7bn). // Dec: Israel (-\$1.0bn).

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 (02/15)

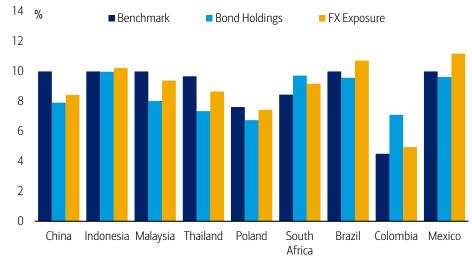
Our tracker compares the holdings of 38 large local currency debt funds (\$33bn AUM) to benchmark weights to estimate overweight and underweight positioning in bonds and FX. The funds are benchmarked to the GBI-EM local market benchmark, not Libor.

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

- Cash levels increased in December (at 5.5 from 5.0 in November).
- **Duration** was up in December (at 5.65 from 5.59 in November).
- **Bonds exposure:** Colombia (2.60% overweight) bonds continued to be most favoured by funds we track followed by South Africa (1.27% overweight). In December, funds continued to remain underweight in China, Indonesia, Malaysia, Thailand, Poland, Brazil and Mexico.
- **FX exposure:** In December, MXN (1.18% overweight) continued to be the most favored currency by GBI-EM indexed funds we track followed by ZAR. Funds continued to be overweight in IDR, BRL and COP and remained underweight in CNY, MYR, THB and PLN.

GEMs FI & FX Strategy Watch: Real Money Tracker - Playing defense 15 February 2024





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 \rightarrow 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? 16 November 2023

From Crossover US credit bi-monthly investor survey (Jan 22-26, 2024)

- When asked what was their largest allocation outside of their primary focus, 0% of the HY participants chose EM vs 12% in Nov.
- The view from US IG investors = 13%, up from 8% in Nov.
- Geopolitical risk is #1 concern, Recession #2, Commercial Real Estate #3.

Exhibit 6: US Credit investors: EM allocation history

IG investors rose to 13% invested in EM, while HY went down to 0%



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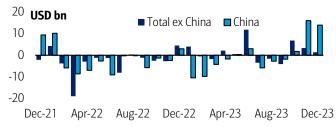
<u>Credit Market Strategist: Jan '24 Credit Investor Survey: Optimistic investors 26 January 2024</u>

China (big inflows) vs ex-China

- EM EXD Corp index face ex-China lost -\$6.8bn in the last 12m (-1% decline), due to negative net issuance & defaulting bonds removed. China is 20% of EM Corp Index.
- **China LDM flows** up +\$13.8bn (Dec) vs +\$15.5bn (Nov), posting its 5th inflow in 2023. FH up to 7.8% from 7.7%.
- 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 Feb 9 '24 the LTM default rate of China HY property bonds was 56%/ 29% (by count/amount). BofA Asia analysts are expecting more outflows.

Exhibit 6: China got huge inflows again in Dec

Foreign Holdings change Total ex-China and China.



Source: BofA Global Research, Local governments' websites.

Note: Mar'20 ex-China was -\$45bn; Foreign holders include central banks

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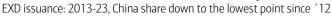
Exhibit 8: China corps are 15% of all 2023, down vs 2018 peak of 48%. Annual USD & EUR Corporate New Issuance (\$mn) for selected years

Country	2018	2020	2022	2023	2024 YTD
China	165,332	196,978	74,152	34,855	5,413
Rest of EM					
corp	178,063	295,206	129,348	192,444	52,713
Total	343,394	492,856	203,500	227,298	58,126
% China	48%	40%	36%	15%	9%

Source: BofA Global Research, EMDL on Bloomberg

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Exhibit 10: China EXD issuance = 15% of all EXD corporate issuance





Source: BofA Global Research, EMDL on Bloomberg

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Exhibit 7: China got huge inflows in Dec

LDM China foreign holdings (FH) growth as of 31 Dec- in US\$

			C	hange	\$	% of YTD	
	FH Dec	Holdings USD (bn)	1m	3m	6m	YTD '23	flows
China	13.8	323	14	31	21	-2	-12%
FH ex-CN	1.3	772	1	11	2	18	112%
Total FH	15.2	1095	15	43	23	16	100%

