

Global FX weekly

High rates until 2% at the end of the tunnel

The View

Strong US economy and sticky G10 inflation, DXY approaching high-end of 2023 range, expect more. Jackson Hole could be hawkish. Stay short CNH and TWD as the CNY FX intervention policy remains conflicted.

The USD's road trip

USD appreciating despite disinflationary trend, on growth outperformance, rising yields energy prices, and risk-off. Focus on USD correlation to pricing of Fed policy for 2024.

Jackson Hole FAQ

Fed to reiterate 2%, less balanced b/c strong data. Rates = Fed may sound hawkish; stay underweight front end; FX = no strong signal, neutral rate focus to be hawkish.

Growth-inflation trade-off and FX

Soft landing better than hard landing for FX. FX appreciated in G10 that surprised positively on growth and negatively on inflation this year, reflecting better trade-offs. Better US data mix vs. Eurozone supports our bearish EURUSD view for rest year.

Fed September hold and November hike

Fed Sep rate hold & Nov hike could improve Sep risk conditions but raise Nov FX market volatility. We like short 1m OTM USDJPY call as one way to position for September no hike Fed. Own 2m1m cheap AUDUSD forward vol as hedge for volatility in November.

IDR

Medium-term bullish outlook for bonds & FX intact with room for further rally, though there is concern over CNY FX spillover.

TWD

We maintain higher USDTWD forecast at 31.9 in 3Q23 and see downside risk to 2024 estimates should export strength sustain.

Latam

The views on the USD are mixed: 34% expect weaker USD, 38% unchanged and 25% stronger. BRL expected mostly between 4.81-5.10

Mortgage refinancing

Weakens power of monetary policy, father of the lock-in effect in housing market. Consumption more resilient in the US and Euro Area than in Canada and Australia.

Technicals

Month-end USD dip? Tactically bearish USDCHF to .8690/.8660 while below .8830 and USDSEK to 10.65/10.55 while below 11.00.

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. 12594707

Timestamp: 18 August 2023 12:00AM EDT

18 August 2023

FX Research
Global

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

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

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 remain wary of both the speed of disinflation as well as changing policy responses to the fight against inflation and continue to look for USD upside this year despite finding it overvalued. We still expect more and prolonged JPY weakness on FX carry and as Japan's basic balance of payments becomes more balanced—the BoJ's YCC tweak is not a game changer, we think. For GBP, we find near-term risks tilting slightly bearish, particularly vs. USD. On CHF, we think the SNB policies will keep it supported around current levels for now. Regarding the "high beta" G10 FX, we continue to favor AUD, CAD and NOK over NZD and SEK.
- EM** In Asia we are long IDR on bond inflows and export proceed repatriation. Additionally, we are in the camp that Indonesia is undergoing positive structural macro transformation. We are bearish PHP risk premium and are long NDF points. We remain bearish CNY and forecast USD/CNY 7.40 end 3Q. In EEMEA we like short EUR/HUF. In LatAm we remain bullish MXN and 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 17-Aug-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	1.08	1.05	1.15
USD/JPY	103.25	115.08	131.12	132.86	144.31	147.00	145.00	125.00
GBP/USD	1.37	1.35	1.21	1.23	1.27	1.24	1.24	1.35
AUD/USD	0.77	0.73	0.68	0.67	0.67	0.67	0.69	0.75
USD/CNY	6.53	6.36	6.90	6.87	7.25	7.40	7.20	6.70
USD/BRL	5.20	5.58	5.29	5.06	4.78	4.95	5.00	5.10
USD/INR	73.07	74.34	82.74	82.18	82.04	83.00	82.00	80.00
USD/ZAR	14.69	15.94	17.04	17.80	18.85	19.00	18.00	17.50

Source: BofA Global Research. Forecasts as of 17-Aug-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	
<u>Sell 2m 0.89 USD/CHF put</u>	Our relative monetary policy outlook suggests USDCHF spot is overly stretched.
<u>Buy 1v 25-delta AUD/USD risk reversal</u>	AUD stands to benefit from broad-based USD sell-off and China reopening in 2023.
EM	
<u>Sell EUR/HUF</u>	We re-enter a HUF carry trade by shorting EURHUF (open: 391.7, target: 372.1, stop: 403.5, carry: 0.8% per month).

For complete list of open trades, and those closed over the past 12 months, please see [here](#)

Calls at a glance

Michalis Rousakis

MLI (UK)

michalis.rousakis@bofa.com

Thematic calls

- **All about the landing:** Our analysis points to upside USD risks for the rest of 2023. Our results also bullish NOK but bearish CHF, JPY and, in some cases, GBP.
- **Growth-inflation trade-off and FX:** Soft landing better than hard landing for FX.
- **JPY carry trade still attractive:** (1) Immediate repatriation by domestics unlikely. (2) YCC tweak not immediate signal for multiple hikes. (3) FX vol has fallen.
- **Energy is hot again:** We keep our \$90/bbl 2024 Brent forecast as higher prices would need larger supply cuts or disruptions, or stronger demand.
- **Mortgage structure matters for monetary policy:** FX implications go against high beta currencies, because of faster policy transmission through housing.
- **FX by time zone:** USD price action in 2023 largely driven by activity in US hours.
- **Flows & positioning:** Hedge Funds likely drove USDJPY higher in week ending Aug 11, with their positioning now neutral. But Real Money remains short USDJPY.

Central Bank calls

Exhibit 4: G10 Central Bank calls

No G10 central bank meetings in the next two weeks

Country	Next Meeting	BofA	Consensus	Prior	Narrative
US	20-Sep	5.38%	5.38%	5.38%	We now expect the last Fed hike in November (vs. September in our previous call). We expect 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 reductions in the policy rate, for a total of 75bp of rate cuts in 2024 and 100bp of cuts in 2025.
Eurozone	14-Sep	4.00%	4.00%	3.75%	25bp in September has become our base case following the July inflation data, but this remains a close call. We continue to not expect rate cuts until June-24.
Japan	28-Jul	-0.10%	-0.10%	-0.10%	Having flexibilised YCC, we think the next step will be to end negative interest rate policy (NIRP). We continue to think that the outlook for next year's spring wage negotiations is critical. Should the BoJ gain confidence that this year's strong wage hikes will be repeated in FY24, it is also likely to conclude that underlying inflation is likely to be sustained at 2%. Given the BoJ's cautious stance, our base case was that NIRP would be removed in mid-CY24, when BoJ could confirm the initial results of the spring wage negotiations. However, we see growing risks that the move happens earlier, i.e., in 1Q CY24.
UK	21-Sep	5.50%	5.50%	5.25%	We expect one more 25bp rate hike at the next meeting in September followed by a prolonged pause. We see the first rate cut in February 2025. We see risks to that profile skewed up because of the strength of wage growth.
Canada	6-Sep	5.00%	5.00%	5.00%	We expect the BoC on hold in Sep despite the increase in inflation provided that the 2Q GDP print shows a clear deceleration. In any case, the BoC will likely continue with a hawkish language and risk will continue to the upside for rates. We expect the first cut in April 2024 followed by five 25bp additional cuts to reach a rate of 3.50% by end-24.
Australia	5-Sep	4.10%	-	4.10%	We do not expect further hikes at this stage but see risk for a further hike in Nov as 3Q inflation data will be strong. Active Quantitative Tightening could address upside risk to CPI and financial stability.
New Zealand	4-Oct	5.50%	-	5.50%	We see the OCR on hold for the rest of the year., with the economy in recession and near-term upside risks for CPI. We expect four rate cuts in 2024.
Switzerland	21-Sep	1.75%	-	1.75%	We think the SNB is done with rates hikes also given the active role of the balance sheet. But it's a close call and we can't rule out another hike.
Norway	21-Sep	4.25%	4.25%	4.00%	We look for 25bp in September and another 25bp after then, for a 4.50% with balanced risks.
Sweden	21-Sep	4.00%	4.00%	3.75%	We expect 25bp in September and a 4% terminal, with risks skewed up. We look for 3 rate cuts in 2024.

