

FX Quant Insight

Market normalization

Key takeaways

- Election risk sentiment is normalizing as FX market attention shifts to chase USD higher vs Asia FX.
- Valuation, option flow and CARS are bullish EUR/SEK ahead of Riksbank meeting.
- Current EURUSD < -1% with SEKUSD > 2% monthly return profile only occurred on 2/2000+ trading days over the past decade.

FX Signal of the Week: Bullish EUR/SEK at 11.2457

Exhibit 1: Bullish EURSEK on normalizing EUR sentiment and bearish SEK quant signals

Top signals from quant models

Section	Insight	Rationale
Option Flow	EUR calls	Bearish EUR sentiment normalizing as options flow is back for EUR calls.
Technical Matrix	USD uptrends	Broad USD uptrends and EUR downtrends vs G10 peers are still intact.
	EUR downtrends	
CARS	Rates regime	Bullish AUD and JPY vs CHF and SEK on rates divergence.
Time Zone	Asia-hour USD demand	USD demand solely came from Asia trading hours last week.
EM FX	MXN calls	Option flow moving for MXN calls and spot testing 18.00 challenge the month-to-date USDMXN uptrend. USD still in uptrends vs EM Asia FX.

Source: BofA Global Research

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FX market attention shifts back to carry

FX volatility broadly picked up in the first half of June as investors grew more concerned about global election uncertainty. Market moves over the past week suggest election sentiment is normalizing and investors have moved on to chasing carry again ([FX factors update 20 June 2024](#)). Option flow last week points to increased call demand for EUR and MXN, vs put demand for JPY and CNH. Short-dated implied vols broadly receded but picked-up for JPY. The EURUSD selloff triggered by the French election announcement has stabilized in European and US trading hours. Over the past week, demand for the USD largely occurred in Asia trading hours, where carry is still bearish for many Asia FX.

Bullish EURSEK ahead of this week's Riksbank meeting

Further market normalization would be bullish for EURSEK this week, in our view. While EURUSD has only weakened modestly on the French election shock, EUR's depreciation amid SEK rally this month stands out. Over the past decade, there have only been 2 instances where EURUSD had a monthly loss beyond -1% while SEKUSD simultaneously had a monthly gain above 2% before this month. Given our fundamental view is also modestly bearish for SEK at current spot level for the near-term ([Global FX Weekly: 21 June 2024](#)) and decline in SEK yield from CARS model (Exhibit 6), we would prefer to hold a bullish EUR/SEK view heading into this week's Riksbank meeting. The risk to the view would be a more hawkish than expected forward guidance from the Riksbank.

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Currency Strategy
Global

BofA

Data
Analytics

Howard Du, CFA
G10 FX Strategist
BofAS
+1 646 743 7017
yuhao.du@bofa.com

Vadim Iaralov
FX Strategist
BofAS
+1 646 743 7018
vadim.iaralov@bofa.com

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

SMA: Simple Moving Average

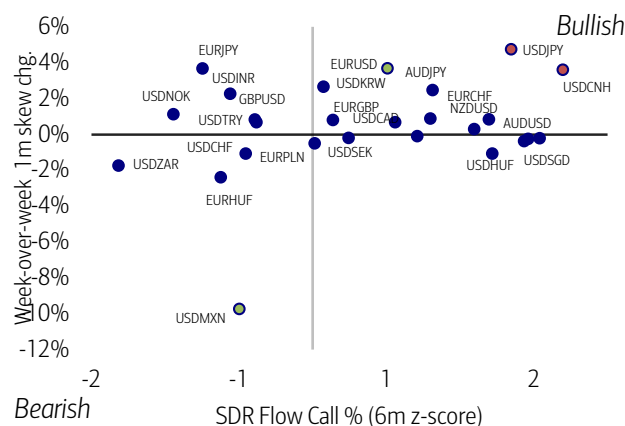
Option Flow Signals

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 flow is bullish for MXN and EUR, bearish for JPY and CNH

