FX Viewpoint

Constructive Scandies in ’24, with a preference for NOK

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G10 FX Strategy
Global

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Constructive Scandies this year. We still prefer NOK

We are constructive on the Scandies in ‘24, with a preference for NOK over SEK. We forecast EURNOK at 10.90 (USDNOK 9.48) and EURSEK at 11.10 (USDSEK 9.65) by the year-end. Near term, we are cautious on both—slightly more on SEK—vs. EUR and USD. We expect NOKSEK to move toward 1.02 in the next months. Even if our forecasts proved correct, NOK & SEK would remain undervalued vs. USD & EUR, and NOK vs. SEK.

NOK stronger on softer USD, hawkish Norges

Despite energy prices likely offering limited support this year, we expect NOK to benefit from: (1) a softer USD and positive risk sentiment; (2) a relatively hawkish Norges Bank amid a resilient – by the European standards – domestic economy and still too timid improvements on the inflation front; (3) meaningfully reduced Norges Bank NOK selling.

SEK: stronger on softer USD, lower hard landing risks

A softer USD, lower Swedish hard landing risks, and the short SEK positioning are the main reasons we think SEK will finish the year stronger even though we are relatively bearish on Sweden. In the near term we are cautious on SEK, partly because we see room for markets to reprice the Riksbank closer to the ECB.

Valuation: Scandies undervalued, NOK substantially more

Our methodology suggests NOK is the most undervalued in G10 FX, both against the EUR and even more against the USD given the USD overvaluation. SEK is the third most undervalued in G10, after NOK and JPY.

Flows & positioning: market long NOK, short SEK

Investors sold the Scandies in recent weeks, having bought them relatively strongly in 2023. We find the NOK positioning to be the longest in G10 but far from stretched and less strong than a few months ago. Meanwhile, SEK positioning is short but less short than in Q3. Over a longer time frame, the SEK shorts stand out, which is partly why we are constructive on SEK for this year, despite being relatively bearish on Sweden.

Quant/Vol: bullish options bias for NOK/SEK

NOK/SEK spot trend and valuation are currently both neutral. Bullish option skew and flat implied vol term structure favor positioning for a more backloaded rally in 2024.

Refer to important disclosures on page 10 to 11.
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Constructive NOK & SEK in 2024

We are constructive on the Scandies in 2024, with a preference for NOK over SEK.

We forecast EURNOK at 10.90 (USDNOK 9.48) and EURSEK at 11.10 (USDSEK 9.65) by the year-end (Exhibit 1). Near term, we are cautious on both—slightly more on SEK—vs. EUR and USD. We expect NOKSEK to gradually move toward 1.02 in the next months.

Even if our forecasts proved correct, NOK and SEK would remain undervalued vs. USD and EUR, and NOK vs. SEK, as we discuss below.

Exhibit 1: Scandies FX forecasts

We forecast EURNOK at 10.90 (USDNOK 9.48), EURSEK at 11.10 (USDSEK 9.65), and NOKSEK at 1.02 by the year-end

	Spot	Mar-24	Jun-24	Sep-24	YE 2024	Mar-25	Jun-25	Sep-25	YE 2025
EUR/NOK	11.41	11.60	11.30	11.00	10.90	10.90	10.80	10.70	10.60
USD/NOK	10.44	10.84	10.27	9.57	9.48	9.40	9.23	9.07	8.83
EUR/SEK	11.34	11.70	11.40	11.20	11.10	11.10	11.00	10.90	10.80
USD/SEK	10.39	10.93	10.36	9.74	9.65	9.57	9.40	9.24	9.00
NOK/SEK	0.99	1.01	1.01	1.02	1.02	1.02	1.02	1.02	1.02
EUR/USD	1.09	1.07	1.10	1.15	1.15	1.16	1.17	1.18	1.20

Source: BofA Securities, Bloomberg. Spot as of 24-Jan-2024.

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Bullish NOK bias in 2024 but near-term we favour crosses

We remain constructive on NOK for 2024 but, with markets likely running a little ahead of themselves, in the near term we prefer to express this view mostly in the crosses.

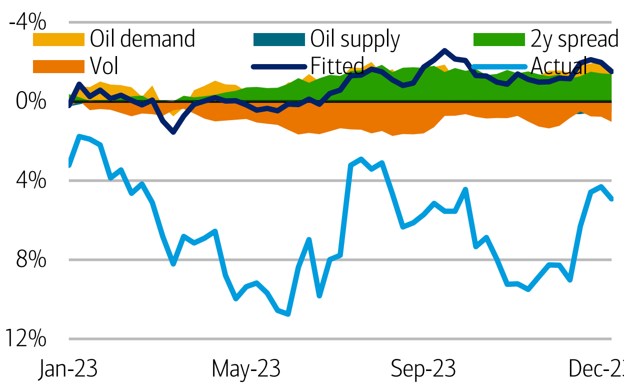
Looking back: a strong rally in late 2023 from a much undervalued level

NOK's remarkable rally in late 2023 only partly made up for its underperformance until that point—based on its own recent history (Exhibit 2).

