

FX Watch

FX factors update – April 2025

Key takeaways

- April 2 vol shock created FX dislocations. Avoid Carry until further tariffs clarity.
- Value and Trend are bullish USD/SEK with estimated fair value between 50d and 200d SMA. SEK uptrends look to reverse course.
- AUD beyond -2 z-scores undervalued on all metrics; fade AUD cheapness via EUR/AUD or in 3m AUD/USD risk reversal.

Value and Trend factors are bearish SEK

FX market saw outsized currency moves following the surprisingly hawkish US reciprocal tariffs announcements on April 2. We summarize FX factor behaviors and latest market dislocations. The SEK is broadly overvalued and its uptrends vs the USD and EUR look to reverse course (Exhibit 15). We formed a tactically bullish USD/SEK view at the start of the week after new support formed at 10.00 with both Value and Trend factors turning bullish (see our note: [FX Liberated risk-off 07 Apr. '25](#)). Valuation suggests the short-term USD/SEK fair value is around 10.58, between 10.4283 50d SMA and the 10.6090 200d SMA.

Exhibit 1: Latest FX factor framework is bullish AUD and bearish SEK in G10 FX

Recent FX factor dynamics

Factors

Carry	Carry/vol ratios broadly declined on rising FX vol.
Value	SEK overvaluation and AUD cheapness stand out in G10 FX.
Trend	USDSEK downtrend looks to reverse course.

Commentary

Source: BofA Global Research

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AUD is beyond -2 z-scores undervalued across all metrics

On the back of retaliatory tariffs announcements from China, AUD recorded its largest one-day loss since 2008. Following the move, all of the short-term fair value metrics now suggest AUD is more than -2 z-scores undervalued (Exhibit 12). Given near-term reciprocal and retaliatory tariffs uncertainty, we would prefer to fade AUD's cheapness vs the EUR, which is also overvalued now (Exhibit 10), or via AUDUSD risk reversals. Front-end AUDUSD risk reversals are now close to 3 vols for AUD puts; medium risk reversals at 6m to 1y tenors are also more than 2 vols for AUD puts. We estimate near-term AUDUSD fair value is around 0.6432. A 3m zero-cost AUDUSD risk reversal with 0.64-strike call would have 0.55 as the strike for the short put leg. This was where AUDUSD spot bottomed during peak COVID shock in March 2020.

Caution on Carry due to rising FX vols

Carry/Vol ratios broadly fell as vols increased after April 2. While FX vols have pared back from the April 7 peak, current levels are still more than 1 vols vs April 1. We would be hesitant to re-enter carry positions for now, given a lot of uncertainty still remain with respect to US tariffs end game and global retaliatory tariffs plans.

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Refer to important disclosures on page 9 to 10.

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Timestamp: 09 April 2025 07:47AM EDT

09 April 2025

G10 FX Strategy
Global

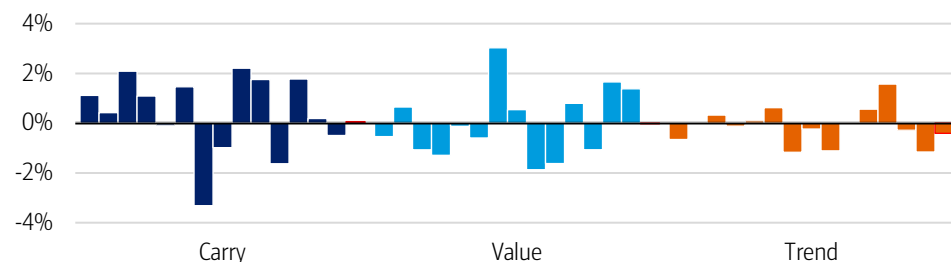
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FX Summary