1m skew change vs call percentage z-score

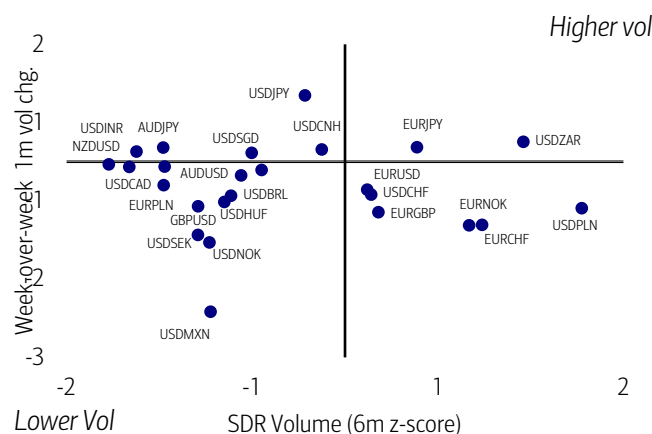


Source: BofA Global Research, DTCC. Note: CNH flows are proxied by "CNY" flows in SDR.

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Exhibit 3: FX vols broadly declined except for JPY-crosses 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: Front-end vols broadly came down except for USDJPY; widening option skew for puts is bearish JPY and moderately bearish for NOK

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 USD	Signals
EURUSD	1.0734	1.0739	6.86	-0.36	6.89	-0.20	0.16	EUR	0.05%	2.58	EUR No Signal
USDJPY	157.74	159.37	8.85	0.85	9.70	0.36	-0.49	JPY	-1.03%	-6.06	JPY Bearish Continuation
GBPUSD	1.2705	1.2677	6.23	-0.57	7.47	-0.16	0.41	GBP	-0.22%	-0.27	GBP No Signal
USDCHF	0.8895	0.8929	6.09	-0.42	6.95	-0.03	0.39	CHF	-0.38%	1.40	CHF No Signal
AUDUSD	0.6613	0.6650	8.32	-0.18	9.45	0.00	0.18	AUD	0.56%	0.65	AUD No Signal
USDCAD	1.3724	1.3682	4.68	-0.06	5.65	-0.08	-0.02	CAD	0.31%	-0.90	CAD No Signal
USDSEK	10.4810	10.4698	10.17	-0.94	10.88	-0.22	0.72	SEK	0.11%	-0.79	SEK No Signal
USDNOK	10.6593	10.5700	10.42	-1.03	11.41	-0.18	0.86	NOK	0.84%	-2.14	NOK No Signal
NZDUSD	0.6132	0.6128	8.60	-0.04	9.53	0.00	0.03	NZD	-0.07%	0.26	NZD No Signal
USDSGD	1.3520	1.3524	4.04	0.11	4.62	0.09	-0.02	SGD	-0.03%	0.47	SGD No Signal
USDKRW	1381.2	1389.1	7.43	-0.07	8.80	0.09	0.16	KRW	-0.57%	-2.69	KRW No Signal
USDMXN	18.5336	18.0735	13.25	-1.92	13.15	-0.24	1.68	MXN	2.51%	5.46	MXN No Signal
USDTRY	32.8531	32.9051	15.11	-1.17	23.91	-0.25	0.92	TRY	-0.16%	-3.46	TRY No Signal
USDZAR	18.2619	18.2119	13.69	0.26	14.39	0.12	-0.13	ZAR	0.27%	2.01	ZAR No Signal
USDHUF	368.6	367.4	10.74	-0.52	11.09	-0.15	0.37	HUF	0.33%	0.23	HUF No Signal
USDPLN	4.0496	4.0038	10.14	-0.59	10.61	-0.24	0.35	PLN	1.14%	-0.83	PLN No Signal

Source: BofA Global Research, Bloomberg.