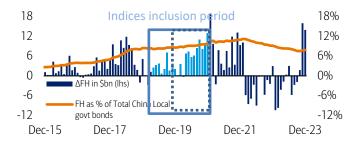
Source: BofA Global Research, Local government websites; Note: We think some FH may be from Central Banks, not only investors

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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: Dec ΔFH +\$13.8bn, FH at 7.8% of China GCB bonds

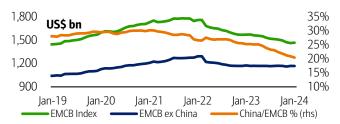
China Foreign Holdings. Inclusion in WGBI from Oct 2021 to Oct 2024



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).

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Exhibit 11: China represents 20% 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

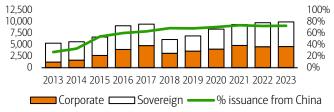


Source: BofA Global Research, Bloomberg, ICE Data indices, LLC

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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

LDM ex-China posted outflows in '23, same as in '24 YTD

- LDM ex-China EPFR reported funds showed smaller outflows in 2023 (-\$3bn) vs 2022 (-\$8bn). Jan 2024's was at -\$125mn.
- China funds also showed smaller 2023 outflows than those in 2022. And posted outflows in Jan too.
- Foreign holdings data shows foreign investors sold China consistently 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 ex-China in Jan

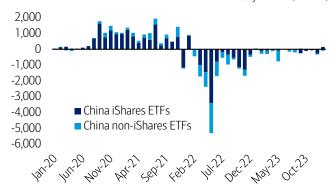


Source: BofA Global Research, EPFFR Global.

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Exhibit 14: Of the China LDM ETFs, small Jan inflows were mostly from 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 Jan China LDM outflows were mostly via non-ETFs 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 2024 forecast total issuance is \$397bn (\$153bn sov, \$244bn corp) vs peak pf \$707bn in 2020. Forecasted gross issuance is 12% of the outstanding \$1.2tn EM sovereign external debt, offset with 6% principal coming due and 5% coupons being paid. Then just around 1% inflows of this would be needed in 2024 to cover the new issuance.

Jan gross & net issuance were at \$92bn and \$38bn. Net issuance by region: EEMEA +\$25bn, LatAm +\$13bn & Asia \$0bn.

Feb slowing: gross issuance is at \$20bn, it's running at a \$40bn mo/rate, 3% lower than the \$42bn 5y Feb avg. 51% HY, 2x last 4y avg share. 6 sovs issued: Türkiye (\$3bn), Bahrain (\$2bn), Kenya (\$1.5bn), Paraguay (\$1bn), Benin (\$0.75bn) & HK (\$0.2bn & €0.08bn). 63% came from EEMEA, 25% Asia & 12% LatAm.

EM scheduled debt payments for 2024 will be \$444bn. \$314bn from Corps & \$130bn from Sovs. Total by region: Asia \$226bn, EEMA \$147bn and LatAm \$ 71bn.

Exhibit 16: Forecast 2024 \$397bn vs \$347bn in 2023, \$293bn in 2022, \$688bn in 2021 2023-2024 monthly gross issuance (\$bn) and 2024 Forecast

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	0ct	Nov	Dec:	2023	Jan	Feb	2024F
Sovereign	46	7	14	11	11	5	1	1	11	4	21	1	131	45	9	153
Corporate	27	25	14	16	20	18	12	8	36	20	19	2	217	47	12	244
Total	73	32	29	27	31	23	13	9	47	23	40	3	347	92	20	397

Source: BofA Global Research, Bloomberg

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Exhibit 17: Net issuance positive in Jan, interrupting its neg trend of 18 out of 23m w/ neg net issuance Total negative net issuance since Feb 2022 = -11.8%