Exhibit 2: FX factors broadly saw muted performance over the past month

Monthly FX factor performance

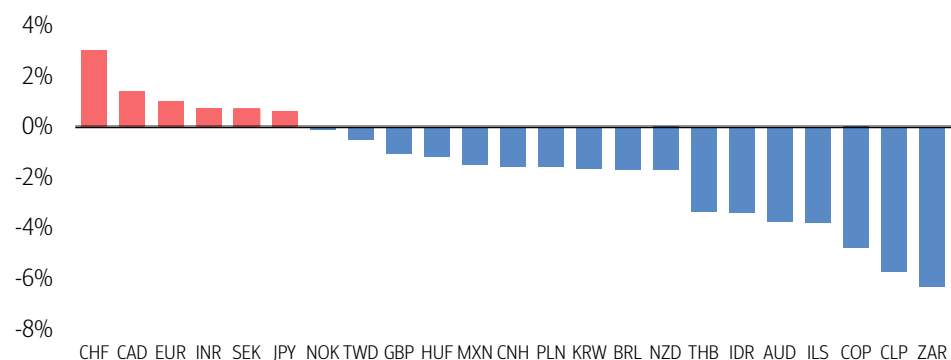


Source: BofA Global Research, Bloomberg. Most recent month is colored with red border. As of Apr 8, 2025.

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Exhibit 3: More currencies appreciated vs USD

1m FX spot return vs USD



Source: BofA Global Research, Bloomberg. As of Apr 8, 2025.

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Exhibit 4: ILS, AUD, and BRL have the highest 3m correlation to US equity

Top 5 FX/USD correlation to various asset classes and FX factors

US Equity		2y Treasury yield		10y Treasury yield		10y US real yield		Crude Oil		Gold		FX Carry		FX Value		FX Trend	
FX	3m correlation	FX	3m correlation	FX	3m correlation	FX	3m correlation	FX	3m correlation	FX	3m correlation	FX	3m beta	FX	3m beta	FX	3m beta
ILS	53%	JPY	-59%	JPY	-63%	JPY	-56%	CHF	-41%	THB	56%	COP	1.70	COP	1.89	PLN	-1.15
AUD	53%	CHF	-42%	CHF	-32%	NOK	-30%	AUD	31%	NOK	38%	BRL	1.41	JPY	1.67	CLP	-1.04
BRL	47%	EUR	-20%	GBP	-23%	GBP	-27%	EUR	-27%	PLN	37%	NOK	1.35	NOK	1.59	IDR	-1.04
CLP	40%	GBP	-19%	NOK	-18%	CHF	-22%	TWD	-27%	AUD	37%	MXN	1.27	AUD	1.37	HUF	-1.01
NOK	40%	NOK	-18%	KRW	-16%	NZD	-19%	NOK	26%	GBP	34%	AUD	1.24	SEK	1.23	THB	-0.80

Source: BofA Global Research, Bloomberg. We calculate the 3m correlation between the daily returns of FX/USD spots and a variety of non-FX asset classes. In addition, we calculate the 3m beta between FX/USD returns and change in Carry, Value, and Trend factors. Table reports the top 5 most significant correlations/betas for each asset class. 2y/10y = 2-year/10-year.

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Carry factor for FX

Exhibit 5: BRL is the top asset currency; CHF is the top funding currency

Annualized absolute FX carry return from 3 months to 2y tenors

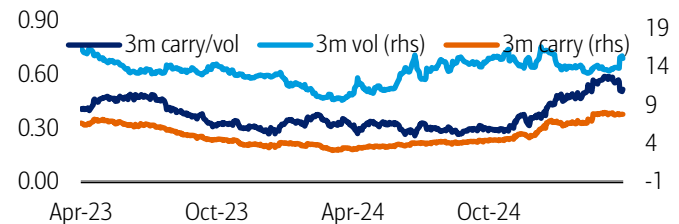
	3m	6m	1y	2y
BRL/USD	7.8%	8.7%	8.9%	9.1%
COP/USD	5.2%	5.2%	5.2%	5.7%
MXN/USD	4.9%	4.8%	4.6%	4.6%
USD/CHF	4.3%	4.2%	3.9%	3.6%
USD/JPY	4.1%	3.9%	3.6%	3.3%
ZAR/USD	2.9%	3.0%	3.1%	3.5%
INR/USD	2.7%	2.6%	2.6%	2.7%
USD/CNH	2.4%	2.4%	2.2%	1.9%
IDR/USD	2.2%	2.3%	2.4%	2.9%
USD/TWD	2.2%	2.5%	2.8%	2.6%
USD/SEK	2.2%	2.0%	1.8%	1.6%
USD/EUR	2.1%	2.1%	2.0%	1.8%
USD/KRW	2.0%	2.0%	1.8%	1.5%
HUF/USD	1.9%	2.1%	2.2%	2.1%
USD/CAD	1.8%	1.7%	1.5%	1.3%
USD/ILS	1.3%	1.1%	0.9%	0.8%
USD/THB	1.3%	1.7%	1.8%	2.2%
PLN/USD	1.2%	1.0%	0.8%	0.6%
USD/NZD	1.0%	1.0%	0.9%	0.6%
USD/AUD	0.3%	0.4%	0.4%	0.2%
CLP/USD	0.1%	0.3%	0.6%	0.7%
NOK/USD	0.0%	0.1%	0.2%	0.2%
USD/GBP	0.0%	0.0%	0.1%	0.2%

