

# The EM Asia FX Strategist

## Fear of floating

### Summary of FX views

**CNY/CNH (bearish):** We forecast end-4Q USD/CNY at 7.2 but see upside risks unless a credible fiscal package is delivered in the coming weeks.

**HKD (neutral):** HKD funding has recently tightened towards 3Q-end. We like to pay HIBOR on dip through pay 3x6 HKD FX forwards.

**INR (neutral):** Neutral on stalling portfolio inflows near-term despite index inclusion. Signs of RBI shifting trading range higher for USD/INR.

**IDR (neutral):** Narrowing interest-rate differentials and political uncertainty weighing on hedging behavior. Revised end-23 forecast to 15,400/USD.

**KRW (bullish):** The squeezing of CNH forwards removes the immediate top-side risk to USDKRW. We like Korea's improving terms-of-trade.

**MYR (bearish):** Bearish outlook on correlation to China growth weakness, negative carry and BNM's low net reserves buffer which skews risk-reward towards relative weakness.

**PHP (neutral):** Wide twin deficits and low carry/real rates remain medium-term risks. But offshore retail issuance may support PHP in the near-term. Turn neutral.

**SGD (neutral):** Neutral on risk of correction in NEER back to around 1% above mid due to increasing growth concerns. CNY weakness may also limit SGD appreciation.

**TWD (bearish):** USDTWD moved higher in response to equity outflow strong lifer demand for bond ETF. We like top-side skews in USDTWD in 4Q24.

**THB (neutral):** Fiscal stimulus supporting growth but equity flows remain weak. Tourism pick-up likely in 4Q but negative carry weighs in the near term.

**VND (neutral):** Monetary policy easing and property/credit issues remain negative for VND. But macroeconomic and trade stabilization are offsetting this pressure.

### Exhibit 1: Asia FX forecasts for next 4 quarters

Bullish KRW, Bearish CNY, MYR & TWD, Neutral HKD, INR, IDR, PHP, SGD, THB & VND

Currency	View/bias	Spot	4Q '23	1Q '24	2Q '24	3Q '24
USD/CNY	Bearish	7.31	7.2	7.1	7	6.8
USD/HKD	Neutral	7.82	7.83	7.83	7.8	7.8
USD/INR	Neutral	83.2	82	81	80.5	80
USD/IDR	Neutral	15446	15400	15300	15200	15100
USD/KRW	Bullish	1349	1330	1305	1280	1210
USD/MYR	Bearish	4.69	4.66	4.62	4.58	4.56
USD/PHP	Neutral	56.91	56.5	56.5	56	56
USD/SGD	Neutral	1.37	1.35	1.335	1.32	1.305
USD/TWD	Bearish	32.23	31.70	31.50	31.20	30.30
USD/THB	Neutral	36.38	35	34.5	34	33.5
USD/VND	Neutral	24423	24000	23900	23800	23700

Source: BofA Global Research estimates

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26 September 2023

GEM FI & FX Strategy  
EM Asia

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### EEMEA & LatAm FX monthly Recent Publications

22 Aug 2023 [The EEMEA FX Strategist](#)  
28 Aug 2023 [LatAm Monthly FX Overview](#)

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**Refer to important disclosures on page 27 to 29. Analyst Certification on page 26. 12604735**

Timestamp: 26 September 2023 02:13AM EDT

# China

## View: CNY stress test and fear of floating

The PBoC continues to stabilize CNY actively using a wide variety of tools: Window guidance, macro prudential, cash flow management, much stronger-than-expected daily fixings, FX intervention and tightening CNH funding. This likely can be sustained for a couple of weeks, but ultimately runs counter to their efforts to provide accommodative monetary conditions, undermining policy credibility in our view – see [Asia FI & FX Strategy Viewpoint: CNY - Stress tests and the fear of floating 29 August 2023](#).

## Macro outlook: Upside risks to USD/CNY to 7.20 end-4Q forecast

The key to turning confidence around will be a credible fiscal stimulus to counter weak demand and deflation risks. The approaching holiday period (Oct 2-6) around the China National Day celebrations is a quiet seasonal period for markets and should help buy time for policy makers. Economic data is showing signs of stabilization, but we remain concerned of upside risks to our year-end USD/CNY forecast of 7.20.

## Valuation: FX COMPASS model indicates 6.6, BEER suggests 5.6

Our COMPASS model (2-3 years) is based on the estimated fair-value exchange rate consistent with an equilibrium current account. This suggests USD/CNY around 7.06, which is 10% below the current spot rate. Our BEER model, 2Q-3Q ahead forecasting model, implies a fair value of 5.6, suggesting CNY is significantly undervalued. The divergence in undervaluation relates to a much larger weight placed on improving terms of trade for the CNY BEER model as oil prices move lower.

**Positioning: real money investors are bearish** onshore CNY positions at -49 (-50 being maximum bearish, underweight), while hedge funds are almost flat at -1. Offshore CNH positioning is also bearish with hedge funds short at -16, while real money is reasonably long at +28 (+50 is maximum bullish) as a means of proxying onshore exposure – see [Liquid Cross Border Flows: Three standout flows 18 September 2023](#).

**Risk events:** Politburo policy statement/review Oct/Nov and China Working Economic Committee meeting in December may provide more policy clarity and/or stimulus.

**Corporate hedging:** We recommend tactically hedging against 2H CNY weakness given the cheap hedging cost.

**Rates:** We expect a modest steepening in the front end of the curve (1s5s) as growth expectations stabilize.

### Exhibit 2: USD/CNY forecasts vs forwards

We expect USD/CNY at 7.20 by end-4Q23

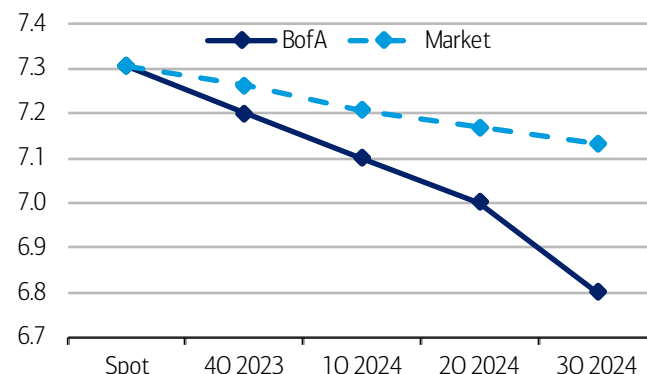
Spot	current 7.30	chg (diff) -0.02		
	Forecast		Forward	
Period	current	chg (diff)	current	chg (diff)
4Q 2023	7.20	-0.45	7.26	+0.022
1Q 2024	7.10	-0.50	7.21	+0.007
2Q 2024	7.00	-0.50	7.17	+0.018
3Q 2024	6.80	-0.30	7.13	+0.050

Source: BofA Global Research, Bloomberg

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### Exhibit 3: USD/CNY forecasts

Our forecast path is below the forwards



Source: BofA Global Research, Bloomberg

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## Cross-currency basis USD/CNY

### Exhibit 4: USD/CNY cross-currency basis

1y xccy basis at -0.28%

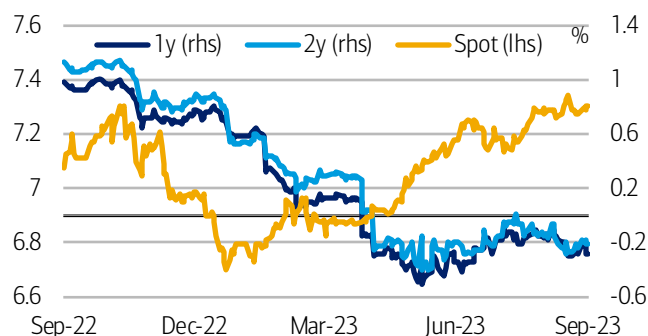
Maturity	Last	1w chg	3m chg	1y chg	Min	Last vs 1y Avg	Max	1y Avg	1w vol	3m vol	3m z-score	1y z-score
1y	-0.28	-0.02	0.06	-1.21	-0.51		1.00	-0.03	0.10	0.69	-0.89	-0.63
2y	-0.21	0.01	-0.02	-1.28	-0.40		1.15	0.06	0.13	0.91	-0.56	-0.65
5y	-0.16	-0.04	-0.54	-1.49	-0.21		1.43	0.38	0.15	1.09	-1.54	-1.34

Note: current value 1y average. The z-score measures the distance between the current value and the mean in standard deviation units Source: BofA Global Research, Bloomberg

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### Exhibit 5: Short-term basis swaps vs USD/CNY spot

1y CNY basis flips negative as CNY moves above 7.00 against USD

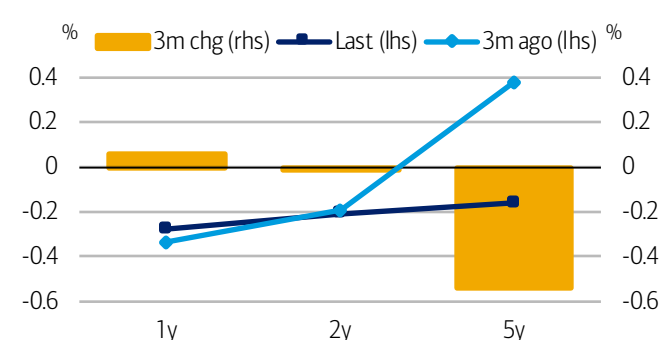


Source: BofA Global Research, Bloomberg

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### Exhibit 6: Term structure of basis swap

Basis curve shifts lower and negative at the 5yr point



Source: BofA Global Research, Bloomberg

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## Volatility surface: USD/CNY

### Exhibit 7: Current implied volatilities

Demand for OTM USD calls remains at significant premium to puts

	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	5.36	4.91	4.90	5.41	6.38
3m	5.85	5.54	5.69	6.42	7.66
6m	5.98	5.74	5.99	6.89	8.36
1y	6.16	5.88	6.17	7.23	8.99

Source: BofA Global Research

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### Exhibit 8: 3m z-scores of implied volatilities

1Y implied vols remain expensive relative to 3M and 6M

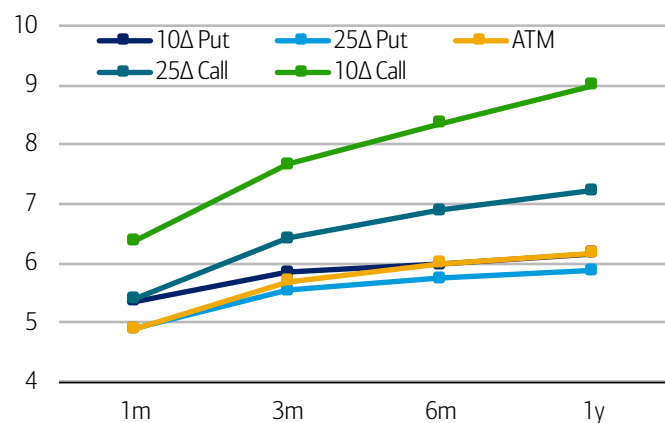
	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	-0.825	-0.698	-0.570	-0.271	-0.052
3m	-0.513	-0.531	-0.321	-0.109	0.008
6m	0.400	0.374	0.301	0.244	0.214
1y	0.826	0.825	0.601	0.391	0.292

Source: BofA Global Research

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### Exhibit 9: Term structures of implied volatilities

Market is still skewed towards CNY 1yr depreciation tail risks

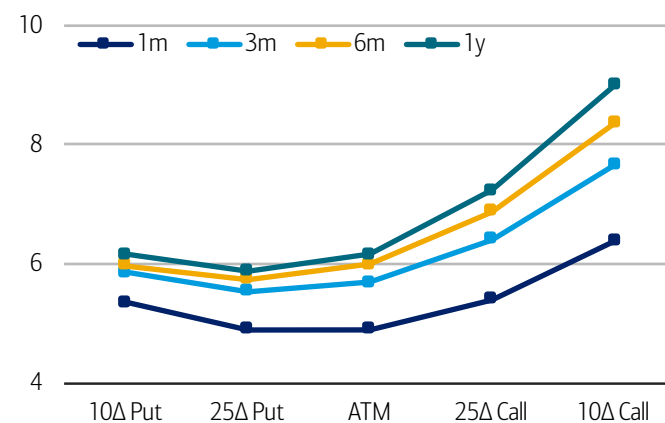


Source: BofA Global Research

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### Exhibit 10: Implied volatility smiles

Implied vol smiles show increasing risk premium for 1Y and 6M USD calls



Source: BofA Global Research

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## Cross-currency basis USD/CNH