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

	:	Schedule	d			Net			Schedule	d			Net
Date	Total issued (\$bn)	Debt service (\$bn)	Total paid (\$bn)		Total outstanding (\$bn)	issuance a % of tota outstandin	Ĭ	Total issued (\$bn)	d service	Total paid (\$bn)	issuanc	Total e outstandin (\$bn)	issuance as ng % 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	45	-32	2,775	-1.1%
Aug-22	9	19	27	-17	2,838	-0.6%	Aug-23	9	20	30	-21	2,763	-0.8%
Sep-22	17	43	44	-27	2,812	-1.0%	Sep-23	47	36	40	7	2,756	0.2%
Oct-22	23	38	40	-17	2,800	-0.6%	Oct-23	26	37	48	-22	2,740	-0.8%
Nov-22	19	36	40	-21	2,801	-0.7%	Nov-23	38	23	24	14	2,733	0.5%
Dec-22	3	28	36	-33	2,792	-1.2%	Dec-23	3	14	19	-16	2,728	-0.6%
FY 2022	293	433	522	-230	2,792	-8.2%	FY 2023	347	373	464	-117	2,728	-4.3%
·		·		·	•		Jan-24	91	52	54	37	2,759	1.3%

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



Exhibit 18: Issuance trends – investors want higher quality. Corp issuance in 2023 was heavily IG @76%. Latam & GCC are higher % than historical. Issuance by category 2021-2024 YTD

	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	70%	25%	6%	15%	46%	16%	23%	100%
2024 YTD	72%	28%	0%	4%	39%	26%	31%	100%
Corporate								
2021	60%	29%	11%	60%	14%	11%	15%	100%
2022	75%	8%	17%	70%	7%	10%	12%	100%
2023	76%	15%	9%	50%	18%	19%	13%	100%
2024 YTD	73%	18%	9%	42%	13%	25%	20%	100%

Source: BofA Global Research, Bloomberg, Bond Radar

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Exhibit 19: Debt service - \$444bn in 2024, Feb will drop to \$25bn

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

Month	Total pymts	Corporates	Sovereigns	Maturities	Coupons	LatAm	EEMEA	Asia	as % of Total
Jan-24	52	29	23	35	16	10	19	23	12%
Feb-24	25	17	8	17	8	7	7	11	6%
Mar-24	46	31	16	36	11	6	22	18	10%
Apr-24	49	40	9	36	13	7	18	24	11%
May-24	31	24	6	22	8	5	9	17	7%
Jun-24	38	30	9	32	6	4	12	22	9%
Jul-24	44	32	12	29	15	11	9	24	10%
Aug-24	18	11	7	11	7	4	6	9	4%
Sep-24	40	26	13	30	10	4	13	22	9%
Oct-24	38	27	10	26	12	5	12	20	8%
Nov-24	42	31	11	34	8	4	16	22	9%
Dec-24	22	17	5	16	5	5	3	14	5%
FY 2024	444	314	130	325	120	71	147	226	100%

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

Exhibit 20: 1/3rd of Gross issuance forecast for 2024 is done. Forecast \$153bn, net of amortizations is \$81bn, and net of amort & coupons is just \$23bn. Compare to 2023 gross issuance which was \$131bn, net of amortizations \$74bn, and net also of coupons \$16bn.

External debt issuance forecasts - foreign currency, foreign law (in USD bn). Largest issuers left for 2024: Poland, Mexico, China. Romania, Philippines,