Source: BofA Global Research, Bloomberg consensus forecasts as of 17-Aug-2023.

BofA GLOBALRESEARCH



The view

Athanasios Vamvakidis

MLI (UK)

athanasios.vamvakidis@bofa.com

Claudio Piron

Merrill Lynch (Singapore)

claudio.piron@bofa.com

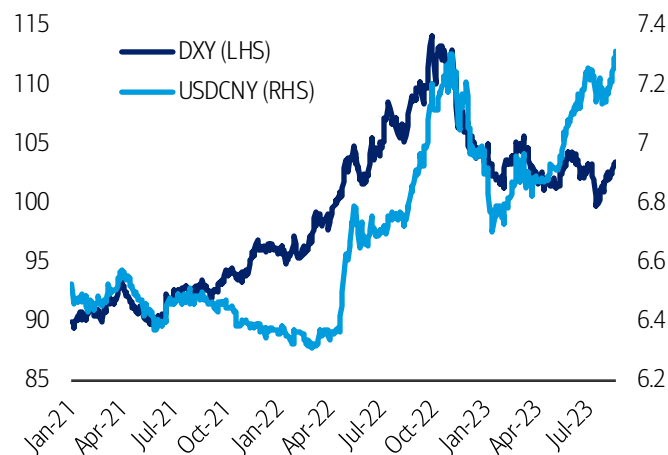
Reality check

Finally, markets are adjusting to the reality of the resilient US economy and sticky core inflation almost everywhere. Yields are up, equities down, the USD has appreciated. So far in August, the major G10 currencies have performed the best (USD, GBP, CHF, EUR), while high beta currencies have performed the worst (AUD, NZD, NOK, SEK). Last week we characterized the US data as a miracle (see [Miracle on Main Street 11 August 2023](#)). This week we argued that a softer landing in the US compared with the Eurozone will support the USD (see [Growth-inflation trade-off and FX 16 August 2023](#)). We have consistently argued that the market was pricing too many rate cuts too early, particularly for the Fed.

The DXY index is approaching the high-end of this year's range, but we expect more by year-end. Weak data in China should affect the Eurozone negatively, through both direct and indirect channels. The usually positive correlation between DXY and USDCNY points to further strength for the former (Exhibit 5). Real rate differentials—using the latest core inflation rates—also point to more EURUSD weakness (Exhibit 6). We have adjusted our Q3 EURUSD forecast to 1.08 from 1.05 marking-to-market, but we stick to our 1.05 end-year forecast. USDJPY is already very close to our Q3 147 forecast.

Exhibit 5: USD and China

DXY index should be stronger given latest CNY weakness

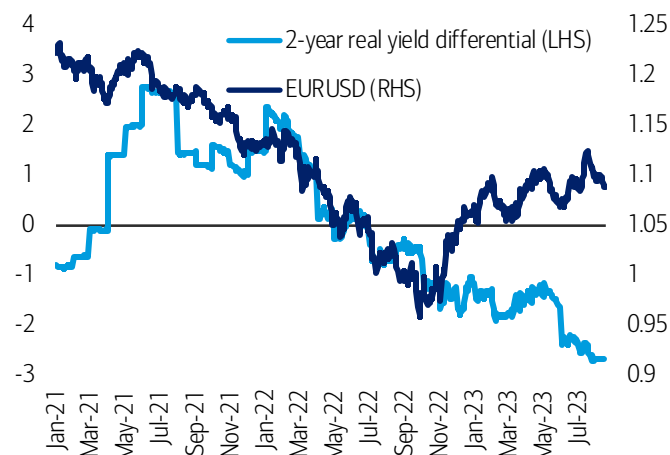


Source: Bloomberg

BofA GLOBAL RESEARCH

Exhibit 6: EURUSD and real yield differentials

Real yield differentials support the USD



Source: Bloomberg. Note: Real yields using latest core inflation rate.

BofA GLOBAL RESEARCH

The focus now shifts to the Jackson Hole symposium next week (see [Jackson Hole FAQ: late summer guide 17 August 2023](#)). Although we don't really expect new messages, emphasis on messages that markets have been underplaying so far may still matter. We expect: clear commitment to the 2% inflation target, within a reasonable time; acknowledgment of progress in reducing inflation so far, but also admission that core inflation remains sticky and well above the target; commitment that interest rates will remain high for as long as it takes to push inflation on a clear path towards the inflation target. We see no need to flag any policy changes given strong data dependence, but the overall tone should be hawkish, particularly from Fed speakers given strong recent data.

Testing times for CNY and EM FX

August is proving a difficult and testing month for the CNY and EM currencies. Broad USD strength is testing key levels with the Bloomberg BBDXY index testing resistance at the 200DMA of 1239.6. Likewise, EM FX carry currencies, represented by the Bloomberg EM carry basket index, is retesting the July 6th low of 243.59 and not far off from testing support at the 200DMA of 242.67.

Amid this USD strength, USD/CNY is taking center stage as it pushes fresh highs for 2023 and threatens to take out the November 1st, 2022, high of 7.3274. The irony is that in trade-weighted terms the CNY CFETS basket of 24-currencies is rallying 2% higher of its July lows as CNY depreciation is less than many of its peers.

This relative CNY outperformance to EM FX peers is due to the PBoC, pushing back against CNY depreciation pressure with stronger daily fixings for the midpoint of its +/- 2% trading band. This tension between the PBoC and the market is starting to show as the onshore CNY spot is trading 1.6-1.2% above the mid-point this week and approaching the limits of the daily trading band.

Similarly, the spot basis between onshore CNY and offshore CNH is also widening, as is the difference between the CFETS basket fixing and spot close. This basis widening is approaching the levels we saw last October/November when the CNY came under significant depreciation pressure. It suggests we are entering a period of where China's central bank will step up its efforts defend the CNY.

The issue will be whether China's central bank defense will be credible. The difficulty is that part of its strategy is to cut interest rates to support growth, which is consistent with CNY weakness, not strength.

Despite this, there are signs the CNY liquidity is tightening with forward points becoming less negative and the onshore repo fix drifting higher. This could also be a consequence of FX intervention draining domestic liquidity but given the extent of CNY's negative yield differential to the USD it will be difficult to sufficiently squeeze long USD positions without raising rates and contradicting the needs for lower rates.

China's FX CNY stabilization is also complicated by the fact that slowing CNY depreciation relative to peers will drive the CFETS basket closer to 100, which would represent a tightening of monetary conditions. At the point, the policy bias may be to allow for more CNY depreciation, in turn spilling over into neighboring NE Asia FX depreciation. For this reason, we also recommend short TWD positions via long USD option calls.

Ultimately, the way for CNY depreciation pressure to resolve itself is through the combination of credible fiscal stimulus so stabilize deflation expectations and for the market to gain confidence in the Fed monetary cycle is ending.

