

## Global FX weekly

## Ending the year with a bang

**The View**

Central banks mostly repeated (no policy rate change) but did not rhyme, with the Fed's dovishness, contrasting with others pushing back against rate cut pricing. The good news for USD bears is that the sell-off is largely consistent with underlying drivers, but a data "reality check" remains warranted in 1Q.

**EUR Year Ahead: Pyrrhic Victory**

We expect a stronger EURUSD in 2024 on a weaker USD and positive risk sentiment from central bank easing but also see risks in a market priced to perfection. Flows and positioning suggest a market-neutral EUR. Quant and vol are bearish EUR versus high-beta G10. Technicals support buying EUR dips for 2024 upside potential.

**Charting UK Rates and FX**

We expect more persistent risk premia being priced in the UK even as the BoE eventually starts cutting. BoE's successful recalibration of rate expectations is unlikely to be enough to carry GBP into a strong position in 2024. GBP sentiment appears modestly less bearish, with positioning in line. The Gilt short covering is largely complete.

**BoJ preview: Laying the groundwork**

We see policy unchanged next week but expect the BoJ to send further exit signals. Our base case remains NIRP/YCC exit at the January MPM. Beyond that, the pace of BoJ normalization should be gradual. Sell the fact in JPY and buy the fact in JGB.

**Asia FX**

KRW, SGD, and CNY fixings tend to appreciate most in December, THB in January. The result is sensitive to month-end versus month average data.

**EM FX**

In October, aggregate funds slightly reduced their bond holdings but increased their FX exposure in absolute terms.

**MXN**

The increase in Mexican exports to the US has been larger than the increase in Mexican imports from China.

**Quant Insight**

December bearish USD seasonality tends to be backloaded. Seasonality for the next 30 calendar days is most bearish USD versus AUD, NZD, and SEK.

**Technicals**

Our base-case year ahead view of lower DXY/higher euro persisted this week. We show bullish turns in AUDUSD, AUDNZD, NOKSEK, EURCHF. Gold next?

Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in relevant markets and the financial resources to absorb any losses arising from applying these ideas or strategies.

**BofA Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.**

**Refer to important disclosures on page 24 to 26. Analyst Certification on page 23. 12637547**

Timestamp: 15 December 2023 12:00AM EST

15 December 2023

FX Research  
Global

**G10 FX Strategy**  
MLI (UK)  
+1 646 855 9342

**Adarsh Sinha**  
FX Strategist  
Merrill Lynch (Hong Kong)  
+852 3508 7155  
adarsh.sinha@bofa.com

**Claudio Piron**  
Emerging Asia FI/FX Strategist  
Merrill Lynch (Singapore)  
+65 6678 0401  
claudio.piron@bofa.com

**Athanasios Vamvakidis**  
FX Strategist  
MLI (UK)  
+44 20 7995 0279  
athanasios.vamvakidis@bofa.com

[See Team Page for List of Analysts](#)

BoE: Bank of England

BoJ: Bank of Japan

JGB: Japan government bond

MPM: monetary policy meeting

NIRP: negative interest rate policy

YCC: yield curve control

# Our medium-term views

**Michalis Rousakis**

MLI (UK)

michalis.rousakis@bofa.com

**Claudio Piron**

Merrill Lynch (Singapore)

claudio.piron@bofa.com

## Exhibit 1: Our medium-term views

G10 and EM FX medium-term views

<b>G10</b>	We are bearish USD into 2024, looking for EURUSD at 1.15 by end-2024. In our base case, the US economy starts recoupling with the rest of the world, US disinflation continues, and the Fed cuts rates, supporting risk sentiment and pushing the USD lower from an overvalued level. But risks abound: in our main alternative scenarios the USD softens less than we expect, or even strengthens. We expect a stronger EUR and GBP next year mostly versus USD—we remain bearish on both Euro area and UK growth, seeing both EURUSD and cable driven by the US recoupling. We stay bearish on JPY through Q1 primarily on carry, expecting USDJPY to peak at 155 before falling to 142 by end-2024. We expect high-beta G10 FX to perform well but continue to have reservations on NZD and SEK. As for CHF, we expect the SNB to continue supporting it.
<b>EM</b>	USD/CNY continues to be caught between the central bank's resolve to stabilize CNY and a widening yield gap in favor of USD strength. We remain concerned about the coordinating and credibility of fiscal, monetary and FX policy and forecast USD/CNY forecast at 7.55 end 1Q. We position short CNH against the CFETS basket. In Latam, we enter long BRL/MXN. In Latam, we find BRL very undervalued and MXN slightly overvalued. Brazil's real exchange rate is more than 15% cheap versus its long-run average with record trade surpluses as evidence. Mexico's real exchange rate is about 6% expensive. In EMEA FX, we are long PLN/CZK on relative value and monetary policy reaction functions.

Source: BofA Global Research

BofA GLOBAL RESEARCH

# Our key forecasts

## Exhibit 2: Key BofA G10 and EM FX forecasts

Forecasts as of 14-Dec-2023

(EOP)	YE 2020	YE 2021	YE 2022	1Q23	2Q23	3Q23	YE 2024	YE 2025
EUR/USD	1.22	1.14	1.07	1.08	1.09	1.06	1.15	1.20
USD/JPY	103	115	131	133	144	149	142	136
GBP/USD	1.37	1.35	1.21	1.23	1.27	1.22	1.31	1.40
AUD/USD	0.77	0.73	0.68	0.67	0.67	0.64	0.71	0.71
USD/CNY	6.53	6.36	6.90	6.87	7.25	7.30	6.90	6.70
USD/BRL	5.20	5.58	5.29	5.06	4.79	5.03	4.75	5.00
USD/INR	73.07	74.34	82.74	82.18	82.04	83.04	82.00	81.00
USD/ZAR	14.69	15.94	17.04	17.80	18.85	18.92	17.80	18.40

Source: BofA Global Research. Forecasts as of 14-Dec-2023. YE = year-end.

BofA GLOBAL RESEARCH

# What we particularly like right now

## Exhibit 3: Our latest G10 and EM FX trade recommendations

What we particularly like right now

G10	Rationale
<u>Sell 1m 143.50/137.00 USD/JPY put spread</u>	We fade December BoJ risk premium. NIRP removal is not game changer for USD/JPY
<u>Buy EUR/USD</u>	We are bearish USD in 2024 on the start of Fed rate cutting cycle and normalization of the overvalued USD
<u>Buy 3m 1.90-1.86 GBP/AUD put spread</u>	Fiscal, current account and NIIP divergences compensate for the small negative carry. China recovery would help, head and shoulders top
<u>Buy 4m EUR/GBP vol swap</u>	EURGBP implied is at a historical low and should rise on diverging EZ-UK economic and fiscal outlooks
<u>Sell EUR/NOK via 6m risk reversal (buy 11.35 put, sell 12.20 call)</u>	We count on a softer USD, supported oil prices, a relatively hawkish Norges, valuation, and technicals
EM	
<u>Long BRL/MXN</u>	We open a new trade: long BRL/MXN at 3.52 spot (1y forward 3.58, target 4.00, stop 3.25) as one of our 2024 Top Trades
<u>Short CNH/long narrow CFETS</u>	We position short CNH against CFETS as we expect PBOC to lean against trade-weighted appreciation

Source: BofA Global Research. For pricing and risks, see Exhibits 24 and 26.

For complete list of open trades and those closed over the past 12 months, please see our latest Global FX Weekly (in this report, Exhibits 24-27).

# Calls at a glance

**Michalis Rousakis**

MLI (UK)

michalis.rousakis@bofa.com

## Thematic calls

- **Softer USD as US recouples and Fed eases policy:** We expect a softer USD to a still overvalued level as the US starts recoupling with the rest of the world (ROW) and the Fed eases (see our G10 FX Year Ahead report).
- **Bullish FX vol bias into 2024:** Our view is based on a combination of Year 4 Presidential cycle seasonality, FX vol dynamic at the start of Fed cutting cycles, and low vol base (see our FX Quant/Vol Year Ahead report).
- Our **main risk scenarios** point to less soft or a stronger USD: we discuss a “no landing” US scenario, a high rates scenario on risk premium or fiscal concerns, a scenario with an oil price shock, and a China slowdown scenario (see our [Macro Year Ahead](#) report).
- **A higher  $r^*$**  would likely be a US story, posing upside risks to our USD equilibrium estimates *unless* there are **fiscal concerns** or less appetite for US assets (see our [Macro Year Ahead](#) report).
- **Mortgage structure matters for monetary policy:** FX implications go against high beta currencies, because of faster policy transmission through housing (see the 14 August 2023 Global Economic Viewpoint).
- **Flows & positioning:** Into a busy year-end, investors are long NOK, GBP, and JPY, neutral EUR and USD, and short CHF (see the 11 December 2023 Liquid Cross Border Flows report).

