

## FX Quant Insight

## Option skew bullish USD/MXN

## Key takeaways

- USD rallied sharply in US trading hours last week. USD weakness is delayed for later in the year.
- Investors bought MXN puts last week in SDR with skew moving for USD calls / MXN puts.
- MXN long positions may see a squeeze in line with bearish fundamentals.

## FX Signal of the Week: Bullish USD/MXN at 17.1160

**Exhibit 1: We are bullish USD/MXN, while start of USD downtrend is delayed.**

Top signals from quant models

Section	Insight	Rationale
Option Flow	Bullish USD/MXN	Investors bought MXN puts last week.
Technical Matrix	Neutral USD vs. G10	USD MAA trend is neutral in 5 out of 9 USD/G10 pairs. USD/EM uptrends begin to form post NFP.
CARS	Bullish JPY	CARS is bullish EUR and JPY vs. AUD and NOK on rates factor.
Time Zone	US hour USD demand	USD rallied sharply in US trading hours last week.

Source: BofA Global Research

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## USD weakness delayed, to be more backloaded in 2024

We saw bearish USD consensus formed at end of 2023 as a Q1 '24 risk to our long-term bearish USD view ([FX Viewpoint: Hedging a potential USD bounce in Q1, 16 Jan 2024](#)). This risk has materialized following a hawkish Fed Surprise (our Econ now delayed the first cut to June) and a sharp Jan NFP upside surprise. To be clear, we remain USD bearish into the year-end ([FX Viewpoint: USD Year Ahead, 25 Jan 2024](#)). Chair Powell said they are done with hikes, having reached the peak, so it is just a matter of timing for USD bears to reinvigorate.

## Crowded MXN positions may be at risk in the near-term

Our options signals are bullish USDMXN this week with 1m skew tilting for USD calls / MXN puts (Exhibit 2), following hawkish Fed and strong US payrolls.

Our economists expect Banxico to stay on hold at its meeting this week, but risk for a more dovish guidance has picked up as the Mexican economy is beginning to show signs of weakness and growth deceleration ([Mexico Watch, 30 Jan 2024](#)). Our LatAm fundamental strategists are also bearish MXN, especially vs. BRL ([Emerging Insight, 28 Nov 2023](#)), given the potential for Banxico meeting this week to guide market to a March rate cut, ahead of our anticipated start of the Fed cutting cycle ([Mexico Watch: Banxico preview, 2 Feb 2024](#)). The risk to our view is a hawkish Banxico surprise and DXY seeing resistance at the 100-week SMA.

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Refer to important disclosures on page 6 to 7.

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For more details on the construction of the quant signals, please refer to the [Global Rates and FX Primer: FX Quant Insight: decipher weekly FX signals 07 September 2022](#).

CARS (model): Cross-Asset Regime Switching

SDR: Swap Data Repository

MAA: Moving Average Aggregator

UD: Up/Down volatility

RS: Residual Skew

ADX: Average Directional Movement Index

DMI: Directional Movement Index

NFP: Non-farm payrolls

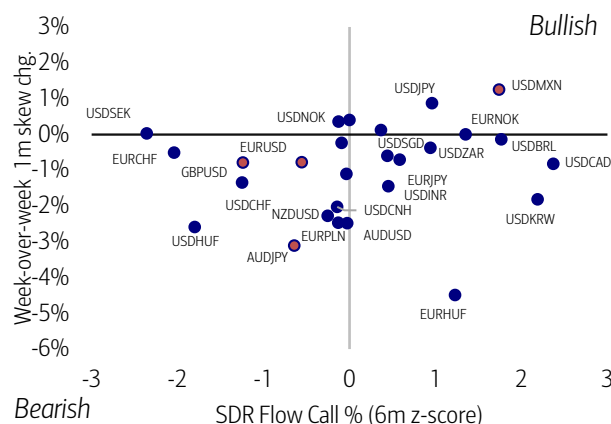
# Option Flow Signals

Our options flow signals combine Event analysis framework ([FX Viewpoint: Vol-guided decisions 18 March 2021](#)) with SDR flows data ([FX Viewpoint: SDR: What do FX options flows tell us? 01 February 2021](#)) to gauge bullish and bearish sentiments.

To learn more about FX volatility and options please refer to our [FX Volatility Dashboard](#) as well as the FX Vol Dashboard Primer ([Global Rates and FX Primer: 09 March 2022](#)).