Source: BofA Global Research, Bloomberg

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Exhibit 6: Rising BRL vol dampens carry/vol ratio

3-month BRL/USD carry/vol ratio

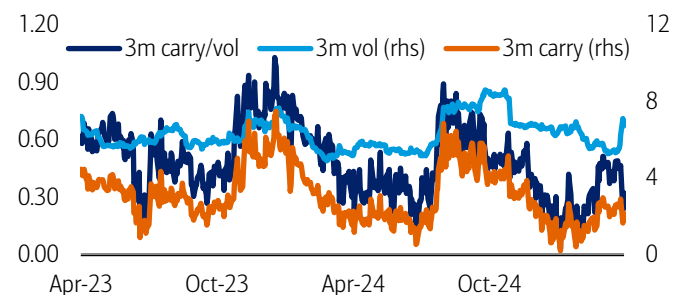


Source: BofA Global Research, Bloomberg

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Exhibit 7: TWD carry/vol ratio also fell on rising vol

3-month USD/CNH carry/vol ratio



Source: BofA Global Research, Bloomberg

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Exhibit 8: carry/vol ratios broadly fell last month on rising vols

3-month carry/implied vol ratios level & chg over different horizons

	current 3m carry/implied vol	1m chg	3m chg	6m chg	1y chg
INR/USD	0.59	-0.01	-0.39	-0.10	0.22
BRL/USD	0.52	-0.05	0.04	0.21	0.19
USD/CHF	0.49	-0.09	-0.05	-0.08	-0.14
USD/CNH	0.37	-0.07	0.20	-0.03	-0.10
COP/USD	0.35	-0.03	-0.06	0.00	-0.19
MXN/USD	0.35	-0.05	-0.10	-0.01	-0.31
USD/JPY	0.34	-0.04	-0.05	-0.08	-0.35
USD/TWD	0.32	-0.01	0.28	-0.07	0.09
USD/CAD	0.26	-0.02	0.04	0.05	0.14
USD/EUR	0.26	-0.02	0.03	-0.01	-0.04
IDR/USD	0.23	0.04	-0.08	0.02	0.04
USD/KRW	0.21	-0.01	0.05	-0.02	-0.04
ZAR/USD	0.20	-0.04	-0.04	-0.04	-0.01
USD/SEK	0.17	-0.04	-0.03	-0.02	0.01
HUF/USD	0.15	-0.01	-0.01	0.03	-0.04
USD/THB	0.14	-0.06	0.09	0.04	-0.09
USD/ILS	0.13	0.00	0.01	-0.02	-0.05
PLN/USD	0.10	-0.04	-0.05	-0.05	0.04
USD/NZD	0.08	-0.01	0.03	0.05	0.07
USD/AUD	0.03	-0.01	0.01	-0.02	-0.10
CLP/USD	0.01	-0.02	-0.03	-0.01	-0.05
USD/GBP	0.00	-0.01	-0.02	0.00	-0.03
NOK/USD	0.00	-0.01	0.00	-0.01	-0.08

