## Volatility: Lower for Longer?

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There have been a lot of questions asked about why volatility across many markets is so low. But as well as asking whether or not it is basing, it may be better to enquire whether it can go lower for longer?

## The answers are:

- Yes for interest rates.
- Yes for Banking Bonuses (gulp)
- Yes too for FX Volatility

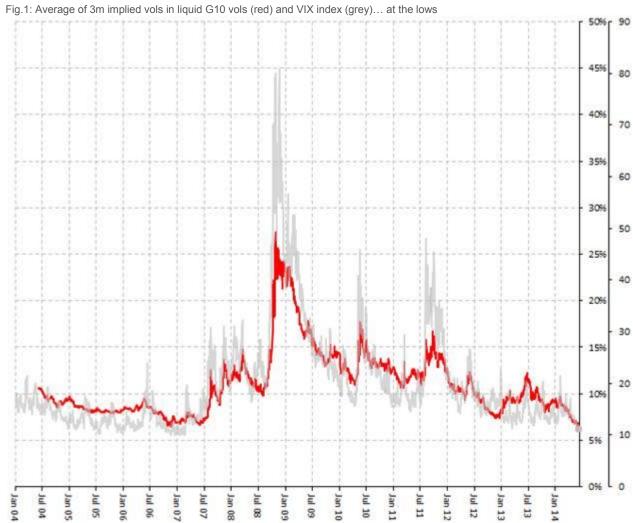
General wisdom may be that current volatility levels are unsustainable. I disagree. In the G10 FX space at least, low volatility is here for some time to come, even if I do see some fairly sharp spikes now and again.

Market participants with deep pockets are few and far between. Prop desks are gone, market makers find it incredibly hard to sustain medium-term views and even the larger Macro Funds have resorted to Reverse Knock outs to express cheap views held with low conviction. High Frequency models limit trading ranges further.

Private clients, however, have bounced back very nicely from the global financial crisis. Supported by rapidly rising asset prices fuelled by QE, they have emerged well ahead of 2008 wealth levels. Older, wiser and more aware of leverage, volatility, and correlation than they ever were before, they remain committed to enhanced yield and short volatility.

Finding an asset class amenable to such a view has become a little harder however.

Equities have risen nicely and clients are long, so selling short-dated calls along the way makes sense. But selling puts? With the VIX in a regular 12-14 range and even variance Swap levels out to 12 months at half what they were 2- years ago why would you? Only in the hope of being exercised and adding to long cash at better levels realistically.



Source: CitiFX Options – Average of 3m DNS implied NZDJPY AUDJPY EURNZD NZDCAD NZDUSD AUDUSD GBPAUD CADJPY EURAUD GBPJPY USDJPY EURJPY GBPUSD EURUSD USDCHF EURCAD USDCAD EURCHF

EURGBP USDSEK EURSEK USDNOK

Interest rates have been tricky. Peripheral yields in Europe have glided lower but US yield moves have rendered this market and its forward curves and swaptions all but untouchable for a non- professional trader.

Private Clients own businesses and real world assets. They are comfortable with risk in the commodities space but ask yourself this:

- Copper volatility at 18 or USDCAD at 6.0?
- FX margin at 5%, Copper at 25%
- Iron ore volatility at 25 (post 20% spot move lower from 115 to 95) or AUDUSD at 8.0?

Clients may be comfortable in the space but they will still chose a larger position in the lower margin product and try and turn it over more frequently to compensate for the higher premiums on offer elsewhere.

Central Bankers remain determined to draw lines in the sand. The ECB chooses to act but Germany wields too much power for outright QE any time soon. Central Bank diversification that has shied away from EUR in the last 2 years (24% current levels with 34% more normal) will return and support the single currency. As will continuing European bank deleveraging.

The ECB caps the topside and the market provides the floor.

BoJ is watching 100 on the downside (Japan Corporate hedging levels) and biding time ahead of further paper printing in October – but only to offset another sales tax hike.

RBA sits in a balanced disequilibrium of sorts. Transitioning from Mining Inc to more balanced domestic economy while mindful of a housing boom. Only verbal intervention on the currency is possible from them for some time.

FOMC? Do not be fooled by Bullard. He will be the right man for the job... in 2016, which is when he can actually vote. Until then the centrists have actually shifted slightly more dovish (thank you CitiFX G10 Strategy head Steve Englander!) and Yellen will resist any move beyond tapering until at least the year end and likely further based on current tracking for GDP for Q2.

Will there be any shocks to the system? Brent hardly seems to move these days, commodities have had large swings, and geopolitics have been more unstable than I can remember for a very long time – but FX does not react. Barring a collapse in equity prices, external shocks seem to lack the ability to push beyond the Central Bank channels.

More quantitatively, daily close-on-close Implied versus Realized volatility spreads remain at healthy levels (EURUSD, USDCHF and USDJPY at 2+ vols, AUDUSD and GBPUSD around 1).

Implied levels paused as we approached high frequency realizeds, but if we strip out 4-6 specific risk events per month (essentially Inflation data in all G8 nations, NFP in the US, and Aussie unemployment) the High Frequency realizeds are not so pretty. Correlations to interest rates, equities, Chinese data, and rates volatility have all fallen.

Fig.2: Rich vega but gamma finding a floor.

daily	EURUSD	<b>GBPUSD</b>	USDCHF	AUDUSD	NZDUSD	USDCAD
3m implied vol	5.41%	5.09%	6.09%	6.47%	7.09%	5.15%
1m realized	2.78%	3.34%	3.02%	5.79%	5.19%	3.53%
spread	2.63%	1.75%	3.07%	0.68%	1.90%	1.62%
high frequency	EURUSD	GBPUSD	USDCHF	AUDUSD	NZDUSD	USDCAD
1w implied vol	5.16%	4.71%	5.73%	6.02%	8.09%	4.37%
1w realized	6.66%	4.00%	8.04%	5.89%	7.06%	3.52%
spread	-1.50%	0.71%	-2.31%	0.13%	1.03%	0.85%

Source: CitiFX Options – 3m DNS implied vol. 1m daily realized EOD spot rate (Citi close). 1m DNS implied. 1m hourly realized.

Fig.3: Correlation with EURUSD 3m implied vol.

	with EURUSD  Im implied	percentile (window 1 year)
VIX Index	51%	100%
average liquid G10 3m implied vol	87%	93%
CO1 Comdty	32%	89%
NK1Index	10%	89%
CRY Index	-3%	71%
MSCIIndex	-17%	50%
DAX Index	-24%	47%
DXY Index	31%	46%
USSN055 Index	-1%	30%
USGG10YR Index	-10%	27%
SPX Index	-36%	17%

Source: CitiFX Options – 20-day correlation of daily returns with 3m DNS implied volatility. PercentileRank of last correlation data over a 1-year history.

In short, FX will remain the <u>least-worst option</u> for the Private Client space. Lower for longer indeed.