## Exhibit 2: Option investors bought EUR, GBP, MXN, and AUDJPY puts on the back of strong US payroll data and hawkish FOMC

1m skew change vs call percentage z-score

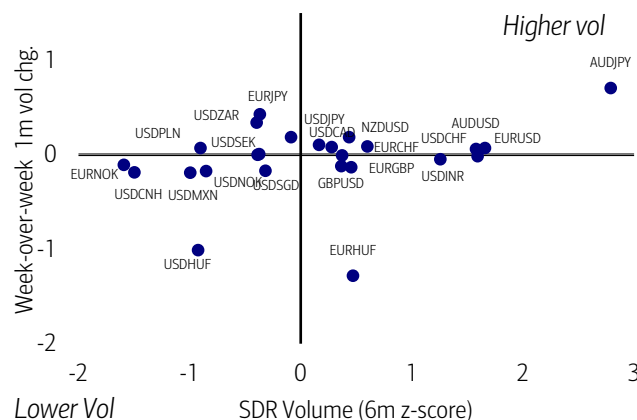


Source: BofA Global Research, DTCC. Note: CNH flows are proxied by "CNY" flows in SDR.

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## Exhibit 3: AUDJPY vol rose the most on higher demand last week

1m implied vol change vs volume z-score



Source: BofA Global Research, DTCC. Note: CNH flows are proxied by "CNY" flows in SDR.

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## Exhibit 4: Moderately bearish AUD and NZD on widened put skews

Event analysis signals after last week's spot and vol moves

Pair	Old spot	New spot	1m vol	1m vol chg	1y vol	1y vol chg	1y - 1m chg	Currency	Return vs USD	1m skew % chg vs		Signals
										USD	USD	
EURUSD	1.0833	1.0754	6.42	-0.01	7.09	0.13	0.15	EUR	-0.73%	-0.79		EUR No Signal
USDJPY	147.50	148.45	8.61	0.18	9.51	0.04	-0.15	JPY	-0.64%	-1.15		JPY No Signal
GBPUSD	1.2709	1.2574	6.67	-0.12	8.15	0.02	0.14	GBP	-1.07%	-0.84		GBP No Signal
USDCHF	0.8613	0.8693	7.25	0.07	7.61	0.15	0.08	CHF	-0.92%	1.32		CHF No Signal
AUDUSD	0.6611	0.6498	9.36	0.06	10.03	0.14	0.08	AUD	-1.72%	-2.46		AUD No Signal
USDCAD	1.3414	1.3490	5.17	0.11	5.78	0.04	-0.06	CAD	-0.56%	0.89		CAD No Signal
USDSEK	10.4453	10.5718	10.54	0.00	11.04	0.10	0.10	SEK	-1.20%	-0.02		SEK No Signal
USDNOK	10.4311	10.6487	11.22	-0.17	12.15	0.04	0.21	NOK	-2.06%	-0.40		NOK No Signal
NZDUSD	0.6133	0.6059	9.56	0.19	10.17	0.13	-0.06	NZD	-1.21%	-2.22		NZD No Signal
USDSGD	1.3402	1.3460	3.75	-0.17	4.53	-0.05	0.12	SGD	-0.43%	0.55		SGD No Signal
USDKRW	1335.7	1330.8	8.68	0.08	9.23	-0.13	-0.21	KRW	0.37%	1.83		KRW No Signal
USDMXN	17.2252	17.1730	10.21	-0.19	12.45	-0.09	0.10	MXN	0.30%	-1.73		MXN No Signal
USDTRY	30.3477	30.5516	7.28	0.25	20.60	-0.42	-0.67	TRY	-0.67%	0.95		TRY No Signal
USDZAR	18.8117	18.9508	13.29	0.34	15.26	0.06	-0.28	ZAR	-0.74%	0.65		ZAR No Signal
USDHUF	359.4	358.0	10.52	-1.01	11.95	-0.05	0.96	HUF	0.37%	0.84		HUF No Signal
USDPLN	4.0334	4.0294	9.48	0.07	10.41	0.02	-0.05	PLN	0.10%	1.15		PLN No Signal

Source: BofA Global Research, Bloomberg.

The table shows the 1-year percentile and 1-week change in 1m and 1y implied vol, the 1y-1m spread, and the 1m 25 delta risk reversal as a percentage of the ATM. For a currency with a put skew, the rules for generating the signal column are the following:

[1] Bearish Continuation: Spot change < -1%, 1m vol change > 0.5%, 1y vol change > 0%, 1m skew chg. < -2; [2] Bearish Contrarian: Spot change > 1%, 1m skew change < -2;

[3] Bullish Continuation: Spot change > 2%, 1y-1m change < -0.1%, 1m skew change > 2; [4] Bullish Contrarian Spot change < -1%, 1m vol change < -0.2%, 1m skew chg. > 1.

