

Revenue & VIX

- Who are the 'volatility masters'? We compare 'our' banks' equities, FX and commodities revenues against a selection of benchmark volatility indices.
- In Equities, derivative revenue seems to track volatility; 'electronic monsters', to paraphrase, appear comparably insulated.
- In FX, we highlight banks which benefit from their captive treasury and security services operations; 'flow monsters'; and banks with strong online retail FX offerings.
- In commodities, volatility affects some asset classes more than others. In our view, commodities revenues are primarily a function of individual banks' product mix and risk appetite.

Introduction

Many of the banks we cover state 'volatility' (or the lack of it) as *the* reason for underperformance and/or higher cost of hedging. It would take a brave analyst to predict that 'volatility' will diminish anytime soon so we wonder: are any of 'our' banks unusually effective at generating revenue in these turbulent times?

In this report, we utilise two datasets:

- Our product-level global quarterly revenue for 1Q09 – 3Q11, which excludes CVA, DVA, and one-offs. In this report, we use only our global revenue data - rather than the full 7-region detail – and focus on identifiable asset classes: equity (ECM, cash, derivatives, converts; excluding prop), commodities (excluding revenue from segregated prop and some physical holdings), and FX.
- Benchmark implied volatility indices – CBOE 'VIX' family and one Dow Jones volatility index - for equities, FX, and commodities. In equities – the most high-profile market within this study - we focus on Americas and EMEA, because that is where banks we cover source the bulk of their revenue from; we may add APAC in the future, but we doubt that inclusion of other regional indices would make appreciable difference to the overall trends we observe in this study. In fixed income trading, we may expand the product coverage to credit trading, as this would complement our CF Index which we 'beta-launched' in 3Q11.

This study focuses on trends, rather than individual datapoints, for two reasons. Firstly, trends tend to, over time, smooth out imperfections of underlying data. In this study, our revenue analysis may contain margin of error of +/-10% (which, we believe, is well within differences that exist in, for example, individual banks' internal revenue allocation); and volatility indices are forward-looking and therefore inherently imprecise – but their popularity (and, hence, importance, for perception drives the forward-looking 'reality') – is, if anything, on the increase.

Secondly, none of the product areas observed here exist in isolation, as there are a number critical interconnections embedded within any broad capital markets operation. For example, ECM and a strong trading desk go hand in hand, DCM requires credit trading ability; volatility *may* affect ECM, equity cash and derivatives, and the cost of hedging; the list goes on.

Appendix contains full detail for all banks we cover, and individual indices.

Equities

The chart below summarises selected banks' ex-segregated prop equity revenue (ECM + cash + derivatives + converts) against the 20-day moving average of the original 'fear index' (CBOE Market Volatility Index; VIX) and its European counterpart's, DJ EURO STOXX 50 (V2X) average value.

We leave out other regional indices (e.g. the comparably young HSI Volatility Index) mostly because banks we cover currently source a bulk of their equity revenue from Americas and Europe. We also note that VIX and V2X moved largely in-step with each other during the 2-year period graphed here, except during the times of great stress, which we largely attribute to the European sovereign crises.

