Liquid Insight

Tangible USD risk premium

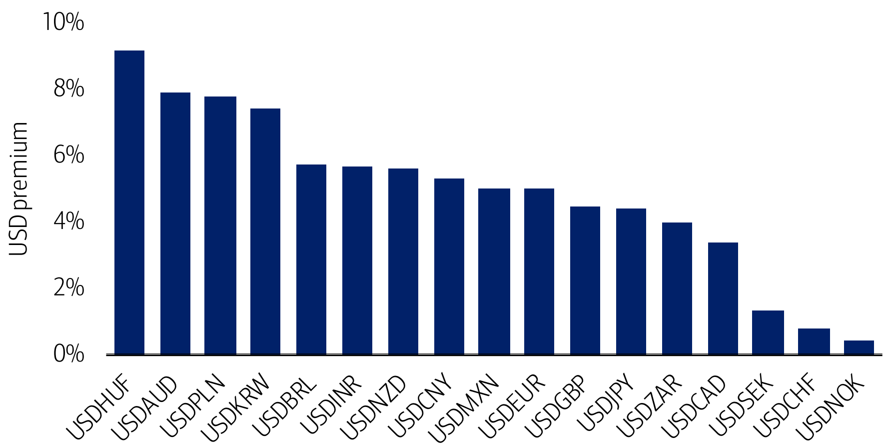
Key takeaways

- Comparing bilateral spot moves for USD-pairs vs non-USD NEERs and REERs show the USD is broadly overvalued again.
- In G10, the USD is most overvalued vs AUD and least overvalued vs CHF; the USD is also broadly rich vs EM FX.
- History shows FX valuation matters for spot at 6m horizon once the dislocation vs NEERs become sufficiently large.

By Vadim Iaralov & Howard Du

Chart of the Day: The USD is broadly overvalued again

Deviations between bilateral spot exchange rates vs non-USD FX NEERs and REERs (higher value means more USD overvaluation vs the non-USD currency)



Source: BofA Global Research, Bloomberg. Chart shows the average deviations between current bilateral USD/FX spots vs the non-USD NEERs andREERs-implied fair values. More positive values mean greater USD overvaluation vs the non-USD currency. The fair values are calculated by regression monthly bilateral spot returns vs the USD on monthly changes on NEERs and REERs for the past 10 years.

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Dislocations of bilateral spots vs effective exchange rates

Bilateral spot moves are inherently more volatile than changes in a currency's effective exchange rates (NEER and REER). Bilateral USD-based spot rates may also obscure the fair value of a currency due to the broad USD effect. Regressing bilateral spot rates for USD-pairs vs non-USD NEERs and REERs show the USD is now broadly overvalued. History shows valuation may not always be the prevailing driver for FX market. But at large dislocations between spot rates and NEERs, bilateral spot rates tend to converge toward medium-term fair values implied by the non-USD NEERs over a six-month look-ahead horizon. We still see upside risks for the USD until end of this year; the USD should depreciate more meaningfully in 2024 once signs of Fed cutting cycle emerge.

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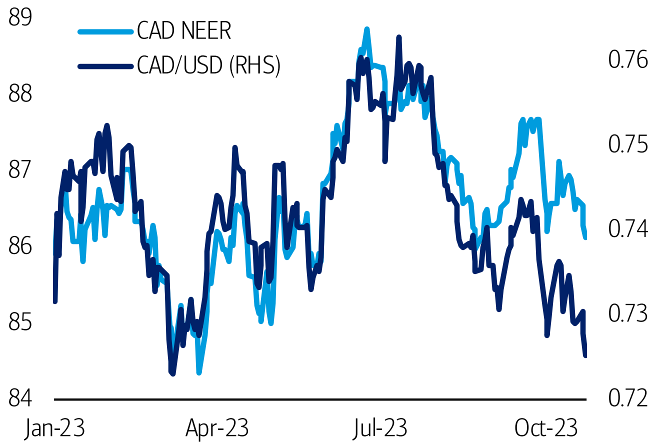
NEER: nominal effective exchange rate