## Central Bank calls

### Exhibit 4: G10 Central Bank calls

BoJ is meeting next week

Country	Next Meeting	BofA	Consensus	Prior	Narrative
US	31-Jan	5.38%	-	5.38%	The Fed delivered the dovish pivot that we expected heading into the December meeting. We expect the Fed to start cutting in June 2024 and proceed at a pace of 25bp per quarter. The cutting cycle should end at a neutral rate of around 3% in 2026. Risks are for an earlier - or faster - cutting cycle than we currently project. We cannot rule out a March cut solely on inflation data, while any sharp deterioration in the macro data would make such a decision easier.
Eurozone	25-Jan	4.00%	-	4.00%	In our base case the ECB starts cutting in June, but we could be just another much weaker-than-expected core inflation print away from pencilling in an April cut. We expect three cuts in 2024 starting in June (quarterly pace) and 5 cuts in 2025 (monthly pace) before the ECB pauses and resumes rate cuts in 2026.
Japan	19-Dec	-0.10%	-0.10%	-0.10%	We expect the BoJ to end negative interest rate policy (NIRP) and yield curve control, with the 23 Jan '24 MPM being our base case, and by April 2024 at the latest. We do not expect the BoJ to enter a swift hiking cycle and do not expect QT to start until 2025. We pencil in additional 25bp hikes in 4Q 24 and 2Q 25, taking Japan's policy rate to 0.5% by mid-2025.
UK	1-Feb	5.25%	-	5.25%	We see cuts in the first half of next year as unlikely. We expect the first cut in February 2025 with risks skewed towards a 2H 2024 easing.
Canada	24-Jan	5.00%	-	5.00%	We expect five rate cuts in 2024 and another 3 in 2025.
Australia	6-Feb	4.35%	-	4.35%	We expect no rate cuts in 2024 and the cash rate at 3.50 by YE 25.
New Zealand	28-Feb	5.50%	-	5.50%	We expect seven rate cuts in 2024 and another 3 in 2025.
Switzerland	21-Mar	1.75%	-	1.75%	We expect the SNB to start cutting later (September 2024) and less (quarterly to 0.5% by September 2025) than the ECB, with the risk of cutting even less. We now expect a more symmetric than before approach toward CHF.
Norway	25-Jan	4.50%	-	4.50%	Norges done with hikes but to remain cautious. We continue to look for two rate cuts in 2024, starting in 3Q, and another five in 2024. Symmetric risks.
Sweden	1-Feb	4.00%	-	4.00%	We look for three rate cuts in 2024 and another 5 in 2024, similarly to the ECB. Downside risks to this path.



**Exhibit 4: G10 Central Bank calls**

BoJ is meeting next week

Country	Next Meeting	BofA	Consensus	Prior	Narrative
---------	--------------	------	-----------	-------	-----------

Source: BofA Global Research, Bloomberg consensus forecasts as of 14-Dec-2023.

## The view

**Adarsh Sinha**

Merrill Lynch (Hong Kong)

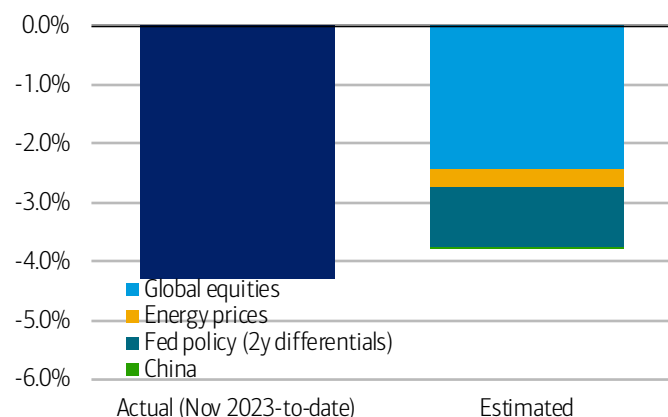
adarsh.sinha@bofa.com

**The glass fills up for USD bears**

At the end of November, we flagged that USD depreciation was nicely in line with its key drivers but predominantly driven by the equity rally (see the report, [Good and bad news for USD bears 28 November 2023](#)). We took a “glass half full” view, arguing that there was plenty of room for other factors (US recoupling and China recovery) to reinforce the USD downtrend. We thought that the market would err on the side of patience, awaiting evidence in the data. This still applies to China, but the Fed – starting with Governor Waller’s speech and culminating in this week’s dovish FOMC meeting – adopted a more preemptive than reactive approach to rate cuts. While this reduces the market’s “data dependence” in the near term, a reality check may be warranted if the US economy stays resilient in 1Q.

**Exhibit 5: DXY depreciation November 2023 to date – actual versus estimated**

USD sell-off remains in line with its key drivers

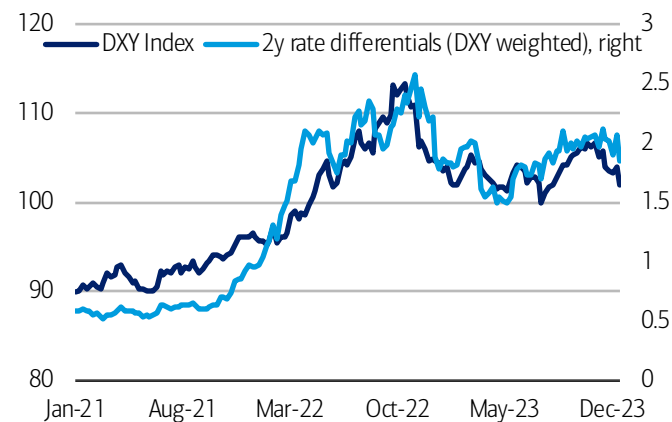


Source: Bloomberg, Note: China - reflation PCA, Fed policy - US 5y real rate, Energy prices - BCOMEN Index, Global equities - MSCI World

BofA GLOBAL RESEARCH

**Exhibit 6: DXY versus weighted 2y rate differentials**

US rates fell through November, but differentials only moved after Waller speech



Source: Bloomberg

BofA GLOBAL RESEARCH

**Central banks repeated but did not rhyme**

DXY depreciation is consistent with our latest “key drivers” estimate. Exhibit 5 shows that the sell-off remains mostly in line with that implied by its key drivers. But there is less “concentration risk,” with rate differentials making a larger contribution relative to November. Other central banks, notably the ECB and BoE this week, pushing back more firmly against the pricing of rate cuts reinforces this trend into year-end. On the other hand, China’s contribution to weaker DXY turned negligible, with the initial optimism around policy stimulus fading.

## Accommodative monetary conditions remain paramount for China

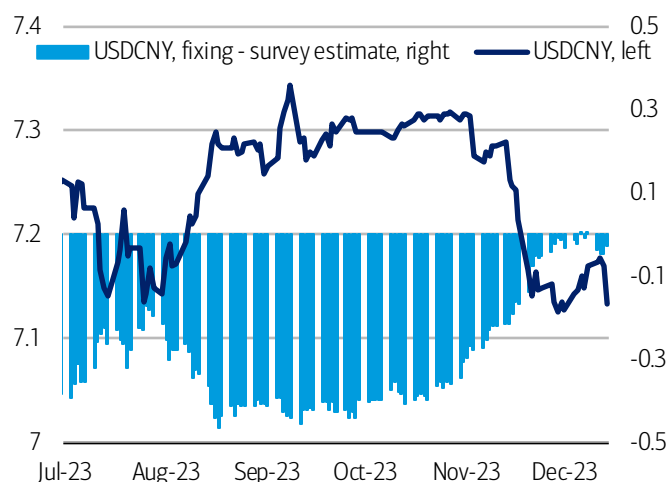
It is clear that the promise of policy stimulus in China – even of the “big bang” variety – is insufficient to boost sentiment. Investors will likely err on the side of caution and await clear evidence of recovery in the data. In the meantime, accommodative monetary conditions remain paramount. This is why lower front-end yields and weaker CNY (in trade-weighted terms) remain our highest-conviction views in China. Alongside broader USD weakness, the deviation of daily USDCNY fixings from market expectations has moderated (Exhibit 7). From here, we expect the People’s Bank of China (PBoC) to take advantage of a weaker USD backdrop to engineer CNY depreciation against the CFETS basket.

## Ending the year with a Bank (of Japan)

Next week’s Bank of Japan meeting is likely the last significant market event of the year. In the bigger scheme, NIRP removal at this meeting (a risk following Governor Ueda’s recent comments) versus January 2024 (our base case) should not be a game changer for USDJPY (Exhibit 8). But the context matters – a surprise adjustment could reinforce the downward momentum following the Federal Open Market Committee (FOMC) meeting. However, we suspect that yen strength itself (among other factors) will tip the scales in favour of waiting until January (see the report, [BoJ preview: Laying the groundwork for an exit from NIRP 14 December 2023](#)). And the longer-term balance of payments outlook, including potential household balance sheet diversification, keeps us cautious on yen appreciation in 2024.

### Exhibit 7: USDCNY spot versus deviation of fixing from estimate

Small downward bias to fixing persists

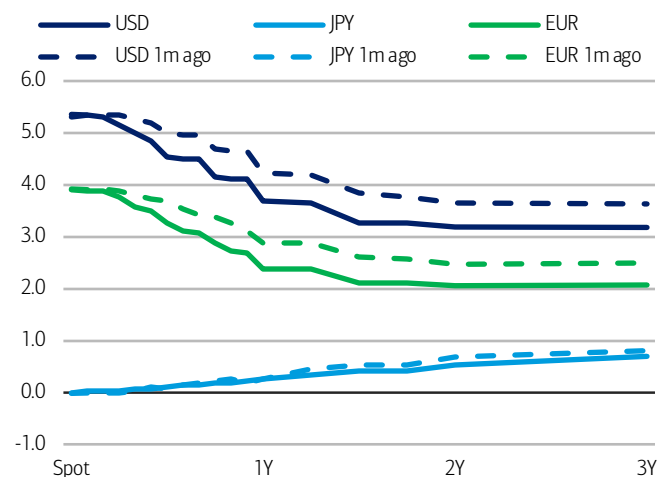


Source: Bloomberg

BofA GLOBAL RESEARCH

### Exhibit 8: Forward x 1m OIS

Changes in JPY front ends remain too marginal



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

# EUR Year Ahead: Pyrrhic Victory

**Athanasios Vamvakidis**  
MLI (UK)  
[athanasios.vamvakidis@bofa.com](mailto:athanasios.vamvakidis@bofa.com)

**Paul Ciana, CMT**  
BofAS  
[paul.ciana@bofa.com](mailto:paul.ciana@bofa.com)

**Howard Du, CFA**  
BofAS  
[yuhao.du@bofa.com](mailto:yuhao.du@bofa.com)

**Vadim Iaralov**  
BofAS  
[vadim.iaralov@bofa.com](mailto:vadim.iaralov@bofa.com)

**Michalis Rousakis**  
MLI (UK)  
[michalis.rousakis@bofa.com](mailto:michalis.rousakis@bofa.com)

**John Shin**  
BofAS  
[joong.s.shin@bofa.com](mailto:joong.s.shin@bofa.com)

See the full report: [FX Viewpoint: EUR Year Ahead: Pyrrhic Victory 15 December 2023](#)

## Pyrrhic Victory

We expect stronger EURUSD in 2024 but because of a weaker USD across the board and positive global risk sentiment on the back of central bank easing. Although the EUR remains historically weak against the USD, it is not misaligned against the rest of G10. US decoupling explains to a large extent EURUSD weakness, suggesting that US recoupling in 2024 will lead to a stronger EURUSD, even though we expect the Eurozone economy to remain weak. We expect the Fed and the ECB to cut rates at the same time and pace next year, but we argue that Fed cuts matter more, through positive global risk sentiment. Recent market moves are consistent with this view. However, we also see many risks, particularly in a market already priced to perfection.