Source: BofA Global Research, Bloomberg

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Exhibit 9: USD/TWD carry/realized vol ratio rose in last 3m

3-month carry/realized vol ratios level & chg over different horizons

	current 3m carry/realized vol	1m chg	3m chg	6m chg	1y chg
INR/USD	0.64	-0.04	-1.66	-1.00	-0.25
BRL/USD	0.63	0.05	0.18	0.31	0.21
USD/CHF	0.55	-0.04	-0.03	0.10	0.02
USD/CNH	0.50	-0.06	0.18	-0.17	-0.16
USD/TWD	0.50	0.02	0.39	-0.23	0.18
COP/USD	0.41	-0.07	-0.08	0.00	-0.25
USD/JPY	0.39	-0.04	-0.05	0.06	-0.34
IDR/USD	0.35	0.11	-0.03	0.11	0.06
MXN/USD	0.33	-0.01	-0.12	-0.01	-0.48
USD/KRW	0.25	0.01	0.09	-0.02	-0.04
USD/EUR	0.23	-0.01	0.02	-0.05	-0.04
ZAR/USD	0.22	-0.02	-0.03	-0.06	-0.03
USD/CAD	0.20	-0.01	-0.06	-0.02	0.09
USD/SEK	0.17	-0.03	-0.03	-0.01	0.02
USD/THB	0.16	-0.06	0.09	0.03	-0.06
HUF/USD	0.15	-0.01	-0.01	0.01	-0.04
USD/ILS	0.13	0.01	0.02	-0.02	-0.05
PLN/USD	0.10	-0.04	-0.05	-0.07	0.05
USD/NZD	0.09	0.01	0.04	0.07	0.09
USD/AUD	0.03	0.00	0.01	-0.02	-0.10
CLP/USD	0.01	-0.03	-0.03	-0.01	-0.05
USD/GBP	0.00	-0.01	-0.03	-0.01	-0.04
NOK/USD	0.00	-0.01	0.00	-0.01	-0.08

Source: BofA Global Research, Bloomberg

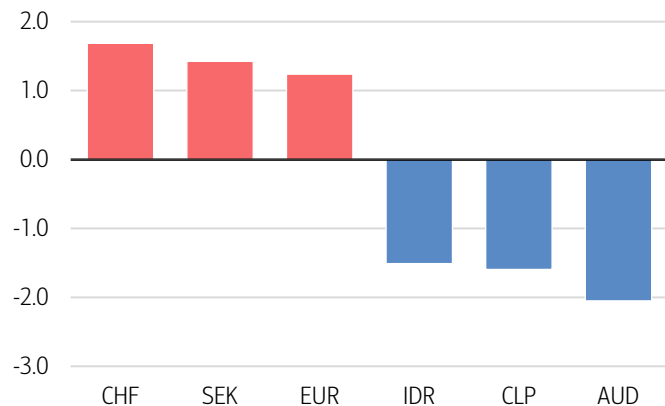
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Value factor for FX

Exhibit 10: CHF, SEK, and EUR are rich vs IDR, CLP, AUD cheap

Top 3/Bottom 3 Value signals, z-score. Positive is rich, negative is cheap



Source: BofA Global Research, Bloomberg

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Exhibit 12: AUD cheapness and SEK richness stand out in G10