### Exhibit 11: USD/CNH cross-currency basis

1y xccy basis at 1.07%

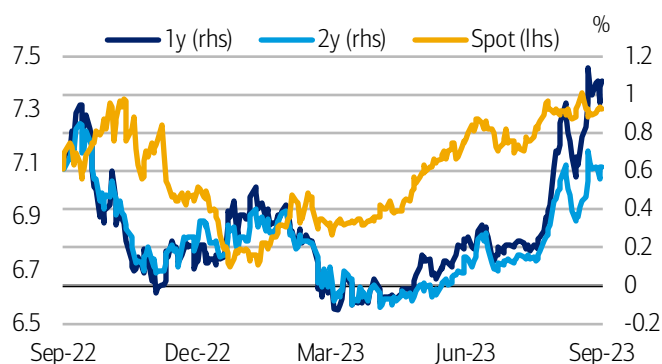
Maturity	Last	1w chg	3m chg	1y chg	Min	Last vs 1y Avg	Max	1y Avg	1w vol	3m vol	3m z-score	1y z-score
1y	1.07	0.07	0.81	0.41	-0.13		1.14	0.26	0.14	1.00	1.87	2.96
2y	0.62	0.01	0.48	0.00	-0.11		0.83	0.21	0.10	0.75	1.67	1.99
5y	0.04	0.00	0.23	-0.13	-0.46		0.14	-0.21	0.10	0.69	1.18	1.69
10y	-0.28	0.02	0.17	0.04	-0.99		-0.16	-0.61	0.13	0.93	0.76	1.55

Note: current value 1y average. The z-score measures the distance between the current value and the mean in standard deviation units Source: BofA Global Research, Bloomberg

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### Exhibit 12: Short-term basis swaps vs USD/CNH spot

1y and 2y basis is showing pressure from CNH liquidity squeeze

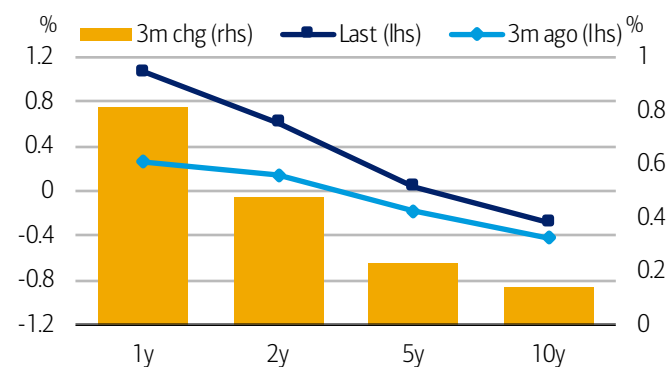


Source: BofA Global Research, Bloomberg

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### Exhibit 13: Term structure of basis swaps

Basis swaps curve is inverted and squeezed higher in 1y and 2y



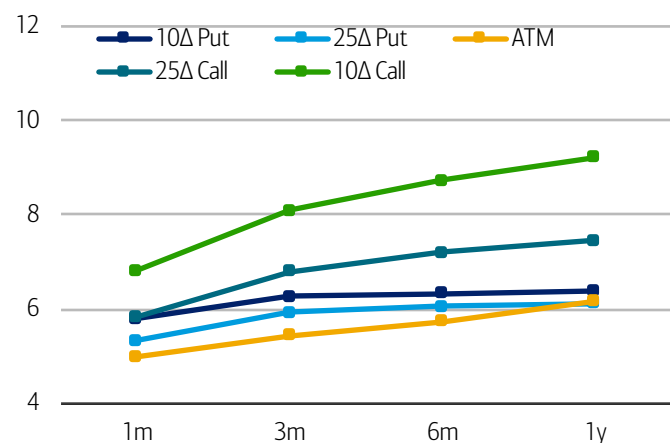
Source: BofA Global Research, Bloomberg

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## Volatility surface: USD/CNH

### Exhibit 14: Term structures of implied volatilities

ATM curve is very flat

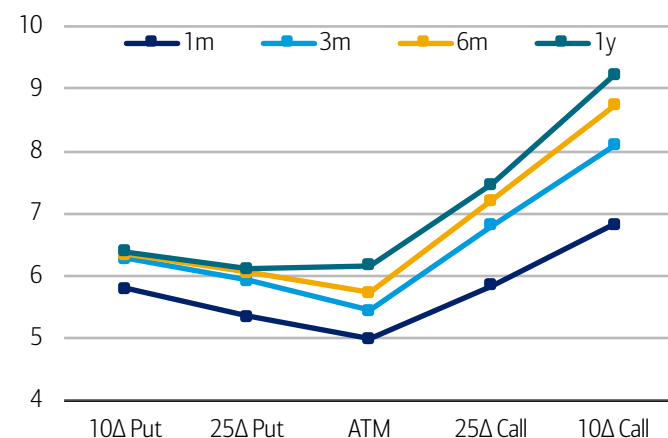


Source: BofA Global Research

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### Exhibit 15: Implied volatility smiles

Implied vol smiles are skewed to CNH depreciation



Source: BofA Global Research

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# Hong Kong

## Macro outlook: We like to pay HIBOR on dips

After falling to below 2% in late-August, the overnight HIBOR fixing went back above 5% in late-September, reflecting the quarter-end tightness to HKD funding and the volatility of HKD funding in an environment of the aggregate balance being constrained.

As explained in [Asia FI & FX Strategy Viewpoint: Elasticity and discipline: the intra-day fluctuations in aggregate balance 07 August 2023](#), despite the daily settlement needs of the HKD system fluctuating, we see the April drain in the aggregate balance to have structurally reduced the supply of HKD liquidity and have pushed up the cost of HKD funding at all levels. As such, whenever there is a large decline in HIBOR, we like to pay on dip as the tight funding condition is skewed towards blow-up in HIBOR. Our current preferred expression of this view by paying 3x6 HKD FX forward points (see: [Asia Cross-asset Strategy: Consequences of higher-for-longer for Hong Kong 17 August 2023](#)).

**Positioning:** Small negative bias forward points in USDHKD remain negative giving the market a net incentive to buy US\$. However, given the realized volatility of front-end HIBOR, there is no strong incentive to hold on to long US\$ positions, making it hard to hit the 7.85 ceiling again.

**Valuation:** Explicitly pegged to USD, making relative valuations vs USD irrelevant.

**Risk events:** An increase in systemic risk arising from mainland from China. This would result in equity outflows and some speculators to buy USDHKD top-side.

**Corporate hedging:** We believe offshore investors (ie, not Hong Kong-based corporates) should hedge against short-term FX volatility for USDHKD due to risks from equity portfolio outflows and increased USD buying as front-end differentials widen. The widening of the FX forward points will increase the positive carry return for those seeking to hedge HKD risk.

### Exhibit 16: USD/HKD forecasts vs forwards

We expect USD/HKD at 7.83 by end-4Q23

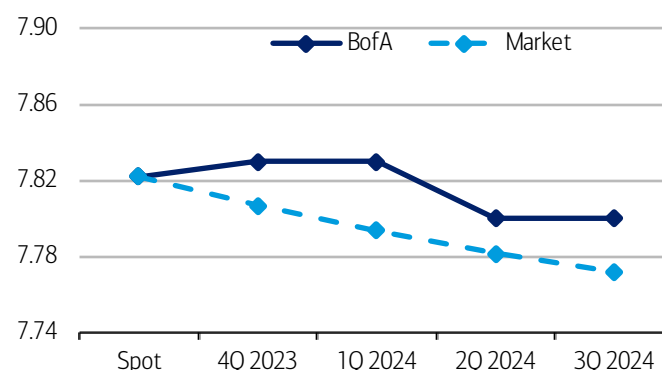
Spot	current 7.82	chg (diff) -0.008		
	Forecast		Forward	
Period	current	chg (diff)	current	chg (diff)
4Q 2023	7.830	+0.02	7.807	-0.0005
1Q 2024	7.830	-	7.794	-0.0005
2Q 2024	7.800	+0.03	7.781	-0.0017
3Q 2024	7.800	+0.03	7.772	-0.0031

Source: BofA Global Research, Bloomberg

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### Exhibit 17: USD/HKD forecasts

Our forecast path is above the forwards



Source: BofA Global Research, Bloomberg

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## Cross-currency basis USD/HKD

### Exhibit 18: USD/HKD cross-currency basis

1y xccy basis at -38.5bp

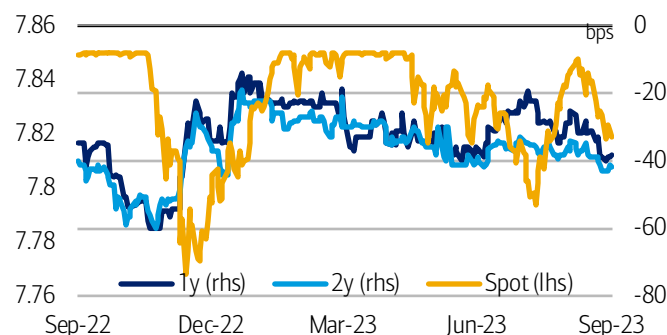
Maturity	Last	1w chg	3m chg	1y chg	Min	Last vs 1y Avg	Max	1y Avg	1w vol	3m vol	3m z-score	1y z-score
1y	-38.50	0.50	-2.00	-3.50	-60.00		-14.00	-32.54	5.98	43.15	-1.66	-0.61
2y	-42.00	1.00	-2.00	-1.00	-60.00		-19.00	-36.73	5.61	40.43	-1.84	-0.61
5y	-61.00	-4.00	-14.50	-18.50	-78.00		-24.50	-44.20	5.46	39.41	-1.78	-1.46
10y	-69.00	-1.00	-5.50	-27.00	-94.00		-34.00	-56.48	6.24	45.01	-1.31	-1.15

Note: current value 1y average. The z-score measures the distance between the current value and the mean in standard deviation units. Source: BofA Global Research, Bloomberg

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### Exhibit 19: Short-term basis swaps vs USD/HKD spot

1y basis swaps recently widened

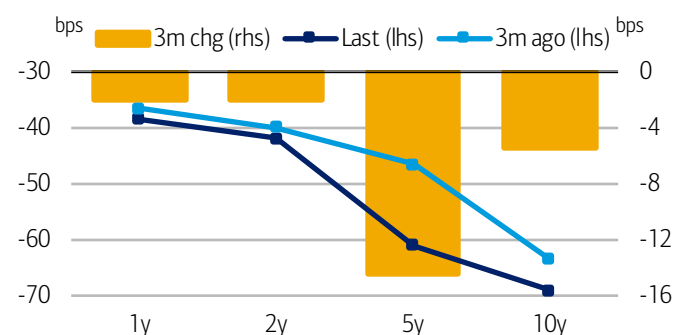


Source: BofA Global Research, Bloomberg

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### Exhibit 20: Term structure of basis swaps

5-year basis swap curve recently widened vs 3 months ago



Source: BofA Global Research, Bloomberg

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## Volatility surface: USD/HKD

### Exhibit 21: Current implied volatilities

Skew is towards puts in USDHKD

	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	1.99	1.42	1.09	1.00	0.94
3m	1.64	1.24	1.01	0.94	1.04
6m	1.97	1.26	1.00	0.96	1.28
1y	2.70	1.49	1.16	1.19	1.92

Source: BofA Global Research

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### Exhibit 22: 3m z-scores of implied volatilities

Changes across time

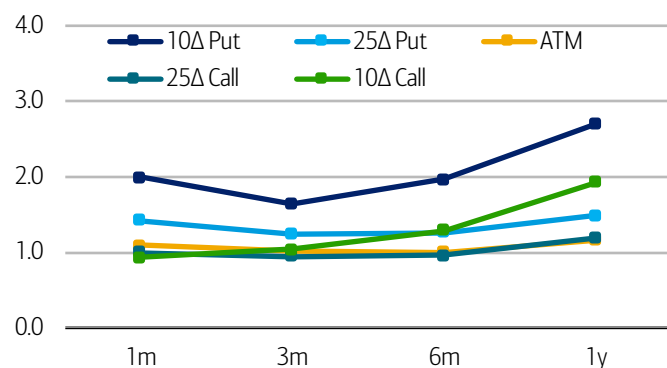
	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	1.11	0.78	0.54	0.33	0.07
3m	0.01	0.14	0.26	0.36	0.44
6m	0.77	0.59	0.20	-0.33	-0.67
1y	1.83	1.37	1.04	0.64	-0.15

Source: BofA Global Research

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### Exhibit 23: Term structures of implied volatilities

Skews for 10-delta puts remain high

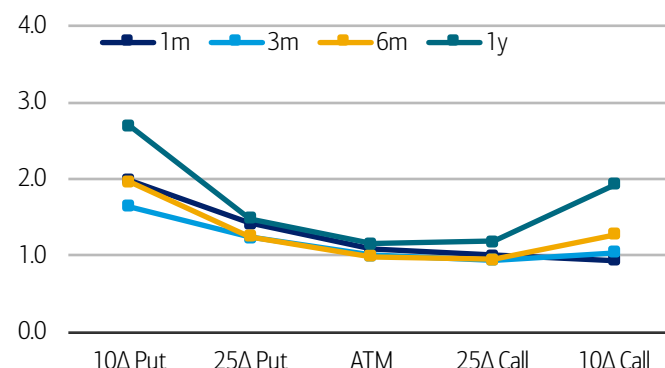


Source: BofA Global Research

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### Exhibit 24: Implied volatility smiles

USDHKD risk reversals remain negative



Source: BofA Global Research

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# India

## View: Index inclusion positive but limited near-term flows

Medium-term outlook for INR positive but near-term flows unlikely to be supportive while terms of trade are deteriorating. INR remains low-beta to USD strength. Turn neutral from bullish range-bound move.

