27 June 2019

FX Research Methodology

How we form our views and recommendations

We form our views and recommendations on the foreign exchange (FX) market by assessing the relative impact of a range of factors on a given currency pair using both qualitative and quantitative approaches. We describe our overall approach below.

Scope: focus on the majors and Scandies

We cover the currencies of both **developed and emerging markets** but keep a specific focus on the G10 and notably the Scandi currencies (SEK, NOK, DKK). We maintain 1-12M forecasts on the spot price of selected currency pairs and update these on a regular basis – usually mid-month – but we conduct ad-hoc interim updates when we deem market developments warrant this. We may also communicate views on the direction of FX forwards and volatility in selected currency pairs.

Factors: a wide range of FX drivers assessed

We base our FX research coverage on the notion that a wide range of macro and micro factors drive the prices of currencies spot but that the relative importance of these may shift over time. We aim to apply both a top-down (macro/cyclical focus) and a bottom-up (micro drivers) approach to form our views.

We base our assessment of the outlook for the **spot** price of a given currency pair on our expectations of the prospects of <u>relative</u> moves in the following (note this list is not exhaustive).

- Interest rates (including monetary policy).
- Cyclical/growth outlook (including fiscal policy).
- Risk sentiment.
- Capital flows (short-term speculative and longer term current-account flows).
- Terms of trade (including commodity prices).
- Productivity.
- Positioning.
- Valuation (more below).
- Political risks.

In addition, we may refer to technical analysis in determining the potential for market moves, notably in the short term.

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We do not publish forecasts for FX forwards as such but may occasionally communicate views on these. We forma our views on **forwards** in a given currency pairon the back of our expectations of the prospects for relative moves in the following (again, note this list is not exhaustive).

- Interest rates.
- Liquidity.
- Regulation.
- Credit.

Further, we may also occasionally communicate views on FX options. We form our views on **implied volatility** in a given currency pair on the back of our assessment of the following (again, note this list is not exhaustive).

- Realised volatility.
- Historical volatility.
- Straddle pricing.
- Spot levels.

Models: anchoring the short, medium and long term

While we stress that historical patterns go only so far in tracking the developments in the FX market, warranting judgement in assessing the potential for future FX spot moves, we maintain a set of quantitative models to discipline our analysis and keep track of valuation aspects in the short, medium and longer term. We base these models on standard econometric techniques. We review our quantitative-model framework on a regular basis and update and replace models as we deem shifting market conditions make this is necessary.

Recommendations: hedging and trading ideas

We publish both hedging and trading recommendations on the FX market.

We direct our generic hedging recommendations at corporates with income and/or expenses in the currencies we cover. We aim for 'conservative' hedging strategies, i.e. when we advise an options-based alternative to forwards, we focus on strategies that secure a known 'worst-case' rate. We publish these recommendations around once a month in our various 'market guides'. We stress these constitute general opinions at the time of publication, which shifts in market conditions may render invalid, and that these do not consider investors' specific situations, including, in particular, their investment profile (see full disclaimer in each publications).

Separately, we communicate our high-conviction views in the form of the Danske FX Trading Portfolio, targeting clients with a trading mandate. We track the performance of our trade recommendations and a 1Y history of these is available on our *website*.