FX richness/cheapness z-scores across different valuation measures

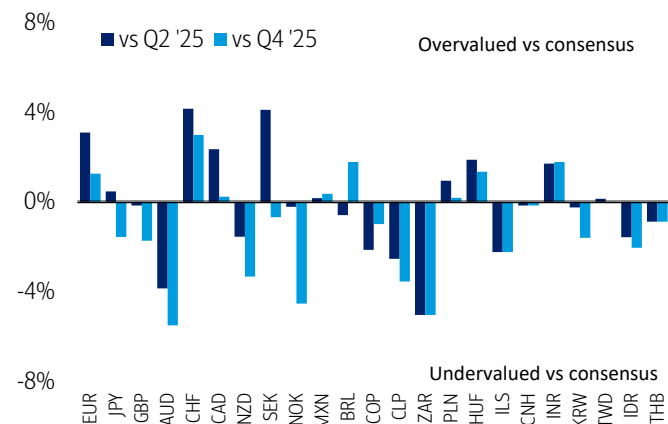
	Richness/Cheapness			
	vs IR differentials	vs DFM fair value	vs 10-week SMA	vs REER
EUR	1.0	1.5	1.6	-0.4
JPY	-1.8	0.9	0.9	-1.7
GBP	-0.1	1.5	0.1	-0.2
AUD	-2.0	-2.9	-2.1	-0.1
G10 CHF	1.5	1.9	1.9	1.3
CAD	0.2	-1.4	0.5	-0.8
NZD	-1.0	-3.1	-0.9	0.2
SEK	1.2	3.3	1.7	-1.0
NOK	-1.9	0.8	0.0	-2.4
MXN	-0.7	-1.5	-0.6	-0.5
BRL	-1.3	-1.3	-1.5	-1.3
COP	-1.2	0.3	-2.7	-0.7
CLP	-1.5	-0.8	-1.7	-2.1
ZAR	-1.4	-0.2	-2.2	-1.2
PLN	0.3	1.8	0.2	2.0
EM HUF	-1.2	0.8	0.5	0.6
ILS	-1.3	-0.5	-0.9	0.2
CNH	-1.2	-0.3	-0.3	0.2
INR	-1.8	-0.3	0.3	1.3
KRW	-1.6	-2.1	-0.3	-1.3
TWD	-2.1	-1.4	-0.1	-0.7
IDR	-2.7	-2.1	-0.9	0.0
THB	0.1	1.2	-1.6	0.7

Source: BofA Global Research, Bloomberg. A more positive number corresponds to greater overvaluation for a currency against the USD; a more negative number corresponds to great undervaluation for a currency against the USD. See details of valuation metrics in Appendix 1

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Exhibit 11: EUR, CHF, CAD, and SEK are now overvalued vs Q2 consensus forecasts

FX spot richness/cheapness versus consensus forecasts

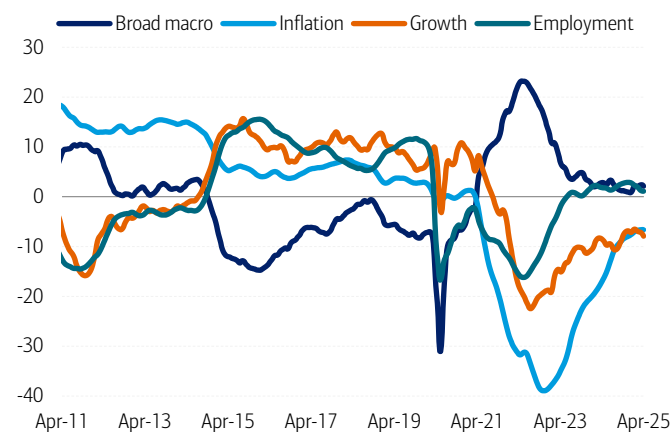


Source: BofA Global Research, Bloomberg. A more positive number indicates current spot is overvalued vs consensus forecast; a more negative number indicates current spot is undervalued vs consensus forecast.

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Exhibit 13: Macro fundamentals still relatively anchored...

... but momentum turning more negative in recent weeks



Source: BofA Global Research

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Exhibit 14: Momentum in macro data fading over the last 3m...

... and seemingly converging to stagflation type scenarios

	Factor changes					
	4w	Z-Score	8w	Z-Score	12w	Z-Score
Global	-0.25	-0.13	0.04	0.01	0.07	0.02
Growth	-0.79	-0.53	-1.05	-0.49	-1.41	-0.48
Inflation	0.01	0.01	0.16	0.08	0.49	0.16
Employment	-0.21	-0.14	-0.88	-0.30	-1.24	-0.30

Source: BofA Global Research

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Trend factor for FX

Exhibit 15: Trend continuation is bearish USD vs JPY and CHF; bullish USD vs AUD, NZD, SEK and EM