**Macro outlook:** Indian assets received a sentiment boost from inclusion into GBI-EM which would be a medium-term positive support for INR and IGB due to flows next year and deepening of financial markets. The near-term impact may, however, be muted as active investors would be deterred by low carry, consistent RBI accumulation of USDs and a flat yield curve. Over the past few months, RBI's accumulation of FX flows may have led to shortage of USDs elsewhere. The low carry pick-up against deteriorating terms of trade due to higher oil are increasing the risk of USD/INR trading range moving higher.

Inclusion news led to a reactive rally in bonds but we believe the current level and flatness of yield curve partly reflected this expectation. IGB yields have stayed in a tight range, shrugging any concerns around higher inflation, large issuance, higher interbank rate due to tighter liquidity and global duration sell-off. Demand for duration has held-up with large purchases by banks even as easing expectations have been pushed back. Bond-swap spreads have also tightened sharply as swaps move sharply higher along with global rates while bond yields remained steady. In the absence of near-term active flows, bonds may come under pressure.

**Valuation:** Undervalued on Compass BEER but overvalued on long-term FX Compass.

**Positioning:** Crowded long amongst HFs. RMs turned long INR as well.

**Risk events:** state elections towards end-2023 ahead of general elections next year.

**Corporate Hedging:** We recommend long INR exposure on positive carry compared to low volatility.

**Rates: Higher/steeper** – Market pricing risk of rate hike and tighter liquidity keeping front-end rates higher. Curve is too flat on longer-end while issuance risks remain. We revised end-2023 10y yield forecast to 7.2% from 7% earlier as global rates have moved sharply higher and rate-cuts in India have been pushed back.

### Exhibit 25: USD/INR forecasts vs forwards

We expect USD/INR at 82 by end-4Q23

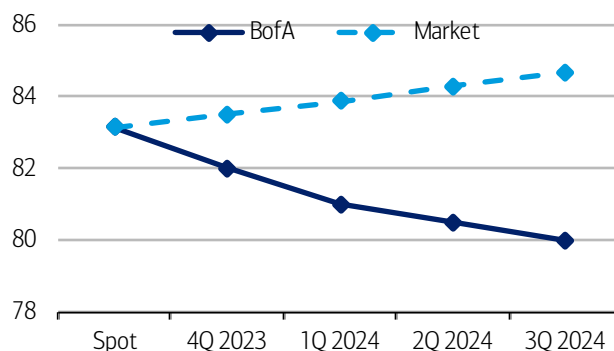
Spot	current 83.14		chg (diff) +0.03	
	Forecast		Forward	
Period	current	chg (diff)	current	chg (diff)
4Q 2023	82.0	-2.00	83.52	-0.01
1Q 2024	81.0	-1.50	83.87	+0.01
2Q 2024	80.5	-1.00	84.30	+0.07
3Q 2024	80.0	-1.00	84.69	-0.07

Source: BofA Global Research, Bloomberg

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### Exhibit 26: USD/INR forecasts

Our forecast path is below the forwards



Source: BofA Global Research, Bloomberg

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## USD/INR forwards – implied yields

### Exhibit 27: USD/INR NDF implied yields

1m NDF at 6.95%

Maturity	Last	1w chg	3m chg	1y chg	Min	Last vs 1y Avg	Max	1y Avg	1w vol	3m vol	3m z-score	1y z-score
1m	6.95	0.43	1.56	-1.81	3.29		11.84	6.90	2.39	17.24	0.24	0.06
3m	7.14	0.20	0.81	-0.31	6.07		9.40	7.26	0.90	6.48	0.83	-0.22
6m	7.24	0.08	0.50	-0.11	6.66		9.11	7.40	0.49	3.52	1.26	-0.32
12m	7.47	0.11	0.33	-0.16	6.75		8.63	7.44	0.33	2.41	1.71	0.08

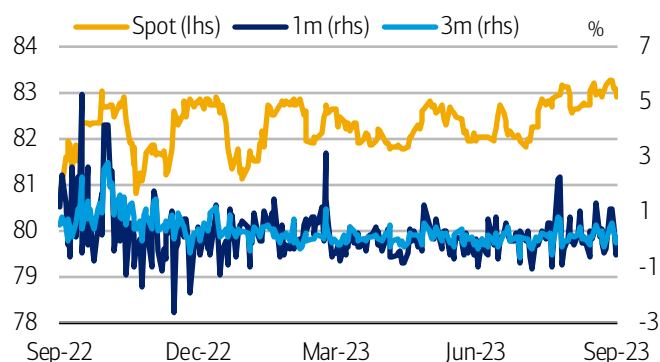
Note: ● current value ◆ 1y average. The z-score measures the distance between the current value and the mean in standard deviation units

Source: BofA Global Research, Bloomberg

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### Exhibit 28: NDF - Onshore forward yields vs USD/INR spot

Offshore-onshore yield differential narrowed

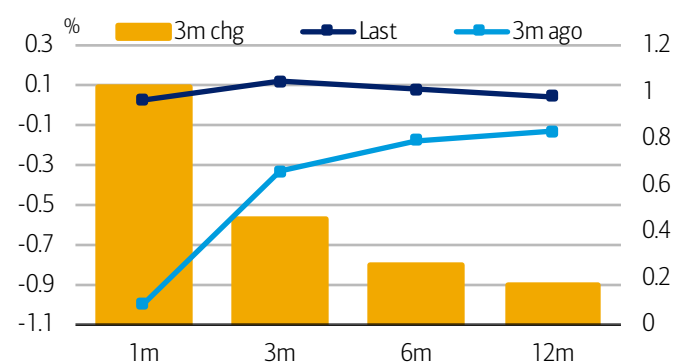


Source: BofA Global Research, Bloomberg

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### Exhibit 29: Term structure of NDF – Onshore forward yields

Offshore yields higher over 3m



Source: BofA Global Research, Bloomberg

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## Volatility surface: USD/INR

### Exhibit 30: Current implied volatilities

Implied vols skewed towards call options

	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	3.67	3.42	3.45	3.87	4.50
3m	4.18	3.89	3.92	4.44	5.25
6m	4.70	4.34	4.36	4.99	5.99
1y	5.33	4.93	4.96	5.70	6.93

Source: BofA Global Research

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### Exhibit 31: 3m z-scores of implied volatilities

Implied volatilities moved lower across tenors

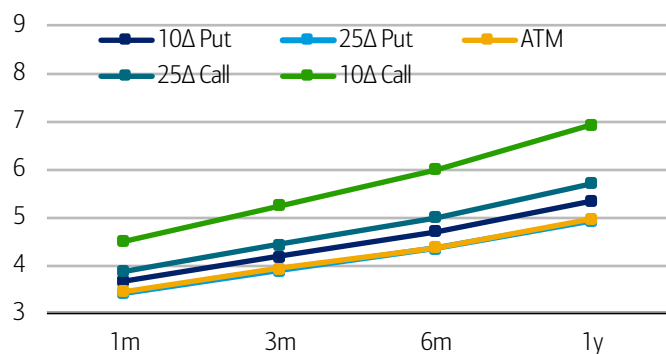
	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	-0.87	-0.74	-0.59	-0.45	-0.38
3m	-0.82	-0.76	-0.72	-0.72	-0.76
6m	-1.12	-1.16	-1.20	-1.24	-1.25
1y	-1.57	-1.62	-1.68	-1.74	-1.77

Source: BofA Global Research

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### Exhibit 32: Term structures of implied volatilities

Vol profile skewed towards calls

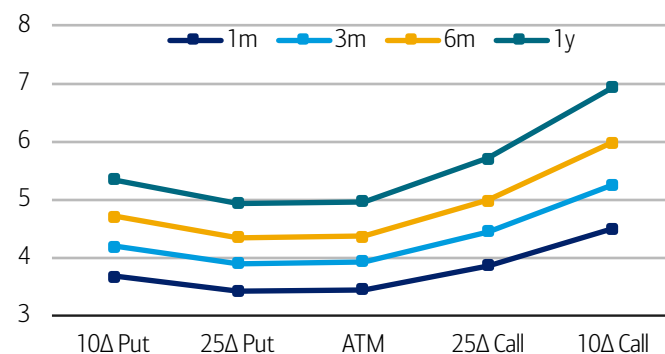


Source: BofA Global Research

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### Exhibit 33: Implied volatility smiles

Implied vol smiles are skewed for upside protection in USD/INR



Source: BofA Global Research

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# Indonesia

## View: Narrow carry and elevated NEER weighs on IDR

Rising uncertainty on political continuity and narrowing interest-rate differential reducing the tailwinds for IDR. Export conversion remains low while market remains concerned on valuation as NEER is still elevated. Revising end-2023 forecast to 15,400/USD.

**Macro outlook:** In our macro trip notes, we highlighted increasing concerns on Indonesia's down-streaming story and a protracted period of political uncertainty heading into the presidential elections early next year. While doubts are creeping-up on the medium-term structural story, the recent trends in trade balances and turn in current account into deficit has further fueled long USD positions. In the near-term, USD strength amidst narrowing carry buffer and elevated IDR NEER may continue to keep IDR on a slow depreciation path. With a relatively open capital account weighing on repatriation and conversion of export proceeds, policymakers have focused on maintaining yield-differential against US rates to attract more capital inflows.

However, despite various measures on export repatriation and introduction of new bills to attract foreign inflows, the success of these instruments has been limited. Market would continue to test BI's capacity to intervene on spot reserves and via DNDF book where we still see ample room for BI to maintain currency defense. USD softening would be needed to change corporate hedging behavior and open room for IDR appreciation. We raise our USDIDR projections for end-2023 to 15,400/USD.

Bonds are relatively better placed due to continued fiscal outperformance and low and stable inflation. With BI dialing back from bond sales to drive yields higher and the possibility of a further reduction in pace of issuance, there is room for the yield curve to flatten further. However, any rally in bonds may be limited by elevated front-end yields and concerns on higher auction sizes in 1Q24 and long positioning in 5-10y sector.

**Valuation:** IDR is undervalued vs USD on Compass BEER but overvalued on long-term FX Compass model.

**Positioning:** HFs reduced long IDR to more moderate levels while RMs covered shorts.

**Risk events:** Risks from deterioration of terms-of-trade could adversely impact IDR.

**Corporate hedging:** We recommend hedging long IDR in the near term.

**Rates: flatter** – We expect front-end rates to stay elevated until pressure on IDR eases-off as BI wants to ensure yields remain attractive for foreign investors. Lower duration supply to the market due to end of BI's bond sales and continued fiscal improvement could lead to flatter curve. We revise our IndoGB 10y forecast to 6.5% by end-2023.