Currency returns could diverge on different measures

There are many ways to assess the value of a currency. One of the most common and tradable measures is its bilateral spot exchange rate vs the USD. Other commonly used measures include NEER (nominal effective exchange rate) and REER (real effective exchange rate), which are weighted-averages (most often trade-weighted) of a basket of bilateral exchange rates for the same base currency. In the case of REER, it is also adjusted for relative inflations for the base country vs its trade partners. In the long-run, different measures of a currency's value would be highly correlated as one-off shocks fade and exchange rates move toward equilibrium, but they often diverge in the short-term. For example, CAD's bilateral spot rate vs USD was largely tracking CAD NEER until end of August this year (Exhibit 1). Across major currencies, the NEER index would show EUR, CAD, and INR appreciated in 2023 while their bilateral spot rates vs the USD show depreciation (Exhibit 2).

Exhibit 1: CAD/USD diverged from CAD NEER since September
CAD NEER vs CAD/USD in 2023



Source: BofA Global Research, Bloomberg

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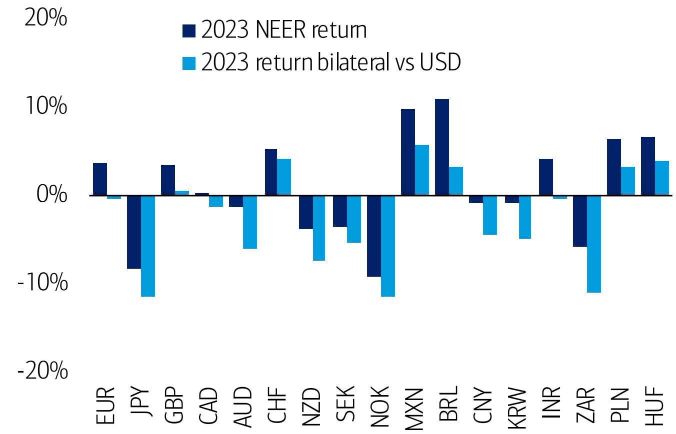
Exhibit 2: EUR, CAD, and INR appreciated in NEER terms but depreciated vs USD
Year-to-date NEER return vs bilateral return vs USD



Source: BofA Global Research, Bloomberg

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Medium-term bilateral spot valuation with respect to NEERs and REERs

Bilateral spot rates are more tradable, but inherently more volatile than weighted-averaged indices. In addition, the broad USD effect on the bilateral spot rates could obscure the medium-term fair value of the non-USD currency in a global context. Regressing changes in the bilateral spot rates vs the USD on changes in NEERs or REERs would show how much the bilateral spot rates have deviated from the NEERs and REERs of the non-USD currency (Exhibit 3). For example, the EUR NEER and REER have both appreciated in 2023. The EUR NEER and REER moves in 2023 would imply EUR/USD medium-term fair value should be close to a 1.11-handle, based on betas calculated using historical relationship between EUR/USD and the indices over the past 10 years. The average of EUR/USD's deviations from NEER and REER-implied fair values is 5.3%.

In a separate long-run equilibrium valuation framework, we also look at REER but more so its deviations from long-term average, where mean reversion may take several years (Updating G10 FX equilibrium, 20-Apr-2023). In this report we focused on the medium-term mean-reversion signals by looking at bilateral spot fluctuations around the REER and NEER.

Exhibit 3: After an 11-week rally since July, the USD is broadly rich again
Current spot vs implied richness vs the USD by NEER/REER

	current spot vs USD	implied spot vs USD using NEER	implied spot vs USD using REER	implied USD richness
EUR/USD	1.0573	1.1106	1.1162	5.3%
USD/JPY	149.99	145.97	142.69	3.9%
GBP/USD	1.2121	1.2495	1.2791	4.3%
USD/CAD	1.3785	1.3574	1.3184	3.0%
AUD/USD	0.6312	0.6606	0.7037	8.1%
USD/CHF	0.8964	0.8933	0.8896	0.6%
NZD/USD	0.5810	0.5972	0.6278	5.4%
USD/SEK	11.14	11.12	10.74	1.9%
USD/NOK	11.19	11.13	11.12	0.6%
USD/MXN	18.34	17.60	17.19	5.4%
USD/BRL	5.01	4.65	4.78	6.2%
USD/CNY	7.32	7.02	6.91	5.0%
USD/KRW	1349.16	1294.84	1233.80	6.7%
USD/INR	83.19	80.34	77.14	5.7%
USD/ZAR	19.11	18.20	18.45	4.3%
USD/PLN	4.24	3.99	3.89	7.6%
USD/HUF	363.64	345.42	321.44	9.1%

Source: BofA Global Research, Bloomberg. Implied richness shows the average deviations between current spot vs NEER and REER-implied fair value. The fair values are calculated by regression monthly bilateral spot returns vs the USD on monthly changes on NEER and REER for the past 10 years.