Parameters that triggered a bearish condition are colored in red; parameters that triggered a bullish condition are colored in green.

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# Technical Matrix

The Technical Matrix is a table of technical indicators ([Get to know even more technical strategy, 24 January 2022](#)) and BofA positioning analysis ([Global Rates and FX Primer: 01 October 2018](#)) that look at trend following and reversal signals. To learn more about a variety of technical strategies, please see [Technicals Explained primer](#), as well as our Quantifying Technicals publications for [the ADX](#) and [Bollinger indicators](#).

## Exhibit 5: Several bullish USD/G10 Bollinger breakout signals but positioning and trend do not show continuation signals; positioning is most bullish USDBRL and USDZAR

Technical matrix with positioning analysis and key levels to watch

	Spot	Positioning Trend	Bullish / Bearish	ADX Trend	Bollinger Bands	Next Support	Next Resistance
USD	EURUSD	1.0752	↓	No Signal	Range	Lower	1.0448
	USDJPY	148.56	↑	Slightly Bearish	Transition	None	147.48
	GBPUSD	1.2564	↔	No Signal	Range	Lower	1.2476
	AUDUSD	0.6493	↓	No Signal	Downtrend	None	0.6270
	USDCHEF	0.8694	↔	No Signal	Transition	None	0.8621
	USDCAD	1.3495	↔	No Signal	Range	None	1.3477
	NZDUSD	0.6056	↓	No Signal	Downtrend	None	0.6018
	USDSEK	10.5797	↔	No Signal	Transition	None	10.4268
EUR	USDNOK	10.6565	↔	No Signal	Range	Upper	10.6118
	EURGBP	0.8558	↓	No Signal	Transition	None	0.8493
	EURJPY	159.73	↑	No Signal	Range	None	159.03
	EURAUD	1.6559	↑	No Signal	Uptrend	None	1.6507
	EURCHF	0.93475	↓	No Signal	Downtrend	None	0.9255
	EURCAD	1.4510	↓	No Signal	Range	None	1.4158
	EURNZD	1.7755	↔	No Signal	Range	None	1.7647
	EURSEK	11.3753	↔	No Signal	Transition	None	11.3730
G10 Cross	EURNOK	11.458	↓	No Signal	Range	None	11.4553
	AUDJPY	96.464	↑	No Signal	Range	None	96.34
	AUDNZD	1.0722	↓	No Signal	Range	None	1.0560
	AUDCAD	0.8763	↓	No Signal	Downtrend	None	0.8565
	NOKSEK	0.9928	↔	No Signal	Transition	None	0.9919
	CADJPY	110.083	↑	Slightly Bearish	Range	None	108.85
	GBPJPY	186.65	↑	Slightly Bearish	Transition	None	184.43
	NZDJPY	89.96	↑	No Signal	Range	None	89.94
EM	GBPCHF	1.0923	↓	No Signal	Range	None	1.0637
	USDMXN	17.1803	↔	No Signal	Transition	None	17.1354
	USDBRL	4.9877	↑	Bullish	Range	None	4.9454
	USDZAR	18.9729	↑	Bullish	Range	None	18.9650
	EURPLN	4.3321	↓	No Signal	Transition	None	4.2935
	EURHUF	385.54	↑	Slightly Bearish	Transition	None	385.02
	USDKRW	1330.75	↑	No Signal	Range	None	1323.98
	USDINR	83.0638	↓	No Signal	Transition	None	82.78
	USDCNH	7.2181	↔	No Signal	Range	None	7.2011

Data as of 02/05/24. Source: BofA Global Research, Bloomberg.

Positioning uptrend has MAA > 60, downtrend MAA < 40. Positioning uptrend reversal likely if MAA/UD/RS > 80, continuation likely if UD, RS < 50. Positioning downtrend reversal likely if MAA/UD/RS < 20, and continuation likely if UD, RS > 50. UD and RS are 1y percentile and MAA is in %.

Positioning is bullish (green) if matrix shows downtrend reversal or uptrend continuation; Positioning is bearish (red) if matrix shows uptrend reversal or downtrend continuation.

Positioning is slightly bullish or slightly bearish (yellow) if only one of UD or RS supports the signal.