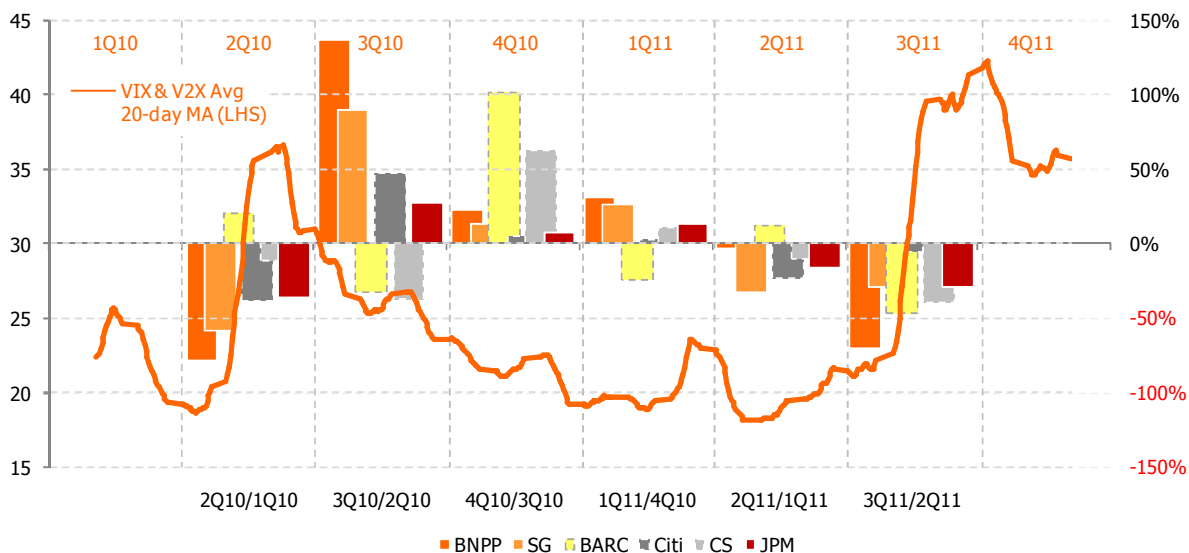
The link between the banks' equity revenues and VIX/V2X dynamic is evident, even in a short period of time shown here. For example, a surge in volatility in 3Q11 (below: line, left-hand scale) mirrors an across-the-peer group 3Q11/2Q11 drop in revenues. There is some seasonality here, but a portion of it is reflected in late 2Q, i.e. in the run-up to the summer period. Hence, across the peer group, revenue was much more stable during 3Q10/2Q10 than was the case a year later; and 2Q11 was, on average, not much weaker than 2Q10, despite the great difference in values of two volatility indices.

Looking at individual banks, BNPP and SG – focused derivatives players – have the highest revenue variance in the peer group (Appendix). They are closely followed by BARC: an established derivatives powerhouse, but in our view still coming to terms with LEH's ECM & cash franchise. By contrast, CS and Citi – both strong in electronic equities - deliver steady revenue across the 'cycle'. JPM's low revenue variance reflects, in our view, excellent risk management and balanced revenue mix.

We expect mixed q/q results in 4Q11. The relatively high VIX and V2X values during the first two months of 4Q11 suggest that 4Q11/3Q11 will be weaker than the prior-year period. That said, (1) 3Q11 was already very ugly indeed, so 4Q11 will be compared against a relatively low base, and (2) as we discussed in our 3Q11 sector review, active stock-picking is not exactly in fashion these days; investors flocking to high-beta shares could prompt a (small?) year-end rally - particularly in big caps - which should benefit flow cash players.

Equities Revenue & Volatility

ECM + EQ cash + derivatives + converts Revenue (TRIC product definitions, q/q, global Level 1 est., in US\$) vs VIX & V2X (index values, 20-day moving avg)*



Source: Tricumen, CBOE, Dow Jones.

Notes: VIX = Chicago Board Options Exchange (CBOE) S&P 500 index; the original 'fear index'; V2X = Dow Jones EURO STOXX 50 Volatility Index. The line, plotted on the left-hand scale, shows the 20-day moving average value for both indices.