We would have expected a slightly stronger import-weighted NOK ("NOK I-44"), with demand-driven oil-price changes and relative monetary policy slightly more than offsetting the negative impact of supply-driven oil-price changes and relative implied volatility (Exhibit 3).

Exhibit 2: Fitted vs. actual NOK I-44 (inverted values)

NOK 6-7% weaker in 2023 than its recent history would suggest



Source: BofA Global Research, Bloomberg. Weekly data through Jan 5. Lower values of import-weighted krone (NOK I-44) show stronger NOK. Regression estimates are for Jan 18- Dec 22. We regress changes in (log) NOK I-44 on: proxies for (1) demand- and (2) supply-driven changes in Brent crude spot; (3) changes in Norway's 2-year trade-weighted swap spread; and (4) changes in our preferred NOK implied-vol spread measure. We use the first principal component of changes in MSCI Global, Brent crude spot, and VIX as proxy for demand-driven oil-price changes, and the second principal component as proxy for supply-driven oil-price changes.

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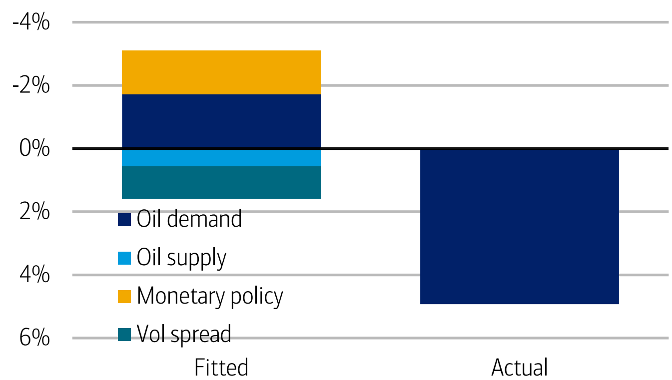
Exhibit 3: NOK I-44 actual vs fitted by driver

We would have expected oil demand and Norges to help NOK more in '23



Source: BofA Global Research, Bloomberg. Weekly data through Jan 5. Lower values of import-weighted krone (NOK I-44) show stronger NOK. Regression estimates are for Jan 18- Dec 22. We regress changes in (log) NOK I-44 on: proxies for (1) demand- and (2) supply-driven changes in Brent crude spot; (3) changes in Norway's 2-year trade-weighted swap spread; and (4) changes in our preferred NOK implied-vol spread measure. We use the first principal component of changes in MSCI Global, Brent crude spot, and VIX as proxy for demand-driven oil-price changes, and the second principal component as proxy for supply-driven oil-price changes.

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Instead, NOK weakened by c. 5% last year (import-weighted terms). While the role of all the factors listed above (demand & supply-driven oil-price changes and monetary policy) decreased, that of relative implied volatility increased i.e., NOK's beta to it slightly rose last year (in absolute terms). Another explanation for NOK's underperformance may have also been Norges Bank's meaningful NOK sales following the record 2022 petroleum tax revenue—this was certainly a concern for many investors.

Looking ahead: stay constructive in '24. Near term we favour crosses
After its rally in late 2023, NOK is slightly weaker vs. USD & EUR year-to-date but has remained supported in the crosses (Exhibit 4, Exhibit 5).

We retain a bullish NOK bias in '24 despite oil prices likely offering limited support from here (see Global Energy Weekly 7 Jan 24). We count on:

1. A softer USD amid supportive risk sentiment in a soft US landing, as the Fed cuts rates and the US economy gradually recouples with the rest of the world. Our year-end EUR-USD forecast is at 1.15, above the Bloomberg consensus (see also USD: Defying gravity 17 Jan 24).

2. A relatively hawkish Norges amid a resilient - by the European standards - domestic economy and still too timid improvements on the inflation front (Exhibit 6). We look for two Norges rate cuts this year, starting in September (see Norges Bank Jan 24 preview). Meanwhile, we expect three cuts from the ECB and the Riksbank in 2024 starting in June, with our economists also seeing risks skewed to more cuts in 2H.

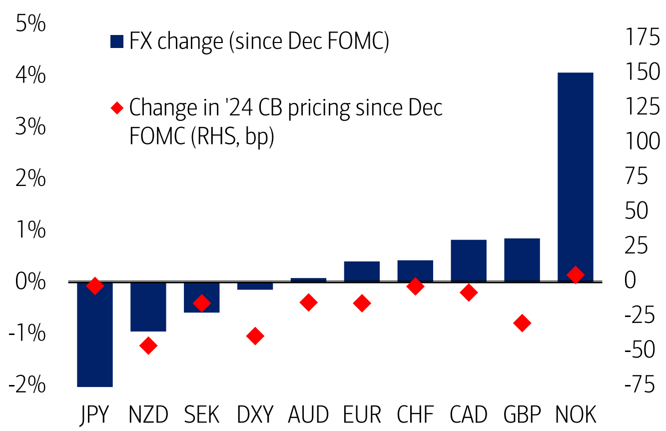
3. Significantly more favourable (less unfavourable, to be precise) Norges Bank NOK flows (Exhibit 7), with the 2022 petroleum tax revenue in the rear-view mirror—but we admit Norges' current NOK sales came *slightly* below our expectations.