## Flows and positioning: market neutral EUR

We find the EUR positioning neutral to slightly long, with investors split. EUR has been under constant pressure this year from all client groups. In Q4, EUR flows have been less directional, suggesting that we may be past max EUR bearishness.

## Quant and vol: bearish EUR versus G10 high-beta currencies

Our dynamic factor model for FX finds that the EUR is currently close to 2% overvalued both in trade-weighted terms and versus the USD. We prefer to short EUR on the crosses given that models show more prominent downtrends and bearish momentum signals, and long-dated risk reversals have overwhelming demand for EUR puts against G10 high-beta peers. We also expect EURGBP vol to move higher in Q1 2024 from a historical low.

## Technical: Buying EUR dips for 2024 upside potential

Our base-case [2024 year ahead view](#) (see the 2024 FICC Technical Advantage report) sees DXY declining modestly to 100, with some potential for a proper bear market to reach 97.50, and gold rising to 2150/2300s. This is supportive for the EUR. It means that EUR retests the 2023 highs in the 1.12s and may extend its rally to 1.15 as wave (C) up completes. A risk to our view is if EYR rolls over in December 2023-January 2024 to form a head and shoulders top.

# Charting UK Rates and FX – December 2023

**Agne Stengeryte, CFA**  
MLI (UK)  
agne.stengeryte@bofa.com

**Kamal Sharma**  
MLI (UK)  
ksharma32@bofa.com

**Mark Capleton**  
MLI (UK)  
mark.capleton@bofa.com

See the full report: [European Rates Viewpoint: Charting UK Rates and FX – December 2023 12 December 2023](#)

## Rates: Left behind

We expect UK rates to continue to underperform cross-market. BofA Global Research economists see the BoE cutting later than either the Fed or the ECB. The inflation problem in the UK is more structural. The UK also has unique macro vulnerabilities: the current account deficit, weak public sector balance sheet, and large external liabilities. Despite slightly better-than-expected Gilt demand dynamics, supply should remain elevated in 2024. All of this points to more persistent risk premia being priced in the UK even as the BoE eventually starts cutting. We are short Gilts versus ACGBs, short Gilts on real yields versus EUR, and short the GBP front end versus EUR. In our full report, we outline our forecasts, near-term views regarding Thursday's Bank of England meeting, thoughts on Gilt supply-demand, and some of our key trade ideas.

## FX: Waning Momentum

GBP has benefited from the improvement in the global risk outlook, a pricing out of front-end rate cuts, and positive data surprises. However, this is one of the least anticipated BoE meetings this year, and whilst the BoE has been successful in recalibrating UK rate expectations, this is unlikely to be enough to carry GBP into a strong position in 2024. Higher rates may imply attractive carry, but when compared to the impending data flow, it is a double-edged sword. Higher for longer is not the panacea for GBP, as rates remain at lofty levels for all the wrong reasons. BoE communication may become increasingly challenging in the coming months as the BoE tries to square the circle versus stubbornly high inflation.

## Sentiment: Less bearish GBP sentiment

GBP sentiment is modestly less bearish but still bearish, with positioning roughly in line. The Gilt short covering is largely complete, with exposure and views aligned and relatively unchanged from last month.



# BoJ preview: Laying groundwork for exit

**Izumi Devalier**

BofAS Japan

izumi.devalier@bofa.com

**Shusuke Yamada, CFA**

BofAS Japan

shusuke.yamada@bofa.com

See our full report for more details: [BoJ preview: Laying the groundwork for an exit 14 December 2023](#)

## BoJ communications in focus

The Bank of Japan policy board wraps up its last monetary policy meeting (MPM) of the year on Tuesday, 19 December. We expect the central bank to keep all key targets and yield curve control (YCC) parameters unchanged.

Though we expect policy to be on hold, we think that next week's MPM will be a pivotal meeting if the BoJ is looking to exit negative interest rate policy (NIRP) in early 2024, as we expect. We note that our base case, which we have maintained since September, is that the Bank of Japan will remove NIRP and YCC at its 23 January 2024 policy meeting, and April at the latest (see the report, [BoJ Watch: Inching closer to normalization](#), 21 September 2023).

Our view is that, unlike the past two YCC adjustments which were delivered as a "surprise," the central bank would want market participants to fully anticipate the exit from NIRP. Thus, if we are correct that the BoJ is leaning towards an exit from NIRP at the January MPM, we should get further signals guiding towards such a move, either in the policy statement or Governor Ueda's post-MPM press conference.

### Expected market reactions in each BoJ scenario

BofA Global Research expects a hawkish hold at December MPM and dovish hike in January MPM

	USD/JPY	2yr JGB yield	10yr JGB yield	30yr JGB yield
Hawkish hike (hawkish surprise)	Sell-off by 3% or more	Rise to around 0.20%	Increase +10bps (short-term) and higher (medium-term)	Increase +5bps
Dovish hike (BofA base case for Jan MPM)	Knee jerk decline, followed by a rebound by 1%	Rise to around 0.10%	Increase +5bps and higher (medium-term)	Increase +2.5bps
Hawkish hold (BofA base case for Dec MPM)	Neutral (Knee jerk rise, but may fall again on expectations for Jan MPM)	Rise to around 0.10%	Unchanged	Unchanged
Dovish hold (dovish surprise)	Rise by 2-3%	Unchanged	Slightly decrease	Slightly decrease

Source: BofA Global Research

BofA GLOBAL RESEARCH



# Tis the season(ality)

**Claudio Piron**

Merrill Lynch (Singapore)

claudio.piron@bofa.com

See the full report: [Asia FI & FX Strategy Watch: Tis the season\(ality\) 11 December 2023](#)

## Year-end returns and seasonality

Year-end is approaching, and investors are concerned that the recent rally in EM Asia FX and rates is stalling. An analysis of seasonality shows that December is one of the most favorable months for positive Asia FX seasonality. This is especially so for KRW, SGD, and CNY fixings – see Exhibit 9. In EM local debt returns, December is favorable for Indonesia, India, and Malaysia.

We derive these findings by looking at the past 21 years of data, using both the month-end closing prices and the average-of-the-month prices for currencies and for the past 12 years of data for our BofA ICE total return local government debt indices. We also examine the percent of times for each of the months positive returns have occurred over the past 21 years.

It should be stressed that past returns are no guarantee of future returns. That said, there are fundamental drivers that help to explain these seasonal patterns. They include, first, favorable trade balance performance towards year-end as import demand fades but exports tend to sustain. Second, remittances from overseas workers explain the year-end outperformance of PHP. Third, in Indonesia's case, there is a tendency of the debt management office to reduce auctions at the end of the year due to good fiscal performance and front-end revenue raising.

### Exhibit 9: End-of-month % spot returns (21-year average)

Seasonality improves in December for Asia FX

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
USDCNY	0.48%	-0.12%	0.10%	-0.13%	-0.33%	-0.11%	0.19%	-0.26%	0.01%	0.09%	0.31%	0.44%
USDINR	0.39%	-0.47%	0.58%	-0.12%	-1.13%	-0.56%	0.03%	-1.39%	-0.03%	-0.11%	-0.65%	0.57%
USDIDR	0.53%	-0.30%	-0.60%	1.13%	-0.61%	-0.38%	0.12%	-1.46%	-0.87%	-0.36%	-0.89%	0.66%
USDKRW	-0.28%	-1.11%	0.50%	0.72%	-1.10%	-0.22%	0.59%	-1.05%	-0.59%	0.50%	-0.20%	1.33%
USDMYR	0.40%	-0.23%	0.42%	0.64%	-1.21%	-0.38%	0.19%	-0.84%	-0.71%	0.22%	-0.24%	0.54%
USDPHP	0.18%	-0.12%	0.19%	0.28%	-0.66%	-0.71%	0.41%	-0.93%	-0.29%	0.49%	0.25%	0.62%
USDSGD	0.09%	-0.16%	0.32%	0.66%	-0.59%	-0.06%	0.49%	-0.57%	-0.24%	0.47%	0.02%	0.67%
USDTHB	1.04%	0.01%	0.12%	-0.06%	-0.80%	-0.54%	-0.01%	0.09%	-0.29%	0.40%	0.44%	0.38%
USDTWD	0.27%	-0.04%	0.29%	0.48%	-0.27%	-0.36%	-0.28%	-0.59%	-0.19%	0.09%	0.53%	0.45%
DXY	0.25%	0.33%	-0.07%	-0.57%	0.65%	-0.03%	-0.30%	0.46%	0.18%	0.20%	-0.02%	-0.74%
CNY fixing	0.71%	-0.09%	0.04%	-0.03%	-0.37%	-0.14%	0.04%	-0.37%	0.07%	0.10%	0.21%	0.50%

Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

# Real Money Tracker – EM FX exposure up, bonds on hold

**Claudio Piron**

Merrill Lynch (Singapore)

claudio.piron@bofa.com

See the full report: [GEMs FI & FX Strategy Watch: Real Money Tracker – Colombia 1st for FX, Thailand biggest underweight bonds 14 November 2023](#)