The USD's road trip

Alex Cohen

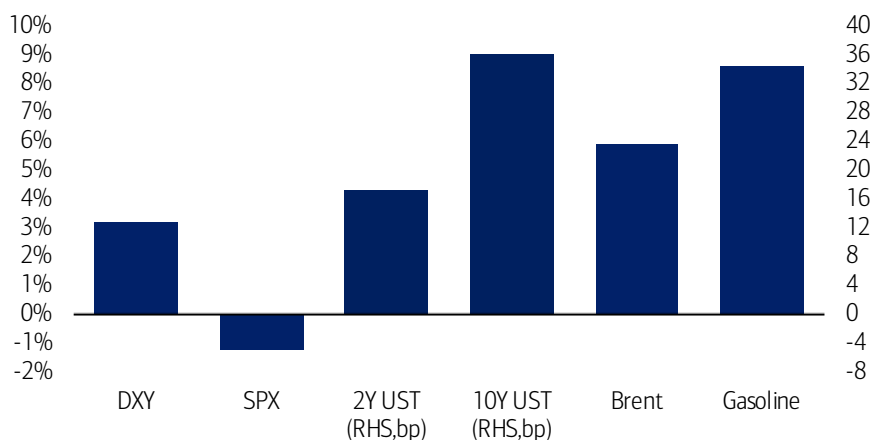
BofAS

alex.cohen2@bofa.com

The USD has entered its 5th consecutive week of appreciation. The DXY index has appreciated over 3% from the 2023 lows in mid-July and is now essentially unchanged year to date. This rally has occurred amid rising UST yields, declining equities, and a rally in commodities (Exhibit 7).

Exhibit 7: Cross Asset Changes since USD lows (14 July)

USD appreciates amid declining equities, rising US yields/commodities



Source: Bloomberg; BofA Research

BofA GLOBAL RESEARCH

Prior to this rally, USD sentiment had grown increasingly negative following mixed June employment and the notable downside June CPI. This added to the narrative that a more entrenched disinflation trend in the US could prompt a sooner and faster pace of Fed rate cuts (see [June \(CPI, NFP\) Swoon for the USD 12 July 2023](#)). However, we still view these cuts as overly aggressive, barring a major shock. We look at forces influencing the USD during this time and look towards the impact of Fed pricing for 2024.

Interestingly, the USD's latest rebound has occurred amid what otherwise could be considered mixed or dovish signals. On the USD negative end of the spectrum:

- The July FOMC produced an expected rate hike, though Chair Powell's less-than-assertive pushback on rate cut timing and easing financial conditions was broadly interpreted as a dovish signal (see the report, [US Watch: July FOMC quick reaction: Back in the saddle with maximum optionality 26 July 2023](#)).
- The July employment report missed expectations for the second consecutive month (after 14 months of beats) and reflected a further narrowing of job-producing sectors (see the report, [US Watch: July employment: A mixed report 04 August 2023](#)).
- The July CPI report further reflected the disinflationary trend in the US, adding to the "soft landing" narrative that has recently reemerged (see the report, [US Watch: July CPI Inflation: Disinflation on autopilot but be mindful of turbulence 10 August 2023](#)).

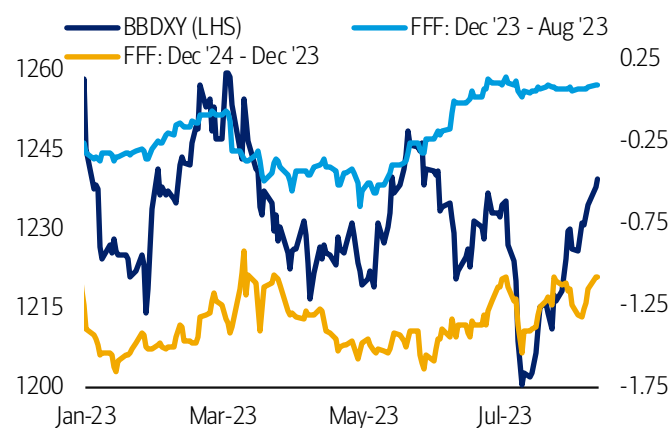
However, the USD initial sell-offs on these events have generally been short-lived. A combination of US growth outperformance (especially vis-à-vis the euro area and China), dovish signals from the ECB, the supply-driven backup in longer-dated UST yields, reacceleration of commodity prices, and a turn lower in equities have more than offset the factors above. Specifically:

- US data, outside of the aforementioned CPI and headline NFP misses, have otherwise generally reflected a more resilient US economy. This includes a still sub-4% unemployment rate, solid housing figures, strong retail sales, still expansionary ISM services, and nascent signs of a slowing decline in ISM Manufacturing. Perhaps most notably, US Q2 GDP of 2.4% well exceeded expectations, reflecting an acceleration of activity compared to Q1 (see the report, [US Watch: Advance estimate 2Q US GDP: what slowdown? 27 July 2023](#)).
- The July ECB meeting was broadly interpreted as “dovish”, as the tone shifted from more straightforward guidance to “data dependence” (see the report, [Euro Area Watch: ECB Review: See you in September 27 July 2023](#)).
- Supply of US Treasuries have come in larger-than-expected, contributing to a rise in yields (both nominal and real) to the highest level of the year (see the report, [US Rates Watch: August refunding: off with a bang 02 August 2023](#)).
- Economic data in China has notably underwhelmed expectations and prompted a sooner-than-expected rate cut by the PBOC. This has generally weighed on equity market sentiment (see the report, [China Watch: Disappointing July activity data triggered an early PBOC policy rate cut 15 August 2023](#)).
- West Texas Intermediate (WTI) and Brent crude have risen ~20% from the near lows of the year in June to the highs of the year in August, potentially introducing pass-through inflationary risks globally. Gasoline and European gas prices have also risen.

As we enter the final weeks of summer, we see scope for the USD’s resilience to continue. Signs of growth divergence continue to favor the US, pulling up nominal and real rate differentials. As noted in the report, [Liquid Insight: Growth-inflation trade-off and FX 16 August 2023](#), the mix of robust growth along with disinflation can suggest that central banks do not need to risk over-tightening, while at the same time, the economy could find equilibrium at a higher neutral interest rate. Indeed, Fed funds pricing for the remainder of 2023 has been stable, suggesting that the market believes that the Fed is at or near the terminal rate. And while we see scope for even more cuts to be priced out for next year, the Fed funds futures (FFF) curve spanning 2024 has already removed ~50bp of cuts since immediately after the June CPI. (Exhibit 8) As seen in Exhibit 9, the USD’s correlation to changes in the 2024 curve is rising. Going forward, focus will likely shift from the “higher” part of policy guidance to the “longer” part.

Exhibit 8: BBDXY and select FFF curves

USD rebounds amid steady terminal and steepening Fed path for 2024

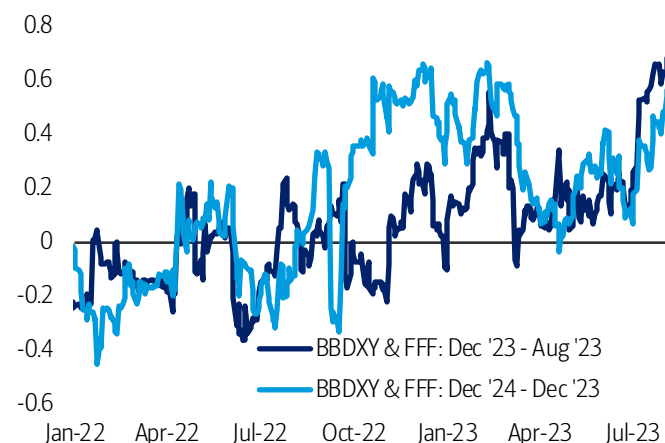


Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 9: Correlation: BBDXY and select FFF curve changes

USD correlations with FFF curves rising



Source: Bloomberg, BofA Global Research

BofA GLOBAL RESEARCH



Jackson Hole FAQ

Aditya Bhawe

BofAS

aditya.bhawe@bofa.com

Mark Cabana, CFA

BofAS

mark.cabana@bofa.com

Alex Cohen

BofAS

alex.cohen2@bofa.com

For details, please see full report: [Jackson Hole FAQ: late summer guide 17 August 2023](#)

When is it & what is topic? August 24-26, “Structural Shifts in the Global Economy”

Why does market care? Fed Chairs often speak, and other officials attend. Major policy changes have been signaled, and it is often during a long intermeeting period.

