

Global FX Weekly

Central bank hopeful thinking

The View

Central banks: we are done. Data: not yet. FX: when and how are we landing? Higher US real rates and oil prices spell trouble for Asia FX. Focus on TWD, SGD and THB shorts relative to MXN and BRL longs.

USD and risk-off – under the hood

USD beta has moderated, rates explain larger proportion of USD strength, skew has not meaningfully widened during equity sell-off. High yields constrain USD gains on risk-off, especially in case of US specific shock. Watch services vs. manufacturing.

FX flows & positioning in Q3

FX positions ended Q3 where they started, but with substantial variation within. Investors are still neutral USD, long rest G10, short EM. In G10, long NOK, EUR, short CHF, NZD. In EM, short in all regions, particularly Asia, increased exposure in EMEA.

Regional FX flows: EUR and CHF selling

All regions sold EUR, CHF in Q1-Q3. USD supported mainly by Asia, but AMRS skeptical. JPY sold by Asia. GBP bought back by EMEA. Recent USD rally driven by EMEA and Asia.

Asia FX flows

The pace of aggregate 2023 inflows into EM Asia (ex-China) reduced in September and fell below the highs observed during 2019.

Long EUR/ZAR

Strategy: long EURZAR - rising oil prices, higher for longer rates narrative and fiscal risks weaken EM FX including ZAR.

Latam vs. EMEA

We find Brazil and Czechia have the most room to cut, Poland the least. Israel, Mexico, and S Africa, are far from cutting.

PLN basis

We receive Polish 6m6m basis (entry: 118, target: 53, stop: 160). Election outcome should not impact the trade.

Vol Insights

FX vols followed equity vol lower this week. We remain concerned with another near-term vol spike on geopolitical risk and resurgence of US Treasury yields.

Technicals

Golden cross on Sept 21 says higher DXY in 20-80 trading days 65-79% of the time (34 signals). So DXY >105.36 Oct 20-Dec 14 and strongest Nov 17-24.

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 23 to 25. Analyst Certification on page 22. 12611019

Timestamp: 13 October 2023 12:00AM EDT

13 October 2023

FX Research
Global

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

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

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

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

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

G10	We continue to look for near-term USD upside despite finding it overvalued, with our year-end EUR/USD forecast remaining at 1.05. We see potential for further USD upside as "soft landing" coincides with US growth outperformance, while potential "hard landing" could also support USD should volatility re-emerge. Meaningful coordinated China stimulus is a downside USD risk. We expect a weaker and for longer JPY on carry and with Japan's net outward FDI refusing to shrink—we now expect USD/JPY to peak at 155 in 1Q '24. We remain of the view the BoE won't help GBP much near term, but a "high for longer" BoE could help GBP vs EUR later—we see EURGBP at 0.85 through our forecast horizon. CHF may have overshot but will likely stay below parity this year, supported by the hawkish SNB policies. On the "high beta" G10 FX, we continue to favor CAD, AUD and NOK over NZD and SEK.
EM	Q3 was a difficult month for EM with only COP rallying in spot terms. 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. The outcome will depend on China data and fiscal stimulus showing improvement and this assumption underpins our year end forecast for USD/CNY 7.20. We enter short SGD/KRW as a low beta proxy for improving prospects in Korea relative to NE Asia peers and remain short TWD due to a wider yield differential and weaker tech cycle. EUR weakness is weighing on EMEA FX, which has seen the biggest falls over in 3Q and we recently entered into a long USD/HUF and long EUR/ZAR to hedge against USD strength. In LatAm we remain bullish BRL and look for better levels to add long positions.

Source: BofA Global Research

BofA GLOBAL RESEARCH

Our key forecasts

Exhibit 2: Key BofA G10 and EM FX forecasts

Forecasts as of 12-Oct-2023

(EOP)	YE 2020	YE 2021	YE 2022	1Q23	2Q23	3Q23	YE 2023	YE 2024
EUR/USD	1.22	1.14	1.07	1.08	1.09	1.06	1.05	1.15
USD/JPY	103	115	131	133	144	149	153	142
GBP/USD	1.37	1.35	1.21	1.23	1.27	1.22	1.24	1.35
AUD/USD	0.77	0.73	0.68	0.67	0.67	0.64	0.64	0.71
USD/CNY	6.53	6.36	6.90	6.87	7.25	7.30	7.20	6.70
USD/BRL	5.20	5.58	5.29	5.06	4.79	5.03	4.90	5.10
USD/INR	73.07	74.34	82.74	82.18	82.04	83.04	82.00	80.00
USD/ZAR	14.69	15.94	17.04	17.80	18.85	18.92	18.50	17.50

Source: BofA Global Research. Forecasts as of 12-Oct-2023.

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	
EM	
<u>long USD/HUF</u>	We go long USDHUF at 358.4 (target: 375, stop: 347, carry: circa -0.6% per month). The risk is a less dovish NBH and a weaker broader USD.
<u>Long USD/TWD</u>	We revised our 3Q23 USDTWD forecast to 31.9 and we recommend buying USDTWD 6m 25-delta call option
<u>Long EUR/ZAR</u>	We go long EURZAR at 20.15 (target: 21.15, stop: 19.6, carry: c. -0.4% pm). Global backdrop bad for EM => ZAR to weaken

For complete list of open trades, and those closed over the past 12 months, please see pages 17-20.

Calls at a glance

Michalis Rousakis

MLI (UK)

michalis.rousakis@bofa.com

Thematic calls

- **USD path to appreciation widens:** "Soft landing" coincides with US growth outperformance, while a "hard landing" scenario could provide cover for USD longs.
- **USD & US rates:** We have mostly been in a bad US rates rise regime (higher real rates vs. breakevens and higher term premium), linked with strong USD vs. most FX.
- **China stimulus:** We believe the period of more coordinated easing has just begun and policymakers will respond more actively by October.
- **Oil:** We raise our 4Q23 Brent forecast to \$96/bbl, keep our \$90 2024 call.
- **JPY:** BoJ and MoF likely to try easing JGB weakness and USD/JPY strength by bond buying operations and FX intervention. We remain bearish on JGB and JPY vs USD.
- **Can US growth exceptionalism persist?** History says persistence is rather rare.
- **Mortgage structure matters for monetary policy:** FX implications go against high beta currencies, because of faster policy transmission through housing.
- **Flows & positioning:** FX positions ended Q3 broadly where they started, but with substantial variation within the quarter.