Foreign Exchange

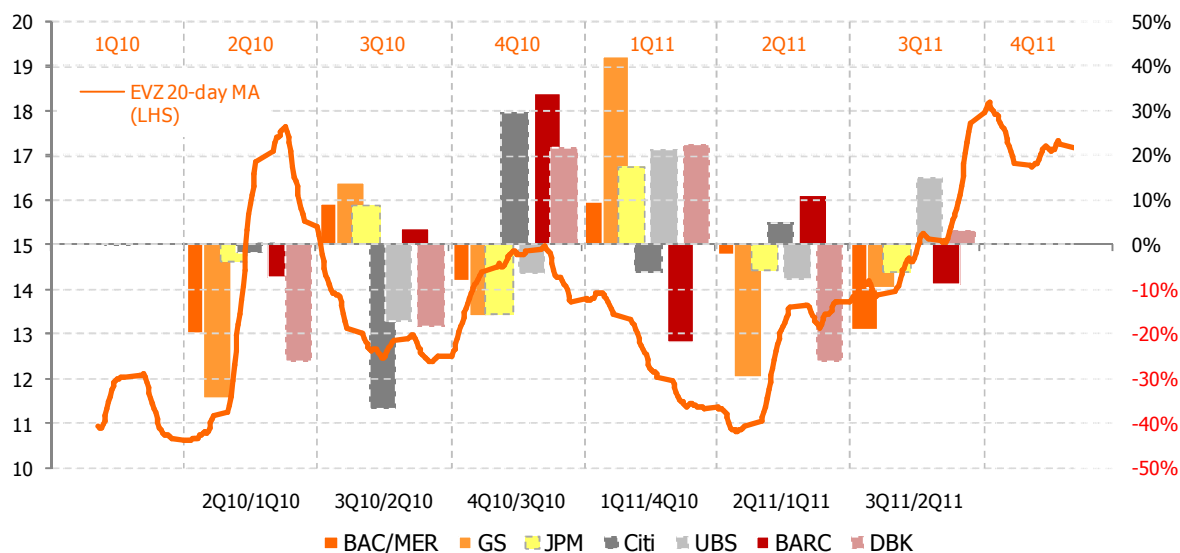
Finally, FX: we benchmark CBOE EuroCurrency Volatility Index (ticker: TVZ), which applies the VIX calculation to options on the CurrencyShares Euro Trust (FXE) to project the market's expectation of 30-day volatility of the US\$/EUR FX rate.

Compared to equities and commodities, banks' 1Q10–3Q11 overall FX revenue variance is small (see Appendix), suggesting a relatively stable and well diversified earnings environment. We highlight three broad clusters of banks:

- BAC/MER, GS, and JPM tend to outperform in calmer markets. Each has a strong institutional focus, benefiting from captive business in their treasury & securities services operations. Captive business can be very significant indeed. For example, in 2011, JPM stated in that 40% of their firm-wide FX revenue was generated via T&SS. At BAC and JPM, this is provided largely to asset managers, while GS sources a greater proportion from hedge funds. The October/November index dynamic suggests that 4Q11 may be slightly below 3Q11.
- Citi and UBS form the second grouping; both benefit from the flow generated by their private banks, and from the institutional market. Much of the captive business from transaction services/corporate banking (at Citi) and the Swiss corporate market (UBS) is booked outside of their capital markets FX trading divisions. Both tend to do well in times of low volatility – but are also more vulnerable to declining volumes. Our forecast for 4Q11 is, consequently, not positive.
- BARC and DBK both draw a significant percentage of FX revenue from their online retail FX offerings - BARX and X-markets, respectively – and we believe that both utilise information gathered from such flow to take positions in the market. Not surprisingly, high volatility means that gains/losses from such positions could be sizeable which, in turn, makes revenue projections ... volatile, to say the least.

FX Revenue & Volatility

FX Revenue (TRIC product definitions, global Level 1 est., in US\$) vs EVZ (index, 20-day moving avg)*



Source: Tricumen, CBOE. Notes: EVZ = Chicago Board Options Exchange (CBOE) EuroCurrency Volatility Index.

