

Liquid Cross Border Flows

USD breather

Key takeaways

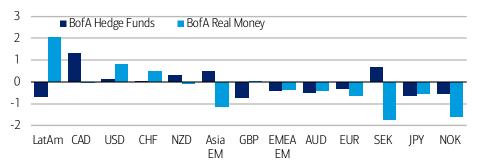
- USD selling moderated toward end-2023, with Real Money buying it vs. EUR and Asia EM last week.
- Our flows in past month mostly suggest profit-taking: BofA investors sold JPY, Scandies, EUR, AUD and bought LatAm and CAD.
- No position in G10 FX and only some in EM FX are heavy. Equity flows may have offered some support to USD in past month.

Light flows with potential profit-taking flavour

USD selling moderated toward end-2023, with Real Money buying it vs EUR and Asia EM FX last week (Exhibit 1, Exhibit 6). Our proprietary investor flows in the past month were light but with potential profit-taking flavour: BofA investors sold JPY, Scandies, EUR, AUD, and bought LatAm FX and CAD. Most FX positions remain light (see next page).

Exhibit 1: BofA investor FX flows in past month, 4-week (2-year) z-score

In the past month, USD selling stopped. Investors sold JPY, Scandies, EUR, AUD, and bought LatAm & CAD



Source: BofA Securities. Currency ranking assigns equal weights to Hedge Funds (HF) and Real Money (RM).

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Currency Strategy Global

Data Analytics



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Refer to important disclosures on page 6 to 8.

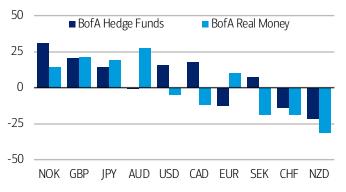
Few FX positions are heavy

BofA investors are roughly neutral on USD, long rest of G10, and short EM FX. We do not find any G10 FX position particularly heavy, but not all are light: BofA investors remain long NOK, GBP, JPY, and AUD, and short NZD and CHF, with most of these positions lighter than a month ago, as we noted (Exhibit 1, Exhibit 2).

In EM FX, both Hedge Funds and Real Money are long INR, CZK, HUF, and CLP, and short SGD, CNY, KRW, ZAR, and TWD (Exhibit 3). Hedge Funds' short positions in BRL, MXN, PEN, and ARS, and Real Money's CNY shorts feel heavy.

Exhibit 2: Latest BofA investor G10 FX positioning

BofA investors remain long NOK, GBP, JPY, and AUD, and short NZD and CHF, with most of these positions lighter than a month ago

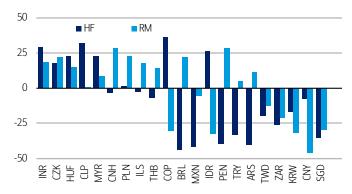


 $\begin{tabular}{ll} \textbf{Source:} & BofA Securities. +50 (-50) represents max long (short) positioning vs history. Ranking based on equal weights for HF and RM. \end{tabular}$

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Exhibit 3: Latest BofA investor EM FX positioning

Investors are long INR, CZK, HUF, CLP, and short SGD, CNY, KRW, ZAR, TWD. Hedge Funds' shorts in BRL, MXN, PEN, ARS, and RM CNY shorts feel heavy



Source: BofA Securities. +50 (-50) represents max long (short) positioning vs history. Ranking based on equal weights for HF and RM.

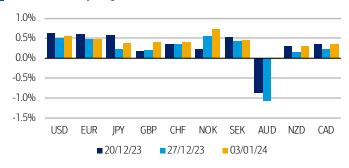
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Equity flows support USD

While the persistent—largely across the board—fixed income buying in recent weeks likely weighed on USD (Exhibit 4), equity flows likely offered some support (Exhibit 5).

Exhibit 4: G10 4-week bond flow as % AUM

While the persistent—largely across the board—fixed income buying in recent weeks likely weighed on USD...