Central Bank calls

Exhibit 4: G10 Central Bank calls

No G10 central bank meetings next week

Country	Next Meeting	BofA	Consensus	Prior	Narrative
US	1-Nov	5.63%	5.38%	5.38%	The CPI and jobs report keep our call for a Nov hike in play. But Fed guidance has tilted toward a pause. We look for the first rate cut in June 2024, with QT to end at the same time but risks for a longer runoff period. Importantly, we look for quarterly 25bp rate cuts, for a total of 75bp of rate cuts in 2024 and 100bp of cuts in 2025.
Eurozone	26-Oct	4.00%	-	4.00%	We think the ECB is likely done and expect no rate cuts until June-24.
Japan	31-Oct	-0.10%	-0.10%	-0.10%	We remain comfortable with our recently-revised call that the BoJ will exit NIRP and remove YCC between Dec '23 – Apr '24, with our base case being Jan '24. The Sep meeting communications make a Dec move less likely.
UK	2-Nov	5.25%	-	5.25%	We expect the BoE to remain on hold and no rate cuts before 2025. We think risks skew to further hikes.
Canada	25-Oct	5.00%	5.00%	5.00%	We maintain our call the BoC will remain on hold in October, but upside risks increased after the Sep labor report.
Australia	7-Nov	4.10%	-	4.10%	With near-term upside risk to CPI on the back of higher energy prices and downside risks to growth (particularly in the consumer sector), we think the RBA will remain on hold for the remainder of the year.
New Zealand	29-Nov	5.50%	-	5.50%	The RBNZ has kept the official cash rate steady at 5.5% as widely expected. The balance of risks is mixed, with increased near-term upside risk for inflation due to higher oil prices versus slowing global and domestic economic conditions weighing on the decision to pause. We expect another pause in November.
Switzerland	14-Dec	1.75%	-	1.75%	The next rate move by the SNB will be a cut, in our view, but not before Sep-24, i.e. after the ECB, we think. In the meantime, CHF will remain the instrument of choice, with a bias towards gentle tightening.
Norway	2-Nov	4.25%	-	4.25%	We look for a 4.50% terminal, expecting a final Norges hike in Dec. We expect two rate cuts in 2024.
Sweden	23-Nov	4.00%	-	4.00%	We expect the Riksbank to stay on hold amid a weakening growth outlook although SEK poses some upside risks. We look for 3 rate cuts in 2024. Overall, we somewhat downside risks to our Riksbank forecast profile.

Source: BofA Global Research, Bloomberg consensus forecasts as of 12-Oct-2023.



The view

Athanasios Vamvakidis

MLI (UK)

athanasios.vamvakidis@bofa.com

Claudio Piron

Merrill Lynch (Singapore)

claudio.piron@bofa.com

Are they done?

Fed speakers consistently signaled this week that the Fed was done hiking. This was despite the strong labor market data last Friday, but before the somewhat strong inflation data yesterday. Some Fed officials argued that the recent rates sell-off had tightened financial conditions sufficiently. Their comments led to a consolidation in rates, with yields falling, loosening financial conditions in turn. Our economists keep their call for one last hike in November, but it is a very close call. The market is pricing only 3bp for November and 10bp for December.

So, the Fed is done or almost done, but we don't believe its job is yet done. With the job market still stretched and inflation sticky, we would not go as far as calling the recent Fed messages as wishful thinking, but they look to us as hopeful thinking. Month-on-month core inflation rate is 0.3%, lower than the average of 0.4% since inflation surged in mid-2020, but higher than slightly below 0.2% that the US needs to reach the 2% inflation target in a year from now. It is moving in the right direction, but very slowly. And we have been concerned that inflation will become stickier on the way down.

As our rates strategists have recently argued, the rates market is done trading the hikes and is now trading the cuts. Although we have consistently argued this year that the market was pricing cuts too early, we argued in our report last week that market pricing of 2-3 cuts in the second half of next year was a reasonable average of several possible scenarios. The problem is that none of the possible scenarios dominates as the most likely. The landing scenario remains the big known unknown.

Similar considerations apply to most other G10 central banks. Market pricing suggests they are all done hiking and will start cutting at some point next summer. Although growth is weak in most places compared with the US, labor markets remain stretched and surprisingly resilient, and core inflation sticky almost everywhere. Central banks hope that what they have already done will be enough to reach their inflation target within a reasonable timeframe, but the risk is that it could take longer and at least some economic pain. Any shock in the meantime—such as high energy prices because of geopolitics—could considerably complicate the economic outlook and the job of the central banks.

For as long as we remain in a non-landing path, we would expect the USD to remain strong; what happens during and after landing depends on the landing. Focusing on EURUSD, we see the move from 11.12 in July to 1.05 (our forecast) as the repricing of the Fed cuts from this year to the second half of next year. The USD can get even stronger if the non-landing scenario continues and the Fed does not cut at all next year—if the market prices out next year's cuts. The USD can get a lot stronger in a stagflation scenario, or if US inflation reaccelerates and the Fed start hiking again. The USD can initially get stronger because of risk-off in a hard landing scenario, but we would expect it to soon weaken if inflation drops, as the Fed would cut earlier/faster—otherwise, we are in the stagflation scenario, in which the USD gets even stronger.

EM FX View – The certainty of uncertainty: High real rates and oil prices

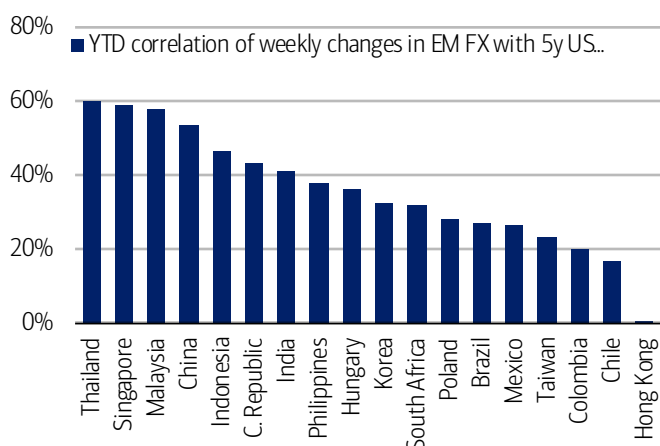
The specter of higher for longer US interest rates and escalating conflict in the Middle East is a troubling for EM FX and assets. Indeed, geopolitical tensions continue to put

upside risks to our oil forecasts of USD95/bbl average in 4Q this year, which in turn could result in higher-than-expected inflation.

Exhibit 5 shows the correlation of weekly changes in EM currencies with US 5yr US real rates, year-to-date. By this measure, THB, SGD, MYR and CNY appear the most correlated to FX depreciation amid higher 5yr US real rates. In contrast, Latam FX shows a lower correlation due in part to a greater reliance on the commodity cycle and perhaps benefitting more from US final demand. Overall, the Asia FX block appears most exposed from the prospect of structurally higher US rates. We are hedged short TWD, but the chart suggests short positions in THB and SGD may be more effective and paired with long positions in BRL and MXN.

Exhibit 5: Higher US 5yr rates uniformly correlates with weaker EM FX

Small open Asian economies appear most correlated with the currencies weakening with higher 5yr US rates

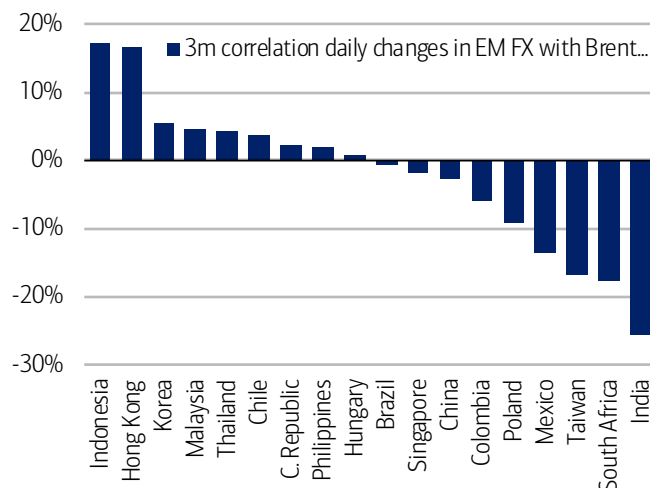


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 6: Oil and EM FX correlations low and unreliable

However, this shows that oil prices risks may not be in the price



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

The common assumption that higher oil prices should correlate with EM FX weakness, especially for small open Asian economy importers, does not show up in the last 3-months of correlation data shown in Exhibit 6. Surprisingly, the INR shows the strongest bias to correlate with appreciation. Part of this INR resilience can be explained by India's more robust current account deficit position at 1.2% of GDP, which is being easily financed, with portfolio inflows driving INR appreciation and the RBI FX management leaning into depreciation pressure.