…but near term we have more faith in the crosses than vs. USD & EUR
In the near term we are cautious on NOK vs USD & EUR but have more faith on it in the crosses. While we see the USD depreciating broadly this year, it could still take some time, and our forecasts call for greater moves in H2 (see also USD: Defying gravity 17 Jan 24).

In addition, while we see risks markets could price a relatively more hawkish Norges Bank stance, the current market pricing is near our economists' base case.

Meanwhile, NOK positioning remains long although far from stretched and lighter than a few months ago, particularly for Real Money clients (see next section).

Exhibit 4: Spot FX changes (vs. USD) since December FOMC & changes in 1Y1D swaps
NOK has been much stronger after the Dec FOMC and Norges meetings



Source: BofA Global Research; Bloomberg

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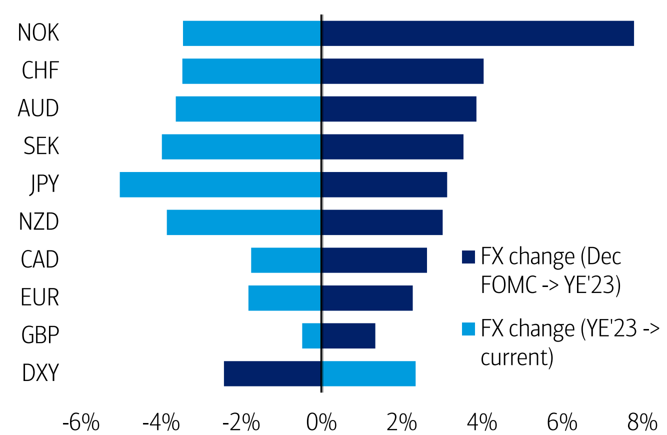
Exhibit 5: FX performance from Dec. FOMC to Year End '23 & from Year End '23 to current
NOK has been resilient in the crosses so far this year despite stronger USD



Source: BofA Global Research; Bloomberg

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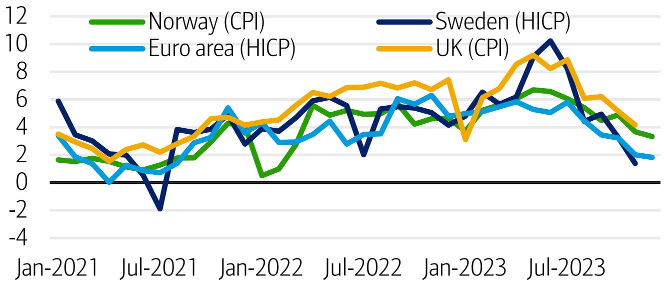
Exhibit 6: Services inflation, instantaneous tracker (yoy%)

Norway's services price pressures higher than in the Euro area and Sweden



Source: BofA Global Research, national statistical offices. Note: original methodology from Eeckhout (2023).

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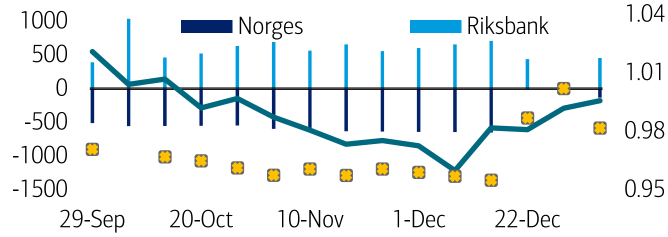
Exhibit 7: Norges & Riksbank FX flows (USD million)

Central bank flows to likely remain less unfavourable to NOKSEK this year



Source: BofA Global Research, Norges Bank, Riksbank, Bloomberg. Data through Jan 5. Positive values show SEK (NOK) buying and negative values show SEK (NOK) selling. We show the USD equivalent amounts of Norges Bank and the Riksbank using weekly average levels for FX conversions, where needed. For NOKSEK we use end-of-week levels.

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SEK: cautious in Q1, constructive later

After a remarkable Q4 we think markets have run a little ahead of themselves on SEK. So, while we remain constructive on SEK for the year, we are cautious on it in Q1. We have chosen to express our near-term (tactical) bearishness vs. GBP (see FX Alpha: Buy GBPSEK 12 Jan 24 entry spot: 13.10, current 13.26; see also GBP in '24 15 Jan 24).