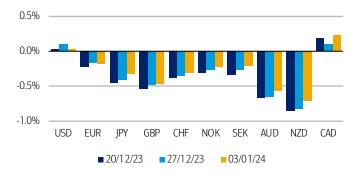


Source: EPFR, BofA Global Research

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Exhibit 5: G10 equity 4-week equity flow as % AUM

...equity flows likely offered some support



Source: EPFR, BofA Global Research

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For more information and data files on flows and positioning, please see

<u>Liquid Cross Border Flows: Flows data 8 January 2024</u>
<u>Liquid Cross Border Flows: Positioning data 8 January 2024</u>
<u>Liquid Cross Border Flows: Charts and Tables 8 January 2024</u>



Snapshot of flows

Exhibit 6: Snapshot G10 FX flows (z-score)

BofA proprietary FX flows in the past four weeks

	Total					Corporate				Official				Hedge funds				Real money			
	t-3	t-2	t-1	t	t-3	t-2	t-1	t	t-3	t-2	t-1	t	t-3	t-2	t-1	t	t-3	t-2	t-1	t	
USD	-1.40	-0.41	1.17	0.36	-1.01	-0.76	1.33	-0.79	-1.61	0.45	0.16	-0.06	0.13	-0.12	0.60	-0.39	-0.15	0.41	-0.72	2.41	
EUR	1.93	0.16	-1.75	0.32	1.55	0.82	-2.11	1.13	0.84	-0.18	0.25	0.23	0.06	-0.41	-1.42	1.07	0.91	-0.81	0.65	-1.98	
JPY	-0.89	-0.99	-0.15	-0.84	-2.11	-0.94	-0.13	0.80	-0.12	-0.25	-0.14	-0.70	-0.36	-0.37	0.05	-0.60	0.21	-0.43	-0.10	-0.92	
GBP	0.28	-0.81	-0.11	-0.10	-0.19	-0.21	0.12	-0.27	0.01	-0.08	0.11	0.43	0.65	-1.03	-1.25	0.13	0.35	-0.41	0.24	-0.12	
CAD	0.10	0.29	-0.42	-0.34	-0.48	-0.77	-1.13	-0.14	1.02	-0.18	-0.33	-0.36	1.04	1.59	0.17	-0.01	-0.87	0.45	0.43	-0.09	
AUD	0.22	0.92	-0.94	-0.13	0.51	1.90	-0.08	0.01	-0.53	-0.29	-0.17	-0.02	-0.12	-0.07	-0.29	-0.41	0.03	-0.05	-0.86	0.00	
NZD	0.56	-0.54	-0.59	0.74	1.54	-2.74	0.26	0.24	-0.18	-0.14	-0.16	0.83	0.34	0.56	-0.33	0.10	0.14	-0.46	-0.50	0.61	
CHF	-0.64	1.39	0.73	0.40	0.03	0.70	0.32	0.06	-0.27	-0.14	-0.26	-0.24	-0.41	0.86	-1.72	1.30	-0.65	0.51	1.65	-0.23	
NOK	-1.93	-1.06	-0.85	-0.26	-2.05	-0.61	-0.55	0.78	0.59	0.07	0.17	0.24	0.53	-0.76	-0.88	-0.33	-2.08	-0.36	-0.05	-0.45	
SEK	-2.20	0.55	-0.87	-0.53	-0.82	0.63	-0.86	-0.26	-0.86	0.00	-0.02	0.03	0.83	1.54	-0.19	-0.40	-2.34	-0.86	-0.02	-0.19	
G10-xUSD	1.06	-0.05	-1.80	-0.13	0.69	0.66	-1.78	0.92	0.91	-0.33	-0.05	0.00	0.41	-0.11	-1.66	0.47	0.16	-0.84	0.46	-1.84	
Asia	1.08	0.66	0.45	-0.63	1.08	0.93	0.58	0.32	1.24	-0.44	-0.36	-0.08	-0.18	0.15	0.58	0.25	0.07	0.36	-0.29	-2.50	
EMEA	-0.86	-0.15	-0.21	0.14	0.00	0.94	-1.54	0.06	-0.06	0.10	-0.09	-0.10	-1.75	-0.02	0.34	0.42	-0.15	-0.54	-0.02	-0.04	
LatAm	0.16	0.73	1.11	-0.07	1.45	-1.10	0.12	-0.45	0.59	1.02	0.97	1.14	-1.06	0.17	-0.19	-0.53	-0.16	1.88	1.80	0.47	