Nonetheless, Exhibit 6 is a warning that EM FX has not been pricing the recent rise in oil prices and attendant inflation risks with EM FX depreciation. The combination of higher US real rates, being compounded by higher oil prices, is especially concerning for Asia FX and suggests that the divergence between Asia and Latam FX could widen further.

USD and risk-off – under the hood

Adarsh Sinha

Merrill Lynch (Hong Kong)

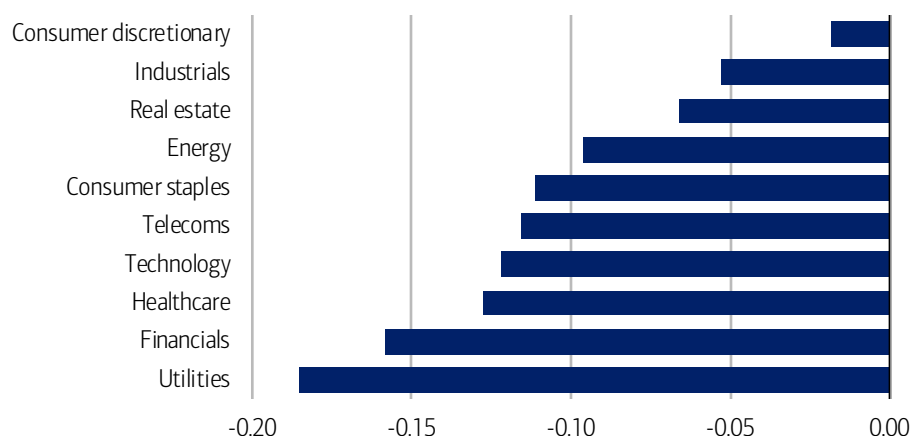
adarsh.sinha@bofa.com

Link to the full report: [Liquid Insight: USD and risk-off – under the hood 10 October 2023](#)

- Lower stocks and strong USD in 2H mask a somewhat weaker relationship. USD's beta to stocks has moderated...
- ... rates explain a larger proportion of USD strength, and USD skew has not meaningfully widened during equity sell-off.
- High yields constrain USD gains on risk-off, especially in case of US specific shock (watch services vs. manufacturing).

Exhibit 7: DXY betas to S&P 500 sectors, 2023 year-to-date

Lower sensitivity of DXY to cyclical stocks



Source: Bloomberg

BofA GLOBAL RESEARCH

USD and risk-off

USD has optically benefited from the sell-off in equities since August. But we show this risk-off dynamic is less evident under the hood. USD's beta to stocks has moderated, especially vs cyclical sectors (see Chart of the Day), rates explain a larger part of USD appreciation than equities and USD skew has not meaningfully widened during the latest risk-off episode. High US yields constrain USD gains during risk-off given less use as a funding currency for carry trades, as well as the pricing of Fed rate cuts when the shock is US-specific. Watch the relative performance of US services vs manufacturing as a proxy for US centric growth deterioration and peak USD – we do not expect this until 2024.

FX flows & positioning in Q3

Athanasios Vamvakidis

MLI (UK)

athanasios.vamvakidis@bofa.com

Michalis Rousakis

MLI (UK)

michalis.rousakis@bofa.com

David Hauner, CFA >>

MLI (UK)

david.hauner@bofa.com

Claudio Piron

Merrill Lynch (Singapore)

claudio.piron@bofa.com

Antonio Gabriel

BofAS

antonio.gabriel@bofa.com

Christian Gonzalez Rojas

BofAS

christian.gonzalezrojas@bofa.com

Mikhail Liluashvili

MLI (UK)

mikhail.liluashvili@bofa.com

Link to the full report: [FX Viewpoint: FX flows & positioning in Q3 12 October 2023](#)

Market overview: Where it started, following price action

Despite the USD rally, investors ended Q3 positioned still neutral on the USD, long the rest of G10 FX, and short EM FX. They increased slightly positions in G10 at the expense of EM. Net flows for Q3 were light, but we saw substantial variation in monthly data.

G10: Long NOK, EUR, short CHF, NZD

G10 positions were not stretched. Investors bought SEK (reducing shorts), NOK (increasing longs), and NZD (reducing shorts) and sold CHF (increasing shorts) and GBP (reducing longs).

Officials & Corporates: CHF, NZD, vs. JPY, Scandies, CAD

Corporate and official flows were strong and not always consistent with price action.

Corporates bought CHF, AUD, EUR, and USD and sold JPY, the Scandies, and CAD.

Officials bought NZD, CHF, and SEK and sold CAD and JPY.

EM regions: Still short

EM FX positioning remained short in all regions, particularly in Asia. Investors increased their exposure in EMEA, particularly against Asia but also, to a much lesser extent, LatAm. Monthly EM FX flows within Q3 show variation.

Asia: Still the shortest position

EM FX positioning continues to be the shortest in Asia, more so in Q3 but still less than at end-2022. Although most of these shorts are concentrated in Real Money, the increase in Q3 was for Hedge Funds, concentrated in September.

EEMEA: Investors turned positive FX in Q3

Investors turned more positive EEMEA FX in Q3 driven mainly by ZAR, as loadshedding moved to lower stages, and TRY, as monetary policy turned more orthodox.

LatAm: Less optimism amid rate cuts and risk-off

The selloff in US rates, the stronger USD, risk-off, and policy easing have weighed on the LatAm carry trades in Q3. Our flows continue to show that investors, led by Hedge Funds, remain short LatAm FX but less so than in other EM.



Regional FX flows: EUR and CHF selling

Michalis Rousakis

MLI (UK)

michalis.rousakis@bofa.com

Athanasios Vamvakidis

MLI (UK)

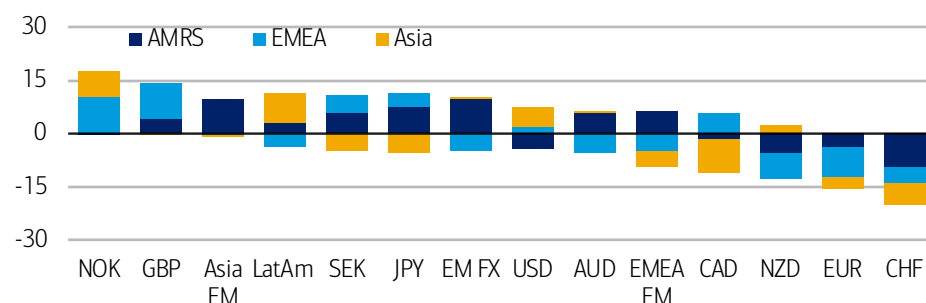
athanasios.vamvakidis@bofa.com

Link to the full report: [Liquid Insight: Regional FX flows: EUR and CHF selling 12 October 2023](#)

- In 1Q-3Q last year the USDEM FX buying was a cross-regional theme. This year lacks such a theme. But all have sold EUR & CHF.
- USD supported mainly by Asia investors but AMRS investors skeptical. JPY sold by Asia investors. GBP bought back by EMEA.
- Recent USD rally driven by EMEA and Asia investors. We show recent regional "biases" characterise both HF and RM.

