Liquid Insight

G10 FX correlations for 2024

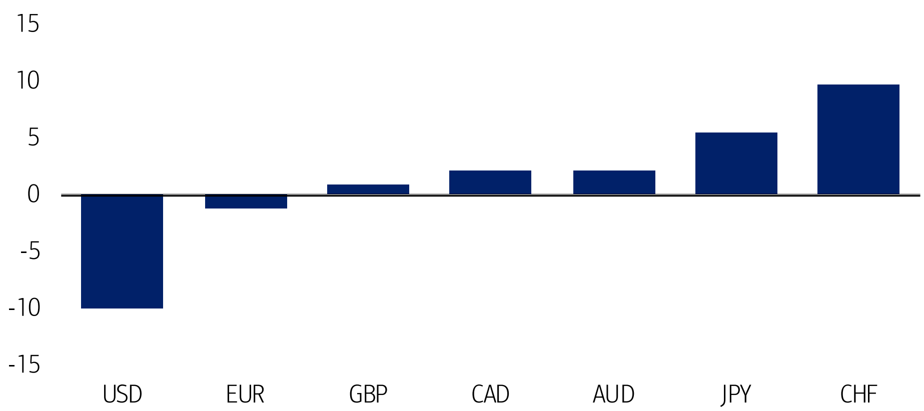
Key takeaways

- Options market expects correlation to rise for JPY- and CHF-based pairs and fall for USD-based pairs in Q1.
- We believe 3m implied correlation for GBP-based pairs is dislocated and underprices March Budget Statement risk.
- Should CHF spot broadly weaken like consensus forecast sees, CHF realized correlation could surge above implied corr.

By Vadim Iaralov & Howard Du

Exhibit 1: Heading into 2024, options market expects CHF and JPY correlation to rise further and USD correlation to ease in Q1

Current 3m implied – realized correlation spread



Source: BofA Global Research, Bloomberg. We calculate single currency correlation, e.g. USD, as the average of all 36 USD/G10 correlation pairs.

BofA GLOBAL RESEARCH

USD and JPY remain central but don't forget about GBP

Realized FX correlation shows the USD and JPY were again the focal point of the G10 FX market in 2023. Looking ahead, implied FX correlation premium shows the market currently expects JPY and CHF correlation to rise the most and USD correlation to fall in Q1 2024. Investors remain focused on the BoJ but believe USD correlation should see some normalization after the December spot selloff. Relative to history, we currently find GBP correlation to be most undervalued by the market. 3m Implied correlation for GBP-based pairs has fallen to a pre-Brexit low and underprices risk around the March UK Budget Statement, in our view. Consensus G10 FX forecast currently expects CHF to weaken the most vs G10 peers in 2024. Should the CHF depreciate like consensus suggests in 2024, realized correlation for CHF-based pairs could also rise by more than what implied correlation currently has priced-in, in our view.

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2023 was again all about the USD and JPY in G10 FX

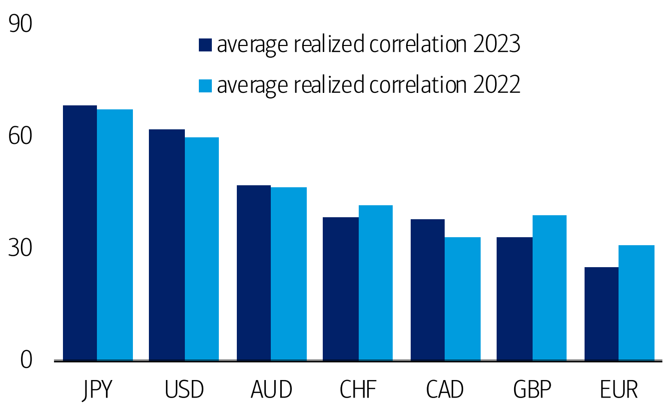
In this publication, we recap FX correlation behavior for the past year and discuss dislocations in this space for 2024 (see *FX correlations explained* section at end of the note for the concept of FX implied and realized correlations). USD and JPY correlations have been persistently elevated in this cycle (Liquid Insight: 19 May 2022). In 2023, the realized correlations for USD- and JPY-based pairs have further picked up vs. 2022, underscoring the importance these base currencies had played in 2023 (Exhibit 2). It was a year of policy transition for central banks. The Fed hiked towards its terminal rate and paused, while the BoJ (Bank of Japan) changed leadership and set up the stage to exit loose monetary policy soon.

Market sees higher JPY and CHF corrs and somewhat lower USD corr in Q1 2024

Current 3m implied correlation premium shows the market is pricing even higher correlations for JPY and CHF in Q1 vs. G10 (Exhibit 3). In terms of long-term FX valuation, JPY is undervalued while CHF is overvalued. The market is looking for broad moves in these base currency pairs in the next few months. In particular, the market is focused on the upcoming meetings for BoJ to exit its relatively loose monetary policy and looking for the CHF to finally weaken after 6 consecutive years of appreciation.