Source: BofA Securities

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Exhibit 7: Snapshot of EM Flows (Z-score)

BofA proprietary FX flows in the past four weeks

	Total					Corporate				Official				Hedge funds				Real money			
	t-3	t-2	t-1	t	t-3	t-2	t-1	t	t-3	t-2	t-1	t	t-3	t-2	t-1	t	t-3	t-2	t-1	t	
LatAm	0.16	0.73	1.11	-0.07	1.45	-1.10	0.12	-0.45	0.59	1.02	0.97	1.14	-1.06	0.17	-0.19	-0.53	-0.16	1.88	1.80	0.47	
BRL	0.54	0.93	1.42	-0.18	0.77	-0.76	0.40	-0.04	-	0.23	-	0.28	-0.09	1.55	-0.36	-0.91	0.14	1.37	2.68	0.45	
MXN	0.00	-1.03	0.01	-0.11	1.61	-0.76	-0.36	-1.17	0.44	1.64	1.42	0.33	-0.78	-1.11	-0.08	0.64	-0.56	-0.39	-0.01	0.06	
CLP	-0.63	-0.50	-0.17	-0.23	0.79	0.12	-0.91	0.14	-0.01	0.01	0.01	-0.21	-1.50	-1.22	-0.16	-0.19	0.16	0.37	0.28	-0.18	
COP	0.89	-1.16	0.24	0.32	-0.70	-0.62	0.45	0.47	0.40	0.07	-	0.82	0.25	0.04	-0.06	-0.27	1.22	-1.49	0.06	-0.01	
PEN	-1.15	4.00	0.59	0.64	0.62	-0.73	0.33	-0.23	0.16	0.16	0.16	3.96	-0.79	0.99	0.79	-0.65	-0.86	4.00	0.11	0.75	
ARS	0.05	0.00	0.00	0.00	0.45	0.30	0.29	0.30	-	-	-	-	0.29	0.24	0.24	0.24	-0.25	-0.23	-0.23	-0.23	
Asia	1.08	0.66	0.45	-0.63	1.08	0.93	0.58	0.32	1.24	-0.44	-0.36	-0.08	-0.18	0.15	0.58	0.25	0.07	0.36	-0.29	-2.50	
CNY	2.20	0.18	-0.31	-0.61	0.60	-0.29	-0.56	0.28	3.44	0.57	0.04	-	-0.27	-0.29	-0.29	2.56	0.32	0.47	0.37	-3.98	
CNH	0.11	0.23	0.14	-0.33	0.07	-0.16	0.04	-0.49	-1.56	-0.52	-0.01	1.07	0.17	0.43	0.24	-0.11	0.71	0.19	-0.20	-0.55	
INR	0.64	0.46	0.14	-0.15	0.61	2.22	1.24	-0.16	1.20	-0.51	-0.52	-0.51	-1.15	-0.93	-0.13	0.78	-0.21	0.12	-0.18	0.02	
KRW	-0.03	0.51	0.32	-0.71	0.65	0.30	0.30	0.53	-	0.02	0.28	0.57	-1.12	0.13	-0.04	-0.79	-0.83	0.75	0.21	-3.04	
IDR	-1.08	0.14	0.15	-0.75	-0.22	0.68	0.77	0.13	-3.83	0.12	-	-	1.23	-0.11	0.01	-0.56	-0.85	-0.11	-0.19	-0.61	
MYR	-0.06	-1.24	-0.77	-2.85	0.58	-1.37	-0.62	-0.08	-0.68	0.59	0.28	2.49	-0.13	0.26	0.09	-0.04	-0.70	-0.22	-0.38	-3.78	
SGD	0.92	0.23	0.00	-0.01	1.79	0.62	-0.52	0.17	-0.94	0.06	0.66	0.05	0.58	-0.06	0.59	0.28	0.40	0.13	-0.85	-0.49	
TWD	0.93	0.17	0.74	1.33	0.61	0.64	0.12	0.82	-	-	0.15	-0.12	0.33	0.52	1.28	0.58	0.57	-0.65	-0.14	0.79	
THB	0.36	0.02	1.27	0.26	0.54	-1.18	1.25	0.96	-0.09	-0.03	-0.22	-0.06	-0.01	0.22	0.38	0.62	0.30	0.53	1.00	-0.66	
EMEA	-0.86	-0.15	-0.21	0.14	0.00	0.94	-1.54	0.06	-0.06	0.10	-0.09	-0.10	-1.75	-0.02	0.34	0.42	-0.15	-0.54	-0.02	-0.04	
TRY	0.54	0.40	-0.25	0.15	-0.03	0.36	0.12	0.24	-0.33	-0.26	-0.28	-0.27	0.89	-0.61	-0.75	-0.58	0.41	0.76	-0.05	0.42	
HUF	-0.59	-0.89	-0.53	0.30	-0.22	-0.80	-1.52	0.13	0.36	-0.18	0.19	0.19	-0.95	0.89	0.30	0.94	-0.19	-1.17	-0.23	-0.15	
PLN	0.00	0.53	0.26	0.00	-0.09	1.57	-0.35	0.62	0.23	1.52	0.25	0.26	-1.21	-0.34	0.44	-0.17	0.64	0.16	0.20	-0.15	
ILS	-0.07	-0.43	-0.01	-0.65	0.37	-0.30	-0.65	-0.09	-0.14	-0.14	-0.16	-0.17	1.03	0.30	0.71	-0.28	-1.20	-0.81	-0.04	-0.83	
CZK	-1.57	0.17	-0.78	0.46	-0.37	0.61	-0.97	-0.73	0.14	0.16	0.16	0.16	-2.10	0.08	-0.05	1.00	-0.19	-0.16	-0.71	0.08	
ZAR	-0.83	-0.48	0.20	0.13	0.47	-0.26	-0.06	-0.37	-0.07	-0.03	-0.11	-0.10	-0.93	-0.36	-0.11	-0.17	-0.55	-0.31	0.38	0.40	
KEY:																					
	Z > 2			2 > Z > 1.5 1.5 > Z > 1			1 > Z > -1				-1 > Z > -1.5 -1.5 > Z > -2				Z<-2						