### Exhibit 34: USD/IDR forecasts vs forwards

We expect USD/IDR at 15,400 by end-4Q23

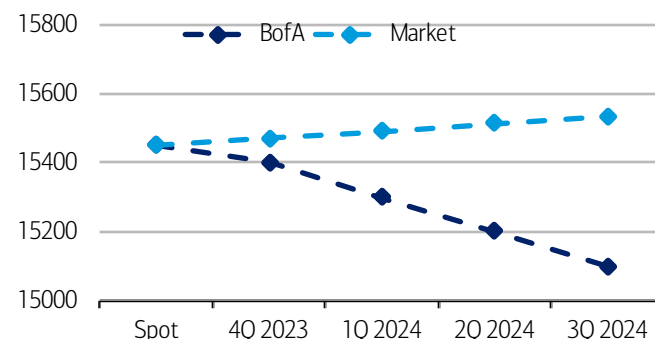
Spot	current	chg (diff)		
	15451	+169.00		
	Forecast		Forward	
Period	current	chg (diff)	current	chg (diff)
4Q 2023	15400	-500.00	15472	138.84
1Q 2024	15300	-500.00	15491	96.09
2Q 2024	15200	-500.00	15516	130.64
3Q 2024	15100	-500.00	15535	68.89

Source: BofA Global Research, Bloomberg

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### Exhibit 35: USD/IDR forecasts

Our forecast path is below the forwards



Source: BofA Global Research, Bloomberg

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## USD/IDR forwards – implied yields

### Exhibit 36: USD/IDR NDF implied yields

1m NDF at 5.67%

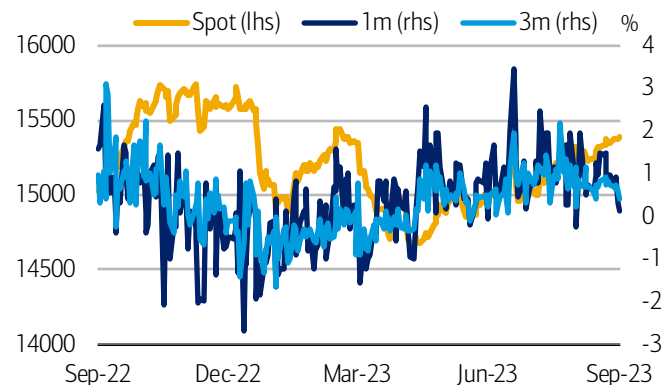
Maturity	Last	1w chg	3m chg	1y chg	Min	Last vs 1y Avg	Max	1y Avg	1w vol	3m vol	3m z-score	1y z-score
1m	5.67	-0.81	-0.87	0.02	2.01		9.03	5.67	2.02	14.54	-1.44	0.00
3m	5.91	-0.40	-0.12	1.25	3.66		7.92	5.81	1.32	9.50	-1.28	0.13
6m	6.04	-0.22	0.06	1.13	4.56		7.12	5.94	0.76	5.45	-1.22	0.21
12m	6.10	-0.14	0.16	0.61	5.08		7.01	6.02	0.46	3.31	-0.62	0.24

Note: ● current value ◆ 1y average. The z-score measures the distance between the current value and the mean in standard deviation units Source: BofA Global Research, Bloomberg

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### Exhibit 37: Onshore forward yields vs USD/IDR spot

NDF yields moved lower

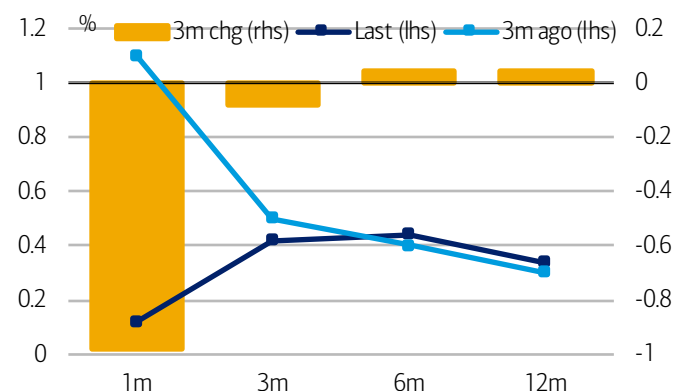


Source: BofA Global Research, Bloomberg

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### Exhibit 38: Term structure of NDF – Onshore forward yields

Offshore yields below onshore in 1m



Source: BofA Global Research, Bloomberg

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### Exhibit 39: Current implied volatilities

Vol surface highly skewed towards call options

	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	5.47	4.94	4.84	5.39	6.28
3m	6.15	5.75	5.88	6.75	7.99
6m	6.80	6.42	6.70	7.92	9.64
1y	7.71	7.33	7.72	9.28	11.62

Source: BofA Global Research

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### Exhibit 40: 3m z-scores of implied volatilities

Vols moved lower across tenors

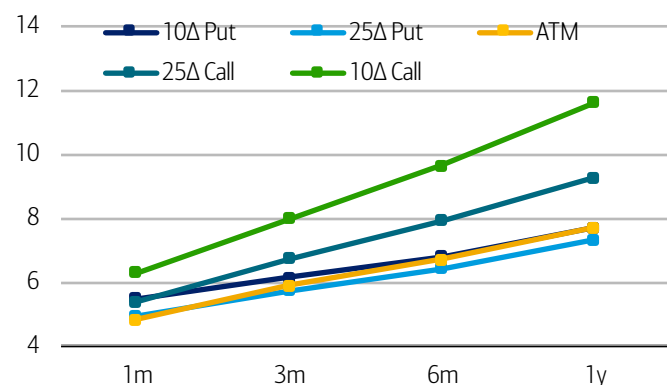
	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	-2.91	-2.89	-2.85	-2.79	-2.75
3m	-2.84	-2.84	-2.79	-2.72	-2.69
6m	-2.82	-2.83	-2.77	-2.71	-2.69
1y	-2.88	-2.84	-2.71	-2.56	-2.48

Source: BofA Global Research

BofA GLOBAL RESEARCH

### Exhibit 41: Term structures of implied volatilities

Steep vol term structure for upside USD/IDR

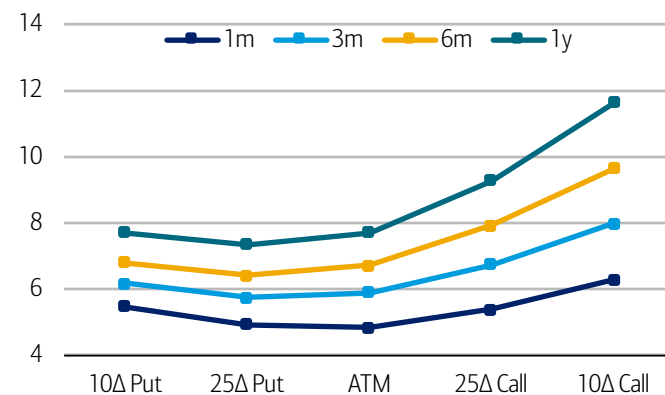


Source: BofA Global Research

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### Exhibit 42: Implied volatility smiles

Higher skew in longer tenor vols



Source: BofA Global Research

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# Korea

## Macro outlook: Turning bullish on improving terms of trade

As noted in our report [Asia FI & FX Strategy Watch: Relative green shoots for the Korean won 15 September 2023](#), we are turning more constructive on KRW due to improving terms-of-trade and more supportive equity portfolio flow. We believe these positive drivers for KRW valuation will help so long as the PBOC maintains a relatively high funding cost to discourage the market from shorting RMB. So long as USDCNH can remain stable, we believe it will give KRW the space to rally on a relative basis.

Firstly, given the persistent USD strength and our call for one more Fed hike, currently we would like to stay away from the USDKRW cross and like to use KRW on a relative value basis. The pair we chose to sell against KRW is SGD. We estimate the S\$NEER to remain close to the top-end of the band and has limited room for further short-term appreciation.

Secondly, with a similar 1-month FX implied yield, we believe using SGD is more efficient from a FX carry perspective relative to funding with CNH.

As such, we enter a short SGDKRW position (current: 974; target: 945; stop: 990). Risks to the trade include additional USD strength which pushes USDKRW higher; or the PBOC relaxing its stance on RMB, resulting in additional sell-off in Asian currencies.

**Positioning:** Neutral, as the stabilization in USDCNH will result in the stabilization in USDKRW.

**Valuation (Compass says 1,404, BEER says 1,125)** – BEER estimates of fair value for USDKRW place it at 1,125 vs the current spot level of 1,336. Our FX Compass model suggests a fair value of 1,404, indicating the current value of USDKRW is too low relative to its fundamental value.

**Risk events:** Any announcement of Chinese stimulus that can increase expectations for export performance. Any strong sentiment around the AI sector that can result in either additional inflows or outflows.

**Corporate hedging:** With spot USDKRW rising, Korea corporates should take advantage of the high US dollar vs the Korean won and sell US\$ forward to hedge their foreign earnings. Offshore (non-Korea) corporates should buy US\$ forward to hedge the likelihood of additional Korean won depreciation.

### Exhibit 43: USD/KRW forecasts vs forwards

We expect USD/KRW at 1,330 by end-4Q23

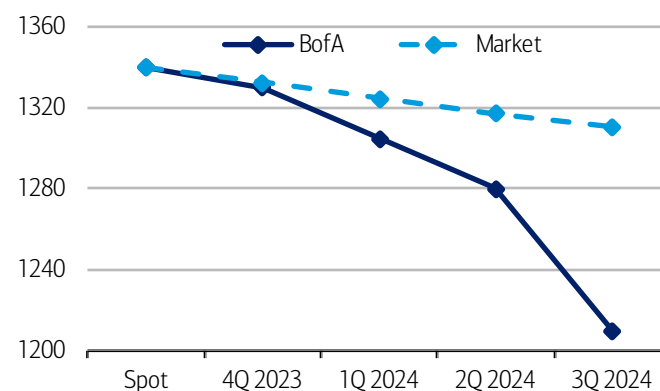
Spot	current		chg (diff)	
	1339.90		-1.65	
Period	Forecast		Forward	
	current	chg (diff)	current	chg (diff)
4Q 2023	1330	-60	1332.46	+1.94
1Q 2024	1305	-60	1324.73	+2.07
2Q 2024	1280	-60	1317.31	+1.90
3Q 2024	1210	-	1310.62	+0.88

Source: BofA Global Research, Bloomberg

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### Exhibit 44: USD/KRW forecasts

Our forecast path is below the forwards



Source: BofA Global Research, Bloomberg

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## Cross-currency basis USD/KRW

### Exhibit 45: USD/KRW cross-currency basis

1y xccy basis at -75bp

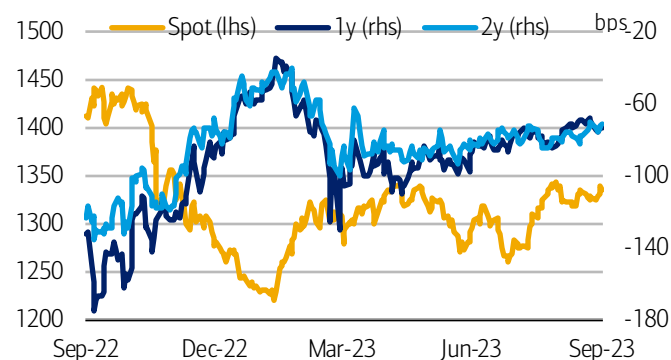
Maturity	Last	1w chg	3m chg	1y chg	Min	Last vs 1y Avg	Max	1y Avg	1w vol	3m vol	3m z-score	1y z-score
1y	-75.00	-4.25	6.50	56.50	-175.00		-34.75	-91.03	14.74	106.29	0.52	0.59
2y	-72.00	-1.00	10.50	45.00	-135.50		-40.25	-82.51	10.31	74.34	1.62	0.51
5y	-57.50	-11.25	2.50	34.50	-115.00		-15.50	-62.57	11.73	84.59	-0.52	0.27
10y	-59.75	-12.75	-2.50	40.25	-121.50		-24.00	-64.84	12.84	92.60	-0.68	0.26

Note: current value 1y average. The z-score measures the distance between the current value and the mean in standard deviation units. Source: BofA Global Research, Bloomberg

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### Exhibit 46: Short-term basis swaps vs USD/KRW spot

KRW 1-year xccy basis swaps recently stabilized

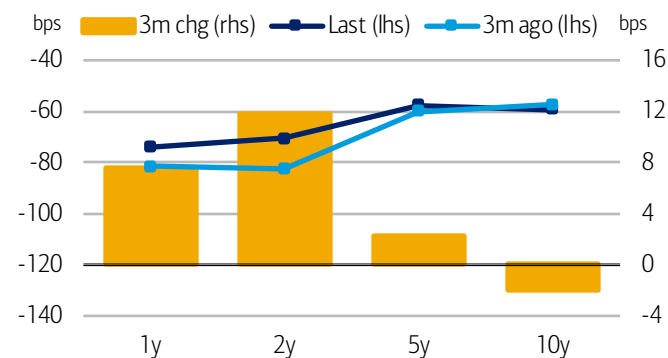


Source: BofA Global Research, Bloomberg.

