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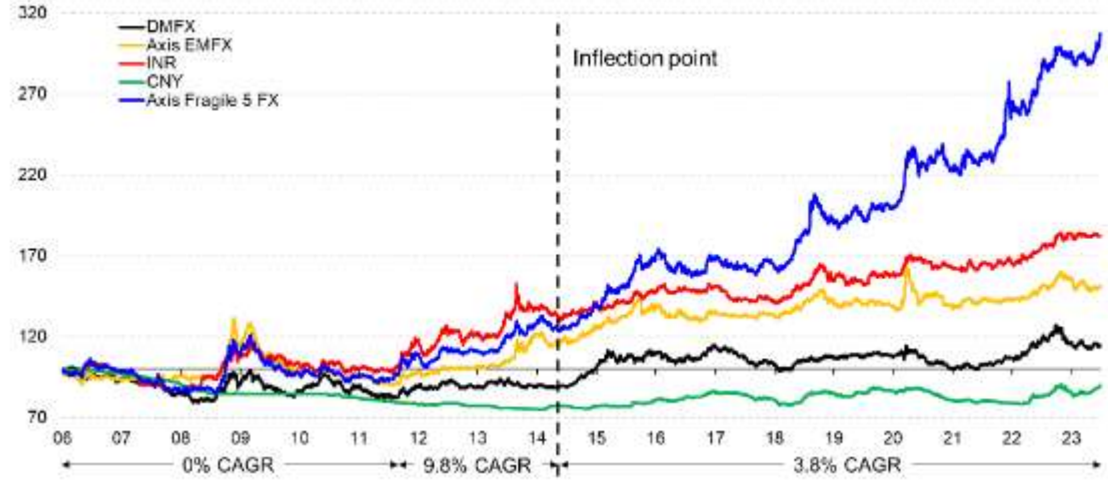
A long look at RBI intervention and INR volatility?

Volatility management and FX reserves objectives have been in conflict for some time now unless some lumpy appreciation is allowed.

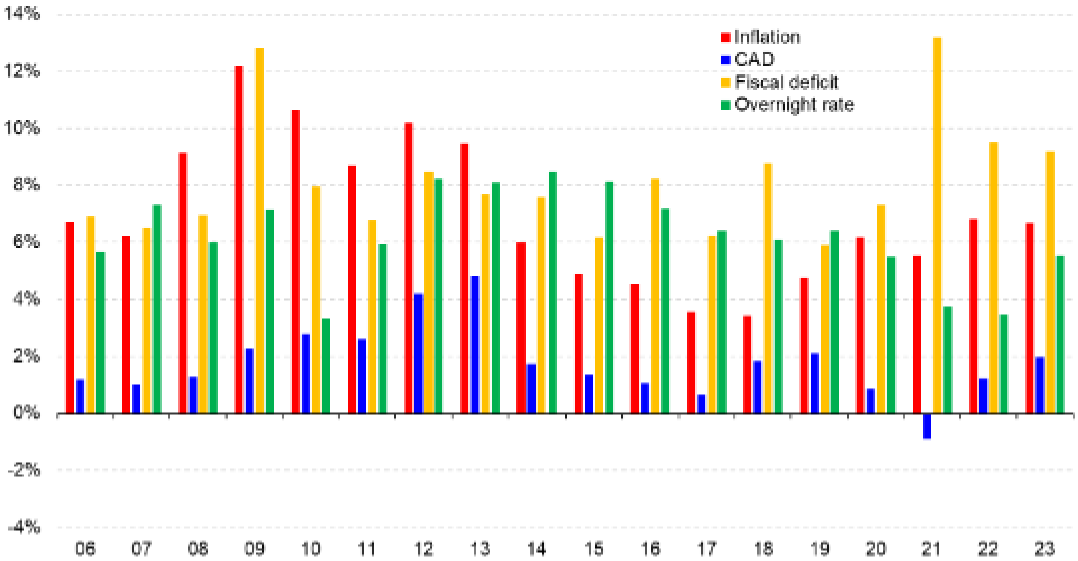
- There are three distinct phases of INR movements. The first is with the 0% CAGR between 2006-2011 which was despite widening inflation and rate differentials after the Global Financial Crisis.
- This is followed by the fragile five years where significant imbalances were built up in terms of the CAD and inflation which had resulted from easy fiscal policy and aggressive bank balance sheet expansion. INR depreciated by a 9.8% CAGR in this time including sharp moves of 2011 and 2013.
- The current phase started in 2014 and was helped by macro rebalancing in terms of inflation targeting, while slower growth and weaker oil prices helped bring CAD down. INR depreciated 3.8% in this period, with a chunk of this during the global tightening cycle last year.

Chart 1: INR vs other FX benchmarks over the long term. Note the 3 distinct phases of INR behaviour in terms of CAGR and linkage with the erstwhile Fragile Five FX grouping.