ADX downtrend if ADX > 25 and DMI+ is below DMI-. ADX uptrend if ADX > 25 and DMI+ is above DMI-. ADX shows Transition if ADX is between 20 and 25, and Range if ADX < 20. Cells in the ADX Trend column are colored with more intensity if the ADX trend signal matches the positioning signal. 14-day lookback is used for the ADX indicators.

The Bollinger Bands column shows 'Upper' if spot is above the +2 std bollinger band, and 'Lower' if spot is below the -2 std band. 20-day SMA is used for Bollinger indicators.

Cells in Next Support and Next Resistance columns are colored if spot is within 0.5% of the support or resistance level.

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## CARS Signals

CARS ("cross-asset regime-switching") is a systematic model that makes weekly buy/sell decisions for G10 currencies based on cross-asset factors (equity, rates, and commodities). FX's relationship with other asset classes is not constant over time, and investors could flock to own haven currencies during shock periods. The CARS model chooses the most performing factor for the appropriate macro regime of the week ([FX Viewpoint: CARS model: weekly FX cross-asset drivers 22 June 2022](#)).

### Exhibit 6: Model is bullish EUR and JPY vs AUD and NOK on rates factor

CARS signals for a trending week (no macro shock)

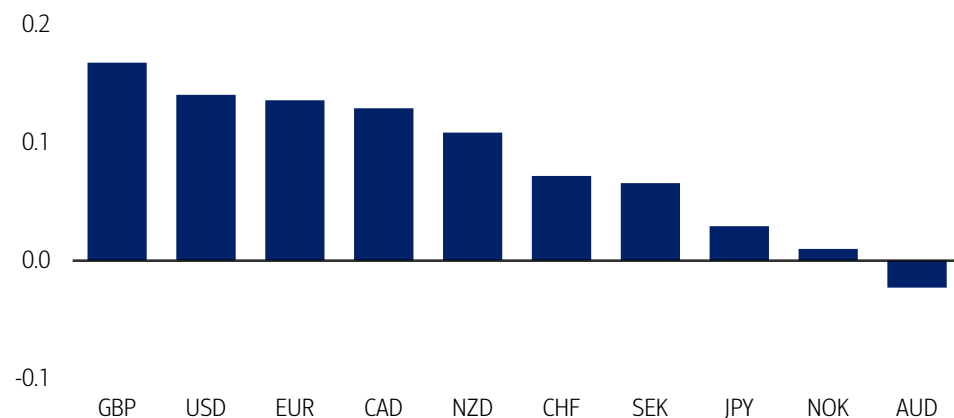
Currency	Bullish/Bearish	Equity	Rates	Commodity	Global regime	Values
EUR	Bullish	5	2	4	Commodity z-score	-0.9
JPY	Bullish	1	1	9	Performing factor	Rates
GBP		3	4	8		
AUD	Bearish	2	10	3		
CAD		7	3	1	USD Equity	4
CHF		9	7	5	USD Rates	5
NZD		6	6	7		
SEK		8	8	6		
NOK	Bearish	10	9	2		

The Equity ranking is ordered by 5y z-score of 1-week equity return. The Rates ranking is ordered by 5y z-score of 1-week rate change and level of 2y swap rate. The Commodity ranking is ordered by 52-week FX correlation with BCOM. The Commodity z-score is the 1y z-score of 1-week BCOM Index return.

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### Exhibit 7: AUD 2y yield idiosyncratically moved down last week ahead of RBA