Positioning and ADX trend signals for major G10 and EM currency pairs

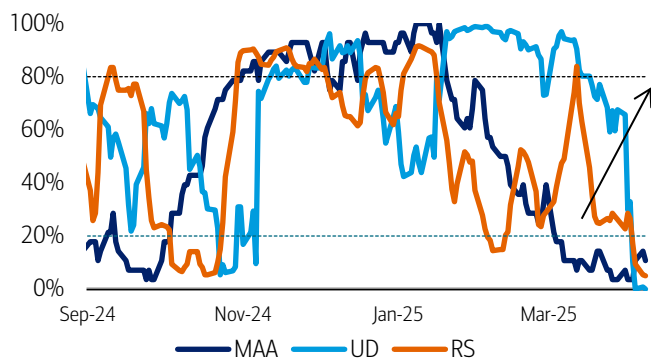
		Spot	Positioning Trend	Bullish / Bearish	MAA	UD	RS	ADX Trend
G10	USDEUR	0.9142	↓	No Signal	11	59	32	Downtrend
	USDJPY	147.32	↓	Bearish	7	78	60	Transition
	USDGBP	0.7825	↓	No Signal	36	7	37	Uptrend
	USDAUD	1.6485	↑	Bullish	100	1	3	Range
	USDCHE	0.8546	↓	Bearish	11	98	67	Downtrend
	USDCAD	1.4167	↓	No Signal	39	49	76	Transition
	USDNZD	1.7816	↑	Bullish	82	12	0	Range
	USDSEK	10.02	↓	Bullish	11	0	5	Downtrend
EM	USDNOK	10.87	↓	No Signal	29	1	7	Uptrend
	USDMXN	20.57	↑	No Signal	68	23	64	Range
	USDBRL	5.8961	↑	Bullish	64	0	35	Range
	USDCOP	4343	↑	Bullish	75	10	13	Range
	USDCLP	984.98	↑	No Signal	64	1	69	Uptrend
	USDZAR	19.48	↑	Bullish	96	12	0	Uptrend
	USDPLN	3.913	↓	No Signal	29	2	24	Range
	USDHUF	372.01	↓	No Signal	29	42	20	Transition
	USDILS	3.7643	↑	Bullish	86	33	2	Uptrend
	USDCNH	7.362	↑	Bullish	82	34	22	Range
	USDINR	86.25	↔	No Signal	50	11	16	Downtrend
	USDKRW	1473.55	↑	No Signal	96	51	16	Range
	USDTWD	33.01	↑	No Signal	89	64	33	Transition
	USDIDR	16865	↑	Bullish	100	5	34	Range
	USDTHB	34.81	↑	Bullish	68	0	2	Range

Source: BofA Global Research, Bloomberg. See details of valuation metrics in Appendix 2.

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Exhibit 16: USD/SEK downtrend looks to reverse its course

USD/SEK positioning analysis

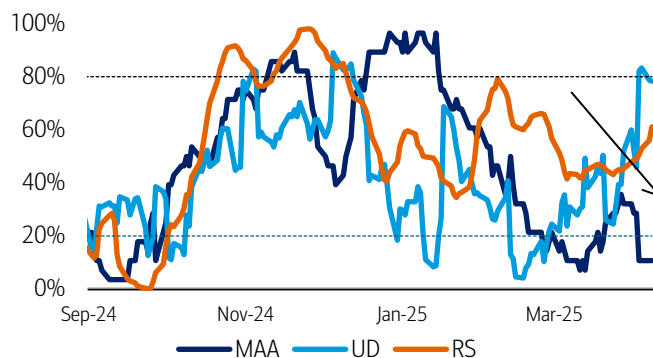


Source: BofA Global Research, Bloomberg

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Exhibit 17: Up/down vol and residual skew remain bearish USDJPY

USD/JPY positioning analysis



Source: BofA Global Research, Bloomberg

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FX factor correlations

Exhibit 18: Value outperformed Carry and Trend on the back of weaker USD this year