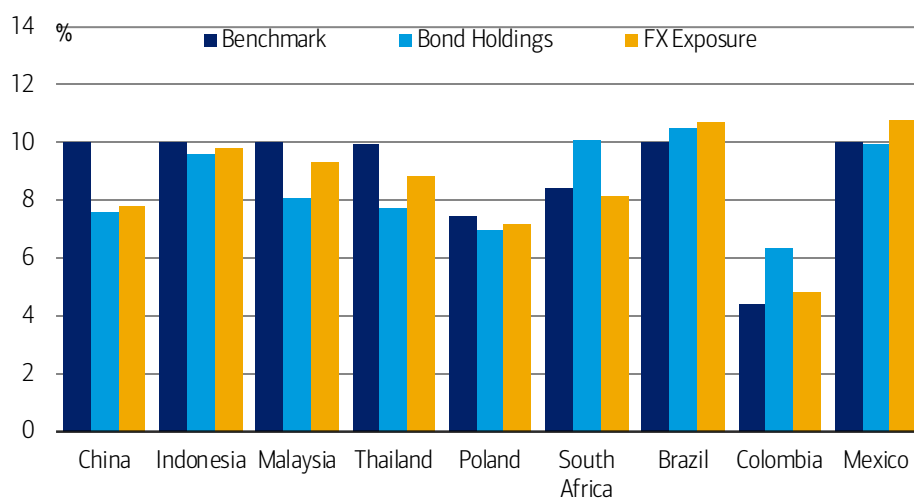
In October, aggregate funds slightly reduced their bond holdings but increased their FX exposure (in absolute terms) to the top nine countries in the GBI-EM Global Diversified index. The underweight positions in bonds increased to 3.31% and underweight positions in FX reduced to 2.76%. Cash levels reduced after witnessing an increase in August and September, and duration exposure continued to decline and was 5.36 years by the end of October. Overweight positions were concentrated in Brazil, Colombia, and South Africa.

## FX – MXN, followed by BRL most overweight

In October, MXN (0.77% overweight) was the most favored currency by GBI-EM indexed funds we track, followed by BRL. Funds continued to be overweight COP and remained underweight CNY, IDR, MYR, THB, and PLN. Funds turned underweight ZAR.

### Exhibit 10: Emerging Markets Bond holdings and FX exposure in October 2023

Colombia bonds and MXN most favored in the EM

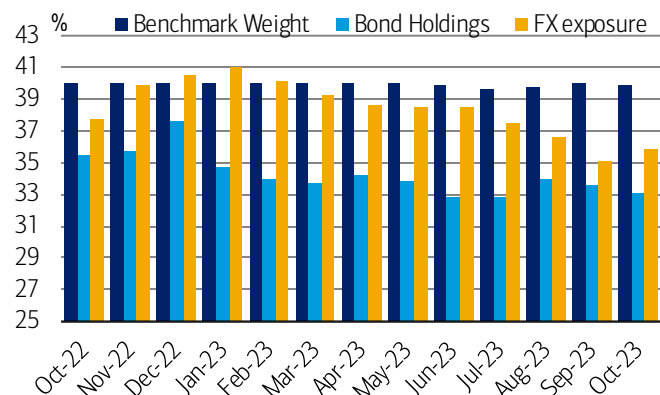


Source: BofA Global Research, Fund factsheets

BofA GLOBAL RESEARCH

**Exhibit 11: Asia**

Funds increased underweights in bond, reduced underweights in FX



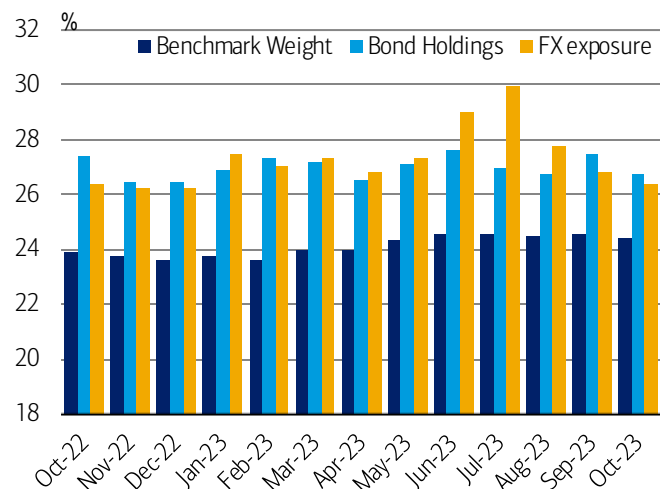
Source: BofA Global Research, Fund factsheets

Note: Asia region includes the countries – China, Indonesia, Malaysia, and Thailand

BofA GLOBAL RESEARCH

**Exhibit 13: LatAm**

Funds reduced absolute exposure to bonds and FX

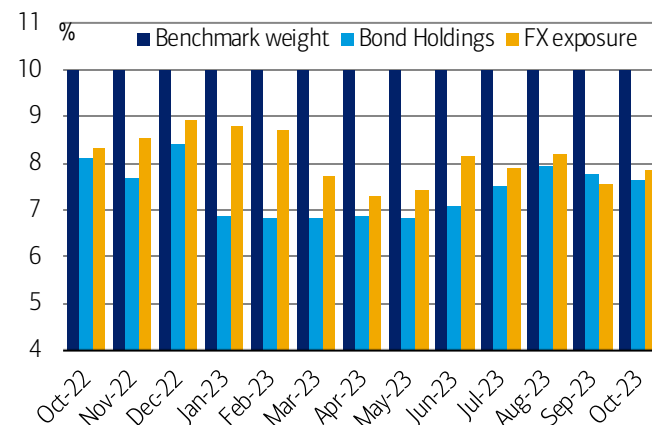


Source: BofA Global Research, Fund factsheets

BofA GLOBAL RESEARCH

**Exhibit 12: China: Funds' exposure to Chinese bonds and FX**

Funds reduced their absolute exposure to bonds and increased in CNY

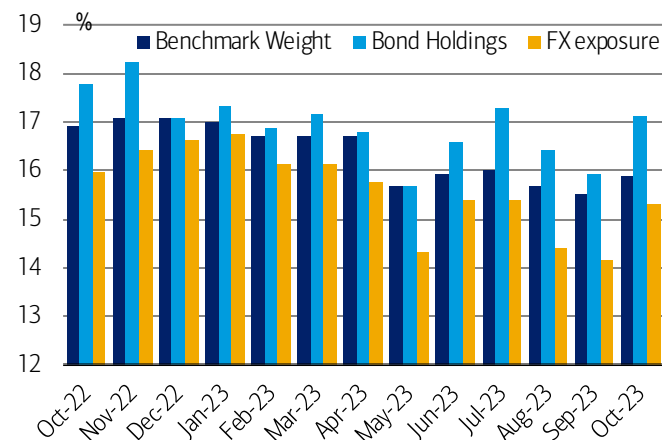


Source: BofA Global Research, Fund factsheets

BofA GLOBAL RESEARCH

**Exhibit 14: CEEMEA**

Funds increased their absolute exposure to bonds and FX



Source: BofA Global Research, Fund factsheets

Note: CEEMEA region includes the countries – Poland, Russia and South Africa till Feb-22, only Poland and South Africa from Mar-22

BofA GLOBAL RESEARCH

# Mexico: Is Mexico rerouting from China?

**Carlos Capistran**

BofAS

carlos.capistran@bofa.com

**Antonio Gabriel**

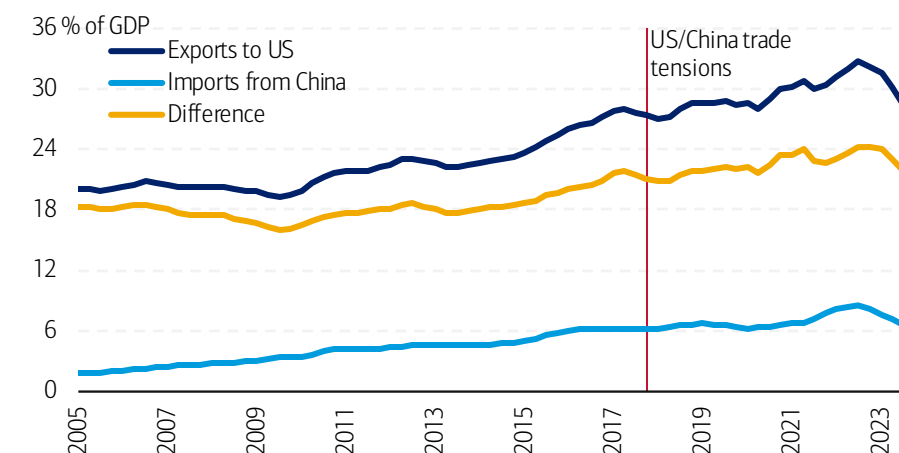
BofAS

antonio.gabriel@bofa.com

See the full report: [Emerging Insight: Mexico: Is Mexico rerouting from China? 13 December 2023](#)

## Exhibit 15: Mexican exports to the US and imports from China

An increase in Mexican exports to the US has not been explained by rising imports from China



Source: BofA Global Research, Haver

BofA GLOBAL RESEARCH

## Is Mexico rerouting from China?

Mexico has been gaining market share in US imports since 2022, surpassing China as the top US trading partner. At the same time, Mexican imports from China have also increased, opening the possibility that Mexico may just be rerouting from China. However, we do not believe that to be the case. Mexican imports from China have been stagnant at around 6% of GDP since 2016, with only a brief uptick over 2021-2022. In contrast, Mexican exports to the US as percent of GDP show an increasing trend since around 2015, with volatility. Mexico is importing more from China, in dollar terms, because Mexico's economy is growing, which in part is due to US growth.

# Quant Insight

**Howard Du, CFA**  
BofAS  
yuhao.du@bofa.com

**Vadim Iaralov**  
BofAS  
vadim.iaralov@bofa.com

- Quant signals show that USD is at risk of turning lower again for rest of the month.
- Bearish USD December seasonality should also start to take shape after this week.