2y global yield change



Source: BofA Global Research, Bloomberg

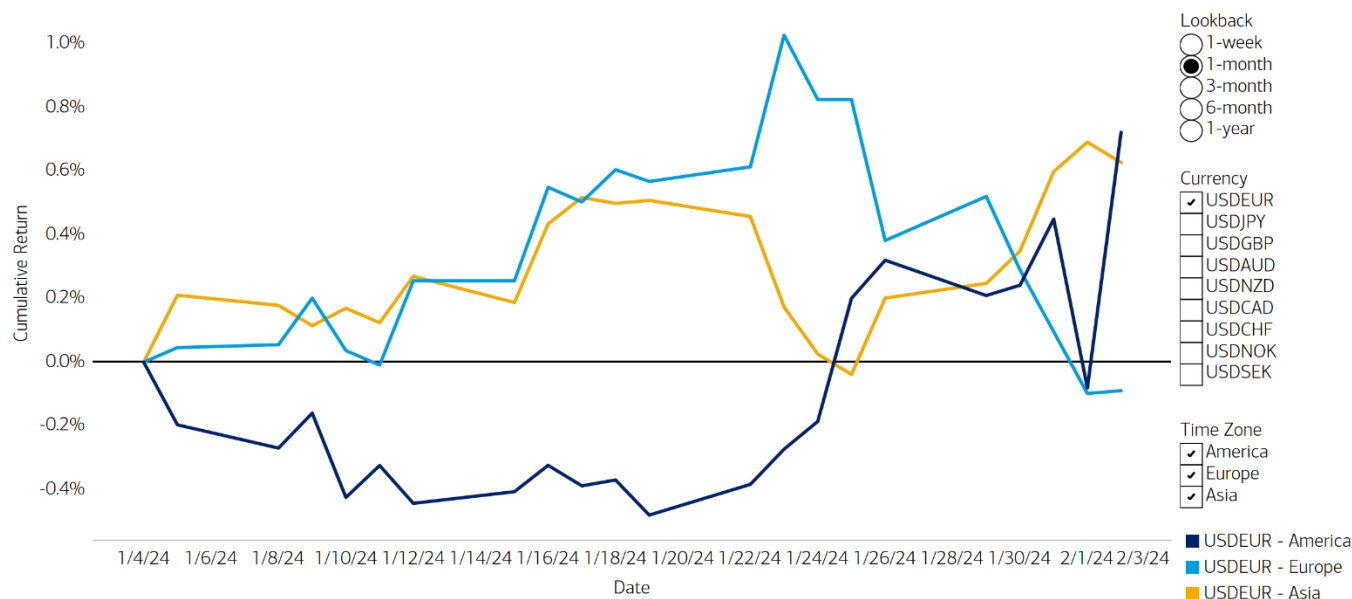
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# Interactive Time Zone

Expanding exhibits in the HTML view shows cumulative FX returns at different lookback periods, currency groupings, and time zones ([FX Watch: Interacting with time zones 06 July 2022](#)). Hours are shown in Coordinated Universal Time (UTC). We define America time zone as 1pm-12am UTC (8am-7pm EST), Europe time zone as between 8am-1pm UTC (3am-8am EST), and Asia time zone as between 12am to 8am UTC (7pm-3am EST).

## Exhibit 8: USD rallied sharply in US trading hours on the back of strong payrolls data

Interactive time zone plot. For readers of the web-formatted version of this report, access interactive features of the visualization by clicking on the image. Use Google Chrome or Microsoft Edge browsers for the best experience



Source: BofA Global Research, Bloomberg

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## Exhibit 9: USD rally was sharper on payrolls than on FOMC

Interactive time zone plot. For readers of the web-formatted version of this report, access interactive features of the visualization by clicking on the image. Use Google Chrome or Microsoft Edge browsers for the best experience

	8am-11am	11am-2pm	2pm-5pm	5pm-8pm	8pm-11pm	11pm-2am	2am-5am	5am-8am	Lookback
USDEUR	-0.1%	0.3%	-0.2%	-0.2%	0.1%	-0.4%	0.2%	0.2%	1-week
USDJPY	0.2%	0.8%	-0.8%	-0.1%	0.4%	-1.1%	0.1%	-0.1%	1-month
USDGBP	0.3%	0.4%	-0.3%	-0.3%	0.1%	-0.4%	0.0%	0.3%	3-month
USDAUD	0.3%	0.7%	-0.2%	-0.4%	0.4%	-0.2%	0.2%	0.2%	6-month
USDNZD	0.4%	0.7%	-0.3%	-0.4%	0.1%	-1.0%	0.2%	-0.1%	1-year
USDCAD	0.0%	0.4%	-0.5%	0.0%	0.1%	-0.6%	0.1%	0.1%	
USDCHF	0.0%	0.5%	-0.3%	-0.3%	0.1%	-0.8%	0.0%	0.1%	
USDNOK	0.2%	0.6%	0.3%	-0.2%	0.4%	0.1%	0.3%	0.5%	
USDSEK	0.1%	0.7%	-0.7%	-0.2%	0.4%	-0.7%	0.2%	0.0%	

Hours are as of UTC. Currency pairs with greater loss over the lookback period are colored in darker red. Currency pairs with greater gain over the lookback period are colored in darker green. We denote America time zone as between 1pm to 12am UTC, Europe time zone as between 8am to 1pm UTC, and Asia time zone as between 12am to 8am UTC.

Source: BofA Global Research, Bloomberg

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## Options Risk Statement

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