When is JH agenda released? Typically in the afternoon / evening of first day (Aug 24)

Will Powell speak? Likely but still unconfirmed. Fed Chairs almost always participate but they can skip; Yellen skipped in '15, and Bernanke skipped in '13

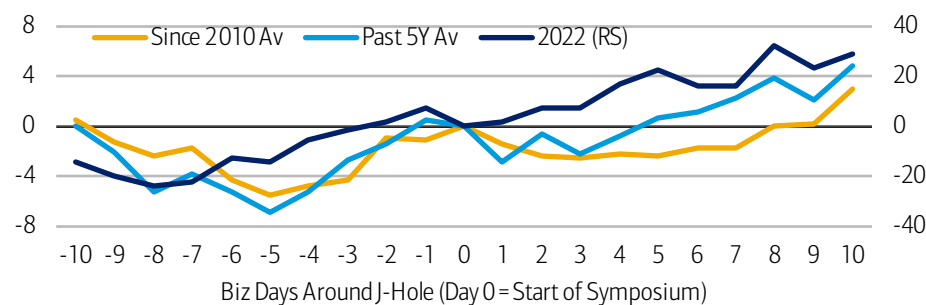
What do we expect at JH? Fed to reiterate 2% objective, stress more inflation work to do, sound less balanced vs July presser or FOMC minutes due to recent strong data.

What is market JH reaction? Rates = less balanced Fed guidance will be hawkish; stay underweight front end. FX = no strong signal likely, neutral rate focus likely hawkish.

What is historic JH reaction? Rates = sell off into JH, sideways week after, sell off into Sept; curve flatter; FX = sideways, 2022 was outlier.

Exhibit 10: 10Y UST yield change around prior Jackson Hole symposiums (bps)

Rates historically rose into event, held week after, & increased further into Sept



Source: Bloomberg

BofA GLOBAL RESEARCH

Growth-inflation trade-off and FX

Athanasios Vamvakidis

MLI (UK)

athanasios.vamvakidis@bofa.com

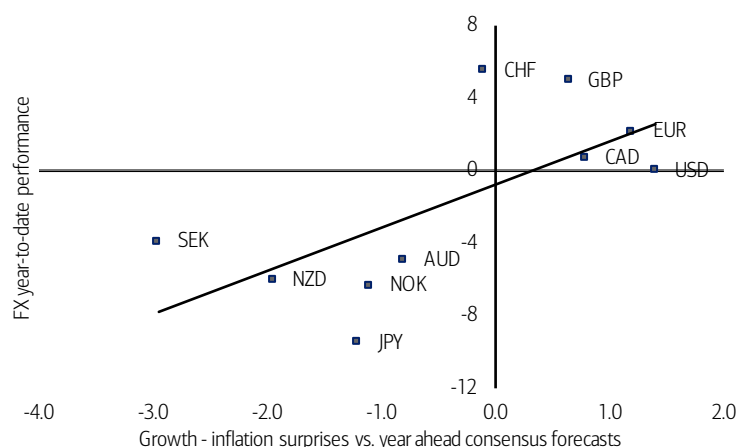
See full report for details: [Growth-inflation trade-off and FX 16 August 2023](#)

Reward for reducing inflation without hurting growth

We find that G10 economies that have surprised the consensus positively on growth and negatively on inflation this year have seen their currencies appreciate. The former is intuitive, but the latter may sound counterintuitive. However, our results suggest that lower inflation without much economic pain—soft landing—is better for a currency than persistent inflation with economic pain—hard landing/stagflation—which we do find intuitive. Economies facing a better growth-inflation trade-off as they try to reduce inflation from a high level will see their currencies appreciate. In this context, a better US data mix compared with that of the Eurozone supports our still bearish EURUSD view for the rest of the year, despite remaining bearish USD for next year based on valuation.

Exhibit 11: Growth-inflation trade-off and G10 FX performance year-to-date

Better growth and lower inflation vs. consensus lead to stronger currencies



Source: Bloomberg and BofA Global Research.

BofA GLOBAL RESEARCH

Fed September hold and November hike

Howard Du, CFA

BofAS

yuhao.du@bofa.com

See full report for details: [FX implications of a Fed September hold and November hike 16 August 2023](#)

Historical market reactions to Sep rate hold & Nov hike

Our economists recently tweaked 2023 Fed call to a September hold followed by another hike in November. Compared to the typically elevated September volatility seen during Fed hiking cycles, expectations converging to a rate hold decision for September could alleviate some pressure for the market next month, as shown by empirical result since 1990. However, the rate hike after the September rate hold may cause increased market volatility for November (Exhibit 12). Post-FOMC market dynamics after the June 2023 Fed rate hold and July 2023 hike have already played out in this fashion.

Exhibit 12: During hiking cycles, September risk backdrop was relatively better without a rate hike; November volatility increased when Fed hiked in November after September rate hold

September and November cross-asset historical performance since 1990

	All Septembers 1990-2023	Sep during Fed hiking cycles	Sep with rate hold amid hiking cycles	All Novembers 1990-2023	Nov hike + Sep hold in hiking cycles
SPX	-0.8%	-1.5%	-1.3%	1.9%	-1.3%
10y UST	-5	19	11	-3	-1
DX	-0.3%	0.3%	-0.2%	0.6%	1.2%
GFSI	0.05	0.00	-0.04	-0.03	0.02
Occurrences	33	9	5	33	2

Source: BofA Global Research, Bloomberg. Table shows SPX % return, 10y UST bp chg, DX % return, GFSI level chg for the month of September and November under different conditions since 1990.

BofA GLOBAL RESEARCH

Short 1m OTM USDJPY call for September Fed rate hold

With USDJPY rising by 5.5 big figures to a 145-handle after the July BoJ meeting (pace ranks at 96th percentile since 2022) and 1m skew close to the narrowest level year-to-date, we like short 1m OTM USDJPY call to position for a September Fed rate hold decision. For example, a 25-delta OTM call would have strike on a 147-handle, coinciding with our peak USDJPY forecast for the year. On top of JPY intervention concerns, some pare back of US real yield rise as expectation converges to a no hike Fed decision for September could also ease the momentum for the USDJPY rally, in our view. Risk would be higher likelihood of a Fed rate hike in September leading to USDJPY rising above our forecast.

Position for worsening Nov risk with 2m1m AUD vol

Given our current Fed call and the historical analysis in Exhibit 12, we see higher 2m1m AUDUSD forward vol as hedge for potential market turmoil in November. AUDUSD has the highest correlation to risky assets among liquid USD/G10 pairs; it also has a relatively cheap 2m1m forward vol given flat AUDUSD vol curve relative to other liquid USD/G10 pairs. The risk to this view is no Fed hike at the November FOMC meeting leading to subdued realized vol.

Indonesia trip notes: Caution amid macro strength

Claudio Piron

Merrill Lynch (Singapore)
claudio.piron@bofa.com

Mohamed Faiz Nagutha

Merrill Lynch (Singapore)
mohamed_faiz.nagutha@bofa.com

Abhay Gupta

Merrill Lynch (Singapore)
abhay.gupta2@bofa.com

Full Report: [Asia FI & FX Strategy Watch: Indonesia trip notes: Caution amid macro strength 16 August 2023](#)

Solid macro, conservative policy

We come away from our first leg of our ASEAN investor trip with caution towards Indonesia. This is a natural consequence of the lead up to the Presidential election on February 14th and the uncertainty over future policy leadership.