## Broad trend remains to the downside for the USD

In the weekly Quant Insight publication (see the report, [FX Quant Insight: 11 December 2023](#)), we showed that the rebound at start of December was not sufficient to reverse the broad downtrend for the USD. Without new bullish catalysts, the downtrend for the USD would likely resume for rest of the month, as bearish seasonal factors kick in.

### Exhibit 16: Bearish USD seasonality in December is backloaded towards end of the month

DXY December daily average return and hit ratio since 1973

date	avg return	hit ratio	date	avg return	hit ratio
1	-0.1%	47%	16	-0.1%	33%
2	0.0%	47%	17	-0.1%	37%
3	-0.2%	31%	18	0.0%	57%
4	0.0%	42%	19	0.1%	53%
5	0.1%	54%	20	-0.1%	33%
6	-0.1%	43%	21	0.1%	56%
7	0.0%	59%	22	0.0%	37%
8	0.0%	53%	23	-0.1%	41%
9	0.1%	57%	24	-0.1%	38%
10	0.0%	47%	25	0.0%	46%
11	-0.1%	40%	26	-0.1%	36%
12	-0.1%	38%	27	-0.2%	29%
13	0.1%	70%	28	-0.1%	49%
14	0.0%	50%	29	-0.1%	34%
15	0.1%	69%	30	-0.1%	42%
			31	-0.1%	44%

Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

### Exhibit 17: Seasonality for the next 30 calendar days is broadly bearish for the USD except versus GBP

G10 FX seasonality vs USD for the next 30 calendar days (since 1999)

	max return	average return	median return	min return	hit ratio
EUR	8.1%	0.5%	0.1%	-5.0%	57%
JPY	4.9%	0.3%	0.5%	-6.7%	65%
GBP	5.5%	-0.4%	-0.6%	-4.7%	39%
CAD	2.8%	0.4%	0.8%	-3.8%	70%
AUD	4.4%	1.1%	1.0%	-3.6%	70%
CHF	5.7%	0.7%	0.2%	-5.0%	74%
SEK	4.8%	0.9%	1.2%	-5.4%	70%
NZD	5.5%	1.3%	1.3%	-3.3%	70%
NOK	6.8%	0.7%	0.2%	-4.4%	57%

Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

## December bearish USD seasonality is back-loaded

December tends to be one of the most bearish months of the year for the USD (see the report, [G10 FX Seasonality Primer, 22 February 2021](#)). Exhibit 16 further shows that the bearish force tends to be backloaded for the USD in December. After December 21, the daily average return since 1973 would become negative for the DXY index. Hit ratio for up days also would not exceed 50% for rest of the year. Across currencies, G10 FX except GBP would tend to rally against the USD for the next 30 calendar days (Exhibit 17). The combination of average return and hit ratio since 1999 suggests that the bearish USD seasonality has been the strongest for AUD, NZD, and SEK.



# Technical Strategy

**Paul Ciana, CMT**

Technical Strategist

BofAS

paul.ciana@bofa.com

- Our base-case [2024 year ahead view](#) (see the 2024 FICC Technical Advantage report) sees DXY dedining modestly to 100. A proper bear cycle may mean 97.50. This provided 1) gold rallies to the 2300s, 2) USD/EM supports break, 3) no bullish snapback signals like in [February 2023](#) and [April 2023](#) (see our FX Technical Advantage reports).
- This is bullish for the euro. It means that the euro retests the 2023 highs in the 1.12s and may extend its rally to 1.15 as wave (C) up completes. A key risk is if euro rolls over in December 2023-January 2024 to form a head and shoulders top (Exhibit 19).
- We show bullish turns in favor of higher AUDUSD, AUDNZD, NOKSEK, and EURCHF that may persist into year-end/early January 2024.

## Short term: Range, MACD favors buying the dips for 1.12s

The daily chart trend is sideways. A cup and handle base in September-October 2023 set the short-term trend higher within the range. A bullish MACD cross suggests that the uptrend remains under way while above 1.0725 and it can trend to the upper end of range. Upside levels include 1.1050/1.1065, 1.1130/1.1153, and 1.1274.

### Exhibit 18: EURUSD Daily chart

Euro is trading range bound, with upside potential due to higher highs and higher lows, a bullish MACD cross, and a cup and handle base in September-October 2023 setting the trend to up. Upside levels include 1.1050/1.1065, 1.1130/1.1153, and 1.1274. Uptrend remains while above 1.0725.



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH



## Medium term: Wave (C) up to 1.15, right shoulder a risk

Our wave count suggests that five waves down from 2021-2022 occurred and that three waves up in 2023-2024 are under way. The third wave up, or wave (C), suggests a retest of 2023 highs at +/- 1.1274 and/or new highs, such as 1.15. A risk to this view is if euro rolls over in December 2023-January 2024 to form the right shoulder of a head and shoulders top. This would challenge our view because it would suggest (at the very least) that the 1.0450-1.12 range remains and (more so) that a decline to parity becomes possible, again. We could also argue that a more bullish wave count is under way; however we would like to see the euro above the 200-week simple moving average (SMA) at 1.1153 to consider it further.

### Exhibit 19: EURUSD Weekly

Wave (C) up to 1.1274/1.15 in 2024 is under way. A risk to our view is the right shoulder of a head and shoulders top forming in December 2023-January 2024.



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

## Bullish moves for AUD\$, AUDNZD, NOKSEK, EURCHF

### Exhibit 20: AUDUSD – daily chart

Bullish breakout above trend line resistance opens further upside potential for AUDUSD to rally into the .6900s while above .6525.



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

### Exhibit 21: AUDNZD – Daily chart

Bullish turn from trend line support with room to rally to 1.0950/1.10. MACD crossing higher favors the turn up.



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH



**Exhibit 22: NOKSEK – Daily chart**

Bullish turn from supportive 2023 lows looks like the start of a technical rally to the 200-day SMA near parity while above .9550/.9500.



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

**Exhibit 23: EURCHF – Daily chart**

Bullish turn from support near .9400 suggests a rally back to upper end of channel at .9600-.9650 as MACD turns up to confirm.



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH



# Trade Recommendations G10

**Michalis Rousakis**

MLI (UK)

michalis.rousakis@bofa.com

## Exhibit 24: Open trades G10

Current G10 FX trade recommendations. Prices as of 14-Dec-2023.

Trade Description	Open Date	Entry Price	Expiry Date	Current Price	Rationale	Risks
<a href="#">Sell 1m 143.50/137.00 USD/JPY put spread</a>	8-Dec-23	Receive 1.0024% USD (spot ref: 144.33, vol refs: 10.738 and 13.634)	10-Jan-24	141.82	We fade December BoJ risk premium. NIRP removal is not game changer for USD/JPY	Negative US surprises in coming weeks. Hedging by JP exporters amid thin holiday liquidity may also exacerbate the USD/JPY sell-off.
<a href="#">Buy EUR/USD</a>	16-Nov-23	1.0859 (target 1.15, stop/loss: 1.04)	Spot trade	1.0988	The trade expresses our baseline cyclical bearish USD view for 2024 on the start of Fed rate cutting cycle and normalization of the overvalued USD	A later than expected start to the Fed rate cutting cycle
<a href="#">Buy 3m 1.90-1.86 GBP/AUD put spread</a>	16-Nov-23	0.6806% GBP (spot ref: 1.9192, vol refs: 7.207 and 7.007)	19-Feb-24	1.9003	Fiscal, current account and NIIP divergences compensate for the small negative carry; China recovery would help, head and shoulders top	Further deterioration of China risk to weigh on the AUD
<a href="#">Buy 4m EUR/GBP vol swap</a>	16-Nov-23	5.01 (target: 6.00, stop/loss: 4.50)	20-Mar-24	Accumulated 3.74% realized vol Current 3m implied vol at 5.02	EURGBP implied is at a historical low and should rise on diverging economic and fiscal outlook between EU and UK. Trade also used to diversification for the core bearish USD view for 2024	Persistent lowvol regime in FX market into Q1 2024
<a href="#">Sell EUR/NOK via 6m risk reversal (buy 6-month 11.35 put and sell 12.20 call)</a>	16-Nov-23	Receive 0.7307% EUR (spot ref: 11.8623, vol refs: 8.929 and 9.108)	15-May-24	11.5188	Trade supported by constructive oil outlook, expectation for improved risk sentiment in 2024 on Fed cuts, and mean reversion for the oversold NOK vs EUR, systematic technical sell signals	Lower NOK on weaker than expected risk sentiment

BofA GLOBAL RESEARCH

Source: BofA Global Research

**Exhibit 25: G10 FX Closed trades**

Recently closed trades in G10 FX.