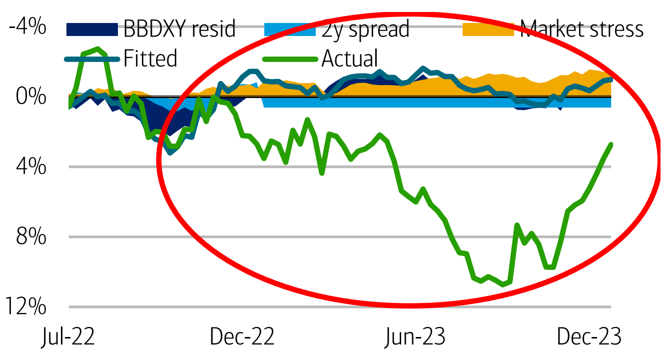
Looking back: in Q4 SEK closed most of its valuation gap

SEK performed remarkably in Q4, initially on the back of the hawkish Riksbank and afterwards on the back of the dovish Fed and very favourable risk sentiment. SEK's strong Q4 performance made up for a significant part—but, still, not all—of its earlier underperformance vs its own recent history (Exhibit 8).

Client feedback suggests SEK's underperformance until Q4 reflected Swedish "hard landing" risks i.e., investor concerns of a significant consumer squeeze and around CRE (commercial real estate). These were concerns we also shared last year. And we think such concerns could help explain the misalignment between EURUSD and EURSEK for most of 2023 despite the lack of a meaningful Riksbank deviation from the ECB (Exhibit 9). But arguably these concerns have eased meaningfully given the rate cuts priced, and amid the faster-than-expected drop in %y/y Swedish CPIF ex energy inflation.

Exhibit 8: Fitted vs. actual Swedish krona index

In Q4 SEK closed a good part—but not all—of its valuation gap



Source: BofA Global Research, Bloomberg, Lower values of the trade-weighted krona index (KIX) show a stronger SEK. Weekly data through Dec 29. Fitted values are based on regression estimates for Jan 2018- June 2022. We regress changes in log KIX (trade-weighted krona index) on 1) residual changes in the (log) Bloomberg Dollar Index (see below for details); 2) changes in the trade-weighted 2-year SEK swap spreads; 3) changes in the first principal component of VIX, the MOVE Index and the US Corporate BAA 10-year spread, which we interpret as a proxy for market stress. The residual changes of the Bloomberg Dollar Index are changes in the Bloomberg Dollar Index unaccounted for by changes in market stress conditions.

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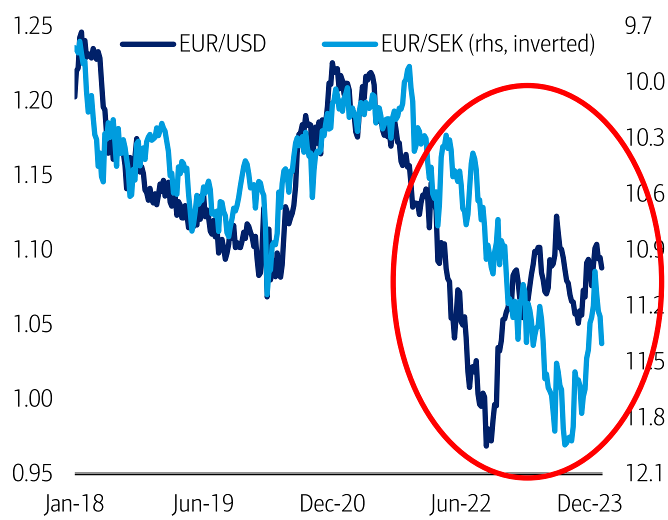
Exhibit 9: EURUSD vs EURSEK (inverted)

EURSEK and EURUSD largely re-aligned in Q4



Source: Bloomberg, BofA Global Research

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Near term we remain cautious…

We are tactically cautious on SEK in the near term for two main reasons. First, as we argued above, while we are bearish on USD this year, we are concerned markets have run ahead of themselves on the number and pace of Fed rate cuts.

Second, the markets' bias remains for fewer Riksbank rate cuts vs the ECB this year. To be sure, we expect parallel paths from the two central banks, but it is not obvious to us why the markets' bias remains one-sided.

Granted, the Riksbank's language and stance on FX will likely shift only gradually and Sweden's high rate sensitivity means fewer rates cuts are needed, all else equal. But all else is not equal: our economists forecast weaker Swedish growth vs the Eurozone and see CPIF ex energy below 2% y/y in July (see Nordics YA 24 8 Dec 23). Swedish services inflation has a softer momentum vs that in the Euro area (Exhibit 6). Not unrelatedly, last year's Swedish wage agreement was for two years (4.1% in the 1st year, 3.3% in the 2nd).

In addition, the side effects (on monetary policy) of the Riksbank's FX hedging operation will gradually become less desirable, in our view. So, a slowing of this operation would also add—at the margin—to our near-term caution on SEK.