Indeed, today will mark President Jokowi's last State of the Union address ahead of Indonesia's 78th Independence Day celebrations tomorrow. The President has delivered on macro stability, vision, and infrastructure, resulting in his high popularity. For this reason, there is apprehension over whether the next administration can deliver the same performance, especially in industrial policy, infrastructure, and the green transition.

Beneath the political uncertainty, the macro policy confidence remains strong and policy bias is conservative. Real policy rates are rising amid contained inflation. Fiscal performance and consolidation are impressive. Yet, there is no appetite to ease monetary or fiscal policy as Q2 GDP is strong and the policy focus is on FX stability and another Fed hike amid CNY depreciation.

Domestic investors use barbells

Amid a flat yield curve local investors are using a barbell strategy of being long front end and long end, while trading the volatile belly of the curve tactically. The volatility is partly a consequence of the central bank's "operation twist bond sales" at the belly of the curve.

Retail investor flow continues to be increasingly important and could take up to 20% of demand. The government is responding to this strong retail demand by extending retail bond issuance to 6-year maturities. The limited bond supply dynamics and robust demand will keep the curve flat. The domestic mood on IDR is cautious, but confident that the central bank will manage volatility well with a bias to accumulate more FX reserves. There is also more attention being paid to CNY weakness, spilling over to the IDR.

Industrial policy is the new macro policy

Much like the rest of the world, policy makers are increasingly focused on industrial policy. This trend is shaped by the green transition, friend-shoring and other countries deploying aggressive subsidies and incentives. Indonesia's pivot to downstream commodities is bearing fruit and the focus on electric batteries supply chains, textiles and petrochemicals will likely intensify. However, future success will be determined by policy execution under the next administration.



Tech exports hit a turning point?

Miao Ouyang

Merrill Lynch (Hong Kong)

miao.ouyang@bofa.com

Chun Him Cheung, CFA

Merrill Lynch (Hong Kong)

chunhim.cheung@bofa.com

Full Report: [Taiwan Watch: Tech exports hit a turning point? 11 August 2023](#)

July exports surprised on the upside

Taiwan's exports rose to US\$38.7bn in July, marking a 10.4% yoy decline. That was a notable improvement compared with the 23.4% slump in June and beat the market consensus forecast (-20.7%) by a wide margin. The pick-up in exports has also led to a record high single-month trade surplus at US\$8.5bn in July (vs. US\$6.0bn in June).

The upside surprise came from a strong rebound in tech exports (Exhibit 5). As North Asia trade is often seen a leading indicator of the global trade cycle, esp. in tech sector, many investors wonder whether the rebound in Taiwan's exports signals a turning point.

AI momentum likely drove the sharp tech rebound

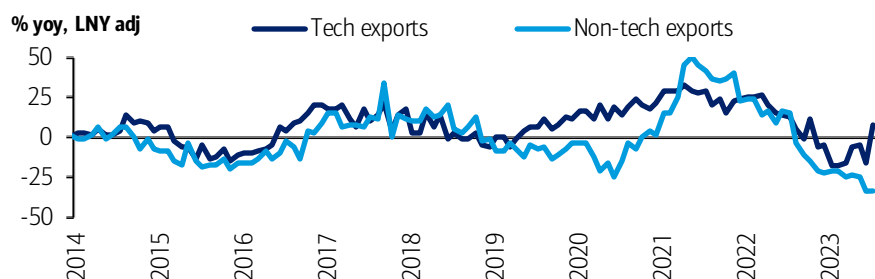
Our analysis based on granular trade data suggests the sharp rebound in tech export growth was likely driven by artificial intelligence (AI) and high performance computing (HPC) applications. The biggest contributor to the 8.5% gain in July tech exports was automatic data processing (ADP) machines & units, a broad category including servers, display cards etc. In July, the total export value of this category more than tripled to US\$4.4bn, or +215% yoy (Exhibit 6), due to demand from the Netherlands, US & ASEAN.

Such a sharp rise might seem surprising at first glance, as AI-related demand currently only accounts for a small share of many Taiwanese tech companies' total shipments. Yet, we see two reasons why AI impact could boost Taiwan's exports value more notably

1. **The high average selling price (ASP) of AI/HPC applications.** Our tech analysts estimate that the hardware value per AI server is US\$115k-276k, about 16-39 times above each regular server (see report: APAC AI supply-chain, 12 June 2023). This implies the total shipment value could be quite significant even with a small volume.
2. **Only around 10% of Taiwan's export orders for info & comm products are produced locally and shipped from Taiwan,** whereas the rest is produced overseas. As a result, demand brought by AI/HPC, which is typically fulfilled in Taiwan, could lift the Customs statistics of export growth to a greater extent.

Exhibit 13: Tech exports vs. non-tech exports

Tech export growth rebounded sharply to 8.5% yoy in July

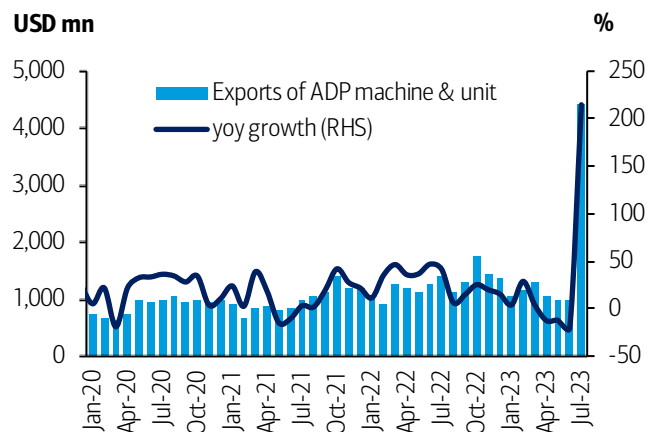


Source: BofA Global Research, CEIC

BofA GLOBAL RESEARCH

Exhibit 14: Exports of ADP machines & units (monthly data)

Exports of ADP machines & units surged by 215% yoy in July...

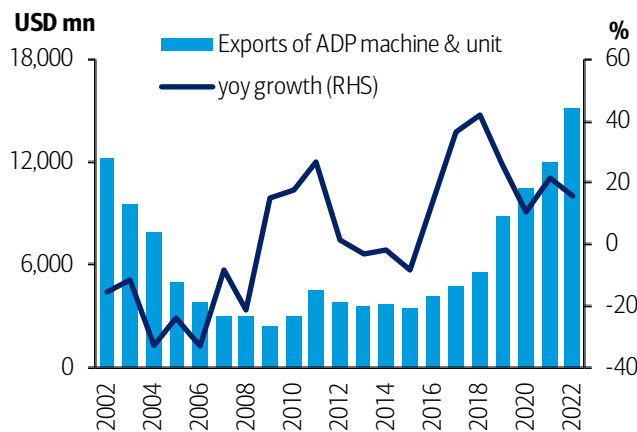


Source: BofA Global Research, CEIC

BofA GLOBAL RESEARCH

Exhibit 15: Exports of ADP machines & units (annual data)

...after a steady rise since 2019



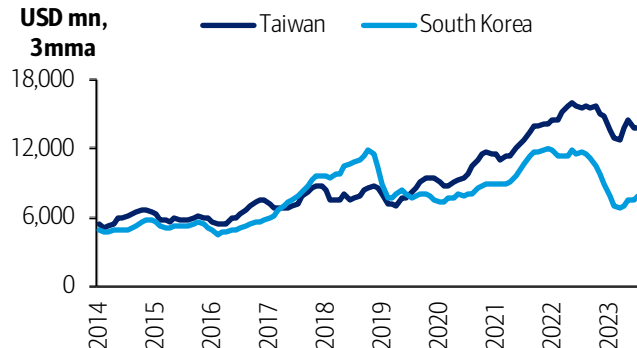
Source: BofA Global Research, CEIC

BofA GLOBAL RESEARCH

That said, exports of semiconductors haven't shown a notable turnaround yet. South Korea's semi exports, which are dominated by memory chips, seem to have bottomed out after more than a year of price declines. However, it is not yet clear whether Taiwan's semi exports, mainly comprised of logic chips, will improve significantly soon, given the tepid global demand for consumer electronics (Exhibit 8 and Exhibit 9). This would be a major factor for the export outlook, given semis account for more than 70% of Taiwan's tech exports.