Trade Description	Entry date	Entry Level	Target	Stop	Close date	Level closed
Buy 1y 25-delta AUD/USD risk reversal (call strike 0.7391, put strike 0.6049)	17/11/22	Zero cost (spot ref: 0.6693, vol refs: 12.253 and 14.892)			17/11/23	0.65 (options expired worthless)
Buy CAD/MXN	23/10/23	13.3338	14.00	13.00	01/11/23	13.00
Buy EUR/SEK via 3-month collar (buy 3m 11.8380 call, sell 3m 11.3143 put)	13/10/23	Zero cost (spot ref 11.5456, 3m 11.8380 call cost at 0.5676% EUR with vol ref 7.394%, 3m 11.3143 put cost same with vol ref 6.701%)			30/10/23	1.1199% EUR (spot ref: 11.8250, 11.8380 call costs c. 1.21% EUR with vol ref 6.98%, 11.3143 put costs 0.09% EUR with vol ref 6.51%)
Buy 6m GBP/AUD put seagull (long 6m put spread with strikes at 1.94 and 1.90, short 2.05 call)	08/09/23	0.3827% GBP (spot ref 1.9516, put spread vol refs: 8.346/8.099; short call ref: 8.450)			22/09/23	1.2341% GBP (spot ref 1.9006, vol refs 7.981 for 1.94 put, 7.477 for the 1.90 put, and 8.043 for the 2.05 call)
Sell 2m 0.89 USD/CHF put	23/06/23	Receiving 1.0126% USD (spot ref: 0.8967, vol ref: 6.44)			24/08/23	0.8845
Sell 2m 25-delta OTM EUR/GBP put	23/06/23	Receiving 0.31% EUR (strike ref 0.8472, vol ref 5.584, spot ref 0.8592, expiry August 24)			03/08/23	Spot ref 0.86470, vol ref :4.214)
Buy USD/SEK via 3m collar (buy 3m 10.73 call and sell 3m 9.8960 put)	19/07/23	Zero cost (spot ref: 10.2724, vol refs: 12.296% and 10.202%, expiry Oct 19)			01/09/23	1.3316% USD (spot ref: 10.6109, vol refs: 11.777% and 10.377%)
Buy 3m USD/CHF vol swap	14/04/23	8.15%	9.5%,	7.5%	14/07/23	Accumulated 7.6319%
Sell 1y 1.04 EUR/USD put	11/04/23	1.1445% EUR (spot ref: 1.0857, vol ref: 8.517)			23/06/23	0.5238% EUR (spot ref: 1.0960, vol ref: 7.42)
Buy NOK/SEK	28/04/23	0.9638	1.06	0.9280	21/06/23	1.0045
Enter 2m/6m USD/CAD put spread (sell 2m 1.40 put, buy 6m 1.40 put)	13/03/23	0.96% USD (spot ref: 1.3782, vol refs: 8.123/7.877)			07/06/23	1.66% USD (spot ref: 1.3381)
Buy AUD/CAD	14/04/23	0.9028		0.89	25/05/23	0.89
Sell 3m 1.00/1.02905 EUR/CHF call spread	08/03/23	Receive 0.4784% EUR (spot ref: 0.9935, vol refs: 5.651/6.606)			20/04/2023	-0.04% EUR (spot ref 0.98085, vol refs: 5.376/8.971)
Buy 4m USD/JPY KI put with American barrier level at 131.50 and strike 128.11	23/01/23	1.8629% USD (spot ref: 130.27, vol ref: 12.312)			24/03/23	1.93% USD (spot ref 130.00., vol ref: 13.85)
Buy 3m 10.2466/10.70 USD/SEK call spread	20/01/23	1.4689% USD (spot ref: 10.2971, vol refs: 12.752 and 13.307)			07/03/23	2.82% USD (spot ref: 10.7008, vol refs: 12.18/11.943)
Buy 1m 1.00075 EUR/CHF call	30/01/23	0.8031% EUR (spot ref: 1.00192, vol ref: 7.154)			24/02/23	0.99218
Buy 3 GBP/USD collar (sell 1.2850 call and buy 1.2000 put)	24/01/23	0.19% GBP (spot ref: 1.2400, vol refs: 9.4% and 11.0%)			17/02/23	1.6128% GBP (spot ref: 1.1991, vol refs: 9.961 and 10.287)
Sell USD/NOK via 6m collar (buy 6m 9.0227 put and sell 6m 10.10 call)	11/08/22	Zero cost (spot ref: 9.5063, vol refs: 12.481% and 13.890%)			13/02/23	10.0955 (expired worthless)
Sell EUR/CHF via 3m collar (long 0.98 put and short 1.00 call)	01/11/22	0.5619% EUR (spot ref: 0.9879)			01/02/23	Spot ref: 0.99833
Buy 3m/6m 25D USD/JPY put calendar spread (short 3m 25D OTM USD/JPY put, long 6m USD/JPY put; strike 132.70)	17/11/22	1.0185% USD (spot ref: 140.1, vol refs: 12.510 and 11.553)			17/01/23	1.8764% USD (spot ref 128.25, vol refs 15.591 and 13.069)
Buy AUD/NZD via 3m ATMF 1.0608/1.09 call spread	12/12/22	0.9638% AUD (spot ref: 1.0582, vol refs: 6.721% and 6.28%)			13/01/23	1.9730% AUD (spot ref: 1.0917, vol refs 6.929% and 6.504%)
Sell GBP/USD via 3m 1x2 1.1107/1.0405 put spread	11/10/22	0.6470% GBP (spot ref: 1.1085, vol refs: 16.89% and 19.09%)			11/01/23	Spot ref: 1.2146
Buy NOK/SEK	03/10/22	1.0234 (raised stop/loss to 1.0380 at spot level 1.0592)	1.11	0.9880 (new stop: 1.0380)	7/12/22	1.0380
Buy USD/JPY	03/11/22	147.3	155	143.4	10/11/22	143.4
Buy 3m EURGBP implied via vol swap	15/08/22	35.6116% EUR premium (expiry Nov 15, 2022, atm strike for 6.67%, spot ref 0.84388)			08/09/22	Strike 8.336%
Buy USD/CAD via 3m ERKO call (strike 1.2903, barrier 1.35, exp. Oct 18)	18/07/22	0.6614% USD (spot ref 1.2901, vol ref 8.61%)			22/08/22	0.9027% USD (spot ref 1.3039)
Buy 6m EUR/NOK collar (buy 6m 9.6886 put and sell 6m 10.50 call, exp. Jan 30)	28/07/22	Zero cost (spot ref 9.9241, buy 6m 9.6886 put for 1.3512% EUR with vol ref 9.789%; sell 6m 10.50 call for the same price with vol ref 10.778%)			11/08/22	0.6488% EUR (vol refs 9.555% and 10.765%, spot ref 9.8154)

# EM Alpha Trade Recommendations

David Hauner, CFA >>  
MLI (UK)

Claudio Irigoyen  
BofAS

## Exhibit 26: Open trades

EM Alpha Trade Recommendations

FX	Entry date	Entry level	Current level	Target	Stop	Notional	Rationale/ Time horizon	Risks
Long BRL/MXN	11/17/2023	3.52	3.539	4.00	3.25	10	Rate differentials, the euro and US yields will favor BRL. We also find BRL undervalued and MXN overvalued. The macro outlook looks better for Brazil than Mexico.	Main risks against the trade are a larger budget deficit in Brazil given its higher debt levels and strong inflows into Mexico due to nearshoring and/or remittances.
Short USDZAR	11/15/2023	18.15	18.52	17.6	18.55	10	last support for USDZAR at 18.13 now at risk before a retest of YTD lows (17.63-17.42) and/or a lower low; USDZAR is a proxy for EM FX. Light positioning + weakening US data + dovish Fed + soft US CPI = stronger EM FX and ZAR	The risk is sticky inflation and stronger-than-expected activity in the US.
Long PLNCZK	11/7/2023	5.51	5.67	5.78	5.34	10	PLN likely stronger with NBP hawkish as PO comes to power; we see CZK likely weaker as the CNB ultimately cuts	The risk is a more dovish-than-expected NBP
Long USDHUF	10/12/23	363.56	347.1	382	351	10	Stronger USD + weak BoP fundamentals in Hungary + still long positioning + focus on growth in Hungary = long USDHUF.	Weaker broader dolla.
1yr USD/CNH vol swap at 6.175%	8/2/23	6.175	5.635	-	5.00	10	The rising use of CNY for cross-border trade settlement should help to cut FX risk for local corporates and reduce the inflation pass-through from imported goods.	Weaker USD environment is typically associated with lower FX volatility and a more favorable EM FX environment
Buy 6m 25-delta call option for USDTWD	8/1/2023	31.6	spot(31.3)	31.9	29.8	10	We like having a tail risk hedge to USDTWD, covering the period around Taiwan's Presidential election.	China announcing material fiscal stimulus
Short RONCZK	5/24/2023	4.77	4.91	4.53	4.92	10	RON is overvalued + current account in Romania is not improving (unlike the peers) => weaker RON; hawkish CNB => stronger CZK	The risk is crowded positioning in Czechia and delayed depreciation in Romania
Buy 1y USDBKD 7.7670/7.8500 call spread	3/29/2023	Spot 7.8499	7.81	7.7670/7.8500	-	10	Forward points in HKD is very low given the outperformance of HK vs US rates following the increase in US banking sector risk	Aggressive rally in US rates that significantly closes the HONIA-SOFR spread.

**Source:** BofA Global Research. Spot values as of Dec 14 2023. Bid/offer spreads accounted for in initiation and dosing levels. Does not reflect tax withholdings or any investment advisory fees. Past performance is no guarantee of future results. A complete performance record is available on request. Inception date – July 4, 2016 Initiation and dosing prices are priced as of trade publication. For additional discussion of baseline views, valuation and risks to open trades, please see links to detailed reports.