Source: BofA Securities; Note: The z-score is calculated as the weekly flow minus the 2-year average flow, divided by the 2-year standard deviation of flows. A positive (negative) number does not necessarily suggest buying (selling), as it is expressed relative to the 2-year average flow and depends on whether the latter is a positive or a negative number. In this context, the arrows indicate whether our flow, and not the z-score, is positive or negative, suggesting buying or selling. Weeks with no flow are marked with '-'.

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Positioning Scorecard

Exhibit 8: G10 FX Positioning Scorecard 50 (-50) represents a max long (short) positioning relative to history

Currency	BofA HF	BofA RM	FXRS	сот	TFF LF	TFF AM	EPFR	Aggregate Positioning Signal	Change in positioning	MAAI	Breadth
NOK	31	14	49	-	-	-	41	31	↓	7	↑ ↑
EUR	-13	10	-10	15	2	45	27	7	†	-6	\downarrow
AUD	-1	27	34	-26	-3	-28	48	6	†	1	\leftrightarrow
JPY	14	19	15	-26	-35	12	48	5	↓	-4	\downarrow
GBP	21	21	-19	10	16	-28	44	2	↓	-2	\leftrightarrow
SEK	8	-19	-4	-	-	-	37	-5	↓	7	↑ ↑
NZD	-22	-31	30	-1	3	-8	47	-6	†	3	\leftrightarrow
USD	16	-5	-7	-6	5	-36	50	-6	↓	-9	$\downarrow\downarrow$
CAD	18	-12	-20	-11	-28	9	49	-7	†	-4	\downarrow
CHF	-14	-19	-	-10	2	-5	41	-9	1	7	$\uparrow \uparrow$

Source: BofA Global Research, Bloomberg, EPFR Global; See appendix for details; HF: Hedge Fund, RM Real Money, FXRS: FX and Rates Sentiment Survey

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Exhibit 9: EM FX Positioning Scorecard