Exhibit 16: Monthly semi exports: Taiwan vs. South Korea

Taiwan's semi exports picked up slightly...

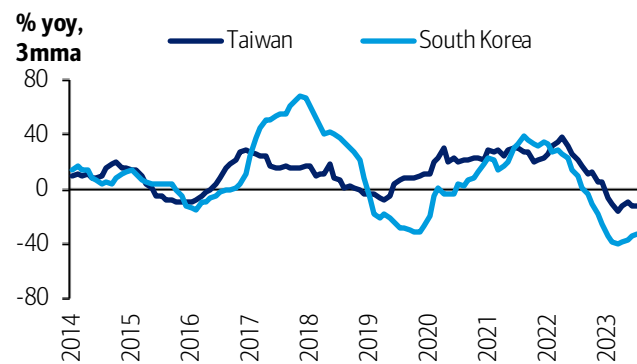


Source: BofA Global Research, CEIC

BofA GLOBAL RESEARCH

Exhibit 17: Monthly semi export growth: Taiwan vs. South Korea

...but yoy growth hasn't improved much



Source: BofA Global Research, CEIC

BofA GLOBAL RESEARCH

Export growth has likely bottomed out already...

It is probably still early to draw any firm conclusion on the future growth trend with only one month of export outperformance. But if the jump in July exports was indeed driven by AI/HPC, it would suggest this won't be a one-off boost and Taiwan's tech export growth could pick up at a faster pace than we had expected previously.

In our view, the headline export growth has likely bottomed out and could pick up further and potentially turn positive by the yearend, against a lower year-ago base.

Over the medium to long term, Taiwan's semi/hardware supply chain is well positioned to play a key role and benefit from the booming of AI and requirement for strong computing power. This will likely provide substantial support to exports.

Rotation to equities happens when selic reaches 10%

David Beker >>

Merrill Lynch (Brazil)
david.beker@bofa.com

Paula Andrea Soto, CFA >>

Merrill Lynch (Brazil)
paula.soto@bofa.com

Full Report: [LatAm Fund Manager Survey: Rotation to equities happens when selic reaches 10% 15 August 2023](#)

Stable BRL, stronger activity

The views on the USD are mixed: 34% expect weaker USD, 38% unchanged and 25% stronger (Exhibit 11). BRL expected mostly between 4.81-5.10 (Exhibit 12). Half of participants expect GDP 1-2%, the other half says GDP >2% (Exhibit 13).

Selic at 10% expected to trigger rotation to equities

Most participants in our survey expect individuals to rotate into equities once selic reaches 10%. 32% say that it will take a lower selic (Exhibit 10). Flows are improving already: outflows from local equity funds declined in the last month (details in [Flows to know](#)). Half our panel expects selic at 11.75%-12% this year, in line with the Copom minutes that called for a 50bp cut per meeting. 34% expect selic <11.75% (Exhibit 16).

Sentiment remains bullish, US rates are the main risk

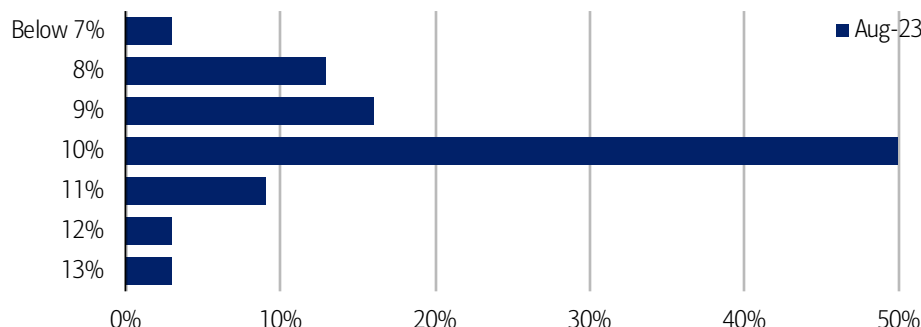
Sentiment towards equities remains bullish. 88% say lbov >120k by year-end (up from 76% last month) and 41% expect it >130k (vs 23% last month). Earnings are expected to remain stable. Biggest tail risk are higher US rates (Exhibit 14).

Cash remains elevated, but investors like beta

Cash levels are at 8% in Aug-23, close to historical highs of 8.4% (historical average is 5.1%). Still, we see a risk-on allocation with participants most overweight financials and C. Discretionary (similar to last month), and most underweight low beta sectors such as staples and communications. Materials remains the most underweight sector.

Exhibit 18: At what Selic level do you expect individuals to rotate back into equities?

50% say individuals will rotate into equities when selic reaches 10%.

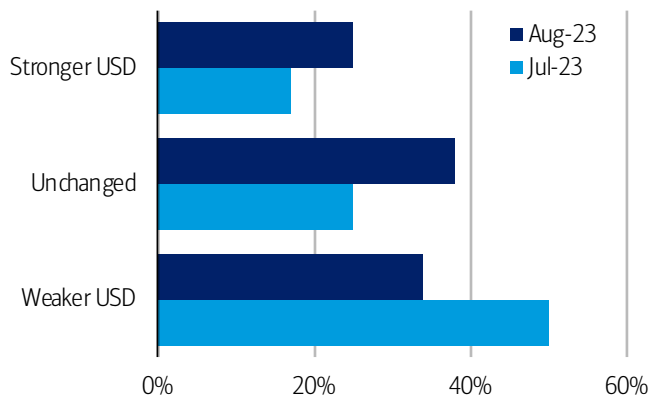


Source: LatAm Fund Manager Survey

BofA GLOBAL RESEARCH

Exhibit 19: What are your expectations for the USD in 2023?

34% of participants expect weaker USD in 2023.

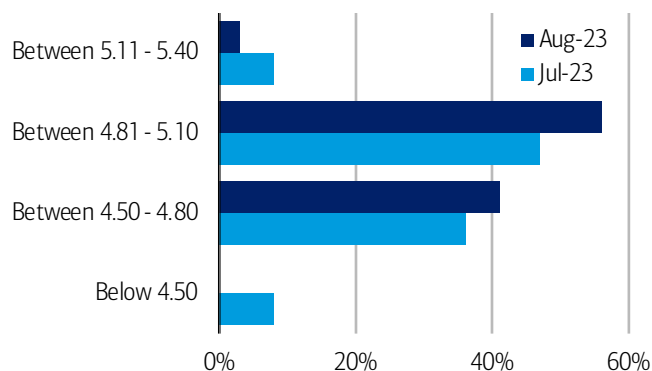


Source: LatAm Fund Manager Survey

BofA GLOBAL RESEARCH

Exhibit 20: Where do you see the BRL at the end of 2023?