BofA GLOBAL RESEARCH

**Exhibit 27: Closed trades**

## EM Alpha Trade Recommendations

Trade description	Entry date	Entry Level	Target	Stop	Notional	Close date	Level closed
Long EURZAR	10/2/2023	20.150	21.15	19.6	10	16-Nov-23	19.7
Long INRUSD	1/18/2023	81.65	80	83	10	28-Sep-23	93.26
Short SGD/KRW	9/20/2023	974	945	990	10	28-Sep-23	969
Sell MXN/ZAR	9/25/23	1.09	1.02	1.13	10	28-Sep-23	1.04
Buy USD/PEN	5/4/23	3.72	3.8	3.68	10	28-Sep-23	3.8
Long USDHUF	9/20/2023	358.4	375	347	10	28-Sep-23	47.96
Buy ZAR/CLP	9/7/23	45.08	48.6	44	10	25-Sep-23	4.6851
Long EURPLN	5/17/2023	4.5	4.725	4.365	10	12-Sep-23	4.6851
Short USDZAR through a call spread	8/9/2023	19.06 (for USDZAR)	-	-	10	23-Aug-23	0.57
Short EURHUF	8/4/2023	391.7	372.1	403.5	10	23-Jul-23	383.4
Sell CNH/CLP	6/15/2023	111.7	108	113.6	10	4-Aug-23	118
Short EURZAR	3/1/23	19.35	18.43	22	10	27-Jul-23	19.42
Buy a 3m digital call option on USDZAR	6/20/2023	23	17	18.7	10	5-Jul-23	35.5
Long USDILS	6/15/2023	3.58	108	113.6	10	5-Jul-23	3.73
Short USDZAR	3/23/2023	18.16	17	18.7	10	15-Jun-23	18.2
Sell MXN/CLP	5/22/23	44.85	42.00	47.00	10	15-Jun-23	46.37
Long USDPLN	3/8/2023	4.43	4.65	4.0	10	15-Jun-23	4.12
Sell USD/BRL	5/31/2023	5.08	4.85	5.2	10	13-Jun-23	4.85
Long KZT vs basket of USD and EUR via 3m NDF	5/25/2023	494.1	470	512	10	1-Jun-23	470
Sell EUR/BRL	23/Feb/23	5.43	5.20	5.80	10	18-May-23	5.34
Short PLN/HUF	4/25/2023	82	77.9	84.5	10	15-May-23	81.95
Pay PHP NDF Points	3/8/2023	12	25	5	10	9-May-23	16
Long EUR/CZK	27-May-22	24.7	25.9	22.5	10	4-May-23	23.5
Sell CNH/MXN	26-Oct-22	2.72	2.50	2.90	10	24-Apr-23	2.60
SELL USDZMW VIA 9M NDF	3/6/23	22.05	20	24	10	11-Apr-23	18.53
Sell ILS/CZK	3/14/2023	6.12	5.6	6.5	10	11-Apr-23	5.9
Short PLN/HUF	3/17/2023	84	79.8	86.5	10	29-Mar-23	81.3
Long USDTWD 12m NDF	11/18/2022	31.17	-	29.45	10	27-Mar-23	29.37
Short USDIDR	2/16/2023	15110	14700	15400	10	8-Mar-23	15400
short ILSZAR	2/2/2023	81.65	4.74	5.14	10	13-Feb-23	4.98
Long USDILS	19-Oct-22	3.54	3.72	3.2	10	13-Feb-23	3.542
Short CZK/HUF	1/18/2023	16.53	15.7	17.05	10	13-Feb-23	16.25
Long KZT vs an equal basket of USD and EUR (3m NDF)	1/16/2023	494.9	470.2	509.7	10	15-Feb-23	468
Short EURGEL (using 3m NDF)	20-Oct-22	2.714	2.94	2.53	10	1-Feb-23	2.53
Buy USDZAR	1/19/2023	17.23	17.86	16.85	10	1-Feb-23	14
Short INR vs long IDR	11/18/2022	191.9	183	188	10	18-Jan-23	184.7
Sell CAD/MXN 3m forward	29-Sep-22	15.1	14	15.5	10	18-Jan-22	14.68
Sell EUR/MXN 3m forward	29-Sep-22	20.06	19.00	21.00	10	18-Jan-22	19.72
Long USDZAR	15-Nov-22	17.3	18	16.9	10	1-Dec-22	17.6
Short EURKZT using 3m NDF	4-Oct-22	493	468.37	507.8	10	31-Oct-22	478
Short PLN/HUF	23-Sep-22	85.3	81	93	10	10-Nov-22	85
Long THB NEER	17-Jun-21	112.27	112.27	111	10	14-Oct-22	100.6
Long THB	19-Nov-21	32.60	30.0	34	10	14-Oct-22	38.08
Long 1x2 3M USD call, PHP put spread	16-Mar-22	52.975	53.5 / 54.75	-	10	14-Oct-22	53.48

Note: Bid/offer spreads accounted for in entry and closing levels. Does not reflect tax, withholdings or any investment advisory fees. Past performance is no guarantee of future results. A complete performance record is available on request. Inception date – July 4, 2016. For additional discussion on baseline views, valuation and risks to closed trades, please see links to the relevant reports. Trade recommendations are highlighted green when the closing value is greater than the entry value and red when the closing value is less than or equal to the entry value. **Source:** BofA Global Research

BofA GLOBAL RESEARCH

# World At A Glance Projections

## Exhibit 28: G10 FX Forecasts

Forecasts as of 14-Dec-2023

	Spot	Mar-24	Jun-24	Sep-24	YE 2024	Mar-25	Jun-25	Sep-25	YE 2025
<b>G3</b>									
EUR-USD	1.10	1.07	1.10	1.15	1.15	1.16	1.17	1.18	1.20
USD-JPY	142	155	150	146	142	140	138.00	136	136
EUR-JPY	156	166	165	168	163	162	161.00	160	163
<b>Dollar Bloc</b>									
USD-CAD	1.34	1.35	1.34	1.32	1.30	1.30	1.30	1.30	1.30
AUD-USD	0.67	0.66	0.68	0.71	0.71	0.71	0.71	0.71	0.71
NZD-USD	0.62	0.60	0.62	0.63	0.63	0.63	0.63	0.63	0.63
<b>Europe</b>									
EUR-GBP	0.86	0.87	0.87	0.88	0.88	0.87	0.87	0.86	0.86
GBP-USD	1.27	1.23	1.26	1.31	1.31	1.33	1.34	1.37	1.40
EUR-CHF	0.95	0.96	0.96	0.97	0.97	0.98	0.98	0.99	1.00
USD-CHF	0.87	0.90	0.87	0.84	0.84	0.84	0.84	0.84	0.83
EUR-SEK	11.24	11.70	11.40	11.20	11.10	11.10	11.00	10.90	10.80
USD-SEK	10.23	10.93	10.36	9.74	9.65	9.57	9.40	9.24	9.00
EUR-NOK	11.54	11.60	11.30	11.00	10.90	10.90	10.80	10.70	10.60
USD-NOK	10.50	10.84	10.27	9.57	9.48	9.40	9.23	9.07	8.83

Source: BofA Global Research, Bloomberg. Note: Forecasts as of 14-Dec-2023.

BofA GLOBAL RESEARCH

## Exhibit 29: EM FX Forecasts

Forecasts as of 14-Dec-2023

	Spot	Mar-24	Jun-24	Sep-24	YE 2024	Mar-25	Jun-25	Sep-25	YE 2025
<b>Latin America</b>									
USD-BRL	4.90	5.00	4.95	4.85	4.75	4.78	4.82	4.90	5.00
USD-MXN	17.31	17.80	17.90	18.30	18.50	18.70	18.90	19.10	19.50
USD-CLP	864	900	880	870	875	880	885	890	900
USD-COP	3,954	4,080	4,150	4,100	3,950	3,950	4,000	4,050	4,100
USD-ARS	801	1,118	1,493	1,856	2,280	2,797	3,336	3,924	4,500
USD-PEN	3.76	3.78	3.77	3.76	3.75	3.76	3.78	3.79	3.80
<b>Emerging Europe</b>									
EUR-PLN	4.32	4.36	4.33	4.29	4.25	4.24	4.23	4.21	4.20
EUR-HUF	380.06	390	395	400	399	387	375.00	362	350
EUR-CZK	24.38	24.80	25.20	24.80	24.30	23.90	23.50	23.00	22.60
USD-RUB		76.00	77.00	78.00	80.00				
USD-ZAR	18.43	18.60	18.50	17.70	17.80	17.90	18.00	18.20	18.40
USD-TRY	28.99	32.00	35.00	37.00	40.00	42.00	44.00	45.00	47.00
EUR-RON	4.97	5.01	5.02	5.04	5.05	5.13	5.21	5.28	5.36
USD-ILS	3.67	3.90	3.80	3.70	3.50	3.50	3.45	3.40	3.40
<b>Asian Bloc</b>									
USD-KRW	1,295.30	1,300	1,260	1,250	1,230	1,210	1,190.00	1,170	1,150
USD-TWD	31.32	32.30	31.70	31.40	31.15	30.85	30.60	30.35	30.15
USD-SGD	1.33	1.34	1.33	1.29	1.26	1.25	1.24	1.23	1.22
USD-THB	35.03	35.50	35.50	35.00	34.00	33.50	33.00	32.50	32.00
USD-HKD	7.81	7.83	7.83	7.80	7.78	7.76	7.75	7.75	7.75
USD-CNY	7.10	7.55	7.40	7.10	6.90	6.90	6.80	6.80	6.70
USD-IDR	15,497	15,400	15,400	15,300	15,200	15,200	15,100	15,100	15,000
USD-PHP	55.80	56.50	56.00	55.50	55.00	54.50	54.00	53.50	53.00
USD-MYR	4.67	4.70	4.60	4.60	4.50	4.40	4.30	4.20	4.10
USD-INR	83.33	83.00	82.50	82.00	82.00	81.50	81.00	81.00	81.00

Source: BofA Global Research, Bloomberg. Note: Forecasts as of 14-Dec-2023.

BofA GLOBAL RESEARCH



## Options Risk Statement

Options and other related derivatives instruments are considered unsuitable for many investors. Options strategy is by definition governed by a finite duration. The most severe risks associated with general options trading are total loss of capital invested and delivery/assignment risk, all which can occur in a short period.

## Analyst Certification

I, Adarsh Sinha, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

# Disclosures

## Important Disclosures

Due to the nature of the market for derivative securities, the issuers or securities recommended or discussed in this report are not continuously followed. Accordingly, investors must regard this report as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or securities.

Due to the nature of strategic analysis, the issuers or securities recommended or discussed in this report are not continuously followed. Accordingly, investors must regard this report as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or securities.

Due to the nature of quantitative analysis, the issuers or securities recommended or discussed in this report are not continuously followed. Accordingly, investors must regard this report as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or securities.

Due to the nature of technical analysis, the issuers or securities recommended or discussed in this report are not continuously followed. Accordingly, investors must regard this report as providing stand-alone analysis and should not expect continuing analysis or additional reports relating to such issuers and/or securities.

BoFA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.

BoFA Securities fixed income analysts regularly interact with sales and trading desk personnel in connection with their research, including to ascertain pricing and liquidity in the fixed income markets.

## Other Important Disclosures

Prices are indicative and for information purposes only. Except as otherwise stated in the report, for any recommendation in relation to an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report and in relation to a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including BoFA Securities trading desks.