Exhibit 8: BofA investor flows by investor domicile until 3Q (sums of weekly z-scores)

BofA investors in all regions have sold EUR and CHF this year but this is where similarities stop



Source: BofA Securities. We sum the weekly flows' (2-year) z-scores attaching equal weights to flows by Hedge Funds and Real Money.
BofA GLOBAL RESEARCH

Agreeing is so "last year"

Last year, the USDEM FX buying was a strong, common theme until 3Q across regions. This year lacks a theme as strong as this one (see Chart of the day). BofA investors in all regions have sold EUR and CHF, but that's as far as cross-regional agreements go.

USD and LatAm FX have been supported primarily by Asia-based investors, but AMRS investors have been skeptical. JPY has been favoured by AMRS and EMEA investors but sold by Asia ones. Last year, EMEA investors sold GBP strongly; this year, bought it back.

Regional disagreements are broad-based. For instance, AMRS investors have supported EM FX in all regions this year (less so LatAm), EMEA investors have mostly sold, while Asia investors have bought LatAm and sold EMEA EM.

Consistent with the above, the recent USD rally was driven by EMEA and Asia investors.

Interestingly, this year's key regional "biases" are for both Hedge Funds and Real Money.

Asia ex China Flows – the tide ebbs

Claudio Piron

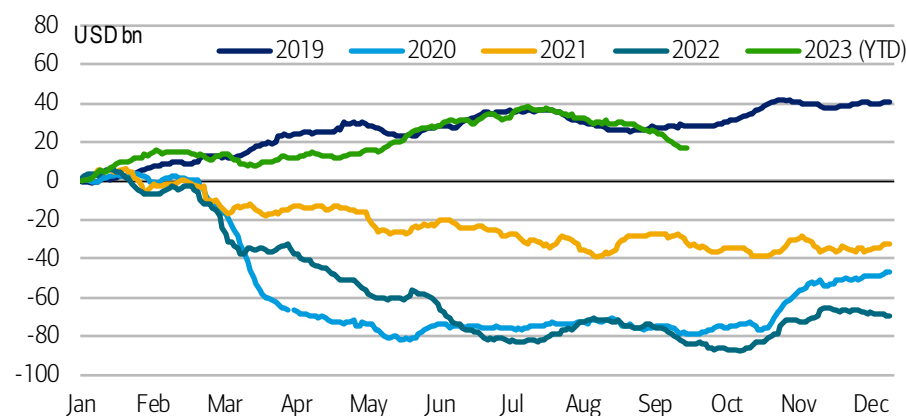
Merrill Lynch (Singapore)

claudio.piron@bofa.com

Full Report: [Asia FI & FX Strategy Watch: Asia ex China Flows – the tide ebbs 10 October 2023](#)

Exhibit 9: Aggregate cumulative flows into EM Asia debt and equity markets

Aggregate cumulative inflows reduced in Sep-23



Source: BofA Global Research, Bloomberg. Note: Each line shows for India, Indonesia, Thailand, Korea the aggregate cumulative debt and equity flows, only equity flows for Taiwan and Philippines and only debt flows for Malaysia. Sep-23 debt flows data not available for Malaysia and Korea.

BofA GLOBAL RESEARCH

- The pace of aggregate 2023 inflows into EM Asia (ex-China) reduced in September and fell below the highs observed during 2019. The daily cumulative inflows were at around USD 16.7bn by the end of Sep-23 (Exhibit 9).
- By the end of Sep-23, although the daily cumulative equity inflows continued to be higher when compared to debt inflows, the gap reduced significantly and was considerably lower than the previous year. China northbound stock connect inflows continued to witness a fall by the end of September and the YTD cumulative inflows moved closer to the levels observed during 2020
- Daily cumulative inflows into EM Asia ex-China equities further reduced by the end of September (USD 13.32bn) and fell below the highs observed during 2019. In September, the overall Asia ex-China inflows reduced due to the equity outflows from all countries except marginal inflows into Malaysia. In Sep-23, Taiwanese equity markets witnessed very large equity outflows worth USD 5.8bn followed by Indian worth USD 2.27bn
- By the end of Sep-23, EM Asia ex-China debt inflows reduced, and cumulative inflows fell below the highs observed during 2019 and 2021. Note this does not include Korea and Malaysia data for September, as the data comes out with a one-month lag. In Sep-23, there were outflows from the Indonesian and Thai bond markets worth USD 1.09bn and USD 0.92n respectively. In Aug-23, outflows from Korean bonds were USD 0.29bn.

South Africa: all change – not done hiking

Tatonga Rusike

MLI (UK)

tatonga.rusike@bofa.com

Mikhail Liluashvili

MLI (UK)

mikhail.liluashvili@bofa.com

Full Report: [Emerging Insight: South Africa: all change – not done hiking 10 October 2023](#)

Higher CPI risks + higher global rates for longer

We are making a new call: we now think SARB is likely to hike at the November MPC before initiating cuts in 2H 24. The near-term inflation outlook has weakened. New risks have emerged: higher oil prices + an outbreak of bird flu, leading to shortages of poultry products and a likely rise in food prices near-term. Oil prices are close to \$90 per barrel, while USDZAR is weakening near-term. A strong USD to year-end means a weaker ZAR as global interest rates are set to stay higher for longer. Near-term fiscal risks are likely concerning for the SARB too. We estimate headline CPI reaching 5.2% in September, 5.7% in October, and averaging 5.6% in 4Q 23. We now expect CPI of 5.5% at year-end 2023 compared to 5% in our previous baseline associated with a dovish outlook for monetary policy.

New baseline: 25bp hike in Nov, cuts in 2H 24

We now expect the SARB to hike 25bp on November 23, taking the policy rate to 8.5%, and thereafter remaining flat until the end of 1H 24. We are further pushing our first cut expectation to July 2024 (previously May 2024), after the Fed's expected June cut. This means cumulative cuts of 50bp in 2024 and 100bp in 2025. We now see inflation returning to 4.5% only in 2025. CPI is likely to average 5.3% in 2024.

Strategy: long EURZAR

A combination of rising oil prices, a higher-for-longer rates narrative and fiscal risks in EM are likely to weaken EM FX further. The rand is closely correlated with the broader dollar and EM FX; hence the stronger dollar should continue to weaken the ZAR, in our view. We opened a long EURZAR trade at 20.15 (current: 20.5, target: 21.15). The risk is significant fiscal stimulus in China that will drive the rand stronger (see [EM Alpha: More pain for EM: long EURZAR 02 October 2023](#)).