50 (-50) represents a max long (short) positioning relative to history

urrency	BofA HF	BofA RM	FXRS	СОТ	TFF LF	TFF AM	EPFR	Aggregate Positioning Signal	Change in positioning	MAA trend
INR	29	19	-	-	-	-	46	24	↑	\leftrightarrow
CZK	18	22	-	-	-	-	43	20	 	↑
HUF	23	15	-	-	-	-	22	19	 	\downarrow
CLP	32	0	-	-	-	-	47	16	↓ ↓	↑
MYR	23	9	-	-	-	-	39	16	↓ ↓	\downarrow
CNH	-3	29	-	-	-	-	0	13	↓ ↓	0
PLN	2	23	-	-	-	-	-12	12	↓ ↓	↓
ILS	-2	18	-	-	-	-	49	8	↓ ↓	\downarrow
THB	-7	14	-	-	-	-	30	4	↑	\
COP	36	-30	-	-	-	-	46	3	↓ ↓	\downarrow
BRL	-44	23	-	32	-2	36	44	3	↓ ↓	\downarrow
MXN	-41	-5	-	20	8	44	48	1	 	\downarrow
IDR	27	-32	-	-	-	-	7	-3	↓ ↓	\leftrightarrow
PEN	-39	29	-	-	-	-	35	-5	↓ ↓	\downarrow
TRY	-33	5	-	-	-	-	10	-14	 	↑
ARS	-40	12	-	-	-	-	49	-14	 	↑
TWD	-19	-13	-	-	-	-	32	-16	 	\
ZAR	-26	-21	-	-	-	-	47	-24	↑	\leftrightarrow
KRW	-17	-32	-	-	-	-	44	-24		Ţ
CNY	-8	-46	-	-	-	-	44	-27	l i	

Source: BofA Global Research, Bloomberg, EPFR Global; See appendix for details; HF: Hedge Fund, RM Real Money, FXRS: FX and Rates Sentiment Survey

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Data appendix

BofA Securities Proprietary FX Flows represent the aggregated net base notional of spot and forward trades for sales-only data on a firm-wide basis for the 31 major currencies we track. We filter the data by customer type, which we categorize as Hedge Funds, Corporates, Real Money and Official Institutions. For the purposes of this report we exclude interbank flows, which would include commercial banks, proprietary trading, broker/dealer and affiliates. Indexed data is available upon request.

The currencies used in building this report are defined as:

- G10: USD, EUR, JPY, AUD, NZD, CAD, GBP, CHF, NOK, SEK
- LatAm: BRL, MXN, CLP, COP, PEN, ARS
- ASIA: CNH, CNY, INR, KRW, IDR, MYR, SGD, TWD, THB
- EMEA: TRY, HUF, PLN, ILS, CZK, ZAR, RUB

Emerging Markets is defined as the sum of LatAm, Asia and EMEA.

Public/Official: Central Banks, Government – including federal, state and local municipality clients – and Sovereign Wealth Funds.

Real Money: Pension Funds, REITs, Small Institutions/Trusts, Insurance, Asset Management and Finance Companies. RM clients will often trade FX to facilitate transactions in Fixed Income or Equities rather than to take a view on FX itself.

Hedge Funds: Usually limited-partnership funds with diverse, often leveraged strategies designed to maximize returns. HF flow is speculative in nature, and many HF trade FX as an asset class

Corporates: Businesses across all industries whose investment efforts focus mostly on operative activities, such as hedging and M&A. Corporate FX flow is not speculative in nature but arises as a 'by-product' of normal business operations.

EPFR GLOBAL data on country flows combine the respective fund flow and country weightings data to track the flow of money into world stock and bond markets. Fund flow reports track the amount of cash flowing into and out of the investment funds monitored world-wide. Country weightings reports track fund manager allocations at month-end across the various markets they invest in. By combining these two data sets we are able to estimate the flow of cash into and out of various stock and bond markets.

Note on Aggregate Positioning

We calculate aggregate positioning using a number of different inputs:

- (i) Proprietary BofA Securities FX flows data for hedge funds and real money
- (ii) Futures data, using the TFF (Traders in Financial Futures) data for leveraged funds and asset managers separately.
- (iii) BofA Global Research <u>FXRS: FX and Rates Sentiment Survey</u> data

The signals are all considered relative to the start of 2012 (i.e. an expanding window) and each signal is scaled to be between +50 and -50. The aggregate signal is the simple average of all the inputs.

+50 (-50) represents a max long (short) positioning relative to history.

For more detail on the construction and use of this report, please see our LCBF Primer



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