The table shows the 1-year percentile and 1-year 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: Bullish USD and bearish EUR trends remain in place

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	↓	Bearish	Range	None	1.0448	1.0764
	USDJPY	↑	No Signal	Range	None	156.25	160.17
	GBPUSD	↑	No Signal	Range	None	1.2641	1.2720
	AUDUSD	↑	Slightly Bearish	Range	None	0.6597	0.6656
	USDCHE	↓	No Signal	Downtrend	None	0.8896	0.8969
	USDCAD	↑	Bullish	Range	None	1.3619	1.3694
	NZDUSD	↑	No Signal	Transition	None	0.6093	0.6168
	USDSEK	↓	Bullish	Range	None	10.4268	10.5853
EUR	USDNOK	↓	Bullish	Range	None	10.4407	10.6000
	EURGBP	↓	Bearish	Downtrend	None	0.8397	0.8530
	EURJPY	↑	Slightly Bearish	Range	None	168.29	171.56
	EURAUD	↓	Bearish	Transition	None	1.6028	1.6328
	EURCHF	↓	Bearish	Downtrend	None	0.9513	0.9592
	EURCAD	↔	No Signal	Range	None	1.4656	1.4702
	EURNZD	↓	No Signal	Downtrend	None	1.7383	1.7770
	EURSEK	↓	Bearish	Downtrend	None	11.0030	11.3821
G10 Cross	EURNOK	↓	Bearish	Transition	None	11.0965	11.4440
	AUDJPY	↑	No Signal	Range	None	103.08	106.34
	AUDNZD	↑	Bullish	Uptrend	None	1.0823	1.0855
	AUDCAD	↑	No Signal	Transition	None	0.9034	0.9179
	NOKSEK	↓	No Signal	Transition	None	0.9900	0.9909
	CADJPY	↑	Slightly Bearish	Range	None	114.10	117.32
	GBPJPY	↑	Bearish	Range	None	197.32	202.34
	NZDJPY	↑	No Signal	Range	None	94.72	97.94
EM	GBPCHF	↔	No Signal	Downtrend	None	1.1280	1.1337
	USDMXN	↑	Slightly Bearish	Uptrend	None	17.9495	18.9929
	USDBRL	↑	No Signal	Uptrend	None	5.2207	5.4824
	USDZAR	↓	No Signal	Transition	None	17.4193	18.2676
	EURPLN	↔	No Signal	Transition	None	4.2935	4.3045
	EURHUF	↑	No Signal	Uptrend	None	391.48	399.75
	USDKRW	↑	Bullish	Range	None	1372.70	1400.00
	USDINR	↑	Bullish	Range	None	83.42	83.50
	USDCNH	↑	No Signal	Range	None	7.2610	7.3682

Data as of 06/24/24. 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.

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: Bullish AUD and JPY vs bearish CHF and SEK on rates divergence

CARS signals for a trending week (no macro shock)

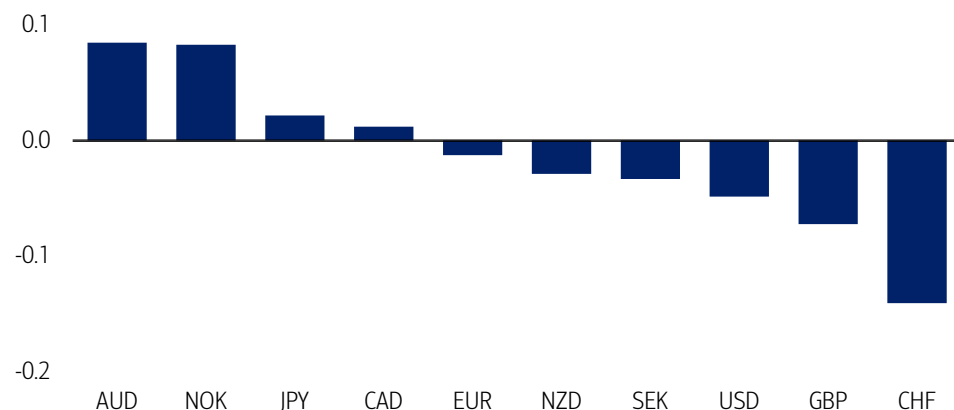
Currency	Bullish/Bearish	Equity	Rates	Commodity	Global regime	Values
EUR		6	5	4	Commodity z-score	0.5
JPY	Bullish	2	1	8	Performing factor	Rates
GBP		1	8	6		
AUD	Bullish	8	2	2		
CAD		7	4	1	USD Equity	9
CHF	Bearish	4	10	9	USD Rates	7
NZD		10	6	7		
SEK	Bearish	5	9	5		
NOK		3	3	3		

Source: BofA Global Research, Bloomberg. 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: CHF and GBP yields declined the most in G10 on the back dovish central bank meetings