Source: Axis Bank Business and Economic Research Team

Chart 2: Imbalances in the period before the taper tantrum in 2013, coupled with macro-rebalancing after - note the negative real rates (overnight rate below CPI inflation), along with high fiscal deficits (centre+states) and stable INR pushing CAD higher. This is the twin deficits problem exacerbated by too-loose monetary policy with outcomes suppressed by global capital flows, until sudden stops.



Source: Axis Bank Business and Economic Research Team

Is export competitiveness an unsaid part of the mix? Exports tend to move as expected, but imports do so too in the same direction.

- Intuitively, a stronger currency should retard exports, while a steadily weakening INR should give exports a boost.
- Does the steady weakening of the INR mean boost for exports? For sure, exports do tend to do well with a weakening in the REER (real effective exchange rate), though the effect tails off as predicted.
- But this only scratches the surface - the current account deficit is a function of savings and investments, so imports also respond along with exports thus leading the current account to actually increase with INR depreciation (though the move is more approximate).
- Another way of thinking of this is that the current account broadly drives the INR level, which translates to trade boosting both imports and exports.

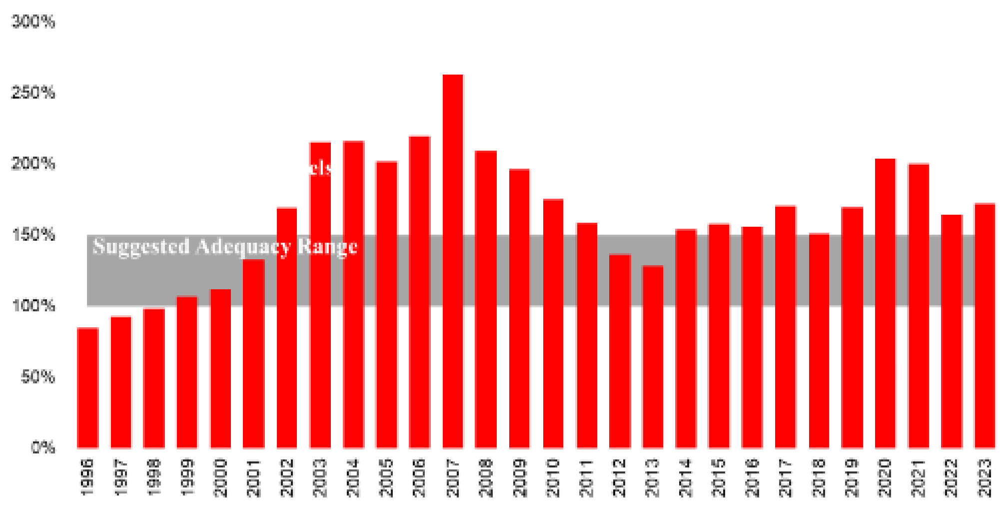
Extrinsic vs intrinsic volatility

- Global implied volatility benchmarks tend to move together, with periods of low and high volatility clustering across asset classes - a consequence of financialized, algo-driven markets.
- INR volatility measures also tend to track these extrinsic measures, moving close to EMFX implied volatilities - but there are divergences which open and close over time.
- These divergences are due to factors intrinsic to the INR, and also largely align with the three phases of INR management noted above.
- A chunk of movements in intrinsic volatility are explained by sensitivity to volatile global hot money flows.
- This is seen when the CAD and capital flows ex FPI and RBI forwards (both proxies for stable gradual flows) are superimposed with hot money FPI flows.
- When stable capital flows are much larger than the CAD, there is a large margin for FPI volatility to be absorbed, leading to low intrinsic volatility.
- In contrast, when the gap is small or negative (2008, 2011, 2014, 2018 and 2022), volatility increases sharply.

FX reserves - how much are needed?

- Old metrics of import cover might have worked well in a largely flow controlled environment but in a freer capital economy, hot money, external debt and other remittances might be much more important and rise at times of duress.
- Hefty LRS remittances pose a risk similar to that faced by China - of individuals taking funds out of the country compounding periods of depreciation.
- The IMF's assessing reserves adequacy is a framework aimed at arriving at a fair level of reserves given a country's trade account, short term debt, hot money, and stock of deposits to help model the above effects.
- By the ARA metric, reserves are now back at comfortable levels, but these risk falling short if the capital account continues to be liberalized further which is essential if the INR is to have a more international role.
- Given rapid growth objectives (meaning quickly rising exports, debt, deposits and hot money), as well as the QT environment, faster than normal absorption of inflows by the RBI is a logical conclusion - but this is suppressing volatility already brought low by extrinsic and intrinsic factors - biasing the INR towards some lumpy appreciation.

Chart 3: India FX reserves compared to IMF ARA-recommended levels over the years.



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