Most expect the BRL between 4.81-5.10 at year-end, but 41% expect BRL below 4.80.

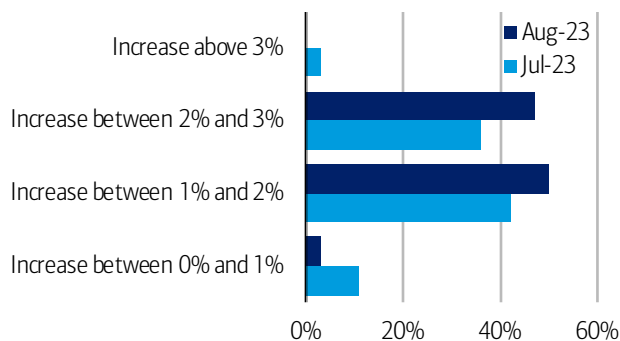


Source: LatAm Fund Manager Survey

BofA GLOBAL RESEARCH

Exhibit 21: In Brazil, what do you expect for GDP growth in 2023?

50% of participants expect GDP growth between 1-2%, but 47% said they expect GDP above 2%.

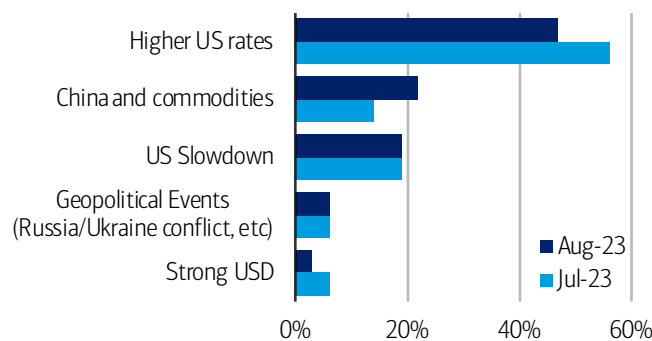


Source: LatAm Fund Manager Survey

BofA GLOBAL RESEARCH

Exhibit 22: What do you consider the biggest tail risk for LatAm markets?

Higher US rates is considered the biggest tail risk for the region.

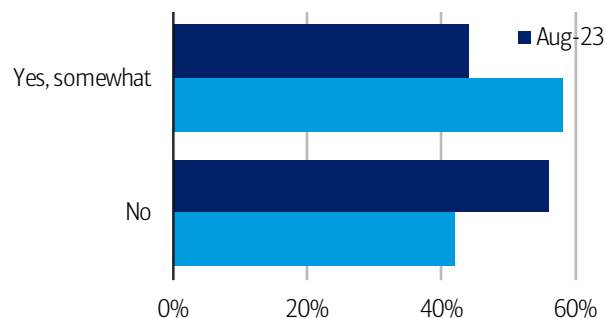


Source: LatAm Fund Manager Survey

BofA GLOBAL RESEARCH

Exhibit 23: Do you believe that stimulus in China during 2023 will be enough to drive commodity prices higher?

Participants are divided on whether China will drive commodity prices higher.

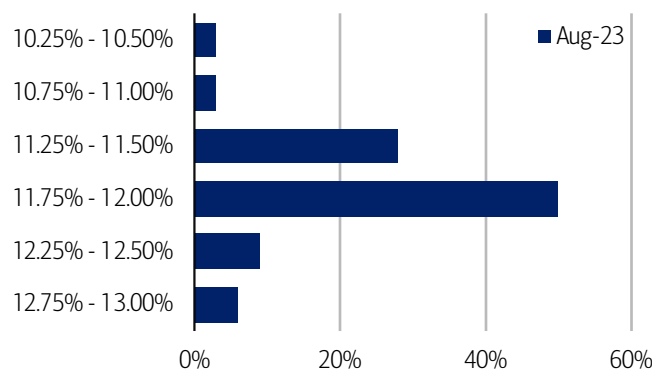


Source: LatAm Fund Manager Survey

BofA GLOBAL RESEARCH

Exhibit 24: Where do you see Brazil's Selic by the end of 2023?

Most participants expect the Selic between 11%-12% at year-end.



Source: LatAm Fund Manager Survey

BofA GLOBAL RESEARCH

Mortgage refinancing

Claudio Irigoyen

BofAS

claudio.irigoyen@bofa.com

Athanasios Vamvakidis

MLI (UK)

athanasios.vamvakidis@bofa.com

Michalis Rousakis

MLI (UK)

michalis.rousakis@bofa.com

Howard Du, CFA

BofAS

yuhao.du@bofa.com

For full report, see: [Is refinancing the kryptonite of monetary policy? 14 August 2023](#)

Mortgage structure matters for monetary policy

We look at a cross-section of countries to understand how the composition of the mortgage market – in particular the proportion of ARMs (adjustable-rate mortgages) vs FRMs (fixed-rate mortgages) – affects both 1) the conduct of monetary policy and 2) how monetary policy feeds back into refinancing decisions. We explore the effects of refinancing on both consumption and the housing market.

Exhibit 13: Latest data for the major economies

A cross-country comparison of several key metrics

	NO	AU	SE	CA	NZ	KR	UK	US	JP	EA
Mortgage loans with floating rate, %	94%	63%	75%	33%	58%	72%	40%	15%	65%	30%
% of HH with mortgage	51%	32%	44%	39%	34%	-	28%	40%	30%	17%
Mortgage rate, %	4.8%	8.5%	4.5%	5.9%	8.5%	4.2%	7.5%	6.7%	0.4%	4.1%
Additional CB rate hikes priced (ppts)	29	16	33	14	11	17	50	0	3	16
HH debt service ratio	13%	16%	13%	14%	5%	14%	9%	8%	8%	6%
HH debt-to-disposable income ratio	227%	197%	180%	171%	168%	166%	130%	94%	113%	104%
House prices increase Q4 2019-latest	19%	31%	18%	38%	35%	16%	25%	41%	13%	14%
Effective mortgage rate	5%	5%	4%	4%	6%	4%	3%	4%	0%	2%
Housing investment (% chg since Q4 2019)	2%	1%	6%	-6%	6%	-1%	9%	-12%	-13%	4%
Real consumer spending (% chg since Q4 2019)	3%	6%	2%	5%	10%	3%	-2%	9%	1%	-1%

Source: BofA Global Research, Haver, Bloomberg

Note: For NZ we include mortgages with fixation period until year-end. In Sweden, we include household loans with fixation period until May-24. In the UK, we estimate 40% of mortgages are either floating rate or will be refinanced in the year to Oct-23. In some cases, we report BofA assessment. For EA, we report average of GE, IT, SP.

BofA GLOBAL RESEARCH

Monetary policy is more effective under ARMs

Monetary policy transmits faster into consumption under an ARMs system. Long periods of low interest rates induce households to refinance to lock in low coupons and switch into FRMs, which boost consumption. This makes monetary policy path-dependent and weakens the power of the mortgage channel. Monetary policy transmits faster in Canada, Australia, NZ, Korea, Sweden and Norway and less so in the Euro Area and US.

Refinancing is the father of the lock-in effect in the US

Since mortgages are not portable in the US, refinancing coupled with rising demand for housing, driven by urban migration, explains the tight housing market and resilient property prices. We expect this trend to continue unless a recession strikes.

US, Euro Area resilient, Canada, Australia, Korea at risk

The flipside of a less powerful mortgage channel is that consumption in the US, Euro Area and even UK seems resilient thanks to strong employment and a tight housing



market. This is consistent with our 'high for longer' call for policy rates. Canada, Australia, NZ, Korea, Sweden and Norway – all countries with high leverage and shares of ARMs – are the most vulnerable as monetary tightening is hitting consumption.