The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

This report may refer to fixed income securities or other financial instruments that may not be offered or sold in one or more states or jurisdictions, or to certain categories of investors, including retail investors. Readers of this report are advised that any discussion, recommendation or other mention of such instruments is not a solicitation or offer to transact in such instruments. Investors should contact their BoFA Securities representative or Merrill Global Wealth Management financial advisor for information relating to such instruments.

Rule 144A securities may be offered or sold only to persons in the U.S. who are Qualified Institutional Buyers within the meaning of Rule 144A under the Securities Act of 1933, as amended. SECURITIES OR OTHER FINANCIAL INSTRUMENTS DISCUSSED HEREIN MAY BE RATED BELOW INVESTMENT GRADE AND SHOULD THEREFORE ONLY BE CONSIDERED FOR INCLUSION IN ACCOUNTS QUALIFIED FOR SPECULATIVE INVESTMENT.

Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.

The securities or other financial instruments discussed in this report may be traded over-the-counter. Retail sales and/or distribution of this report may be made only in states where these instruments are exempt from registration or have been qualified for sale.

Officers of BoFA or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.

This report, and the securities or other financial instruments discussed herein, may not be eligible for distribution or sale in all countries or to certain categories of investors, including retail investors.

Refer to [BoFA Global Research policies relating to conflicts of interest](#).

**"BoFA Securities" includes BoFA Securities, Inc. ("BoFA") and its affiliates. Investors should contact their BoFA Securities representative or Merrill Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BoFA Securities" is a global brand for BoFA Global Research.**

### Information relating to Non-US affiliates of BoFA Securities and Distribution of Affiliate Research Reports:

BoFA and/or Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BoFASE (France): BoFA Securities Europe SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BoFA Securities Europe SA ("BoFASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BoFASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BoFASE's share capital can be found at [www.bofam.com/BoFASEdisclaimer](http://www.bofam.com/BoFASEdisclaimer); BoFA Europe (Milan): Bank of America Europe Designated Activity Company, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); BoFA Europe (Frankfurt): Bank of America Europe Designated Activity Company, Frankfurt Branch regulated by BaFin, the ECB and the CBI; BoFA Europe (Madrid): Bank of America Europe Designated Activity Company, Sucursal en España, regulated by the Bank of Spain, the ECB and the CBI; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSF); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Canadian Investment Regulatory Organization; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BoFA Japan: BoFA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BoFA India: BoFA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.

This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BoFASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BoFA Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSF; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BoFA India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is



authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. BofA Europe (Frankfurt) distributes this information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securities entities, including BofA Europe and BofASE (France), may outsource/delegate the marketing and/or provision of certain research services or aspects of research services to other branches or members of the BofA Securities group. You may be contacted by a different BofA Securities entity acting for and on behalf of your service provider where permitted by applicable law. This does not change your service provider. Please refer to the [Electronic Communications Disclaimers](#) for further information.

This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.

#### General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities. This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Securities, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. Digital assets are extremely speculative, volatile and are largely unregulated. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

Futures and options are not appropriate for all investors. Such financial instruments may expire worthless. Before investing in futures or options, clients must receive the appropriate risk disclosure documents. Investment strategies explained in this report may not be appropriate at all times. Costs of such strategies do not include commission or margin expenses.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

This report may contain a trading idea or recommendation which highlights a specific identified near-term catalyst or event impacting a security, issuer, industry sector or the market generally that presents a transaction opportunity, but does not have any impact on the analyst's particular "Overweight" or "Underweight" rating (which is based on a three month trade horizon). Trading ideas and recommendations may differ directionally from the analyst's rating on a security or issuer because they reflect the impact of a near-term catalyst or event.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned in this report. Investors in such securities and instruments effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information.

In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

#### Copyright and General Information:

Copyright 2023 Bank of America Corporation. All rights reserved. iQDatabase® is a registered service mark of Bank of America Corporation. This information is prepared for the use of BofA Securities clients and may not be redistributed, retransmitted or disclosed, in whole or in part, or in any form or manner, without the express written consent of BofA Securities. BofA Global Research information is distributed simultaneously to internal and client websites and other portals by BofA Securities and is not publicly-available material. Any unauthorized use or disclosure is prohibited. Receipt and review of this information constitutes your agreement not to redistribute, retransmit, or disclose to others the contents, opinions, conclusion, or information contained herein (including any investment recommendations, estimates or price targets) without first obtaining express permission from an authorized officer of BofA Securities.

Materials prepared by BofA Global Research personnel are based on public information. Facts and views presented in this material have not been reviewed by, and may not reflect information known to, professionals in other business areas of BofA Securities, including investment banking personnel. BofA Securities has established information barriers between BofA Global Research and certain business groups. As a result, BofA Securities does not disclose certain client relationships with, or compensation received from, such issuers. To the extent this material discusses any legal proceeding or issues, it has not been prepared as nor is it intended to express any legal conclusion, opinion or advice. Investors should consult their own legal advisers as to issues of law relating to the subject matter of this material. BofA Global Research personnel's knowledge of legal proceedings in which any BofA Securities entity and/or its directors, officers and employees may be plaintiffs, defendants, co-defendants or co-plaintiffs with or involving issuers mentioned in this material is based on public information. Facts and views presented in this material that relate to any such proceedings have not been reviewed by, discussed with, and may not reflect information known to, professionals in other business areas of BofA Securities in connection with the legal proceedings or matters relevant to such proceedings.

This information has been prepared independently of any issuer of securities mentioned herein and not in connection with any proposed offering of securities or as agent of any issuer of any securities. None of BofAS or any of its affiliates or their research analysts has any authority whatsoever to make any representation or warranty on behalf of the issuer(s). BofA Global Research policy prohibits research personnel from disclosing a recommendation, investment rating, or investment thesis for review by an issuer prior to the publication of a research report containing such rating, recommendation or investment thesis.

Any information relating to the tax status of financial instruments discussed herein is not intended to provide tax advice or to be used by anyone to provide tax advice. Investors are urged to seek tax advice based on their particular circumstances from an independent tax professional.

The information herein (other than disclosure information relating to BofA Securities and its affiliates) was obtained from various sources and we do not guarantee its accuracy. This information may contain links to third-party websites. BofA Securities is not responsible for the content of any third-party website or any linked content contained in a third-party website. Content contained on such third-party websites is not part of this information and is not incorporated by reference. The inclusion of a link does not imply any endorsement by or any affiliation with BofA Securities. Access to any third-party website is at your own risk, and you should always review the terms and privacy policies at third-party websites before submitting any personal information to them. BofA Securities is not responsible for such terms and privacy policies and expressly disclaims any liability for them.

All opinions, projections and estimates constitute the judgment of the author as of the date of publication and are subject to change without notice. Prices also are subject to change without

notice. BofA Securities is under no obligation to update this information and BofA Securities ability to publish information on the subject issuer(s) in the future is subject to applicable quiet periods. You should therefore assume that BofA Securities will not update any fact, circumstance or opinion contained herein. Certain outstanding reports or investment opinions relating to securities, financial instruments and/or issuers may no longer be current. Always refer to the most recent research report relating to an issuer prior to making an investment decision.

In some cases, an issuer may be classified as Restricted or may be Under Review or Extended Review. In each case, investors should consider any investment opinion relating to such issuer (or its security and/or financial instruments) to be suspended or withdrawn and should not rely on the analyses and investment opinion(s) pertaining to such issuer (or its securities and/or financial instruments) nor should the analyses or opinion(s) be considered a solicitation of any kind. Sales persons and financial advisors affiliated with BofAS or any of its affiliates may not solicit purchases of securities or financial instruments that are Restricted or Under Review and may only solicit securities under Extended Review in accordance with firm policies. Neither BofA Securities nor any officer or employee of BofA Securities accepts any liability whatsoever for any direct, indirect or consequential damages or losses arising from any use of this information.

# Research Analysts

---

## Europe

**Athanasios Vamvakidis**

FX Strategist  
MLI (UK)  
+44 20 7995 0279  
[athanasios.vamvakidis@bofa.com](mailto:athanasios.vamvakidis@bofa.com)

**Kamal Sharma**

FX Strategist  
MLI (UK)  
+44 20 7996 4855  
[ksharma32@bofa.com](mailto:ksharma32@bofa.com)

**Michalis Rousakis**

FX Strategist  
MLI (UK)  
+44 20 7995 0336  
[michalis.rousakis@bofa.com](mailto:michalis.rousakis@bofa.com)

## US

**John Shin**

FX Strategist  
BofAS  
+1 646 855 2582  
[joong.s.shin@bofa.com](mailto:joong.s.shin@bofa.com)

**Paul Ciana, CMT**

Technical Strategist  
BofAS  
+1 646 743 7014  
[paul.ciana@bofa.com](mailto:paul.ciana@bofa.com)

**Vadim Iaralov**

FX Strategist  
BofAS  
+1 646 743 7018  
[vadim.iaralov@bofa.com](mailto:vadim.iaralov@bofa.com)

**Howard Du, CFA**

G10 FX Strategist  
BofAS  
+1 646 743 7017  
[yuhao.du@bofa.com](mailto:yuhao.du@bofa.com)

## Pac Rim

**Adarsh Sinha**

FX Strategist  
Merrill Lynch (Hong Kong)  
+852 3508 7155  
[adarsh.sinha@bofa.com](mailto:adarsh.sinha@bofa.com)

**Shusuke Yamada, CFA**

FX/Rates Strategist  
BofAS Japan  
+81 3 6225 8515  
[shusuke.yamada@bofa.com](mailto:shusuke.yamada@bofa.com)

## Global Emerging Markets

**Claudio Piron**

Emerging Asia FI/FX Strategist  
Merrill Lynch (Singapore)  
+65 6678 0401  
[claudio.piron@bofa.com](mailto:claudio.piron@bofa.com)

Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in relevant markets and the financial resources to absorb any losses arising from applying these ideas or strategies.