Commodities

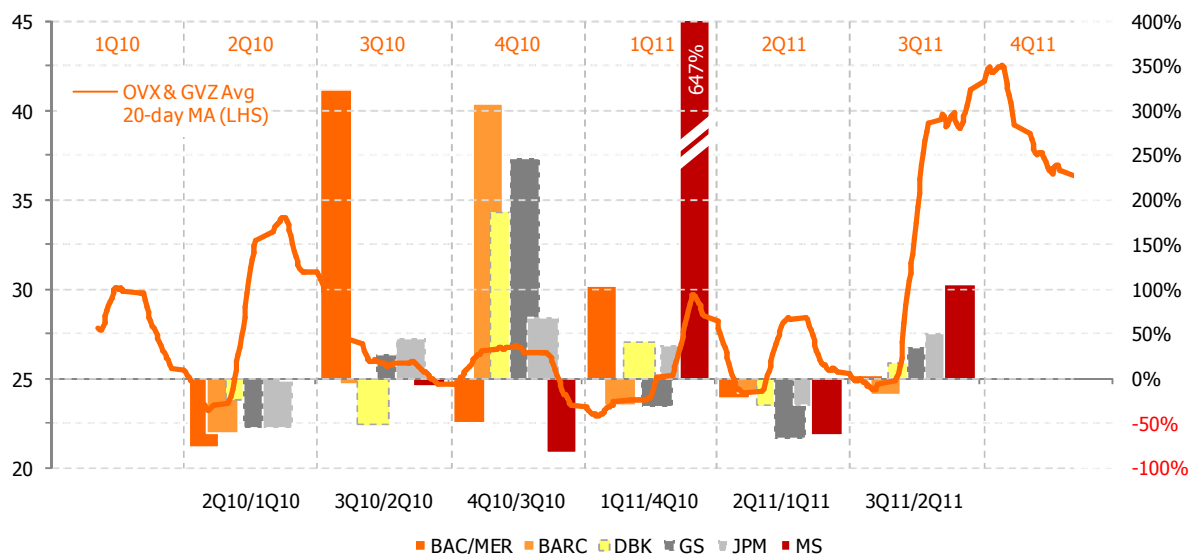
For commodities, we use CBOE’s OVX (‘Oil VIX’) and GVZ (‘Gold VIX’). Aligning quarterly revenue dynamics with these two benchmark indices, we exclude segregated prop revenue, as well as revenue from some physical holdings.

The relationship between our chosen volatility indices and adjusted revenue is far more tenuous than was the case in equities and FX. The chart below - which compares majors’ adjusted revenues against the OVX/GVZ mix 20-day moving average - suggests that revenue tends to edge up in times of elevated volatility (e.g. in 1Q11 and 3Q11) and levels off/declines in calmer/or see-saw-ing markets (e.g. 3Q10 and 2Q11).

The lack of a clear link is not surprising: gold and oil hardly encompass the entire commodities trading universe; the commodities revenue mix – and the risk appetite of embedded prop desks! - varies from one bank to another; as do price drivers of precious metals (safe haven?), other metals (e.g. copper and rare earth: China?), energy (global macro); and other commodities. The 4Q10 – characterised by both stable market *and* strong revenue growth – offers a good illustration. Oil traded in the \$68-92 per barrel range for most of 2010; the lack of volatility (OVX ranged 30-35 for much of 2010 – see Appendix) drove away both trading clients (especially hedge funds) and oil producers, who had little incentive to lock in prices; and our analysis shows that MS, more geared to oil than most of its peers, underperformed throughout 2010. Our conclusion is that the skills of individual risk managers are of far greater importance than market volatility.

Commodities Revenue & Volatility

Commodities excl. revenue from segregated prop and physical holdings (TRIC product definitions, global Level 1 est., in US\$) vs OVX and GVZ (index values, 20-day moving avg)*



Source: Tricumen, CBOE.

Notes: OVX/‘Oil VIX’ = Chicago Board Options Exchange (CBOE) Crude Oil ETF Volatility Index; GVZ/‘Gold VIX’ = Chicago Board Options Exchange (CBOE) Gold ETF Volatility Index. The line, plotted on the left-hand scale, shows the 20-day moving average value for both indices.