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### Exhibit 47: Term structure of basis swaps

2-year xccy basis swap tightened the most in the past 3 months



Source: BofA Global Research, Bloomberg

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## Volatility surface: USD/KRW

### Exhibit 48: Current implied volatilities

Implied vol remains skewed towards calls

	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	8.29	7.93	7.85	8.15	8.70
3m	8.84	8.52	8.58	9.14	10.02
6m	8.82	8.54	8.71	9.49	10.65
1y	9.03	8.79	9.07	10.14	11.70

Source: BofA Global Research

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### Exhibit 49: 3m z-scores of implied volatilities

Changes across time

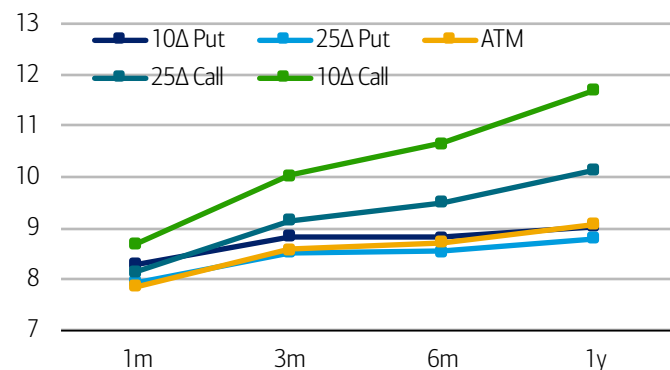
	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	-3.30	-3.16	-3.04	-2.96	-2.94
3m	-1.70	-1.84	-1.97	-2.07	-2.14
6m	-1.88	-2.09	-2.33	-2.58	-2.80
1y	-1.70	-1.93	-2.18	-2.48	-2.73

Source: BofA Global Research

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### Exhibit 50: Term structures of implied volatilities

Flatter profile for puts vs calls

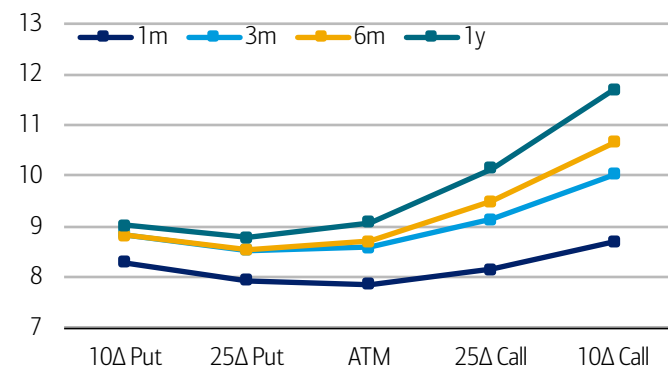


Source: BofA Global Research

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### Exhibit 51: Implied volatility smiles

Implied vol smiles are skewed toward calls



Source: BofA Global Research

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# Malaysia

## View: Risk from negative carry and weak China growth

We keep our bearish view on MYR due to risks to exports outlook, negative carry and concerns around BNM's short forward book which would need to be unwound if MYR appreciates.

**Macro outlook:** External headwinds from tighter Fed policy and weak China growth continue to weigh on MYR. Questions on Malaysia have focused on the potential policy measures to contain further MYR weakness due to concerns on BNM's net FX reserves. While headline reserves are at USD 112 Bn, net reserves come down to around USD 73 Bn, after adjusting for FX forwards short USD -24 Bn and short-term FX liabilities of USD -15 Bn.

Tighter liquidity and higher interbank rates appear consistent with that outlook but interest-rate differential against the US remains too wide. BNM may continue to lean on a combination of intervention and window guidance to increase conversion of export proceeds and reduce capital outflows may help support MYR if it comes under pressure.

Bonds have begun selling off breaking out of a tight range earlier which was supported by strong duration demand from the pension funds. Further sell-off is possible as MGS yields still appear rich compared to global rates given expansionary fiscal outlook in Malaysia. Larger move higher in yields would be capped by strong pension fund flows.

**Valuation:** MYR is undervalued on Compass BEER model. The long-term FX Compass model suggests neutral valuation with a fair value of 4.68/USD.

**Positioning:** HFs moderately long MYR while RMs slightly underweight.

**Risk events:** Expansionary fiscal stance could increase the potential for negative rating actions over time due to debt-sustainability issues.

**Corporate hedging:** We recommend hedging MYR exposure as we have a bearish view, and implied yields are lower than US rates, thus hedging provides positive carry.

**Rates: Higher** – We expect rates to move higher with some room due to pass through of higher interbank rates. Some steepening is possible in line with global rates move as fiscal consolidation has been pushed back. We revised MGS 10y forecast to 4.1% by end-2023 from 3.8% earlier.

### Exhibit 52: USD/MYR forecasts vs forwards

We expect USD/MYR at 4.66 by end-4Q23

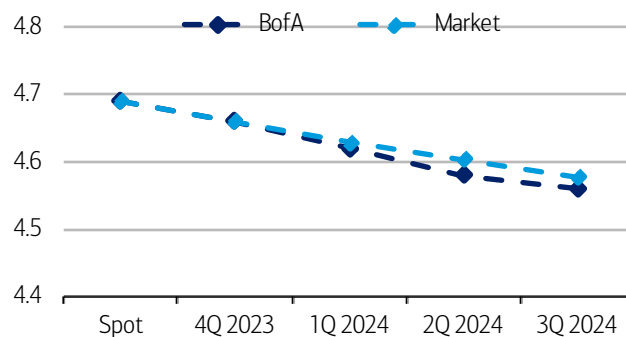
Spot	current 4.69		chg (diff) +0.04	
	Forecast		Forward	
Period	current	chg (diff)	current	chg (diff)
4Q 2023	4.66	-0.24	4.66	+0.049
1Q 2024	4.62	-0.22	4.63	+0.048
2Q 2024	4.58	-0.20	4.60	+0.043
3Q 2024	4.56	-0.20	4.58	+0.030

Source: BofA Global Research, Bloomberg

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### Exhibit 53: USD/MYR forecasts

Our forecast path is in line with the forwards



Source: BofA Global Research, Bloomberg

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## Cross-currency basis USD/MYR

### Exhibit 54: USD/MYR cross-currency basis

1y xccy basis at -39bp

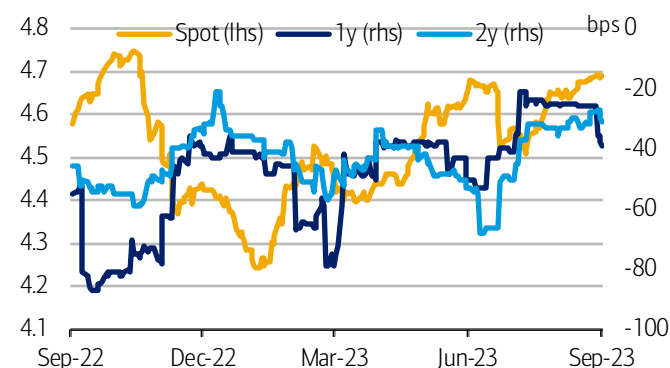
Maturity	Last	1w chg	3m chg	1y chg	Min	Last vs 1y Avg	Max	1y Avg	1w vol	3m vol	3m z-score	1y z-score
1y	-39.00	-13.00	11.00	16.00	-87.00		-21.00	-48.35	9.42	67.91	-0.69	0.54
2y	-31.00	-3.00	22.00	15.00	-68.00		-21.00	-43.90	5.27	37.98	0.73	1.35
5y	-37.00	5.00	19.00	15.00	-70.00		-30.00	-46.24	5.59	40.30	1.34	1.12
10y	-58.00	0.00	6.00	11.00	-77.00		-53.00	-60.14	3.43	24.72	0.20	0.39

Note: current value 1y average. The z-score measures the distance between the current value and the mean in standard deviation units Source: BofA Global Research

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### Exhibit 55: Short-term basis swaps vs USD/MYR spot

Basis narrowed

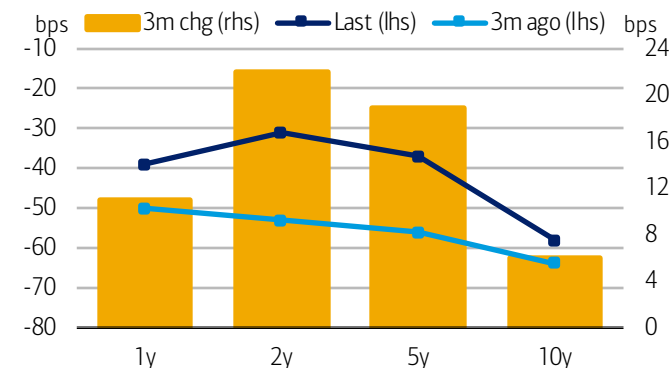


Source: BofA Global Research, Bloomberg

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### Exhibit 56: Term structure of basis swaps

Basis higher across tenors over 3m period



Source: BofA Global Research, Bloomberg

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## Volatility surface: USD/MYR

### Exhibit 57: Current implied volatilities

High skew for upside USD/MYR

	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	5.56	5.56	6.19	7.61	9.65
3m	5.66	5.62	6.51	8.28	10.66
6m	6.39	6.16	7.03	9.05	11.88
1y	7.28	6.85	7.76	10.21	13.63

Source: BofA Global Research

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### Exhibit 58: 3m z-scores of implied volatilities

Lower vols across most tenors except 1y

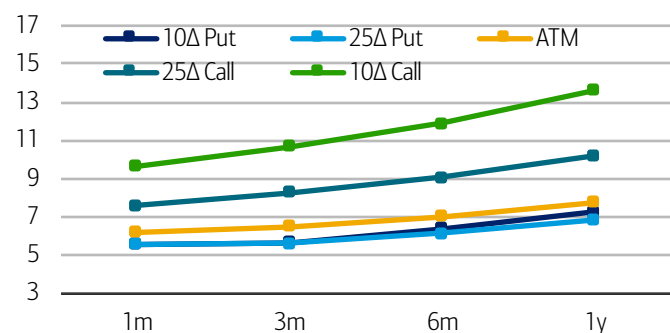
	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	-0.96	-1.10	-0.99	-0.79	-0.53
3m	-2.38	-2.58	-2.56	-2.36	-1.75
6m	-1.90	-2.36	-2.26	-1.95	-1.04
1y	1.10	0.22	0.63	2.14	2.85

Source: BofA Global Research

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### Exhibit 59: Term structures of implied volatilities

Skewed term structure for topside USD/MYR

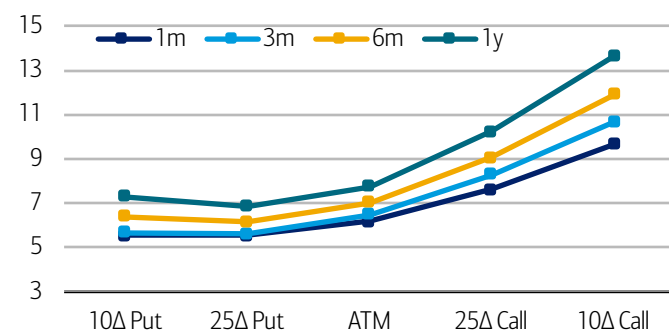


Source: BofA Global Research

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### Exhibit 60: Implied volatility smiles

Higher skew in longer tenor



Source: BofA Global Research

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# The Philippines

## View: Near-term support from offshore debt issuance

PHP may find some near-term support from the announcement of offshore USD retail bond issuance over the next two weeks. BSP's hawkish turn in the last meeting could also keep interest-rate differentials more favorable.

**Macro outlook:** PHP has remained relatively stable despite concerns on the fundamental outlook due to still wide current account deficit. A combination of government funding and banking system flows kept BoP in a surplus during 1H. However, government funding flows in 2H may be slower while higher oil imports continue to deteriorate Philippines' terms of trade (ToT).

The government has just announced retail USD bond issuance to tap offshore Pilipinas demand but the size is expected to be towards the lower end of USD 1-2 Bn range mentioned earlier. Sukuk issuance later this year is still on the cards but higher offshore funding costs vs onshore yields make it less attractive to issue a large size. BSP's hawkish comments recently indicating a potential hike in the next meeting could offset provide support against further narrowing of interest-rate differentials.

**Valuation:** PHP is undervalued on Compass BEER model. But, our long-term FX Compass model suggests around 16% overvaluation for PHP, indicating fair value at 67.64, likely due to wider current account deficit compared to historically sustainable levels.

**Positioning:** Low front-end points imply that bearish PHP positioning may have been squeezed by news of offshore issuance.

**Risk events:** Food price shock, and higher commodity prices in general, remain the key risk for the Philippines leading to widening of twin deficits.

**Corporate hedging:** We recommend hedging PHP as hedging costs remain low and our view on the currency is neutral.

**Rates: Higher/flatter** – BSP's hawkish bias could lead to front-end leading the sell-off in rates. Fiscal funding would be supported by retail issuance which reduces need to borrow further from domestic sources, thus reducing the duration supply to the market. That may put flattening pressure on mid to longer tenor rates.