EEMEA vs LatAm – who has more room to cut?

Claudio Irigoyen

BofAS

claudio.irigoyen@bofa.com

David Hauner, CFA >>

MLI (UK)

david.hauner@bofa.com

Full Report: [GEMs Viewpoint: EEMEA vs LatAm – who has more room to cut? 11 October 2023](#)

A variety of cycles: Brazil, Czech tight; Poland too loose

This report compares monetary policies in the most liquid local rates markets in EEMEA and LatAm, as central banks (CBs) in these regions have embarked on easing cycles. While most still prefer to keep policy restrictive, we are seeing a tentative shift of focus from inflation to growth. This shift can be more justified for those that manage to rein in inflation and inflation expectations and run negative output gaps, without risks of major FX depreciation, e.g., Brazil, Czechia. The rates outlook in Poland looks most out of sync vs the domestic/global macro backdrop and vs other EM.

FX may be much more important than you think

EM countries will likely need to keep their real rates above QE-era levels as global CBs are set to keep rates higher for longer. Poland is the exception, being the only one with negative real rates next year. One explanation for this stark difference in policy choice could be the divergence in central banks' views on FX and balance of payments (BoP) trends. FX is, indeed, an important factor in Chile, Israel, Mexico, and S Africa, where CBs will likely stay hawkish. S Africa should see another 25bp hike, while Israel and Mexico are likely nowhere near cutting. On the other hand, we expect an increasing focus on growth in Hungary and Poland to eventually lead to a higher tolerance for FX depreciation. Poland enjoys one of the best BoP positions in EEMEA and LatAm, which may provide some cushion for the PLN against portfolio outflows.

Risks seem to be skewed to the upside for rates

While inflation is falling and activity is already weak in many countries in EEMEA and LatAm, allowing most central banks in the regions to start their cutting cycles, upside risks abound. The main upside risks for inflation are higher oil and food prices, the latter related to shocks such as El Nino. The global backdrop is turning less supportive for policy rates in EM as US rates continue to go higher. We also see upside risks to policy rates from domestic factors, such as loose fiscal policies and potentially weaker FX. The one downside risk that could change everything is a significant fall in economic activity.

LDM strategy: cautious on receivers, bearish EM FX

Investors should remain careful and selective on receivers in the current volatile global environment. With a few exceptions, such as Brazil and Czechia, where we like outright receivers, we believe that for now spread or curve trades are the best way to extract some of the value in EM rates that remains locked by the bleak backdrop. We remain bearish EM FX. Rising US rates increase the likelihood of a hard landing, which should benefit the dollar and be negative for EM FX. The current highly volatile environment is also adverse for crowded carry trades, such as HUF, MXN, and COP, which are likely to continue suffering despite the high carry.



Election trade in Poland: FX basis to go lower

Mikhail Liluashvili

MLI (UK)

mikhail.liluashvili@bofa.com

Mai Doan

MLI (UK)

mai.doan@bofa.com

Full Report: [EM Alpha: Election trade in Poland: FX basis to go lower 05 October 2023](#)

Basis should normalise in Poland

We receive 6m6m PLN-EUR basis (entry: 118, target: 53, stop: 160). The risk is significant zloty weakness that forces the authorities to support the PLN. Basis has been drifting lower recently and we think there is room for it to fall to levels that correspond to 50 in 1y PLN-EUR basis.

Support for the zloty is the key reason for high basis

We think that support for the zloty from the authorities has been the main reason why the basis is so high. There have been two types of support. In the first type, the authorities withdraw liquidity from the banking system as households convert their deposits into retail government bonds. The money MinFin receives for placing retail bonds is placed at the BGK, which the development bank uses to buy NBP bills instead of putting it back on the interbank market. This causes a higher basis (Exhibit 10).

Another driver of a high basis is the exchange of Eurobond proceeds and EU funds on the FX market. Since EUR and USD are sold and PLN is bought, this drains zloty liquidity and leads to a higher basis. The NBP does not provide enough liquidity to banks to compensate. This was effectively unsterilised interventions.

Basis should fall irrespective of who wins the election

The authorities do not want a weaker zloty now. That is why the NBP cut the policy rate by only 25bps, less than market pricing. Moreover, basis is drifting lower, suggesting that the authorities prefer to use credible monetary policy to support the currency now.

If PiS wins the election, the NBP should aim to show profits, which requires a weaker zloty. Higher EURPLN and USDPLN would allow it to show profits from revaluation of reserves. The easiest way to weaken the zloty would be to put liquidity back into the banking system, which should drive the basis and FX-implied rates lower.

If KO wins, the market is likely to turn positive on the PLN due to repricing of Poland's risk lower. As a result, the support for the zloty wouldn't be needed and basis should fall.

Swiss mortgages to stop driving the basis higher

When Polish banks cancel or convert CHF mortgages, they pay the cross-currency basis, driving it higher. The stock of Swiss mortgages has declined substantially, and the banks have made significant provisions for CHF mortgage losses. As a result, upward pressure on the basis from Swiss mortgages should be small going forward (Exhibit 11). For more in-depth discussion of the PLN-EUR basis, please see [Emerging Insight: Poland: Lower FX basis after elections: stay long EURPLN 06 September 2023](#)

Exhibit 10: Retail bond sales (and reduction in deposits) have been driving basis higher

This policy is likely to change as PiS wants a weaker PLN after elections; PLN should appreciate if KO wins

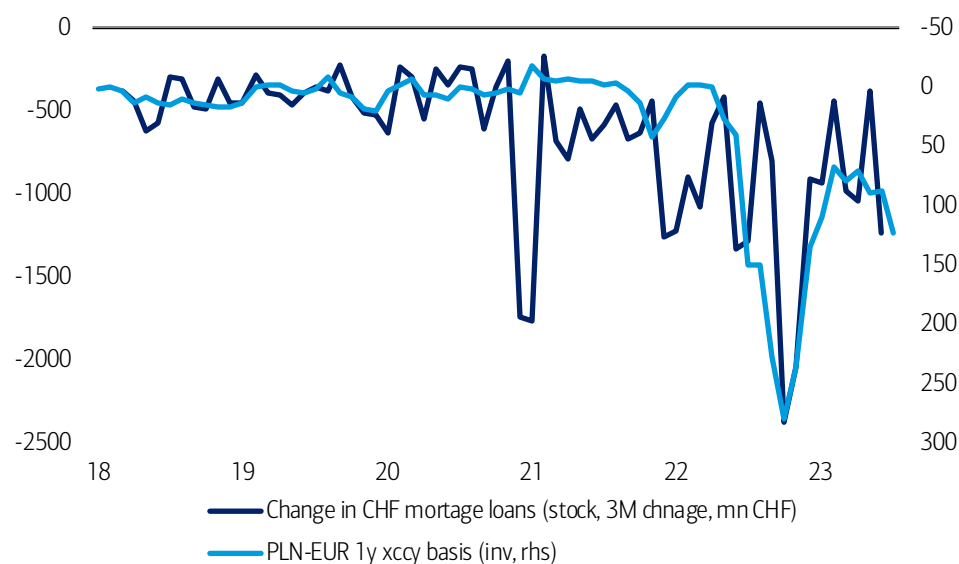


Source: Bloomberg, MinFin, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 11: Swiss mortgage loan unwinding also contributed to a higher basis