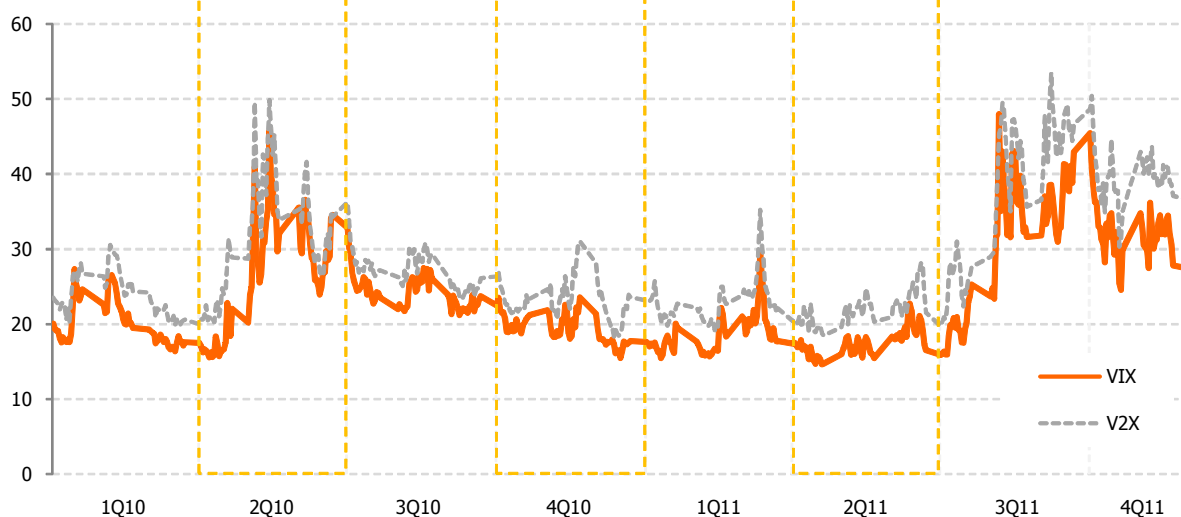
Appendix

Equities

Equities Revenue & Volatility

ECM + EQ cash + derivatives + converts Revenue (TRIC product definitions, q/q, global Level 1 est., in US\$) vs VIX & V2X (index values)*

	2Q10/1Q10	3Q10/2Q10	4Q10/3Q10	1Q11/4Q10	2Q11/1Q11	3Q11/2Q11	Variance
BAC/MER	-34%	7%	-20%	75%	-19%	-17%	0.16
BARC	20%	-33%	102%	-25%	12%	-47%	0.29
BNPP	-78%	136%	22%	30%	-3%	-71%	0.62
Citi	-39%	47%	5%	3%	-24%	-6%	0.09
CS	-12%	-38%	62%	11%	-11%	-40%	0.14
DBK	-31%	3%	71%	-5%	-23%	-57%	0.19
GS	-51%	64%	19%	-6%	-8%	-14%	0.15
JPM	-37%	27%	7%	13%	-17%	-29%	0.06
MS	-10%	-28%	55%	21%	1%	-42%	0.12
SG	-59%	90%	12%	26%	-33%	-29%	0.29
UBS	-8%	-34%	78%	-3%	-15%	-41%	0.18



Source: Tricumen, CBOE, Dow Jones.

Notes: VIX = Chicago Board Options Exchange (CBOE) S&P 500 index; the original 'fear index'; V2X = Dow Jones EURO STOXX 50 Volatility Index.

Foreign Exchange

FX Revenue & Volatility

FX Revenue (TRIC product definitions, global Level 1 est., in US\$) vs EVZ (index value)*

	2Q10/1Q10	3Q10/2Q10	4Q10/3Q10	1Q11/4Q10	2Q11/1Q11	3Q11/2Q11	Variance
BAC/MER	-20%	9%	-8%	10%	-2%	-19%	0.02
BARC	-7%	4%	34%	-22%	11%	-9%	0.04
BNPP	-14%	-12%	5%	9%	-5%	3%	0.01
Citi	0%	-2%	-37%	30%	-6%	5%	0.05
CS	9%	-2%	-22%	8%	-14%	11%	0.02
DBK	-26%	-18%	22%	23%	-26%	3%	0.05
GS	-34%	14%	-16%	42%	-30%	-10%	0.08
JPM	-4%	9%	-15%	17%	-6%	-6%	0.01
MS	6%	-49%	-64%	N/M	16%	-26%	0.12
SG	-1%	4%	3%	-2%	6%	-5%	0.00
UBS	0%	-17%	-7%	21%	-8%	15%	0.02



Source: Tricumen, CBOE.