### Exhibit 61: USD/PHP forecasts vs forwards

We expect USD/PHP at 56.5 by end-4Q23

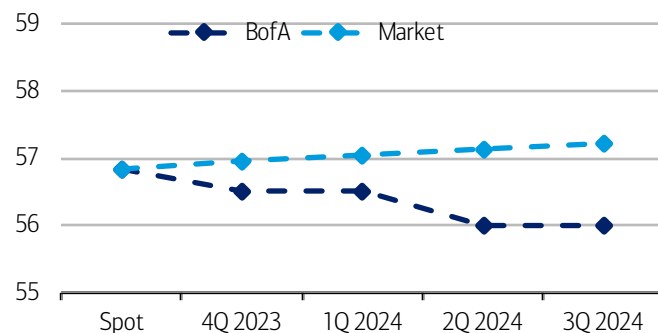
Spot	current		chg (diff)	
	56.84		+0.17	
Period	Forecast		Forward	
	current	chg (diff)	current	chg (diff)
4Q 2023	56.50	-1.50	56.95	+0.17
1Q 2024	56.50	-1.50	57.04	+0.15
2Q 2024	56.00	-1.50	57.12	+0.14
3Q 2024	56.00	-1.50	57.22	+0.62

Source: BofA Global Research, Bloomberg

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### Exhibit 62: USD/PHP forecasts

Our forecast path is below the forwards from 4Q23







Source: BofA Global Research, Bloomberg



BofA GLOBAL RESEARCH

## USD/PHP forwards – implied yields

### Exhibit 63: USD/PHP NDF implied yields

1m NDF at 4.74%

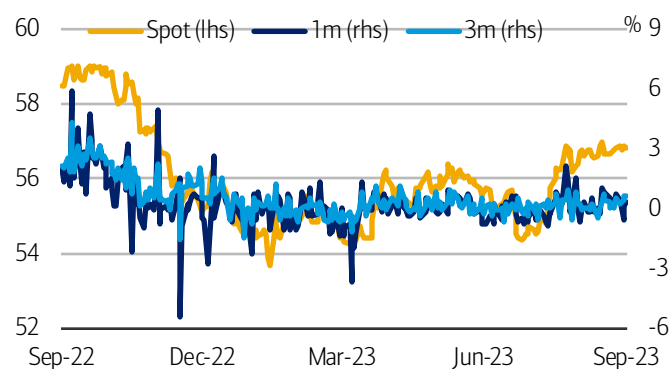
Maturity	Last	1w chg	3m chg	1y chg	Min	Last vs 1y Avg	Max	1y Avg	1w vol	3m vol	3m z-score	1y z-score
1m	4.74	-1.28	-0.92	-0.96	-0.54		9.93	5.66	2.75	19.85	-1.55	-0.80
3m	5.72	-0.46	-0.79	-0.95	3.33		8.72	6.10	1.44	10.42	-0.97	-0.55
6m	5.96	-0.19	-0.41	-0.80	4.90		7.71	6.23	0.77	5.57	-0.98	-0.52
12m	6.01	-0.08	-0.06	-0.67	4.98		7.37	6.14	0.49	3.55	-0.42	-0.25

Note:  current value  1y average. The z-score measures the distance between the current value and the mean in standard deviation units Source: BofA Global Research

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### Exhibit 64: NDF - Onshore forward yields vs USD/PHP spot

Offshore implied yields slightly higher over the month

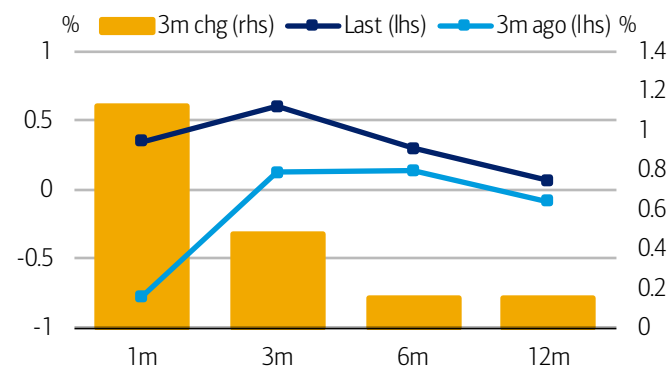


Source: BofA Global Research, Bloomberg

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### Exhibit 65: Term structure of NDF – Onshore forward yields

Offshore yields spread higher from 3-month ago



Source: BofA Global Research, Bloomberg

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## Volatility surface: USD/PHP

### Exhibit 66: Current implied volatilities

Higher vol to hedge PHP depreciation risk

	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	6.40	6.15	6.17	6.60	7.25
3m	6.51	6.28	6.38	6.98	7.85
6m	6.53	6.28	6.42	7.13	8.18
1y	6.80	6.47	6.61	7.47	8.75

Source: BofA Global Research

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### Exhibit 67: 3m z-scores of implied volatilities

Vols moved lower across tenors

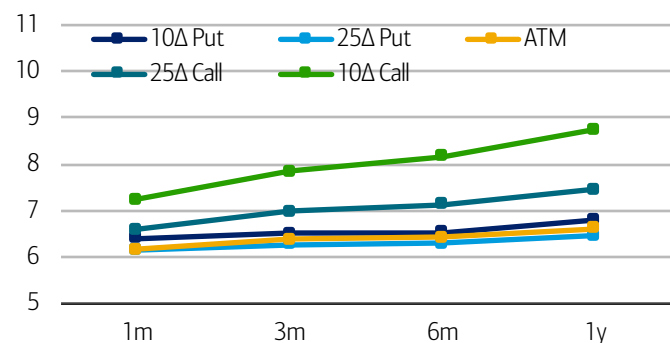
	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	-0.45	-0.43	-0.40	-0.37	-0.35
3m	-0.35	-0.32	-0.28	-0.22	-0.18
6m	-0.76	-0.66	-0.59	-0.58	-0.62
1y	-0.35	-0.41	-0.47	-0.52	-0.54

Source: BofA Global Research

BofA GLOBAL RESEARCH

### Exhibit 68: Term structures of implied volatilities

Flat term structure across strikes except OTM call USD/PHP

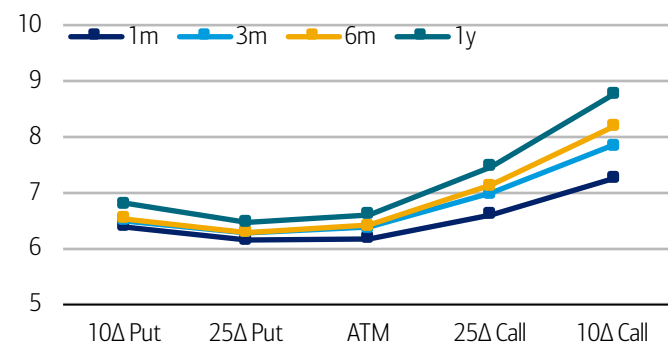


Source: BofA Global Research

BofA GLOBAL RESEARCH

### Exhibit 69: Implied volatility smiles

Upside USD/PHP vols much higher, indicating hedging demand



Source: BofA Global Research

BofA GLOBAL RESEARCH



# Singapore

## View: SGD NEER risk-reward neutral at current levels

We expect SGD NEER to trade around 1% above mid vs currently around 1.2% which leaves some room for correction if global risk-sentiment sours.

**Macro outlook:** The SGD NEER remained steady around 1.2% above mid, on our model, providing steady carry from slope with low volatility. Basket yields on SGD NEER are still only 10-15bps higher than SORA 1y which indicates that front-end rates remain well above those implied by uncovered interest-rate parity and policy appreciation. Higher implied yields on SGD forwards make long SGD NEER as an attractive carry position compared to its volatility.

But current levels also leave room for correction within the band in the hard-landing scenario leading to risk-off move. We expect SGD NEER to continue trading around 1% above the mid which offers a neutral risk-reward against downside risks. On bilateral basis vs USD, SGD could face further pressure as CNY weakness and NEER correction could add to broader USD strength.

SORA (Singapore overnight rate average) fixings have been steady despite higher US rates, which reflects MAS's comfort with the current policy settings as being sufficiently tight. Long-end of the bond curve has steepened as a result of large issuance this quarter. But with the upcoming 30y issuance marking end of issuance for the year, SGS 10s30s may flatten as long-end would be well-supported in 4Q.

**Valuation:** SGD come across as slightly overvalued on our medium-term FX compass model. Our short-term model Compass BEER, however, indicates large undervaluation.

**Positioning:** Both HFs and RMs remain underweight. Our data shows SGD as the most-underweight currency across EM.

**Risk events:** Hard landing scenario remains key risk for SGD. MAS October policy meeting is to be held during the week of 9-13 Oct.

**Corporate hedging:** Low hedging costs and a negative basis vs USD indicates a small yield pick-up for bond investors. We recommend hedging long SGD exposure near-term.

**Rates: Flatter** – Front-end rates may remain sticky with low-beta to US rates. Longer tenor SGS demand is likely to improve which could lead to 10s30s part flattening. We revise forecast for SGS 10y to 3.2% by end-2023 from 2.5% earlier due to correlation with higher US rates.

### Exhibit 70: USD/SGD forecasts vs forwards

We expect USD/SGD at 1.35 by end-4Q23

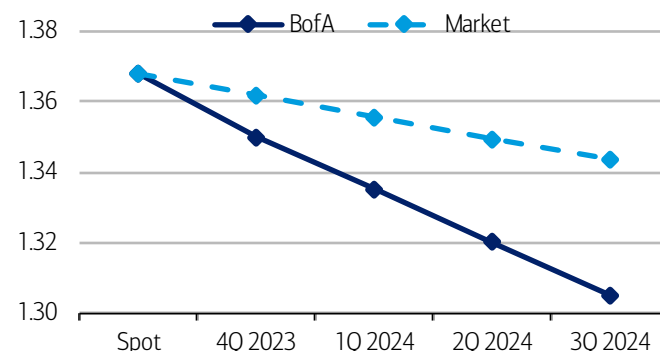
Spot	current 1.37	chg (diff) +0.01	Forward	
	Forecast			
Period	current	chg (diff)	current	chg (diff)
4Q 2023	1.35	-0.04	1.362	+0.0088
1Q 2024	1.34	-0.03	1.355	+0.0084
2Q 2024	1.32	-0.02	1.349	+0.0084
3Q 2024	1.31	0.00	1.344	+0.0119

Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

### Exhibit 71: USD/SGD forecasts

Our forecast path is below the forwards



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

## Cross-currency basis USD/SGD

### Exhibit 72: USD/SGD cross-currency basis

1y xccy basis at -3.00bp

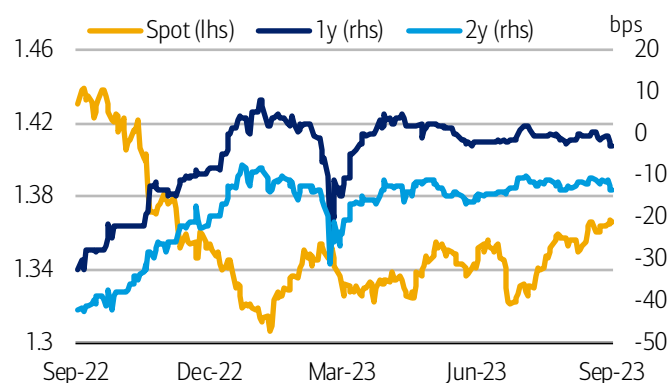
Maturity	Last	1w chg	3m chg	1y chg	Min	Last vs 1y Avg	Max	1y Avg	1w vol	3m vol	3m z-score	1y z-score
1y	-3.00	-2.00	-0.75	29.50	-32.50		8.00	-4.68	3.89	28.04	-1.77	0.19
2y	-13.50	-2.25	0.75	28.50	-42.50		-7.50	-17.84	3.55	25.58	-0.90	0.49
5y	-41.50	0.00	10.50	32.00	-82.00		-35.50	-51.07	4.91	35.43	1.57	0.96
10y	-73.00	-1.00	10.00	15.00	-105.00		-53.00	-75.83	5.88	42.39	0.91	0.30

Note: ● current value ● 1y average. The z-score measures the distance between the current value and the mean in standard deviation units Source: BofA Global Research

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### Exhibit 73: Short-term basis swaps vs USD/SGD spot

Basis narrowed in both 1y and 2y

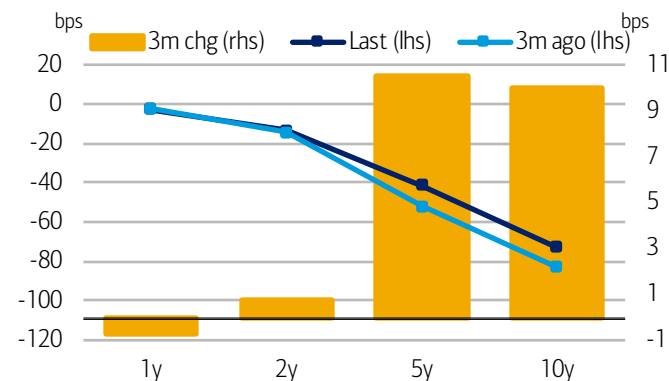


Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

### Exhibit 74: Term structure of basis swaps

Basis swaps moved higher over 3m



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

## Volatility surface: USD/SGD

### Exhibit 75: Current implied volatilities

Higher skew for upside protection

	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	4.34	4.19	4.19	4.39	4.72
3m	4.57	4.38	4.41	4.72	5.21
6m	4.59	4.35	4.39	4.80	5.44
1y	4.77	4.46	4.50	5.00	5.82