…but our caution is tactical not structural

Beyond the near term we are constructive on SEK. First, more Riksbank cuts getting priced would leave us bearish SEK in the near term, but bullish further out. This is because they would lower "hard landing" risks—a key concern we had in 2023. Of course, the latter is strictly conditional on inflation falling to target sustainably.

In addition, we expect the USD to soften meaningfully and more sustainably in 2H (USD: Defying gravity 17 Jan 24).

Main risks: Fed & risk sentiment, energy supply, China

Our year-end forecasts assume a "soft US landing" and modestly higher oil prices. Sticky US inflation and a more hawkish Fed would pose downside risks to our Scandies forecasts.

Slower global growth alongside lower oil prices would likely weigh on NOKSEK. Of course, geopolitics remains key (Global rate cuts lost at (Red) Sea? 12 Jan 24)—NOK could be supported in the crosses on energy prices spikes—and so does China's outlook.

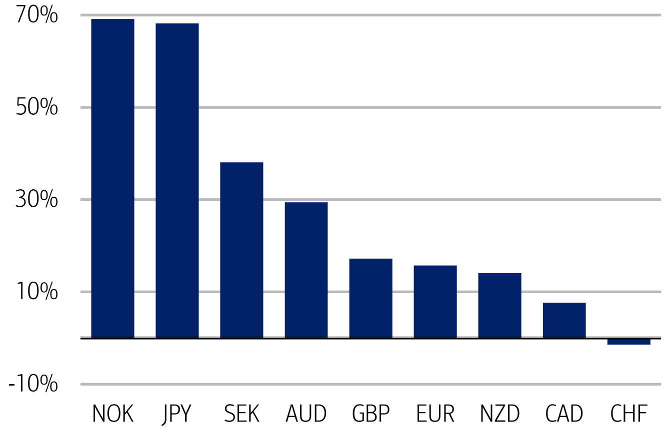
In Sweden, with maturities hitting the market, negative CRE headlines could return in case the Riksbank cuts less than we forecast and/or inflation proves stickier.

Valuation: Scandies undervalued, NOK substantially more

We use our Behavioural Equilibrium Exchange Rate (BEER) model to estimate misalignment of the Scandies from long-term equilibrium. This is a panel Dynamic Ordinary Least Squares (DOLS) cointegrating regression, in line with the academic literature. Monthly variables are lagged by one month and quarterly variables by one quarter, with previous value interpolation for any variable that does not yet have a new observation at the time of estimation, ensuring no 'look ahead' bias in our estimates (see A primer on G10 equilibrium exchange rates for details on the methodology).

The results point to undervaluation for the Scandies, substantially more for NOK than for SEK. Our methodology suggests that NOK is the most undervalued in G10 FX, both against the USD and against the EUR (Exhibit 10 and Exhibit 11)—more in the former case, given USD overvaluation. SEK is the third most undervalued in G10, after NOK and JPY.

Exhibit 10: USD equilibrium misalignment vs. rest of G10(USD/XXX)
NOK most undervalued in G10 against USD, SEK third most undervalued



Source: BofA Global Research, Bloomberg. For our methodology, please see [A primer on G10 equilibrium exchange rates](#).

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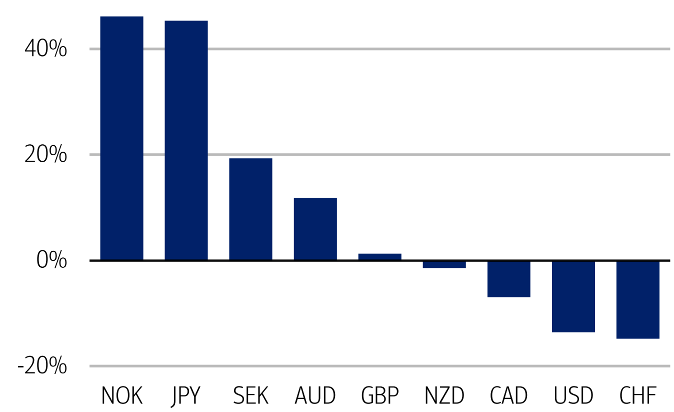
Exhibit 11: EUR equilibrium misalignment vs. rest of G10 (EUR/XXX)
NOK most undervalued in G10 against EUR, SEK third most undervalued



Source: BofA Global Research, Bloomberg. For our methodology, please see [A primer on G10 equilibrium exchange rates](#).