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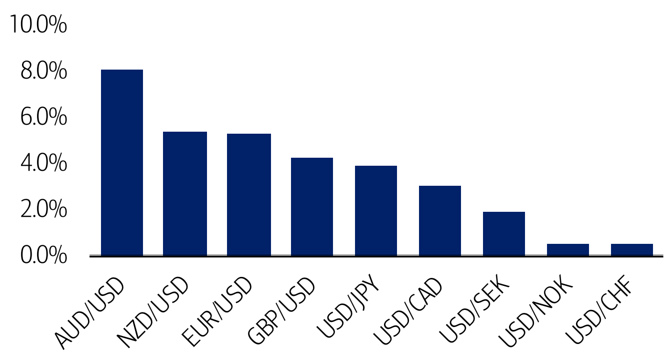
The USD is broadly overvalued again

Projecting bilateral spot rates vs the USD on the non-USD NEERs and REERs show the USD is broadly overvalued again after a prolonged rally since July. In the G10 space, the USD appears to be the most overvalued vs AUD, and least overvalued vs CHF (Exhibit 4). These findings are broadly in-line with our fundamental FX outlook in G10 space (Liquid Insight: 26 October 2023). We previously found reversion factors were no longer bearish for the USD vs G10 peers after it reached a new 2023-low in July (FX Viewpoint: 03 August 2023). But as the USD has rallied by about 7% since the July 14 bottom, reversion factors are again broadly bearish for the USD.

The USD is also broadly rich vs EM FX (Exhibit 5). Looking, ahead, our EM fundamental outlook is more somber. While there may be large deviations between bilateral USD/EM spots and EM FX NEERs and REERs, we like to remain cautious until US rates peaks and SPX bottoms (see report: *Emerging Convictions: 05 October 2023*). And as we will discuss below, valuation matters but is not always the prevailing driver of the market.

Exhibit 4: USD is most overvalued vs AUD and least overvalued vs CHF in G10
Implied USD richness vs G10 FX



Source: BofA Global Research, Bloomberg

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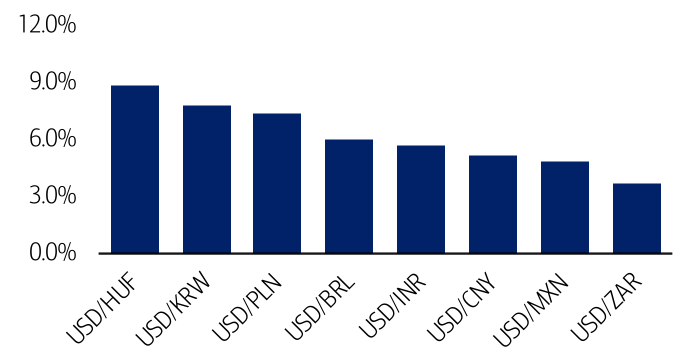
Exhibit 5: Year-to-date NEER and REER changes suggest USD is overvalued vs KRW in EM
Implied USD richness vs major EM FX



Source: BofA Global Research, Bloomberg

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FX valuation matters but market could take its time