	Main Countries	2024 Gross EXD fcst	2024 YTD	Left to go in 2024	Remaining 2024 EXD Prin Due	Remaining 2024 net Issuance		Main Countries	2024 Gross EXD fcst	2024 YTD	Left to go in 2024	Remaining 2024 EXD Prin Due	Remaining 2024 net Issuance
Total	Non-G10	153	54	99	47	44							
Asia		22	2	20	11	9	MEAF/GCC		39	16	23	18	5
	China	8.6		8.6	4.6	4.0		Abu Dhabi					
	Indonesia	8.0	2.1	6.0	4.1	1.8		Bahrain	4.0	2.0	2.0	1.0	1.0
	Hong Kong	0.3	0.3		1.0	-1.0		Dubai	2.0		2.0		2.0
	Philippines	5.0		5.0	1.0	4.0		Egypt	1.5		1.5	3.3	-1.8
CEE		43	15	27	8	11		Iraq				0.3	-0.3
	Hungary	4.1	4.1		1.0	-1.0		Israel	4.0	0.7	3.3		3.3
	Poland	14.4	4.1	10.3	2.7	7.6		Jordan					
	Romania	11.0	4.0	7.0	3.1	3.9		Kuwait					
	Kazakhstan	2.0		2.0	1.5	0.5		Lebanon					
	Serbia	1.0		1.0		1.0		Morocco	1.1		1.1	1.1	0.0
	Türkiye	10.0	3.0	7.0	8.9	-1.9		Nigeria	1.0		1.0		1.0
LatAm		37	16	21	2	19		Oman				1.8	-1.8
	Brazil	4.5	4.5		1.0	-1.0		Qatar	5.0		5.0	2.0	3.0
	Chile	4.0	1.7	2.3		2.3		Saudi Arabia	12.0	12.0		1.1	-1.1
	Colombia	3.0		3.0	0.7	2.3		South Africa					
	Costa Rica	1.0		1.0		1.0		Tunisia				1.2	-1.2
	Dom Rep	2.5		2.5		2.5		Kenya	1.5	1.5		2.0	-2.0
	Panama	3.5		3.5	0.4	3.1		UAE	4.0		4.0	3.8	0.3
	Mexico	16.7	9.7	7.1		7.1		Sharjah	3.0		3.0		3.0
	Peru	1.5		1.5		1.5							
							All Frontier	s	13	4	9	9	0

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

Other EE: Bulgaria, 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.

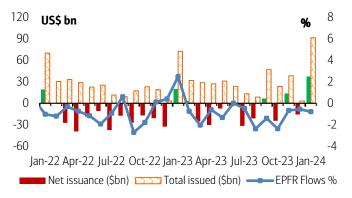
Other Asia: Fiji, Malaysia, India, Korea, Pakistan, Mongolia, Singapore, Sri Lanka, Thailand, Maldives, Vietnam.

Source: BofA Global Research. Note: Net issuance is only net of scheduled principal payments, not buybacks/tenders nor coupons.

Source: BofA Global ResearchBofA GLOBAL RESEARCH

Exhibit 21: Net issuance was positive in January

Gross and net monthly issuance (\$bn) and EPFR flows into EXD (%, blue), as of Jan 31st. Positive net issuance in green, negative in red.

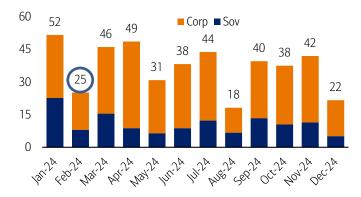


Source: BofA Global Research, Bloomberg, ICE Data indices, LLC., EPFR Global

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Exhibit 22: Feb debt service payment will be \$25bn.

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

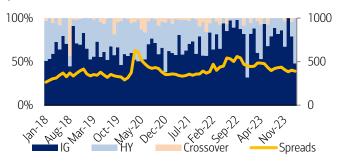


Source: BofA Global Research, Bloomberg, ICE Data indices, LLC.



Exhibit 25: HY issuance had nearly disappeared by Sep'22, 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 – Feb´24

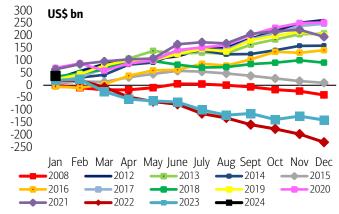


Source: BofA Global Research, Bloomberg Bond Radar, JPEIDISP Index (Sovereign spreads).

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Exhibit 25: 2023 was negative following the worst year ever

Cumulative sov & corp net issuance in USD & EUR

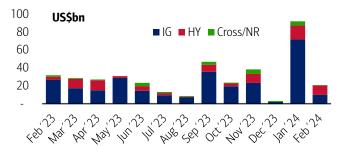


Note: Net issuance is total issuance less principal, interest and buybacks paid. **Source:** BofA Global Research, Bloomberg.

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Exhibit 24: Very high Jan with large IG component

Monthly gross issuance by rating since Jan '23 – Jan '24 MTD

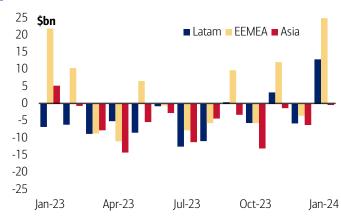


Source: BofA Global Research, Bloomberg Bond Radar.