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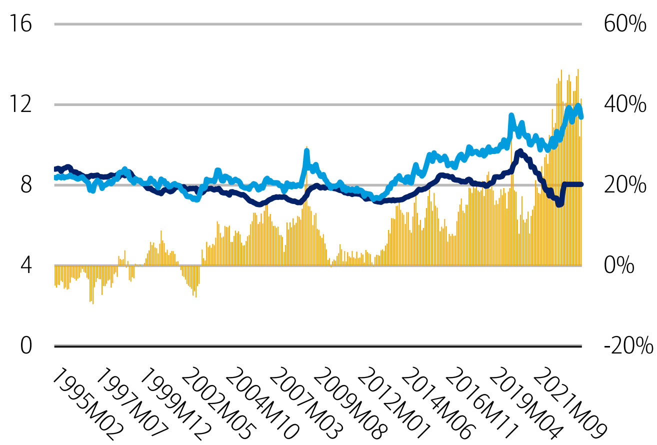
Exhibit 12: EURNOK misalignment from long-term equilibrium
NOK undervaluation increased sharply during tightening cycle



Source: BofA Global Research, Bloomberg. For our methodology, please see [A primer on G10 equilibrium exchange rates](#).

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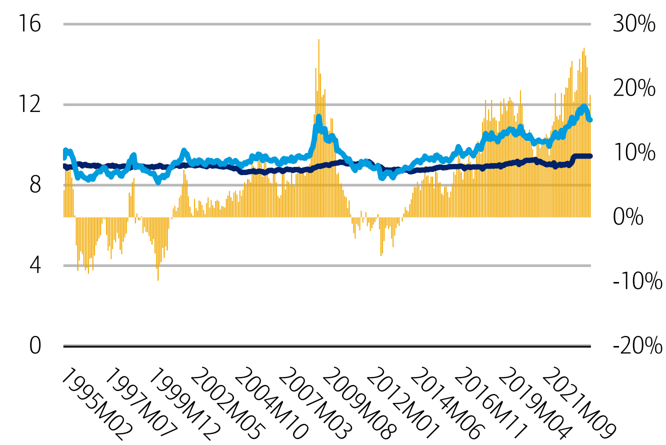
Exhibit 13: EURSEK misalignment from long-term equilibrium
SEK undervaluation increased during tightening cycle



Source: BofA Global Research, Bloomberg. For our methodology, please see [A primer on G10 equilibrium exchange rates](#).

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Looking at the time series and focusing on the EUR Scandies crosses suggests that both NOK and SEK became more undervalued during this tightening cycle, particularly NOK (Exhibit 12 and Exhibit 13). Our equilibrium estimate for EURNOK is 8.04, compared with current spot of 11.44. Our equilibrium estimate for EURSEK is 9.45, compared with current spot of 11.41. Our equilibrium estimate for NOKSEK is 1.175 compared with current spot of 0.997—about 15% undervaluation for NOKSEK.

Flows & positioning: market long NOK, slightly short SEK

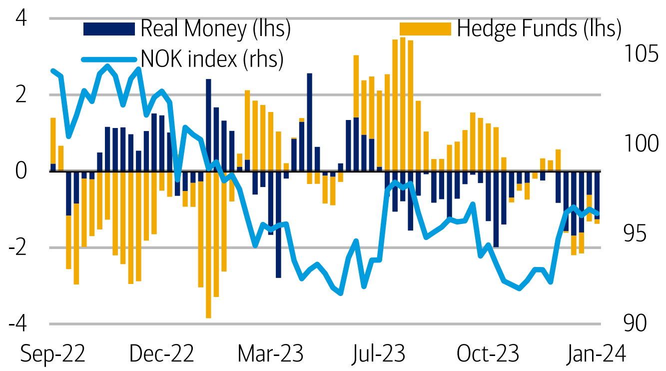
Investors sold the Scandies in recent weeks, having bought them relatively strongly in 2023 (Exhibit 14-Exhibit 16, LCBF 22 Jan 24 & FX flows & positioning in '23 19 Jan 24).

We find the NOK positioning to be the longest in the G10 but far from stretched and less strong than a few months ago following the recent Real Money selling. Meanwhile, SEK positioning remains short, but it is less short than in Q3 (Exhibit 17).

With Hedge Funds already long NOK and Real Money short SEK, a NOK rally would rely more on Real Money and a SEK sell-off on Hedge Funds. Over a longer time frame, the

SEK shorts clearly stand out ([FXRS 12 Jan 24]), which is partly why we are constructive on SEK for this year, despite being relatively bearish on the Swedish economy.

Exhibit 14: BofA investor 4-week NOK flows (z-score) and NOK TWI
Investors bought NOK in 2023, with Real Money likely taking profit recently



TWI: Trade-weighted index. **Source:** BofA Securities, Bloomberg

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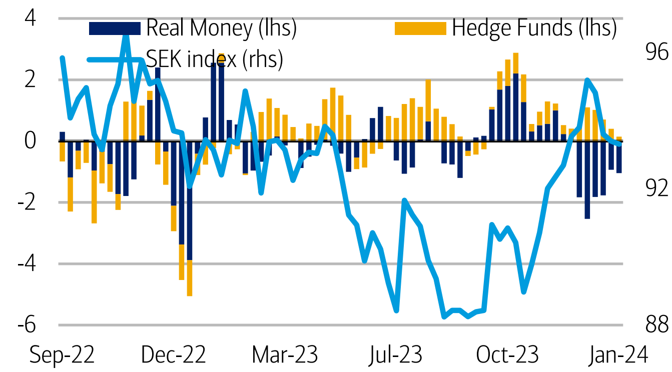
Exhibit 15: BofA investor 4-week SEK flows (z-score) and SEK TWI
In 2023 investors pared back to some extent their SEK shorts