Source: BofA Global Research

BofA GLOBAL RESEARCH

### Exhibit 76: 3m z-scores of implied volatilities

Lower vols across most tenors and strikes

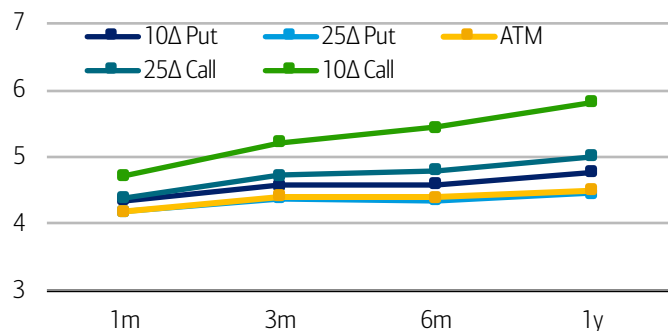
	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	-1.94	-1.91	-1.75	-1.54	-1.35
3m	-1.13	-1.01	-0.88	-0.76	-0.68
6m	-2.12	-1.94	-1.72	-1.50	-1.33
1y	-2.66	-2.49	-2.30	-2.08	-1.89

Source: : BofA Global Research

BofA GLOBAL RESEARCH

### Exhibit 77: Term structures of implied volatilities

10d call vols show higher skew

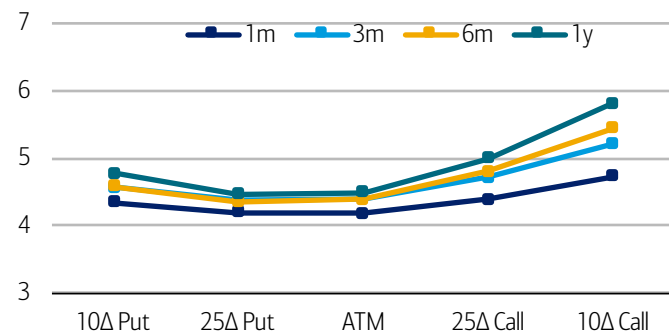


Source: BofA Global Research

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### Exhibit 78: Implied volatility smiles

Higher skew in OTM call vols



Source: BofA Global Research

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# Taiwan

## Macro outlook: Risk skewed towards higher USDTWD in 4Q

Spot USDTWD moved strongly higher since mid-July due to the combination of equity outflow, weak economic sentiments from mainland China and lifers continuing to buy US\$ using bond ETFs (see: [Asia FI & FX Strategy Watch: Taiwan lifer update – September 2023 07 September 2023](#)). To take advantage of this move, we entered into a 25-delta call option on USDTWD with the strike at 31.9, which is also our 3Q24 target for spot USDTWD.

Since our last Asia FX Monthly update, Taiwan released its July export figures and July 2023 reported a historic-size trade surplus for Taiwan (see: [Taiwan Watch: Tech exports hit a turning point? 11 August 2023](#)) due to the strong demand for Taiwanese servers required to train artificial intelligence tools. However, the strong export performance did not translate into FX strength, and we think the trade balance will unlikely impact the performance of USDTWD for the rest of 2023. Throughout July and August, US\$-buying activities from the financial accounts have overwhelmed the US\$-selling activities from the current account.

**Positioning – Bearish:** Wide interest rate differential rewards buying US\$ while the continued to equity outflows will keep spot USDTWD bid.

**Valuation: BEER says 27.9** – BEER estimate puts the fair value of USDTWD at 27.9 vs spot level of 32.1. According to the CBC's measures of the fair value based on a 36-month moving average of the TWD NEER, the TWD NEER is currently in the lower half of this band but remains around 3% from the weak side, resulting in us judging there is further room for TWD depreciation.

**Risks:** Any mainland comments or action taken prior to the Taiwan's Presidential election scheduled for January 2024.

**Corporate hedging:** Taiwan forward points are deeply negative due to the significant imbalance between Taiwan ownership of foreign assets vs foreign ownership of Taiwan assets. Non-local corporates should always seek to hedge TWD risk due to the deep FX carry offered on the Taiwan NDF curve.

### Exhibit 79: USD/TWD forecasts vs forwards

We expect USD/TWD at 31.7 by end-4Q23

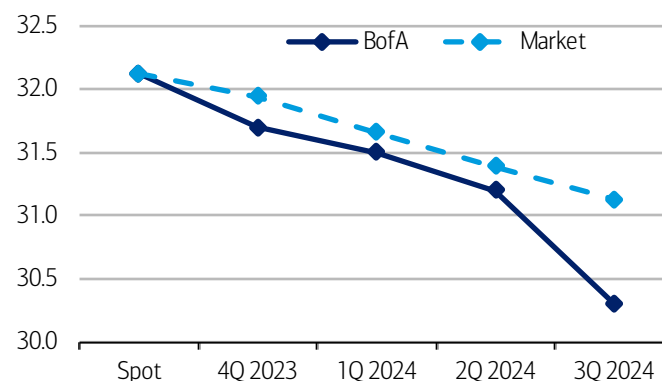
Spot	current 32.13	chg (diff) +0.16		
	Forecast		Forward	
Period	current	chg (diff)	current	chg (diff)
4Q 2023	31.70	-0.50	31.95	+0.35
1Q 2024	31.50	-0.50	31.66	+0.38
2Q 2024	31.20	-0.50	31.39	+0.42
3Q 2024	30.30	-0.50	31.13	+0.50

Source: BofA Global Research, Bloomberg

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### Exhibit 80: USD/TWD forecasts

Our forecast path is below the forwards



Source: BofA Global Research, Bloomberg

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## Cross-currency swap USD/TWD

### Exhibit 81: USD/TWD short-term non-deliverable swap

1y NDS at -1.70%

Maturity	Last	1w chg	3m chg	1y chg	Min	Last vs 1y Avg	Max	1y Avg	1w vol	3m vol	3m z-score	1y z-score
1y	-1.70	0.00	-1.40	-1.40	-1.70		-0.30	-0.37	0.88	6.37	-3.98	-4.39
2y	2.00	0.50	0.88	0.55	-0.43		2.00	0.88	0.46	3.33	2.77	1.82

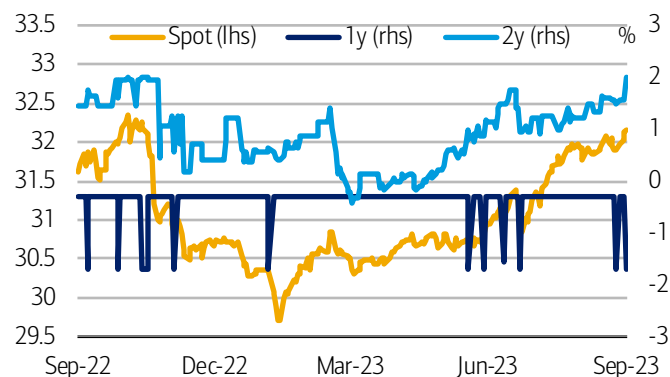
Note: ● current value ◆ 1y average. The z-score measures the distance between the current value and the mean in standard deviation units.

Source: BofA Global Research, Bloomberg

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### Exhibit 82: Short-term NDS vs USD/TWD spot

2y TWD basis spiked here

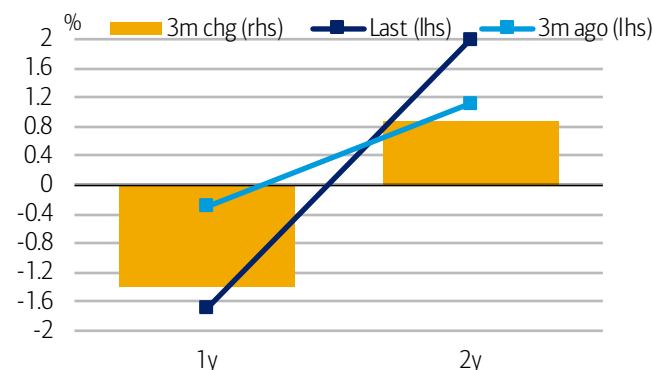


Source: BofA Global Research, Bloomberg

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### Exhibit 83: Term structure of NDS

2y NDS increased in the past 3 months



Source: BofA Global Research, Bloomberg

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## Volatility surface: USD/TWD

### Exhibit 84: Current implied volatilities

Skew towards call and higher US\$

	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	5.23	4.84	4.74	5.04	5.61
3m	5.89	5.53	5.55	6.08	6.93
6m	6.33	5.92	6.00	6.72	7.97
1y	6.98	6.51	6.62	7.56	9.11

Source: BofA Global Research

BofA GLOBAL RESEARCH

### Exhibit 85: 3m z-scores of implied volatilities

Changes across time

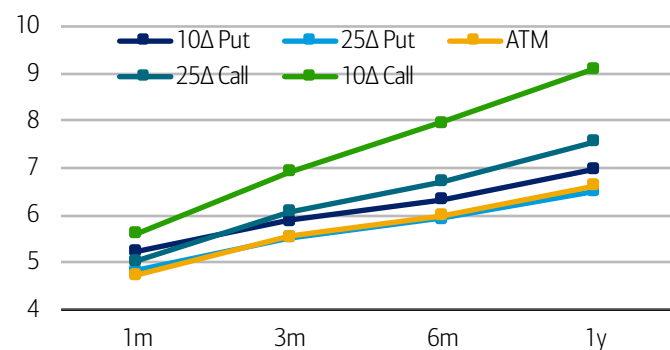
	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	-2.08	-2.07	-2.06	-2.01	-1.99
3m	-1.73	-1.68	-1.62	-1.54	-1.50
6m	-1.95	-1.91	-1.83	-1.74	-1.46
1y	-2.00	-1.89	-1.76	-1.59	-1.36

Source: BofA Global Research

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### Exhibit 86: Term structures of implied volatilities

Term structure is in favor of OTM calls

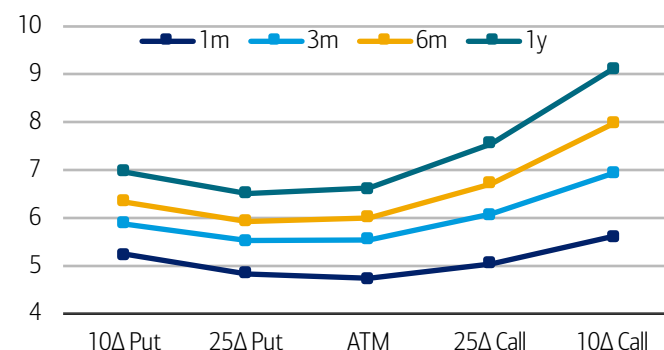


Source: BofA Global Research

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### Exhibit 87: Implied volatility smiles

Implied vol smiles are skewed towards calls



Source: BofA Global Research

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# Thailand

## View: High beta to USD moves amid low CA buffer

THB continues to trade with a high-beta to USD moves due to limited buffer from current account along with negative carry. Equity outflows have continued despite fiscal stimulus while higher oil prices continue to pose risk to CA recovery.

**Macro outlook:** THB has found limited support from the government expansionary policies due to continued equity outflows and weak trade data. Thailand's goods trade deficit remains wide due to elevated energy imports and weak exports. Along with weaker tourism spend and higher imports of other goods, this has weighed on the current account recovery. A further pick-up in tourism in seasonally strong 4Q would help improve THB's prospects towards the end of this year but any further increase in oil prices and USD strength could pose risk to that outlook. We revise USDTHB end-2023 forecast higher to 35/USD due to extended USD strength.

On the rates front, the new government is pushing ahead with their campaign promise for a fiscal stimulus to boost consumption. The impact on bond markets is being felt through the increased issuance of ThaiGBs by around THB 100Bn in FY24. Secondly, the expectations of fiscal stimulus have further added to front-end now fully-priced for a 25bps hike by 1H24.

**Valuation:** THB is mixed, with Compass BEER model pointing to undervaluation vs fair value of 31.3. But long-term FX Compass model indicates slight over-valuation with an estimated fair value at 37.23/USD, which likely reflects Thailand's potential for CA surplus over the medium term as tourism recovers.

**Positioning:** HFs added further to short THB, while RMs reduced long position.

**Risk events:** disruption to the tourism recovery could have a negative impact on THB.

**Corporate hedging:** Hedging costs in THB remain low, and a negative basis vs USD adds to the yield pick-up. We recommend hedging long THB exposure near-term.

**Rates: higher/steeper** – While front-end has priced a full-hike, risk of further hikes may as well be priced. Hawkish BoT and concerns on issuance may continue to put bear-steepening on the curve. We revise our ThaiGB 10y forecast to 3.3% by end-2023.