When the dovish Fed took the market by surprise in December, it generated a broad USD sell-off, causing USD realized correlations to surpass its implied correlations. The market anticipates some likely normalization in the correlation space and currently prices lower USD implied correlation than realized correlation over the next 3 months. For 2024 as a whole, we would not expect prolonged periods of falling correlation for the USD, as the start of the Fed cutting cycle and US election would likely keep USD volatility and correlation elevated (FX Quant/Vol Year Ahead: Volatile 2024, 21 November 2023).

Exhibit 2: Realized correlation for USD and JPY-based FX pairs were the highest in 2023
Avg realized correlation in 2023 vs 2022 for G7 currencies



Source: BofA Global Research, Bloomberg

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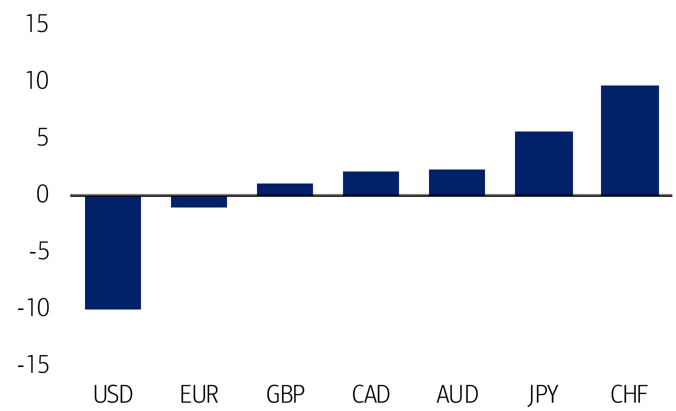
Exhibit 3: Heading into 2024, options market expects CHF and JPY correlation to rise further and USD correlation to ease in Q1
Current 3m implied – realized correlation spread



Source: BofA Global Research, Bloomberg

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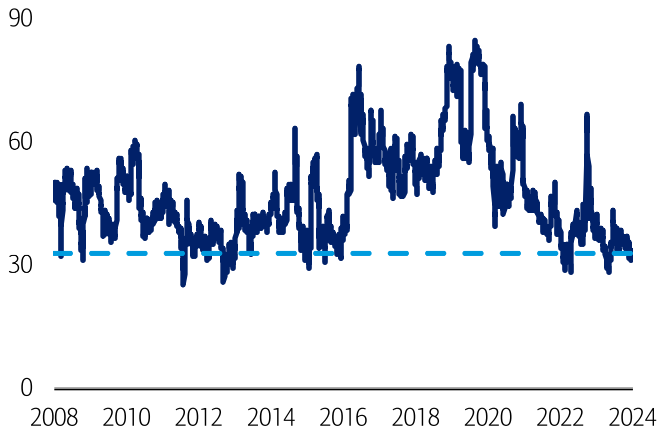
Market may be too complacent on GBP correlation

Current GBP correlation appears to be the most dislocated vs history, as the implied GBP correlation has reverted to its pre-Brexit low c.30% (Exhibit 4). In our view there are several upcoming event risks in the UK, and we expect GBP correlations to rise in the near term with higher GBP vol.

The March 6th Spring budget is a focal point of UK fiscal risk. The prior Truss government had generated significant market volatility around poor communication of their budget and the current government is still facing some of the same structural constraints. Later in H2, there is some political risk surrounding the UK election with the Conservative party in power under pressure of sagging polls. The post-Brexit GBP correlation pickup had begun with an election in 2015 and so political risks are possible catalysts for correlation to pick-up from the lows.

The UK macro backdrop offers lower-than-average growth, coupled with higher-than-average inflation (Exhibit 5). The economic data and BoE policy may offer additional catalysts to increase GBP correlation. We currently see the March budget statement risk as underpriced and hold a bullish EURGBP vol view for Q1 2024 ([FX Quant/Vol Year Ahead: 21 November 2023]).

Exhibit 4: 3m implied correlation for GBP is close to a historical low
3m implied correlation for GBP-based pairs



Source: BofA Global Research, Bloomberg

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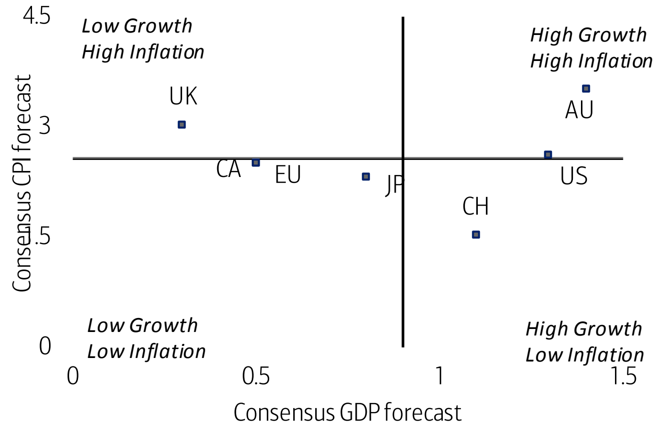
Exhibit 5: The UK faces idiosyncratic low growth + high inflation risk among major G10 economies
Consensus inflation vs growth forecast for 2024



Source: BofA Global Research, Bloomberg. X- and y-axis are crossed at the average GDP and CPI forecasts across all the countries.