But liquidity withdrawal from the banking system was still the main driver, in our view



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Vol Insights

Vadim Iaralov

BofAS

vadim.iaralov@bofa.com

Howard Du, CFA

BofAS

yuhao.du@bofa.com

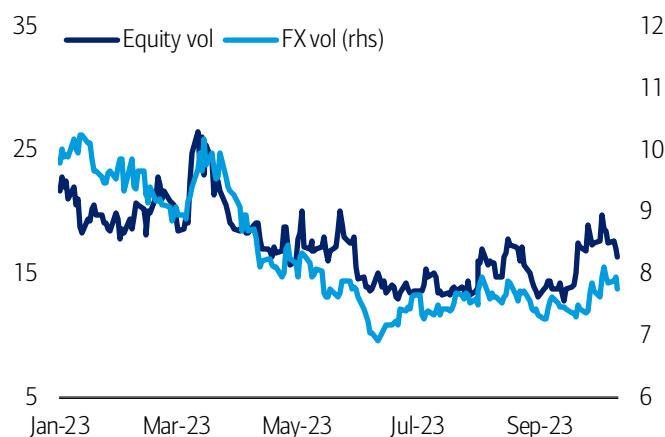
- FX vol followed equity vol lower this week; JPY-crosses led decline in implieds.
- We are concerned with another near-term vol spike as geopolitical risk has risen.

Falling VIX dragged FX vol lower despite increased geopolitical risk

Over the past week, the VIX index declined from 20 to a 16-handle. The equity market staged a brief risk-on rally with bulls defending the 200d SMA support level for the S&P 500 index. At the same time, a geopolitical risk driven flight-to-quality move caused the US Treasury yields to fall, somewhat easing the global financial conditions that have been tightening since mid-September. FX vols followed the move lower in equity vol (Exhibit 12). Across major FX pairs, 3m implied vols declined the most for JPY-crosses (Exhibit 13). FX implied vols fell the least for USD/EM pairs, which are relatively more vulnerable than G10 to increased geopolitical risk.

Exhibit 12: FX vol has followed equity vol lower over the past week

VIX (equity vol) vs CVIX (FX vol) index

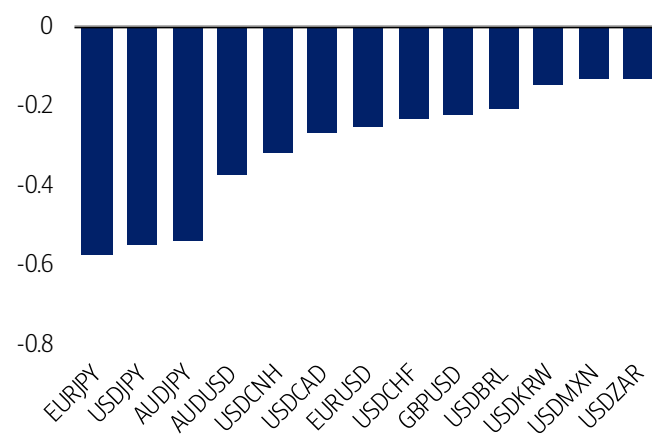


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 13: Implied vols declined the most for JPY-crosses

1-week change of 3m implied vols for major currency pairs



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Remain cautious on another near-term FX vol spike

With the latest drop in FX vols, some investors have re-engaged with long carry positions. However, we remained concerned about another potential vol spike in the FX market in the near term. Global geopolitical risk has increased and could still escalate in the near-term. In addition, while US yields has temporarily pulled back, our rates and technical strategists believe it is possible for 10y Treasury to still test 5% before falling more significantly (see [Liquid Insight: 11 October 2023](#) and [Rates Technical Advantage: 10 October 2023](#)). A combination of resurgence in US Treasury yield and geopolitical shock should have the CVIX index reaching a 9-handle, in our view. The risk to the view may be VIX index returning to the 13-14 handle range and continue to drag FX vol lower in the coming weeks.

Technical Strategy

Paul Ciana, CMT

Technical Strategist

BofAS

paul.ciana@bofa.com

- Golden cross on Sept 21 favors a higher DXY index (USD) in 20-80 trading days 65-79% of the time (34 signals).
- This suggests DXY is above 105.36 from Oct 20 - Dec 14 with the strongest of up ratios in the Nov 17 – Dec 14 window.
- After US CPI, “old resistance now support” is holding the DXY up near the level of the golden cross. We expect another USD rally in Q4.

DXY: Bottom pattern targets 108s, golden cross bullish

The US dollar index (DXY) measured move target estimates upside to 108s can be seen in 4Q23-1Q24. The golden cross on September 21 supports the bullish measure and Q4 upside. The breakout through the YTD highs and then retest of “old resistance now support” is currently holding the DXY after US CPI data triggered a timely rally.

Exhibit 14: US dollar index (DXY) - Daily Exhibit

Support: 105.36, 104.67, 104.38, 103.50 | Resistance: 107.35, 108.10, 108.97, 110.



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH



DXY golden cross history is bullish 20-80 days later

When the 50d SMA crosses above the 200d SMA, a golden cross signal has occurred. The DXY has seen 34 golden cross signals since 1967 (Exhibit 15) and 16 since the euro was inception in 1999 (Exhibit 16). History since 1967 shows the DXY was higher 65-79% of the time 20-80 days later. This suggests DXY is above 105.36 from Oct 20 - Dec14. Since 1999, the DXY was higher 63-88% of the time 20-80 days later with the strongest up ratio window in the 40-60 trading day outlook, or Nov 17 to Dec 14 outlook. Since 1999, the DXY was higher 88% of the time 40-45 trading days later, or Nov 17-24 (US Thanksgiving week).

Exhibit 15: Price trend after the 50dSMA crossed above the 200d SMA

When the 50d SMA crossed above the 200dSMA, in the past DXY was up 79% of the time 40 days later by 1.4% on average

Ticker: DXY Curncy		Start Year: 1967				# Signals: 34		# < 80 days: 1					
days after	5 days	10 days	15 days	20 days	25 days	30 days	35 days	40 days	45 days	50 days	60 days	70 days	80 days
% Up Ratio	53%	59%	53%	65%	68%	65%	71%	79%	76%	76%	79%	68%	65%
Up	18	20	18	22	23	22	24	27	26	26	27	23	22
Down	16	14	16	12	11	12	10	7	8	8	7	11	12
Average	0.17%	0.09%	0.36%	0.53%	0.90%	1.00%	1.20%	1.39%	1.38%	1.61%	1.16%	1.32%	1.43%
Median	0.41%	0.16%	0.42%	0.43%	0.89%	1.19%	1.44%	1.37%	1.72%	1.58%	1.28%	1.70%	2.10%
Min	-2.26%	-4.60%	-2.47%	-4.23%	-4.26%	-4.94%	-5.15%	-5.16%	-6.94%	-7.88%	-10.17%	-9.89%	-10.72%
Max	2.56%	3.09%	6.21%	5.29%	7.77%	6.90%	7.32%	10.87%	8.26%	10.93%	8.52%	9.50%	10.35%

Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 16: Price trend after the 50dSMA crossed above the 200d SMA

When the 50d SMA crossed above the 200dSMA, in the past DXY was up 88% of the time 40 days later by 2% on average

Ticker: DXY CURRENCY		Start Year: 1999				# Signals: 16		# < 80 days: 1					
days after	5 days	10 days	15 days	20 days	25 days	30 days	35 days	40 days	45 days	50 days	60 days	70 days	80 days
% Up Ratio	50%	63%	44%	69%	69%	63%	75%	88%	88%	81%	81%	69%	69%
Up	8	10	7	11	11	10	12	14	14	13	13	11	11
Down	8	6	9	5	5	6	4	2	2	3	3	5	5
Average	-0.03%	-0.24%	0.04%	0.67%	0.94%	1.10%	1.55%	2.03%	2.17%	2.32%	1.64%	1.87%	1.51%
Median	0.16%	0.24%	-0.05%	0.43%	0.92%	1.26%	1.44%	1.35%	1.64%	1.76%	1.38%	1.24%	1.51%
Min	-2.26%	-4.60%	-2.24%	-1.43%	-1.76%	-1.55%	-1.35%	-2.56%	-1.46%	-2.36%	-4.99%	-6.15%	-9.07%
Max	1.53%	1.52%	2.04%	3.10%	3.66%	4.14%	7.32%	10.87%	8.26%	10.93%	8.52%	9.50%	10.35%

Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Trade Recommendations G10

Michalis Rousakis

MLI (UK)

michalis.rousakis@bofa.com

Exhibit 17: Open trades G10

Current G10 FX trade recommendations. Prices as of 12-Oct-2023.

Trade Description	Open Date	Entry Price	Expiry Date	Current Price	Rationale	Risks
Buy 1v 25-delta AUD/USD risk reversal (call strike 0.7391, put strike 0.6049)	17-Nov-22	Zero cost (spot ref: 0.6693, vol refs: 12.253 and 14.892)	17-Nov-23	0.6348	AUD stands to benefit from broad-based USD sell-off and China reopening in 2023	Prolonged systemic shock to the US equity market in 2023

BofA GLOBAL RESEARCH

Source: BofA Global Research



Exhibit 18: G10 Closed trades

Recently closed trades in G10 FX. Note: Zero-cost options trade recommendations expiring worthless are also marked in green.

Trade Description	Entry date	Entry Level	Target	Stop	Close date	Level closed
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 EURCHF 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
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 ATM 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)
Buy EUR/CHF via 6m ATM 1.05592/1.08 call spread	04/02/22	0.8832% EUR (spot ref: 1.05689, vol refs: 5.166% and 5.036%)			04/08/22	Spot ref: 0.97860
Buy USD/JPY RKO call (strike 136, barrier 141)	07/07/22	0.3603% USD (spot ref 135.91, vol ref 12.2%, expiry)			21/07/22	0.6833% USD (spot ref 138.70, vol ref 10.01%)
Short CHF/JPY via 3m 130/126 put spread	30/03/22	0.90% CHF (spot ref: 131.425)			30/06/22	Spot ref: 142.118
Buy 1y EUR/GBP vol swap	29-Jun-21	Net 0 premium at 6.212% vol (spot ref: 0.85995, atm vol ref: 5.915%)			29/06/22	EURGBP accrued 5.737% vol
Buy NOK/SEK	23/03/22	1.0743	1.13	1.0380	12/05/22	1.0380
Buy AUD/USD	29/04/22	0.7150	0.76	0.6950	10/05/22	0.6950

EM Alpha Trade Recommendations

David Hauner, CFA >>
MLI (UK)

Claudio Piron
Merrill Lynch (Singapore)

Exhibit 19: Open trades

EM Alpha Trade Recommendations

FX	Entry date	Entry level	Current level	Target	Stop	Notional	Rationale/ Time horizon	Risks
Long USDHUF	10/12/23	363.56	366.9	382	351	10	Stronger USD + weak BoP fundamentals in Hungary + still long positioning + focus on growth in Hungary = long USDHUF.	Weaker broader dollar.
Sell MXN/ZAR	9/25/23	1.09	1.058	1.02	1.13	10	Undervaluation and a hawkish SARB keeps us constructive ZAR, while overvaluation and heavy long positioning are risks to MXN.	A more hawkish Banxico, a dovish SARB.
Short SGD/KRW	9/20/2023	974	983.301	945	990	10	We like's Korea's improving terms-of-trade led by the stabilizing of memory chip prices and resilient equity portfolio.	additional USD strength which pushes USDKRW higher
1yr USD/CNH vol swap at 6.175%	8/2/23	6.175	5.990	-	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
Long KZT vs USD & EUR	8/2/2023	479	504.7	455	493.5	10	High carry + low global rates vol + tax period = long KZT. Official FX sales should also be supportive for the KZT.	High carry + low global rates vol + tax period = long KZT. Official FX sales should also be supportive for the KZT
Buy 6m 25-delta call option for USDTWD	8/1/2023	31.6	spot(32.1)	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	4.96	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 USDKD 7.7670/7.8500 call spread	3/29/2023	Spot 7.8499	7.82	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.
Long INRUSD	1/18/2023	81.65	83.30	80	83	10	We recommend adding long INR against USD on expectations of a catch-up move in INR vs the region on better risk sentiment	Risks to the trade come from further spike in the oil prices in the near term, and higher USD demand from importer

Source: BofA Global Research. Spot values as of Oct. 12 2023. Bid/offer spreads accounted for in initiation 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. Initiation and closing 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 20: Closed trades

EM Alpha Trade Recommendations

Trade description	Entry date	Entry Level	Target	Stop	Notional	Close date	Level closed
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 ILSCZK	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 USD1WD 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 CZKHUF	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
Long USD/ZAR	13-Sep-22	17.35	18.2	16.8	10	26-Sep-22	18.00
Colombia: sell COP against basket of oil-currencies	22-Nov-21	100	104	97	10	2-Jun-22	102
Long USDILS	16-Aug-22	3.28	3.45	3.18	10	8-Sep-22	3.42
Long USDZAR	16-Aug-22	16.4	17.2	15.8	10	2-Sep-22	17.3
Long USD call, 6M CNH put spread	16-Mar-22	6.38	6.5/6.7	-	10	25-Aug-22	6.8168
Long KZT vs an equal basket of USD and EUR	2-Aug-22	504.1	479	519	10	19-Aug-22	494
Long ILS vs an equally weighted basket of USD and EUR	21-Jan-22	3.38	3.21	3.46	16.2	10-Aug-22	3.32
Long USD/ZAR	20-May-22	15.85	16.64	16.2	16.2	7-Jul-22	16.69
Sell USDZMW 6M NDF	12-Apr-22	18.25	16.8	-	10	7-Jul-22	16.80
Sell USD/PLN	2/3/2022	4.01	3.7	4.5	10	7-Jul-22	4.65
Short PLN/HUF	7-Jun-22	84.7	80.5	87.3	10	29-Jun-22	84.1
Long MYR/PHP	28-Apr-22	11.95	12.4	11.7	10	20-Jun-22	11.95
Colombia: sell COP against basket of oil-currencies	22-Nov-21	100	104	97	10	2-Jun-22	102
Long EUR/HUF	16-May-22	384.75	16.4	14	10	26-May-22	394
Buy CLP/COP	03-May-22	4.68	16.4	14	10	20-May-22	4.85
Sell USD/ZAR	10-May-22	16.1	15.3	16.4	10	19-May-22	15.83
Buy USD/ZAR	17-Jan-22	15.38	16.4	14	10	5-May-22	16.02