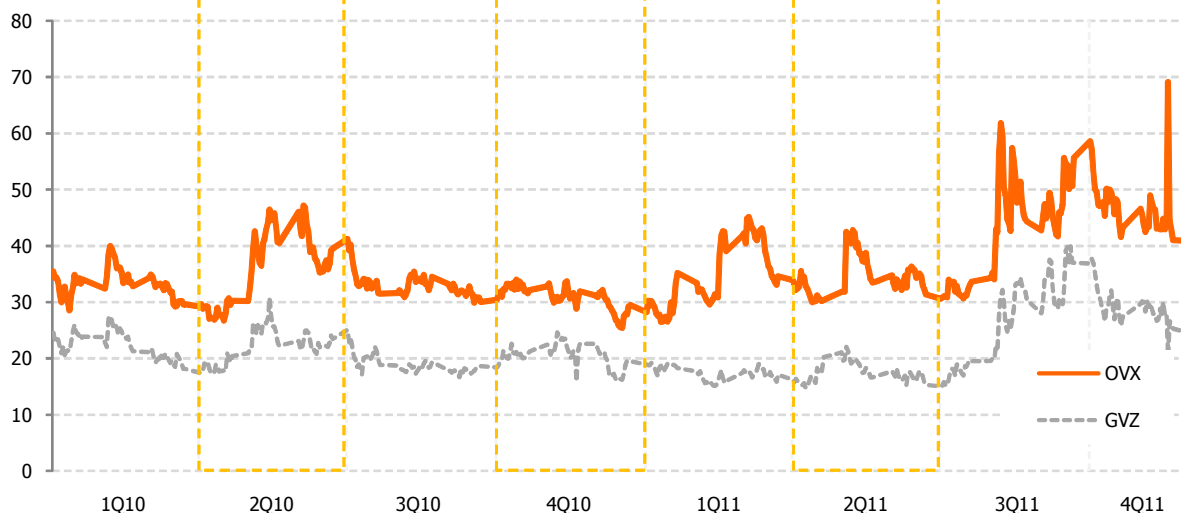
Notes: EVZ = Chicago Board Options Exchange (CBOE) EuroCurrency Volatility Index.

Commodities

Commodities Revenue & Volatility

Commodities excl. revenue from segregated prop and physical holdings (TRIC product definitions, global Level 1 est., in US\$) vs OVX and GVZ (index values, 20-day moving avg)*

	2Q10/1Q10	3Q10/2Q10	4Q10/3Q10	1Q11/4Q10	2Q11/1Q11	3Q11/2Q11	Variance
BAC/MER	-77%	322%	-50%	103%	-22%	2%	2.20
BARC	-62%	-7%	306%	-29%	-16%	-18%	1.88
BNPP	4%	6%	6%	200%	-7%	-14%	0.68
Citi	-38%	-38%	N/M	-69%	N/M	-43%	0.02
CS	N/M	13%	62%	-53%	22%	-9%	0.18
DBK	-25%	-51%	185%	40%	-31%	16%	0.75
GS	-56%	26%	246%	-32%	-67%	35%	1.34
JPM	-56%	44%	67%	37%	-31%	50%	0.25
MS	-3%	-8%	-84%	647%	-64%	105%	7.64
SG	-5%	13%	7%	114%	-19%	-45%	0.30
UBS	-8%	-8%	15%	421%	-35%	10%	3.06



Source: Tricumen, CBOE.

Notes: OVX/'Oil VIX' = Chicago Board Options Exchange (CBOE) Crude Oil ETF Volatility Index;

GVZ/'Gold VIX' = Chicago Board Options Exchange (CBOE) Gold ETF Volatility Index. The line, plotted on the left-hand scale, shows the 20-day moving average value for both indices.

Notes & Caveats

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