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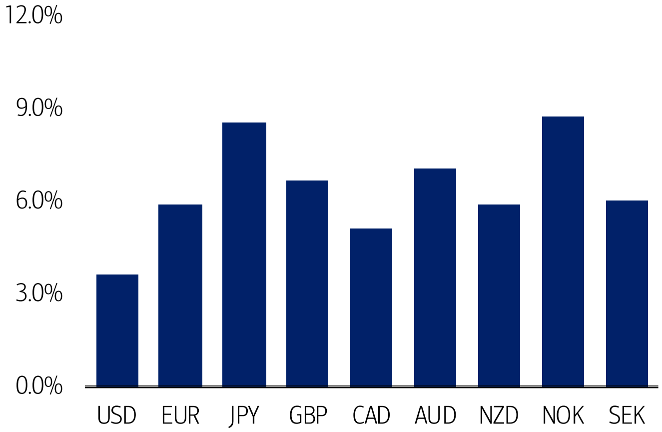
CHF correlation could shoot above current market pricing in 2024

The consensus FX forecast for 2024 is notably bearish CHF vs every other G10 currency (Exhibit 6), in part due to rich CHF valuation. In its December meeting, the SNB (Swiss National Bank) also dropped reference to foreign asset selling. SNB stance on FX intervention likely has become more neutral, in our view ([European Watch: 14 December 2023]), which could potentially trigger the eventual normalization of CHF spot from an overvalued level. We currently prefer to express bearish CHF view vs the EUR in Q1 ([FX Alpha: 02 January 2024]). To the extent that CHF spot weakens broadly against G10 FX as consensus forecast suggests, we would also expect CHF realized correlation rise by more than what options market currently has priced-in (Exhibit 7), as the latest 3m realized correlation for CHF-based pairs is still only hovering around middle of the range since 2017.

Exhibit 6: Consensus forecast expects CHF to idiosyncratically weaken vs G10 FX in 2024

Consensus forecast of G10 FX return vs CHF by end of 2024



Source: BofA Global Research, Bloomberg

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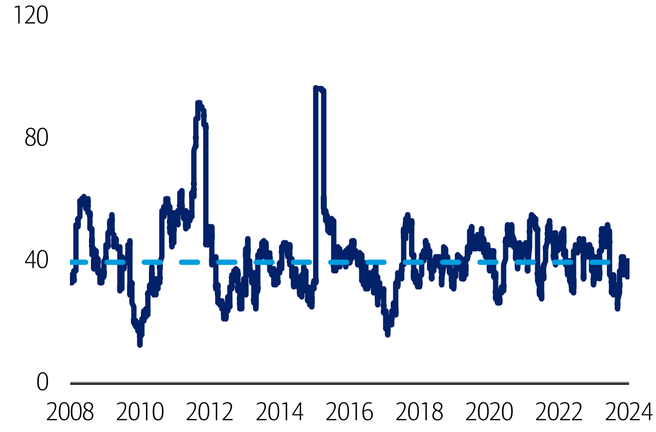
Exhibit 7: 3m CHF realized correlation is currently around middle of the range since 2017

3m realized correlation for CHF-based pairs



Source: BofA Global Research, Bloomberg

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FX correlations explained

Unlike spot prices or option premiums, FX correlation is a more esoteric concept in the world of FX. However, it provides valuable insights to investors that are not readily observable. Backward-looking realized correlation is defined as the Pearson's correlation between the spot returns of two currency pairs that share a same base currency. By contrast, forward-looking implied correlation is derived from FX option volatilities. Implied correlation can be considered as the option investors' expectation of factors driving FX in the future.

Rising correlation means the two currency pairs are moving more in tandem, while falling correlation means the pairs are diverging. For example, GBP implied correlations rose ahead of Brexit vote in early 2016 and later ahead of UK-EU trade negotiations, when most GBP pairs moved up and down together in response to the latest Brexit news. Realized correlations rose after the events had already occurred.

Correlation can be used to identify which currency is expected to drive the future price action. A high correlation suggests the common base currency is the driving factor among the three currencies forming the correlation pair, e.g. USD in USDCAD-USDNOK correlation, in turn suppressing the so-called “cross-vol” volatility of the pair not featuring the aforementioned base currency, e.g. CADNOK. In this report we calculate correlation for a single base currency, e.g. USD, as the average of all 36 USD/G10 correlation pairs.

Investors can also directly express correlation views via options. If one believes current level of correlation is too high and should fall to long-term equilibrium, the view can be expressed via dual digital option. Vice versa, a view of rising correlation ahead of major events can be expressed by owning a basket or “worst-of” option.

Notable Rates and FX Research

- **Global Macro Year Ahead 2024 -** Hope for the best, prepare for the worst, 19 Nov 2023
- **Global Rates Year Ahead 2024 –** Cloudy with a chance of landing, 19 Nov 2023
- **G10 FX Year Ahead -** The year of the landing, 20 Nov 2023
- Into a busy year-end, **Liquid Cross Border Flows**, 11 Dec 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: Ending the year with a bang 15 December 2023

Global Rates Weekly: Jingle bonds 15 December 2023

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