FX factor and major asset performance by year

	Carry	Value	Trend	USD	US Equity	2yT yield	10yT yield	10yT ry	Crude Oil	Gold	FX Vol
2025	1%	3%	-2%	-5%	-14%	-48	-39	-25	-15%	14%	1
2024	6%	-3%	0%	7%	23%	-1	69	52	0%	27%	1
2023	4%	-2%	-2%	-2%	24%	-18	0	14	-11%	13%	-2
2022	8%	-1%	4%	8%	-19%	369	236	267	7%	0%	4
2021	0%	1%	-4%	6%	27%	61	60	-1	55%	-4%	-1
2020	-5%	0%	1%	-7%	16%	-145	-100	-122	-21%	25%	1
2019	6%	3%	-1%	0%	29%	-92	-77	-84	34%	18%	-3
2018	0%	2%	0%	4%	-6%	60	28	55	-25%	-2%	1
2017	-1%	2%	0%	-10%	19%	69	-4	-5	12%	14%	-4
2016	14%	4%	-3%	4%	10%	14	17	-23	45%	8%	2
2015	-5%	7%	3%	9%	-1%	38	10	23	-30%	-10%	0
2014	2%	6%	7%	13%	11%	28	-86	-30	-46%	-1%	1
2013	-4%	3%	-2%	0%	30%	13	127	152	7%	-28%	0
2012	5%	-3%	-2%	-1%	13%	1	-12	-63	-7%	7%	-5
2011	-2%	-1%	1%	1%	0%	-35	-142	-109	8%	10%	0
2010	2%	-4%	1%	2%	13%	-54	-54	-46	15%	30%	0
2009	25%	9%	1%	-4%	23%	37	162	-66	78%	24%	-8
2008	-19%	4%	6%	6%	-38%	-228	-181	39	-54%	6%	12
2007	8%	4%	5%	-8%	4%	-176	-68	-70	57%	31%	3
2006	2%	-1%	0%	-8%	14%	41	31	35	0%	23%	-2
2005	15%	15%	0%	13%	3%	133	17	43	40%	18%	-1

Source: BofA Global Research, Bloomberg

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Exhibit 19: Value has been positively correlated with FX vol over the past 3 months

3-month correlation between FX factors and major asset classes

	Carry	Value	Trend	USD	US Equity	2yT yield	10yT yield	10yT ry	Crude Oil	Gold	FX Vol
Carry	100%	-60%	23%	27%	53%	41%	9%	-15%	69%	72%	-68%
Value		100%	-46%	-62%	-24%	-31%	-19%	-1%	-44%	-32%	34%
Trend			100%	66%	-14%	20%	19%	-4%	52%	21%	21%
USD				100%	39%	32%	19%	-17%	62%	27%	-17%
US Equity					100%	32%	-14%	-41%	60%	59%	-85%
2yT yield						100%	76%	59%	32%	38%	-20%
10yT yield							100%	90%	3%	-19%	25%
10yT ry								100%	-33%	-38%	42%
Crude Oil									100%	67%	-53%
Gold										100%	-66%
FX Vol											100%

Source: BofA Global Research, Bloomberg

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Exhibit 20: Value has the most negative correlation with USD over the past 2 years

2y correlation between FX factors and major asset classes

	Carry	Value	Trend	USD	US Equity	2yT yield	10yT yield	10yT ry	Crude Oil	Gold	FX Vol
Carry	100%	-56%	21%	34%	28%	41%	37%	25%	27%	13%	-47%
Value		100%	-26%	-60%	-9%	-46%	-45%	-36%	-7%	11%	14%
Trend			100%	34%	-15%	23%	34%	29%	13%	-2%	12%
USD				100%	-11%	50%	57%	50%	5%	-33%	0%
US Equity					100%	7%	-21%	-31%	25%	26%	-54%
2yT yield						100%	82%	76%	23%	-24%	-13%
10yT yield							100%	93%	23%	-30%	1%
10yT ry								100%	8%	-38%	8%
Crude Oil									100%	23%	-19%
Gold										100%	-21%
FX Vol											100%