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Exhibit 28: Net issuance positive overall in January

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 29: 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)	2023 (%)	2023 (USD mn)	2022 (%)
LDM Funds ex China	0.1	108	0.3	278	-2.9	-2,802	-9.3
- LDM ETF	0.3	121	2.8	1,176	16.7	5,972	3.3
- LDM non-ETF	0.0	-13	-1.7	-897	-11.4	-8,774	0.0
China LDM	-0.1	-15	-3.1	-394	-35.4	-7,010	-58.0
- China ETF	-0.1	-3	-0.1	-3	-27.3	-2,055	-68.0
- China non-ETF	-0.2	-13	-3.2	-390	-18.2	-4,955	0.0
EXD Funds	-0.1	-219	-0.9	-1,986	-9.9	-23,021	-10.5
- Corp flows	0.2	76	-2.1	-963	-17.1	-9,058	-16.8
- EXD ETF	-0.2	-105	-1.7	-872	1.0	264	-0.8
- EXD non-ETF	-0.1	-114	-0.6	-1,114	-9.1	-23,286	0.0
Blended Funds	-1.2	-642	-2.2	-1,157	-1.7	-834	-18.5
All EM debt	-0.2	-768	-0.8	-3,258	-8.6	-33,667	-16.4
All EM debt ex China	-0.2	-753	-0.8	-2,865	-7.2	-26,657	-11.5
EM Equity	0.0	244	0.1	828	1.9	24,171	1.1
US HY Corp	0.1	193	1.2	3,876	-0.5	-1,420	-10.5
US IG Corp	0.3	1,260	3.0	12,193	4.0	15,338	5.6

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: 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

AUM (USDbn)	EXD	LDM	Total EM	EM Equity	US HY Corp	US IG Corp
Small retail	57	20	77	-	-	-
High net worth ex. ETF	115	64	179	=	-	-
ETF	50	23	73	=	-	-
Total	221	108	329	1,225	318	417
Europe domiciled	165	90	254	598	-	-
US domiciled	43	7	49	483	318	417
Asia & Others domiciled	14	11	25	145	-	-
Blend	-	-	53	-	-	-
Market Value of Benchmark (in \$bn)	2,462	5,778	8,240	6,886	1,241	8,094
Percent of EPFR that is US-domiciled	19%	6%	15%	39%		
Percent of market cap covered by EPFR	9%	2%	4%	18%		
Percent of EPFR that is ETF	22%	22%	22%			

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



Exhibit 29: Asia focused funds represent over 11% of EPFR EXD AUM and 16% 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	48	13	61
Non-ETFs - Global Emerging Markets	145	58	203
Asia ex-Japan Regional	24	16	40
Other	5	8	14
Total	222	95	317

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 \$13bn as of 02/15/24.

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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).



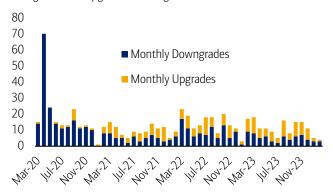
Ratings actions, 2023 44% downgrades

- Negative week: 2 down & 0 up this week, vs 1 down and 1 up last week.
- 2023 positive: 56% upgrades.
 About 44% of EM ratings or outlooks have been downgrades
- 2020 downgrades were exceptionally high at 93%

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

Exhibit 31: After a negative 2022, upgrades have exceeded downgrades in 2023

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 33: Defaulted debt cumulated \$196bn since '20, \$1bn in '23 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
2023	Ethiopia	1.0

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 Belize 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).
- In 2023, only Ethiopia defaulted (\$1bn).

Exhibit 30: 2023 more upgrades than downgrades vs 93% downgrades March 2020 - YE 2020

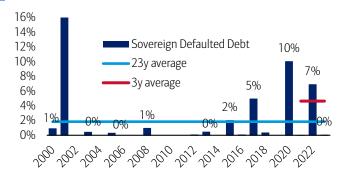
Number of sovereign ratings actions, including outlooks

	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	61	78	44%
2024 YTD	6	3	67%

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

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Exhibit 32: Sovereign defaults in 2020 hit 9% of face value of all sov bonds, (out of \$1.2tn face value). Avg 2% in 23yrs, 5% in last 4yrs. As a % of only EM sovereign high yield bonds avg 4% in 23y & 8% in 4yrs. 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.