FX: High beta might have to wait

FX implications go against high beta currencies, because of a relatively faster transmission of monetary policy through housing in these economies. This points to upside USD and EUR risks. This is consistent with FX performance so far this year.

Trade Recommendations G10

Michalis Rousakis

MLI (UK)

michalis.rousakis@bofa.com

Exhibit 14: Open trades G10

Current G10 FX trade recommendations. Prices as of 10-Aug-2023.

Trade Description	Open Date	Entry Price	Expiry Date	Current Price	Rationale	Risks
Sell 2m 0.89 USD/CHF put	23-Jun-23	1.0126% USD (spot ref: 0.8967, vol ref: 6.44)	24-Aug-23	0.8739	Our relative monetary policy outlook suggests USDCHF spot is overly stretched.	Softer USD on 'goldilocks'
Buy 1y 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	0.6551	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

Source: BofA Global Research

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.**

Exhibit 15: 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
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
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 EUR/GBP 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. 28/07/22 Jan 30)		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 ATMF 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	EUR/GBP 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
Buy 1m 1.102 EUR/USD call funded by 1.0820/1.0400 put spread	06/04/22	Zero premium (spot ref: 1.0894)			05/05/22	Spot ref: 1.06

Source: BofA Global Research

BofA GLOBAL RESEARCH



EM Alpha Trade Recommendations

David Hauner, CFA >>
MLI (UK)

Claudio Piron
Merrill Lynch (Singapore)

Exhibit 16: Open trades

EM Alpha Trade Recommendations

FX	Entry date	Entry level	Current level	Target	Stop	Notional	Rationale/ Time horizon	Risks
Short USDZAR through a call spread	8/9/2023	19.06 (for USDZAR)	19.152	-	-	10	Our econometric model - USDZAR to go lower with any reasonable assumption for loadshedding; positioning is broadly neutral; the market wants USD weaker => ZAR benefits; high implied volatility + thin market liquidity in August => short call spread	The key risks are broader dollar strength beyond the expectations incorporated in our baseline forecast and much weaker-than-expected data in China
Short EURHUF	8/4/2023	391.7	386.76	372.1	403.5	10	High carry + cleaner positioning + undervaluation = long HUF. Hungarian BoP fundamentals remain solid	The risks are a significantly stronger dollar and deterioration of Hungarian fundamentals
1yr USD/CNH vol swap at 6.175%	8/2/23	6.175	6.570	-	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	493.0	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	31.6	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	4.88	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
Long EURPLN	5/17/2023	4.5	4.47	4.725	4.365	10	RSI+ positioning + potential pre-election cut support the trade	The risk is a better-than-expected backdrop for EEMEA FX
Buy USD/PEN	5/4/2023	3.72	3.72	3.8	3.68	10	We see an attractive risk-reward of fading the recent PEN rally. This is also consistent with risks flagged by our economics team that, the bar for elections might not be as high.	Hawkish BCRP surprise in guidance.
Buy 1y USDKD 7.7670/7.8500 call spread	3/29/2023	Spot 7.8499	7.83	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	83.09	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 Aug 16 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 17: Closed trades

EM Alpha Trade Recommendations

Trade description	Entry date	Entry Level	Target	Stop	Notional	Close date	Level closed
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 18: G10 FX Forecasts

Forecasts as of 10-Aug-2023

	Spot	Sep-23	YE 2023	Mar-24	Jun-24	Sep-24	YE 2024
G3							
EUR-USD	1.10	1.05	1.05	1.07	1.10	1.15	1.15
USD-JPY	144	147	145	140	135	130	125
EUR-JPY	158	154	152	150	149	150	144
Dollar Bloc							
USD-CAD	1.34	1.32	1.30	1.30	1.29	1.28	1.26
AUD-USD	0.66	0.67	0.69	0.72	0.73	0.74	0.75
NZD-USD	0.61	0.61	0.62	0.64	0.65	0.66	0.67
Europe							
EUR-GBP	0.86	0.85	0.85	0.85	0.85	0.85	0.85
GBP-USD	1.27	1.24	1.24	1.26	1.29	1.35	1.35
EUR-CHF	0.96	0.98	0.98	0.99	0.99	1.00	1.00
USD-CHF	0.87	0.93	0.93	0.93	0.90	0.87	0.87
EUR-SEK	11.72	11.50	11.00	10.70	10.60	10.50	10.30
USD-SEK	10.64	10.95	10.48	10.00	9.64	9.13	8.96
EUR-NOK	11.21	10.90	10.60	10.40	10.40	10.20	10.00
USD-NOK	10.19	10.38	10.10	9.72	9.45	8.87	8.70

Source: BofA Global Research, Bloomberg. Note: Forecasts as of 10-Aug-2023.

BofA GLOBAL RESEARCH

Exhibit 19: EM FX Forecasts

Forecasts as of 10-Aug-2023

	Spot	Sep-23	YE 2023	Mar-24	Jun-24	Sep-24	YE 2024
Latin America							
USD-BRL	4.90	4.95	5.00	5.03	5.05	5.08	5.10
USD-MXN	17.07	17.50	18.00	18.30	19.00	19.30	19.50
USD-CLP	861.79	807.00	810.00	815.00	820.00	825.00	830.00
USD-COP	4,016.23	4,350.00	4,500.00	4,600.00	4,650.00	4,700.00	4,750.00
USD-ARS	285.18	305.00	493.00	604.00	740.00	893.00	1,079.00
USD-PEN	3.69	3.72	3.76	3.78	3.80	3.82	3.84
Emerging Europe							
EUR-PLN	4.47	4.65	4.55	4.51	4.48	4.44	4.40
EUR-HUF	386.92	375.00	370.00	368.00	365.00	363.00	360.00
EUR-CZK	24.26	23.80	23.50	23.40	23.30	23.20	23.00
USD-RUB	118.69	73.00	75.00	76.00	77.00	78.00	80.00
USD-ZAR	18.86	19.00	18.00	17.60	17.50	17.00	17.50
USD-TRY	27.04	28.00	31.00	33.00	36.00	38.00	41.00
EUR-RON	4.94	5.05	5.09	5.13	5.17	5.21	5.25
USD-ILS	3.70	3.60	3.55	3.50	3.45	3.40	3.30
Asian Bloc							
USD-KRW	1,315.85	1,340.00	1,330.00	1,305.00	1,280.00	1,210.00	1,190.00
USD-TWD	31.77	31.90	31.70	31.50	31.20	30.30	30.10
USD-SGD	1.35	1.36	1.35	1.34	1.32	1.31	1.30
USD-THB	35.08	35.50	34.00	33.50	33.00	32.50	32.00
USD-HKD	7.82	7.85	7.85	7.83	7.83	7.83	7.83
USD-CNY	7.21	7.40	7.20	7.10	7.00	6.80	6.70
USD-IDR	15,185.00	15,100.00	14,900.00	14,800.00	14,700.00	14,600.00	14,500.00
USD-PHP	56.24	57.50	56.50	56.50	56.00	56.00	55.50
USD-MYR	4.57	4.70	4.66	4.62	4.58	4.56	4.54
USD-INR	82.83	83.00	82.00	81.00	80.50	80.00	80.00

Source: BofA Global Research, Bloomberg. Note: Forecasts as of 10-Aug-2023.

BofA GLOBAL RESEARCH

Analyst Certification

I, Claudio Piron, 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.bofamli.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; 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; 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 (DFS); 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.

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 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)
+44 020 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.