TWI: Trade-weighted index. **Source:** BofA Securities, Bloomberg

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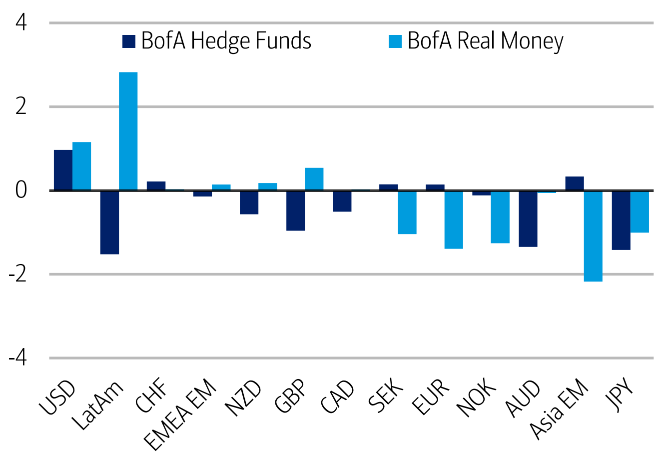
Exhibit 16: BofA investor FX flows in past 4 weeks (2-year z-score) text
BofA investors sold the Scandies in the past month



Source: BofA Securities

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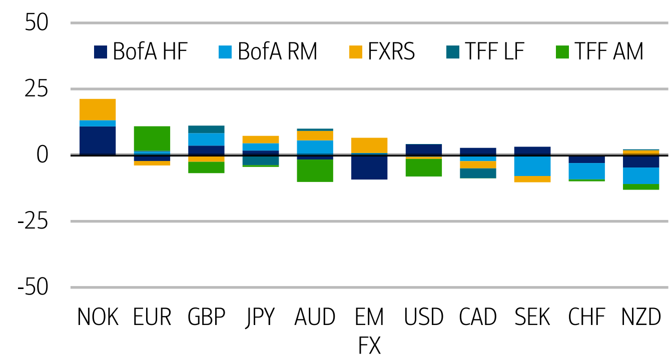
Exhibit 17: Latest aggregate G10 FX positioning by component
NOK positioning long. SEK positioning short



Source: BofA Securities, Bloomberg. Aggregate positioning is the equally-weighted average of five inputs (BofA Hedge Funds, BofA Real Money, a signal from our monthly FX & Rates sentiment survey, TFF Leveraged Funds, TFF Asset Managers). Each signal is scaled to +50 and -50. Where fewer than five inputs are available (Scandies, CHF, EM FX), aggregate positioning assigns equal weights to all available inputs. .For details, please see LCBF: Primer 26 May 2021

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Quant/Vol: bullish options bias for NOK/SEK

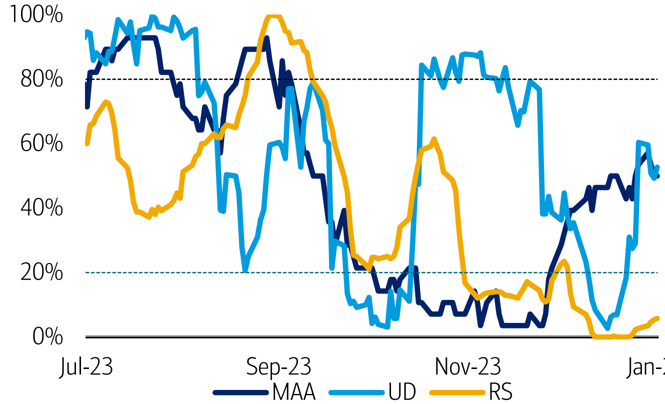
Options skew favors bullish bias for NOK/SEK

As shown in Exhibit 18, our positioning analysis suggests NOKSEK trend (as measured by Moving Average Aggregate at around 50 out of 100) is currently neutral, and the realized volatility for up days has been evenly matched with volatility for down days (as measured by up/down vol). The options market appears to be more bullish on this pair, as indicated by the low (6th) percentile for the residual skew indicator (Exhibit 19, and see our [Weekly FX Quant Insight] publications for more details on the positioning analysis model).

The divergence between NOK/SEK option skew and spot has been persistent since the start of 2023 (Exhibit 19). Although the 3m NOKSEK skew (risk reversal as a percentage of atm vol) is not fully back to pre-pandemic level, throughout 2023 option investors have been demanding more out-of-money NOKSEK calls than put. The 3m risk reversal notably flipped to above zero this month for the first time since early 2020.