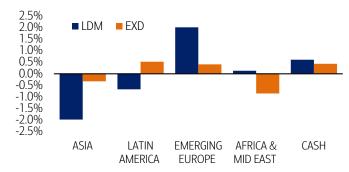
See <u>Default Primer Sept 2022</u> and <u>How sovereign fallen angels lost their wings: Mx, Col, Uru</u>

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 (Argentina, Ecuador, Ukraine, Bolivia) and have a price <\$50. If they all defaulted, the face value of default would be \$85bn (7%). The loss upon default would not be that high because the prices are already so low. The market value of those bonds is just \$27bn.

EM debt fund flows charts

Exhibit 34: Regional allocations - LDM & EXD into EE

LDM and EXD 3m change in EPFR regional allocation 3m change 9/30/23-12/31/2023



Note: Reported on 01/23 for fund positions on 12/31. **Source:** BofA Global Research, EPFR Global BofA GLOBAL RESEARCH

Exhibit 36: EXD country allocations - Large losses in market value from IL & RO assets, relative growth in TR & EG

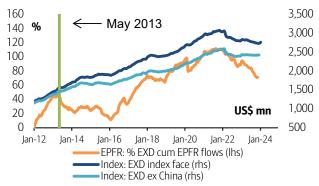
EXD EPFR 3m allocation change 9/30/23-12/31/2023



Note: Reported on 01/23 for fund positions on 12/31. **Source:** BofA Global Research, EPFR Global
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Exhibit 38: 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

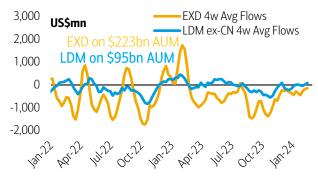
EXD total index eligible face value for EM corp and sov (face = new issues - bonds aging out of 1y maturity & retirements)



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

Exhibit 35: 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)

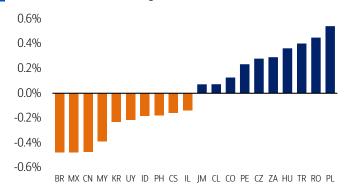


Source: BofA Global Research, EPFR Global

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Exhibit 37: LDM country allocations – Large losses in market value from BR & MX assets, relative growth into PL & RO

LDM EPFR 3m allocation change 9/30/23-12/31/2023



Note: Reported on 01/23 for fund positions on 12/31. **Source:** BofA Global Research, EPFR Global BofA GLOBAL RESEARCH

Exhibit 39: 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)



FH: % Foreign Holdings ex-China (current, Dec11=0)

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

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16

Exhibit 40: EM equity and debt outflows since July 2023

Cumulative EM debt and equity fund flows since Jan '23



Source: BofA Global Research, EPFR Global

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Exhibit 41: Consistent EXD outflows. US IG & HY Corp steady inflows, IG asset class 5x larger than US HY corp

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 42: 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

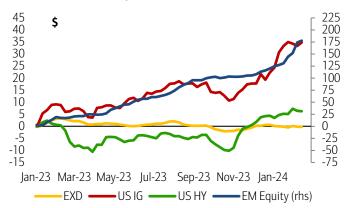


Source: BofA Global Research, Bloomberg, ICE Data indices, LLC, EPFR Global.

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Exhibit 43: ETFs in \$: EM equity (rhs) inflows increasing steadily as is trend for US IG; EXD and US HY see 2024 outflows

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 44: Asia ex-China LDM flows peaked in May 2023

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

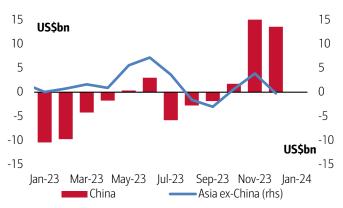


Source: BofA Global Research, local governments websites, Haver.