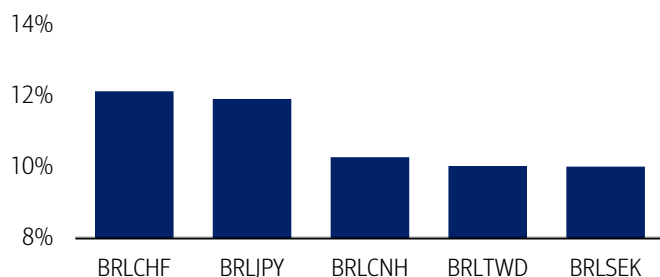
Source: BofA Global Research, Bloomberg

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Exhibit 21: BRLCHF, BRLJPY, and BRLCNH have the widest carries

Top 5 crosses ranked by 3-month carry

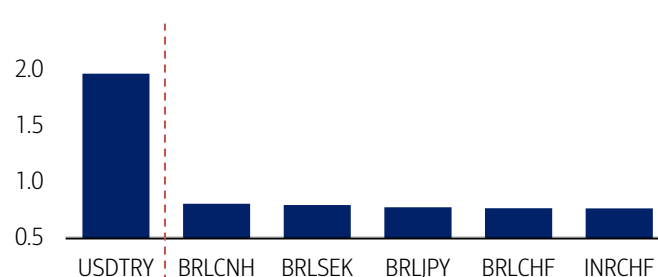


Source: BofA Global Research, Bloomberg

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Exhibit 22: BRLCNH has highest carry/vol ratio outside of USDTRY

Top crosses ranked by 3-month carry/vol



Source: BofA Global Research, Bloomberg

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Appendix 1 – Details of valuation metrics

Details for some of the metrics of value shown in (Exhibit 12):

- **Currency valuation against interest rate differential:** We conduct 5-year (5y) rolling linear regressions between logged FX prices and 2-year (2y) interest rate differentials. A currency pair is overvalued versus IR differential if prevailing spot is higher than estimated fair value using rate differential. Vice versa, a currency is undervalued if spot is lower than estimated fair value using rate differential. We first introduced this valuation measure in the report, [FX Viewpoint: 23 November 2022](#). Exhibit 7 reports the 5y z-score of the latest FX over/undervaluation against rate differentials.
- **Currency valuation in a dynamic factor model (DFM):** We introduced the dynamic factor model for FX in our FX Viewpoint (see the [07 November 2023](#) report). The model values currency richness/cheapness versus 3 factors (Global, G10 and EM) that are generated from normalized 6-year (6y) rolling FX returns. Prevailing prices have a median convergence time of 10 weeks to DFM fair value. Exhibit 7 reports the 6y z-score of the latest FX over/undervaluation against DFM fair value.
- **Currency valuation against moving average:** FX spot prices are inherently volatile and tend to hover around moving average lines. Using 10-week SMA as a measure of fair value, we expect spot to mean-revert towards the 10-week SMA if it had deviated too much from the moving average. Exhibit 7 reports the 10-year (10y) z-score of the latest spot – 10-week SMA spread.
- **Currency long-term valuation against REER:** Z-Score of the richness/cheapness of a currency's REER versus its 20-year history.

Appendix 2 – Details of positioning and trend metrics

Details for some of the positioning and trend metrics shown in Exhibit 15 (see the report, Global Rates and FX Primer: 07 Sep 2022):

- 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 1-year (1y) percentile and MAA is in %.
- The daily MAA is the average of the 28 binary moving average crossing conditions, given by comparing various short and long simple moving average pairs (SMA), such as whether the 50-day (50d) SMA is above or below the 200-day (200d) SMA.
- We construct an Up/Down (UD) vol indicator as a spread of realized volatility between up and down days over the past month. Higher volatility in direction of the trend is bullish, while significant volatility against the trend is bearish. We construct a Residual put Skew (RS) indicator as a residual of a regression of weekly changes in

1-month (1m) 25-day (25d) risk reversals (% atm) on weekly changes in spot over 6-month rolling window.

- 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 $ADX \geq 25$ and $DMI+$ is below $DMI-$. ADX uptrend if $ADX \geq 25$ 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.

See our FX Quant Insight Primer report for more details on positioning trend analysis.



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