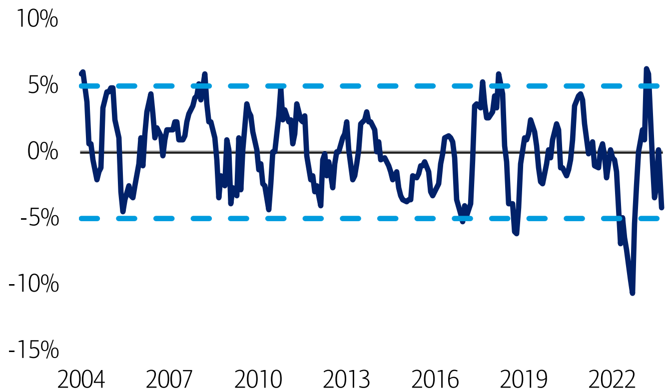
Valuation is not always the prevailing driver for FX market; often times, spot rates move on other factors such as momentum and carry and the premium (discount) may even widen for a time. Nevertheless, historical results show there is a limit to how much bilateral spot rates have deviated from NEERs in the past. Exhibit 6 shows in the case of AUD, the bilateral AUD/USD spot rate's deviation from AUD NEER historically tend to hover within a range of +/- 5%, using a six-month lookback. Dislocations between bilateral spot rates vs the USD and the non-USD NEER would eventually converge but could take time. In 2022, the NEER would suggest AUD/USD was already undervalued by June 2022. Momentum continued to be the main driver of the FX market and AUD/USD was unable to reverse its downtrend until October 2022. Similarly, our current short-term quant signals are bracing for a risk-off shock which is in fact bearish AUD/USD for this week amid a fall in global equities (FX Quant Insight: 30 Oct 2023), while we expect valuation to play out over more of a medium-term six-month horizon.

Across major currencies, we find larger dislocations between bilateral spot rates and NEERs could yield higher hit ratios for the bilateral spot rates to converge toward medium-term fair value. At +/- 10% difference between actual spot rate and fair value implied by NEER, the spot had a 78% hit ratio of converging towards fair value over the subsequent six months since 2004 (Exhibit 7).

For the rest of this year, while the USD is already broadly overvalued, we still see upside risks for it until end of 2023 (FX Watch: USD: 24 October 2023). Our latest forecasts show the broad turn for the USD would likely occur in the first half of 2024 (Liquid Insight: 26 October 2023), once signs of the Fed entering a cutting cycle emerges.

Exhibit 6: AUD/USD over/undervaluation vs AUD NEER historically peaked at +/- 5% thresholds

Historical 6m AUD/USD richness/cheapness vs AUD NEER



Source: BofA Global Research, Bloomberg. A more positive value means AUD/USD is more overvalued vs AUD NEER; a more negative value means AUD/USD is more undervalued vs AUD NEER.

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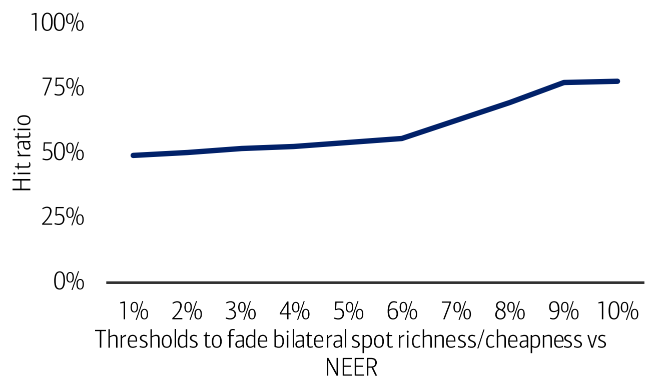
Exhibit 7: Fading bilateral spot dislocations vs NEERs over 6m horizon historically has had high hit ratios

6m return hit ratios to fade bilateral spot over/undervaluation vs NEER at various thresholds since 2004 across major G10 and EM currencies.



Source: BofA Global Research, Bloomberg. See Exhibit 3 for full list of G10 and EM currencies used to calculate the hit ratios in this chart.

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Notable Rates and FX Research

- **Global Rates, FX & EM Year Ahead 2023 –** Year Ahead 2023: Pivot ≠ Peak, 20 Nov 2022
- The needle could easily move**, Global FX Weekly**, 27 Oct 2023
- Haunted fiscal house, **Global Rates Weekly**, 27 Oct 2023
- Yielding to official pressure, **Liquid Cross Border Flows**, 23 Oct 2023

Rates, FX & EM trades for 2023

For a complete list of our open trade recommendations, as well as our trade recommendations closed over the past 12 months, see the reports below:

Global FX weekly: The needle could easily move 27 October 2023

Global Rates Weekly: Haunted fiscal house 27 October 2023

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