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Exhibit 48: Big China recovery in the last 2 months of 2023

China and Asia ex-China foreign purchases of LDM in current period **USDbn**

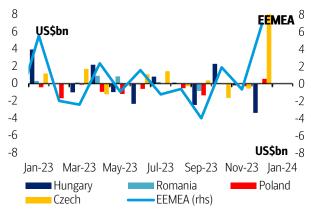


Source: BofA Global Research, local governments websites, Haver.

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Exhibit 50: EEMEA LDM flows - Weak flows overall

EEMEA foreign purchases by country in current period USDbn



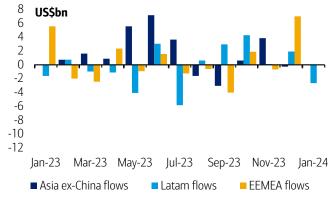
Note: EEMEA is the sum of all 8 EEMEA countries

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

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Exhibit 45: Foreign holdings of LDM - Flows turning positive

By region EM foreign purchases in current period USDbn

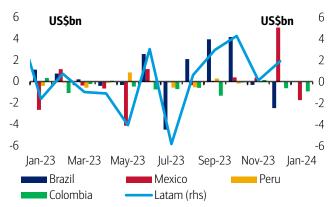


Source: BofA Global Research, local governments websites, Haver.

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Exhibit 49: LatAm LDM flows - Low flows in 2023, except Mex

LatAm foreign purchases of LDM by country in current period USDbn

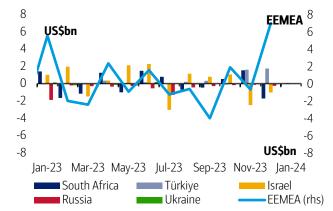


Source: BofA Global Research, local governments websites, Haver

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Exhibit 51: EEMEA LDM flows - Weak flows overall, except TR & ZA

EEMEA foreign purchases by country in current period USDbn



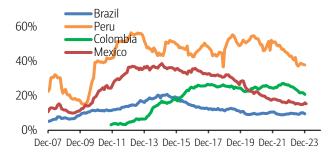
Note: EEMEA is the sum of all 8 EEMEA countries

Source: BofA Global Research, local governments websites, Haver



Exhibit 50: Foreign holdings share in LatAm- steepest decline is in Mex (outflows + big issuance). Peru now the largest (almost 40%)

LatAm foreign bond holdings share (% of foreign holdings)

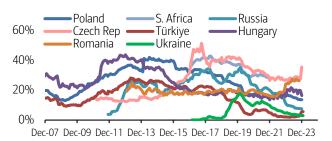


Source: BofA Global Research, local governments websites, Haver.

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Exhibit 52: Foreign holdings shares in EEMEA – All declining since mid-2020, except Romania

EEMEA foreign bond holdings share (% of foreign holdings)



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

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Exhibit 54: IIF portfolio flows have been recovering lately

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

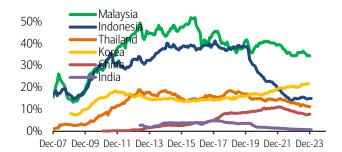


Note: Total portfolio inflows (IIF) are net non-resident purchases of EM stocks and bonds. Recent IIF points are estimates. BofA points are from countries that have already reported. **Source**: BofA Global Research, IIF.

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Exhibit 51: Foreign holdings share in Asia – sharp decline in Indon (due to outflows + big issuance), declined from 40% to 15%

Asia foreign bond holdings share (% of foreign holdings)

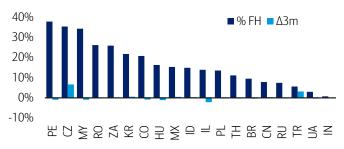


Source: BofA Global Research, local governments websites, Haver.

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Exhibit 53: Foreign holdings share and 3m change - Declined the most in IL, HU and PE

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 55: IIF debt flows also indicate EM local debt flows have been doing better in the last few months – seen with debt flows Total EM foreign purchases of local debt (including China) versus IIF

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 56: Ex-China flows have been positive in the last few months seen with IIF portfolio flows

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 57: Ex-China flows have been positive lately seen with IIF debt flows

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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