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 21: G10 FX Forecasts

Forecasts as of 12-Oct-2023

	Spot	YE 2023	Mar-24	Jun-24	Sep-24	YE 2024	Mar-25	Jun-25	Sep-25	YE 2025
G3										
EUR-USD	1.06	1.05	1.07	1.10	1.15	1.15	1.16	1.17	1.18	1.20
USD-JPY	150	153	155	150	146	142	140	138.00	136	136
EUR-JPY	158	161	166	165	168	163	162	161.00	160	163
Dollar Bloc										
USD-CAD	1.36	1.32	1.32	1.30	1.28	1.26	1.26	1.26	1.26	1.26
AUD-USD	0.64	0.64	0.66	0.68	0.71	0.71	0.71	0.71	0.71	0.71
NZD-USD	0.60	0.59	0.60	0.62	0.64	0.64	0.64	0.64	0.64	0.64
Europe										
EUR-GBP	0.86	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
GBP-USD	1.22	1.24	1.26	1.29	1.35	1.35	1.36	1.38	1.39	1.41
EUR-CHF	0.96	0.98	0.99	0.99	1.00	1.00	1.02	1.02	1.05	1.05
USD-CHF	0.90	0.93	0.93	0.90	0.87	0.87	0.88	0.87	0.89	0.88
EUR-SEK	11.56	11.70	11.40	11.20	11.00	10.70	10.60	10.50	10.30	10.20
USD-SEK	10.95	11.14	10.65	10.18	9.57	9.30	9.14	8.97	8.73	8.50
EUR-NOK	11.54	11.00	10.80	10.70	10.50	10.30	10.20	10.10	10.00	9.90
USD-NOK	10.93	10.48	10.09	9.73	9.13	8.96	8.79	8.63	8.47	8.25

Source: BofA Global Research, Bloomberg. Note: Forecasts as of 12-Oct-2023.

BofA GLOBAL RESEARCH

Exhibit 22: EM FX Forecasts

Forecasts as of 12-Oct-2023

	Spot	YE 2023	Mar-24	Jun-24	Sep-24	YE 2024	Mar-25	Jun-25	Sep-25	YE 2025
Latin America										
USD-BRL	5.05	4.90	4.95	5.00	5.05	5.10	5.13	5.15	5.18	5.20
USD-MXN	17.92	18.00	18.30	19.00	19.30	19.50	19.80	20.00	20.30	20.50
USD-CLP	933.00	895	900	905	910	912	914	916.00	918	920
USD-COP	4,214.50	4,175	4,350	4,450	4,500	4,550	4,600	4,625.00	4,650	4,675
USD-ARS	350.01	648	862	1,117	1,407	1,629	1,832	2,061.00	2,318.00	2,608.00
USD-PEN	3.84	3.76	3.80	3.82	3.84	3.86	3.87	3.88	3.89	3.90
Emerging Europe										
EUR-PLN	4.53	4.70	4.80	4.80	4.70	4.60	4.55	4.50	4.45	4.40
EUR-HUF	386.99	400	405	410	400	390	380	370.00	360	350
EUR-CZK	24.62	24.80	25.00	25.20	24.80	24.30	23.90	23.50	23.00	22.60
USD-ZAR	18.98	18.50	18.10	18.00	17.00	17.50	17.80	18.00	18.20	18.40
USD-TRY	27.75	30.00	32.00	35.00	37.00	40.00	42.00	44.00	45.00	47.00
EUR-RON	4.96	5.00	5.00	5.00	5.10	5.13	5.19	5.25	5.30	5.36
USD-ILS	3.96	3.75	3.70	3.65	3.60	3.55	3.50	3.45	3.40	3.40
Asian Bloc										
USD-KRW	1,338.50	1,330	1,305	1,280	1,210	1,190	1,170	1,150.00	1,150	1,150
USD-TWD	32.12	31.70	31.50	31.20	30.30	30.10	29.90	29.70	29.70	29.70
USD-SGD	1.37	1.35	1.34	1.32	1.31	1.30	1.30	1.29	1.29	1.29
USD-THB	36.18	35.00	34.50	34.00	33.50	33.00	33.00	32.50	32.50	32.00
USD-HKD	7.82	7.83	7.83	7.80	7.80	7.78	7.78	7.76	7.75	7.75
USD-CNY	7.30	7.20	7.10	7.00	6.80	6.70	6.60	6.50	6.40	6.30
USD-IDR	15,690.00	15,400	15,300	15,200	15,100	15,000	15,000	14,900.00	14,900	14,800
USD-PHP	56.67	56.50	56.50	56.00	56.00	55.50	55.50	55.00	55.00	55.00
USD-MYR	4.71	4.66	4.62	4.58	4.56	4.54	4.52	4.50	4.48	4.46
USD-INR	83.25	82.00	81.00	80.50	80.00	80.00	80.00	80.00	80.00	80.00

Source: BofA Global Research, Bloomberg. Note: Forecasts as of 12-Oct-2023.

BofA GLOBAL RESEARCH



Options Risk Statement

Potential Risk at Expiry & Options Limited Duration Risk

Unlike owning or shorting a stock, employing any listed 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 of which can occur in a short period.

Investor suitability

The use of standardized options and other related derivatives instruments are considered unsuitable for many investors. Investors considering such strategies are encouraged to become familiar with the "Characteristics and Risks of Standardized Options" (an OCC authored white paper on options risks). U.S. investors should consult with a FINRA Registered Options Principal.

For detailed information regarding risks involved with investing in listed options:

<http://www.theocc.com/about/publications/character-risks.jsp>

Analyst Certification

I, Athanasios Vamvakidis, 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 BofAS 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. ("BofAS") 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:

BofAS 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; 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 Investment Industry Regulatory Organization of Canada; 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; BofAS 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; BofAS 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 BofAS 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 BofAS 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

Kamal Sharma

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

Michalis Rousakis

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

US

John Shin

FX Strategist
BoFAS
+1 646 855 9342
joong.s.shin@bofa.com

Paul Ciana, CMT

Technical Strategist
BoFAS
+1 646 855 6007
paul.ciana@bofa.com

Vadim Iaralov

FX Strategist
BoFAS
+1 646 855 8732
vadim.iaralov@bofa.com

Howard Du, CFA

G10 FX Strategist
BoFAS
+1 646 855 6586
yuhao.du@bofa.com

Pac Rim

Adarsh Sinha

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

Shusuke Yamada, CFA

FX/Rates Strategist
BoFAS Japan
+81 3 6225 8515
shusuke.yamada@bofa.com

Global Emerging Markets

Claudio Piron

Emerging Asia FI/FX Strategist
Merrill Lynch (Singapore)
+65 6678 0401
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.