2y global yield change



Source: BofA Global Research, Bloomberg

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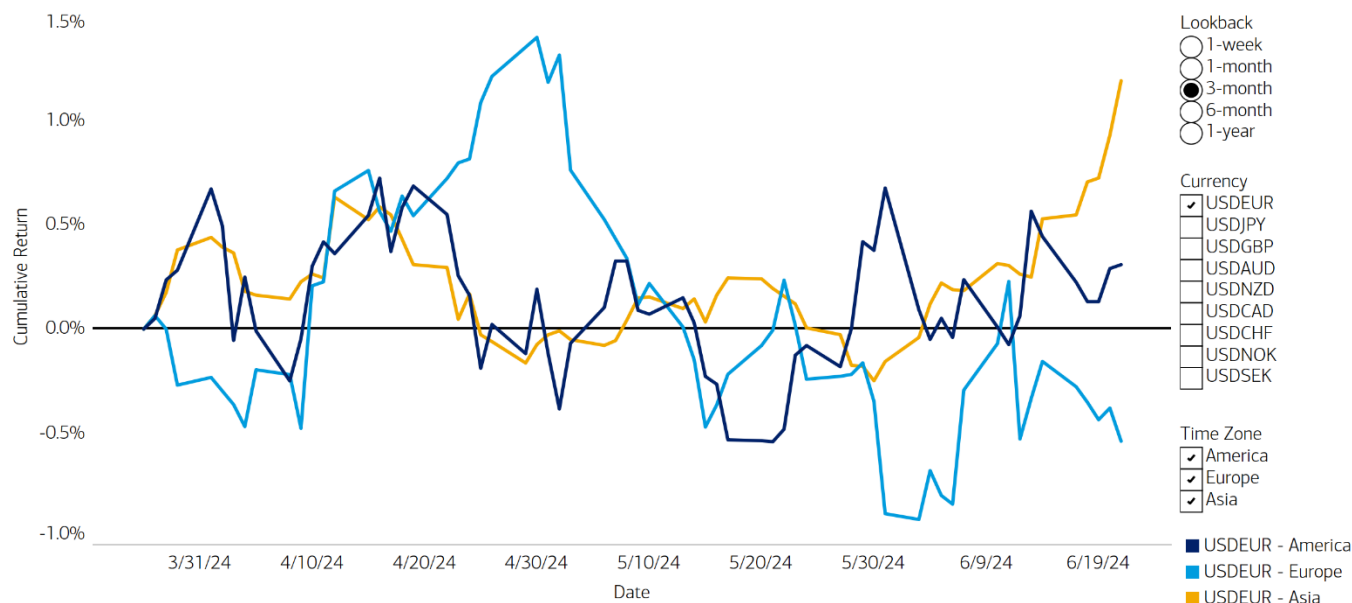


Interactive Time Zone

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: Month-to-date EUR weakness stabilized in European and US trading hours

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



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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Exhibit 9: Asia-based investors bought USD last week; USD was unchanged to moderately lower in European and US hours

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	-0.2%	-0.3%	0.1%	0.0%	-0.1%	0.0%	0.0%	0.6%	1-week
USDJPY	0.3%	0.3%	0.2%	0.2%	0.1%	0.9%	0.1%	0.3%	1-month
USDGBP	0.0%	0.1%	0.0%	-0.1%	0.0%	0.2%	0.1%	0.3%	3-month
USDAUD	-0.2%	0.0%	0.0%	-0.2%	0.0%	-0.6%	0.0%	0.0%	6-month
USDNZD	-0.1%	-0.1%	-0.2%	-0.3%	-0.1%	0.1%	0.3%	0.4%	1-year
USDCAD	0.0%	-0.3%	0.1%	-0.4%	0.0%	-0.3%	0.1%	0.1%	
USDCHE	0.2%	-0.2%	-0.1%	-0.1%	-0.1%	0.2%	0.0%	0.6%	
USDNOK	-0.8%	-0.4%	-0.1%	-0.3%	-0.3%	-1.3%	0.1%	0.5%	
USDSEK	-0.1%	-0.4%	0.2%	-0.2%	-0.1%	-0.3%	0.1%	0.3%	

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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