Exhibit 18: NOKSEK trend and up/down vol are sideways; residual option skew is bullish for the pair

NOKSEK positioning analysis



Source: BofA Global Research, Bloomberg.

MAA = moving average aggregate; UD = up/down vol; RS = residual skew

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 %.

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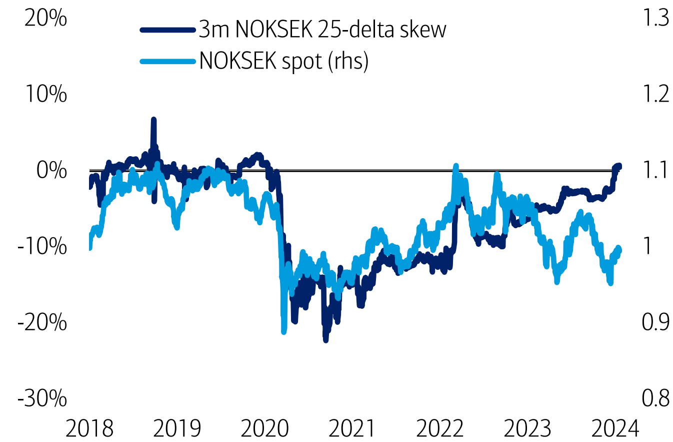
Exhibit 19: Option market is more bullish NOKSEK than spot

NOKSEK skew (as % of atm vol) vs NOKSEK spot



Source: BofA Global Research, Bloomberg

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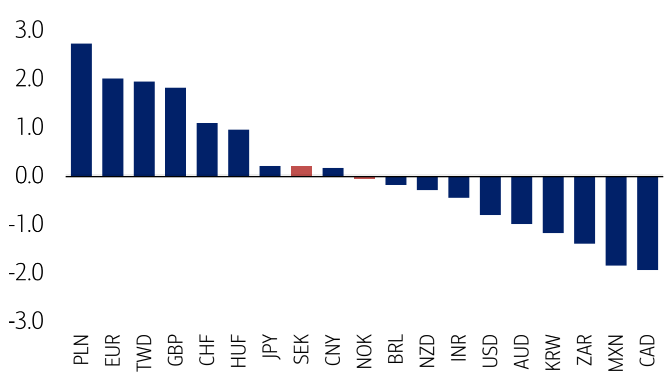
Spot NOKSEK rally likely to be more backloaded in 2024

As a result of the bullishness from option skew, we like to maintain a bullish bias for NOK/SEK this year. However, any significant rally for this pair likely would not take place in the near-term. For most of 2023, NOK/SEK has traded below its 200d SMA. The year-to-date rally for this pair has also failed to rise above the 200d SMA resistance. Our dynamic factor valuation model for FX suggests SEK is overvalued vs NOK, but not by much (Exhibit 20, see [FX Viewpoint: 07 November 2023] for more details on the model). The NOKSEK implied vol term structure is moderately flat, with vol cone showing more cheapness for NOKSEK implied vols at longer-dated tenors (Exhibit 21). The combination of implied vol dynamic and quantitative signals would favor positioning for a more backloaded NOKSEK rally in 2024 via long-dated calls. The risk to this view is a resumption of the NOKSEK downtrend resembling 2023.

Exhibit 20: We estimate both NOK and SEK NEERs are close to short-term fair value; SEK marginally richer than NOK

Currency NEER richness/cheapness vs fair values estimated by dynamic factor model



Source: BofA Global Research, Bloomberg. Y-axis shows % richness/cheapness vs estimated fair value; higher value corresponds to overvaluation, lower value corresponds to undervaluation.

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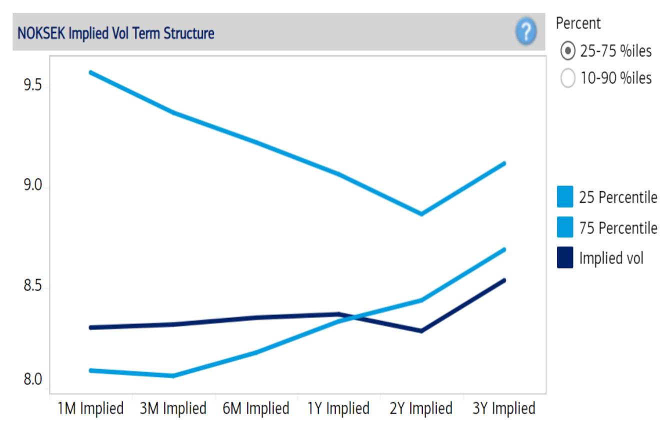
Exhibit 21: NOKSEK implied vol curve is cheaper at the back-end

NOKSEK vol cone: implied vol curve vs historical 25th and 75th percentiles of realized vol



Source: BofA Global Research, Bloomberg

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