### Exhibit 88: USD/THB forecasts vs forwards

We expect USD/THB at 35 by end-4Q23

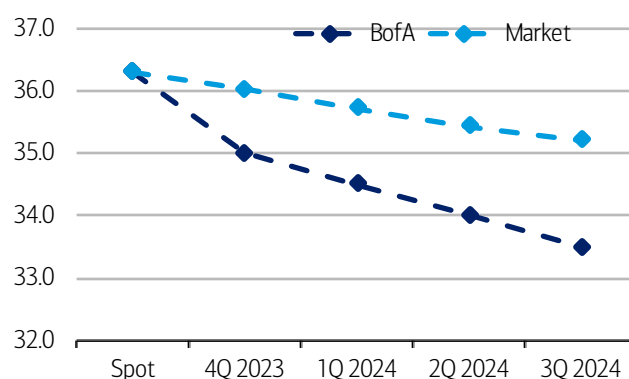
Spot	current 36.30	chg (diff) +0.77		
	Forecast		Forward	
Period	current	chg (diff)	current	chg (diff)
4Q 2023	35.00	-1.00	36.03	+0.888
1Q 2024	34.50	-1.00	35.72	+0.883
2Q 2024	34.00	-1.00	35.44	+0.858
3Q 2024	33.50	-1.00	35.21	+1.002

Source: BofA Global Research, Bloomberg

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### Exhibit 89: USD/THB forecasts

Our forecast path is below the forwards



Source: BofA Global Research, Bloomberg

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## Cross-currency basis USD/THB

### Exhibit 90: USD/THB cross-currency basis

1y xccy basis at -35bp

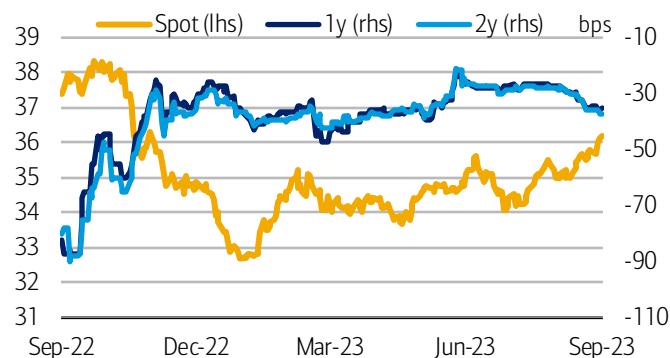
Maturity	Last	1w chg	3m chg	1y chg	Min	Last vs 1y Avg	Max	1y Avg	1w vol	3m vol	3m z-score	1y z-score
1y	-35.00	-0.50	-9.00	52.00	-89.00		-21.50	-37.16	5.81	41.91	-1.97	0.18
2y	-37.50	-1.50	-11.00	40.50	-90.00		-21.00	-38.24	4.83	34.81	-2.36	0.06
5y	-47.50	0.00	-8.00	42.50	-100.00		-30.00	-52.37	5.02	36.18	-1.86	0.36
10y	-82.50	-0.50	0.50	35.00	-135.00		-75.00	-97.69	6.33	45.65	0.89	1.15

Note: ● current value 1y average. The z-score measures the distance between the current value and the mean in standard deviation units Source: BofA Global Research, Bloomberg

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### Exhibit 91: Short-term basis swaps vs USD/THB spot

Basis flat vs last month

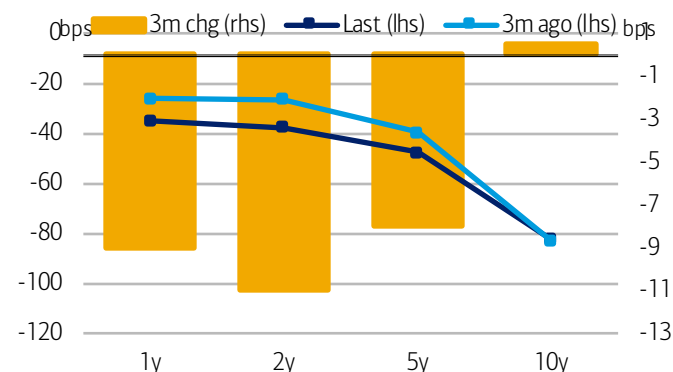


Source: BofA Global Research, Bloomberg

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### Exhibit 92: Term structure of basis swaps

Basis lower across tenors over 3m



Source: BofA Global Research, Bloomberg

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## Volatility surface: USD/THB

### Exhibit 93: Current implied volatilities

Upside vols much higher than the rest of the curve

	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	8.67	8.39	8.38	8.77	9.43
3m	8.66	8.36	8.38	8.90	9.76
6m	8.52	8.18	8.24	8.87	9.87
1y	8.52	8.13	8.20	8.95	10.09

Source: BofA Global Research

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### Exhibit 94: 3m z-scores of implied volatilities

Vols moved lower across most tenors

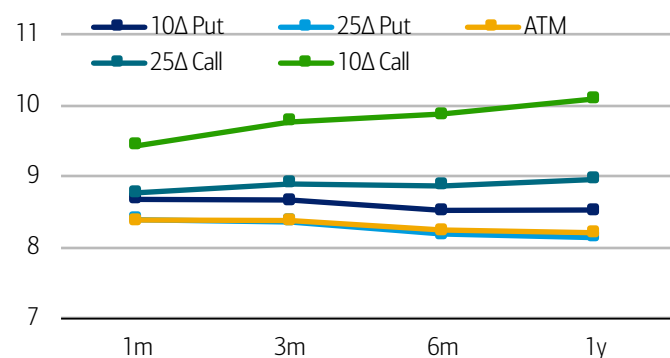
	10Δ Put	25Δ Put	ATM	25Δ Call	10Δ Call
1m	-0.32	-0.31	-0.30	-0.28	-0.26
3m	0.00	0.00	-0.01	-0.02	-0.03
6m	0.01	-0.04	-0.10	-0.19	-0.28
1y	0.29	0.24	0.15	0.01	-0.16

Source: BofA Global Research

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### Exhibit 95: Term structures of implied volatilities

Inverted term structures for puts and ATM

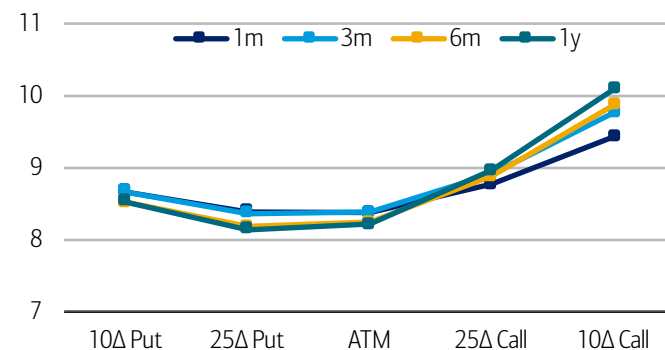


Source: BofA Global Research

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### Exhibit 96: Implied volatility smiles

Higher skew towards calls



Source: BofA Global Research

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# Vietnam

## View: Navigating headwinds

Manufacturing industrial production growth was stable in Aug but still below-trend amid weak exports. The services sector is holding up, supported by the recovery in tourism. Recent data points to 3Q GDP growth improving to 5.5-6.0% but tracking below path to meet govt's full year of 6.5% target. The State Bank of Vietnam is likely to stay on the course of easing given its emphasis on growth but moves will likely be targeted.

Tolerance for weaker VND seen – see [Vietnam Watch: Aug data: External headwinds still a drag, but growth likely to rise to 5.5-6.0% in 3Q 30 August 2023](#)

### Macro outlook: Maintain USD/VND 2400 end-3Q and end-4Q

We maintain our USD/VND forecasts to look for more relative stability in 2H2024. This reflects a continuity of the VND's 1H stability as underlying inflation has stabilized in the target range together with the balance of payments. This said, recent VND price action is showing weakness amid broad USD strength and CNY weakness. However, the central bank appears to be resuming treasury bill sales to stabilize the currency. Additionally, the trade surplus hit a historical all-time high of USD3.8bn in August.

We revised our end-3Q and end-4Q forecasts to 24,000 from 24,500 previously to reflect greater FX stability and the return of a current account surplus position. But, China's economic and currency weakness will still likely exert negative pressure on VND. We expect modest VND appreciation to resume in 2024 as the broader USD profile softens and the US Fed initiates an easing cycle, which should benefit emerging markets.

**Positioning:** Very difficult to gauge with limited data. 3M NDF points are 45points above spot, which is significantly below the 2-year average of +184pts, suggesting risk premium has subsided after being extremely elevated in 4Q 2022. Overall sentiment is positive with inflation falling away.

**Valuation:** Difficult to gauge with limited data, and no liquid financial instruments to price expectations reliably. Relative to the official trading band, VND is trading rich. Examining the REER, this is trading modestly 4% lower than the 20-year trend appreciation.

**Event risk:** Vietnam's high leverage ratio, at 146% of GDP, remains a key source of medium-term risk to financial and economic stability. More recently, political risks have risen amid an anti-corruption campaign that has resulted in the stepping down of the President.

**Corporate hedging:** Limited, due to liquidity constraints, and focused on 1M NDF tenor or shorter.

**Curve outlook** – steeper on lower inflation, but improving growth

### Exhibit 97: USD/VND forecasts vs forwards

We expect USD/VND at 24,000 by end-4Q23

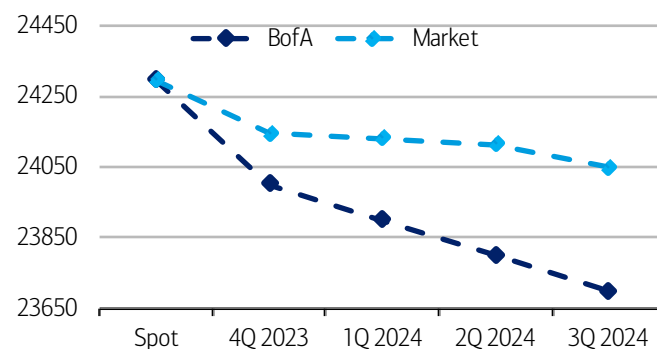
Spot	current 24295	chg (diff) +359.00	Forward	
	Forecast			
Period	current	chg (diff)	current	chg (diff)
4Q 2023	24000	+500.00	24144	+362.92
1Q 2024	23900	+1100.00	24131	+360.19
2Q 2024	23800	+1200.00	24115	+368.14
3Q 2024	23700	+1300.00	24050	+222.41

Source: BofA Global Research, Bloomberg

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### Exhibit 98: USD/VND forecasts

Our forecast path is below the forwards



Source: BofA Global Research, Bloomberg

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## FX Models

### Exhibit 99: FX Compass

Long-term currency valuation

Country	Fair Value vs USD	Spot vs USD	Bilateral Misalignment vs USD (%)	Trade-weighted Misalignment (%) 1/
<b>Asia</b>			<b>3.7</b>	<b>3.1</b>
China	7.06	7.30	(3.4)	(5.9)
India	88.32	83.16	5.8	5.5
Indonesia	15743.54	15375.00	2.3	1.3
Korea	1403.94	1339.75	4.6	4.4
Malaysia	4.68	4.69	(0.1)	(1.2)
Philippines	67.64	56.85	16.0	18.2
Singapore	1.39	1.37	1.7	0.6
Thailand	37.23	36.15	2.9	1.8

Source: BofA Global Research, Bloomberg. Note: Fair values are updated using forecasts. Spot is for September 21, 2023. 1/ Trade-weighted misalignment is the deviation of current REER from Compass fair values.

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### Exhibit 100: Compass BEER

Currency valuation

Currency	Spot vs USD	Compass BEER		
		Fair value vs USD	Bilateral valuation (%)	Multilateral valuation (%) (i)
<b>Asia</b>				
CNY	7.30	5.60	-42%	-18%
INR	82.90	68.40	-10%	-8%
IDR	15375.00	11811.10	-21%	-12%
KRW	1336.80	1146.10	-20%	-2%
MYR	4.70	3.20	-28%	-25%
PHP	56.80	44.80	-37%	-11%
SGD	1.40	1.10	-37%	-5%
THB	36.00	31.30	-18%	-1%
TWD	32.10	28.00	-17%	-14%

Source: BofA Global Research estimates, Bloomberg

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## Forecasts

### Exhibit 101: Asia FX forecasts

We forecast CNY at 7.2 by end-4Q23

Currency	4Q '23	1Q '24	2Q '24	3Q '24
USD/CNY	7.2	7.1	7	6.8
USD/HKD	7.83	7.83	7.8	7.8
USD/INR	82	81	80.5	80
USD/IDR	15400	15300	15200	15100
USD/KRW	1330	1305	1280	1210
USD/MYR	4.66	4.62	4.58	4.56
USD/PHP	56.5	56.5	56	56
USD/SGD	1.35	1.335	1.32	1.305
USD/TWD	31.70	31.50	31.20	30.30
USD/THB	35	34.5	34	33.5
USD/VND	24000	23900	23800	23700

Source: BofA Global Research estimates

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## Acronyms:

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AB – Aggregate balance

BEER - Behavioural Equilibrium Exchange Rate

BNM – Bank Negara Malaysia

BOK - Bank of Korea

CA – Current account

CBC – Central Bank of China (Taiwan)

CPC – Communist Party Congress

CPI - consumer price index

FDI - Foreign Direct Investment

HF – hedge fund

HIBOR – Hong Kong Interbank Offer Rate

HKMA – Hong Kong Monetary Authority

IGB – Indian government bond

LIBOR – London Interbank Offer Rate

NDF - non-deliverable forward

NPS - National Pension Service

RM – real money

SBV - State Bank of Vietnam

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### 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

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

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