

Theme

Revenue, VaR & volatility

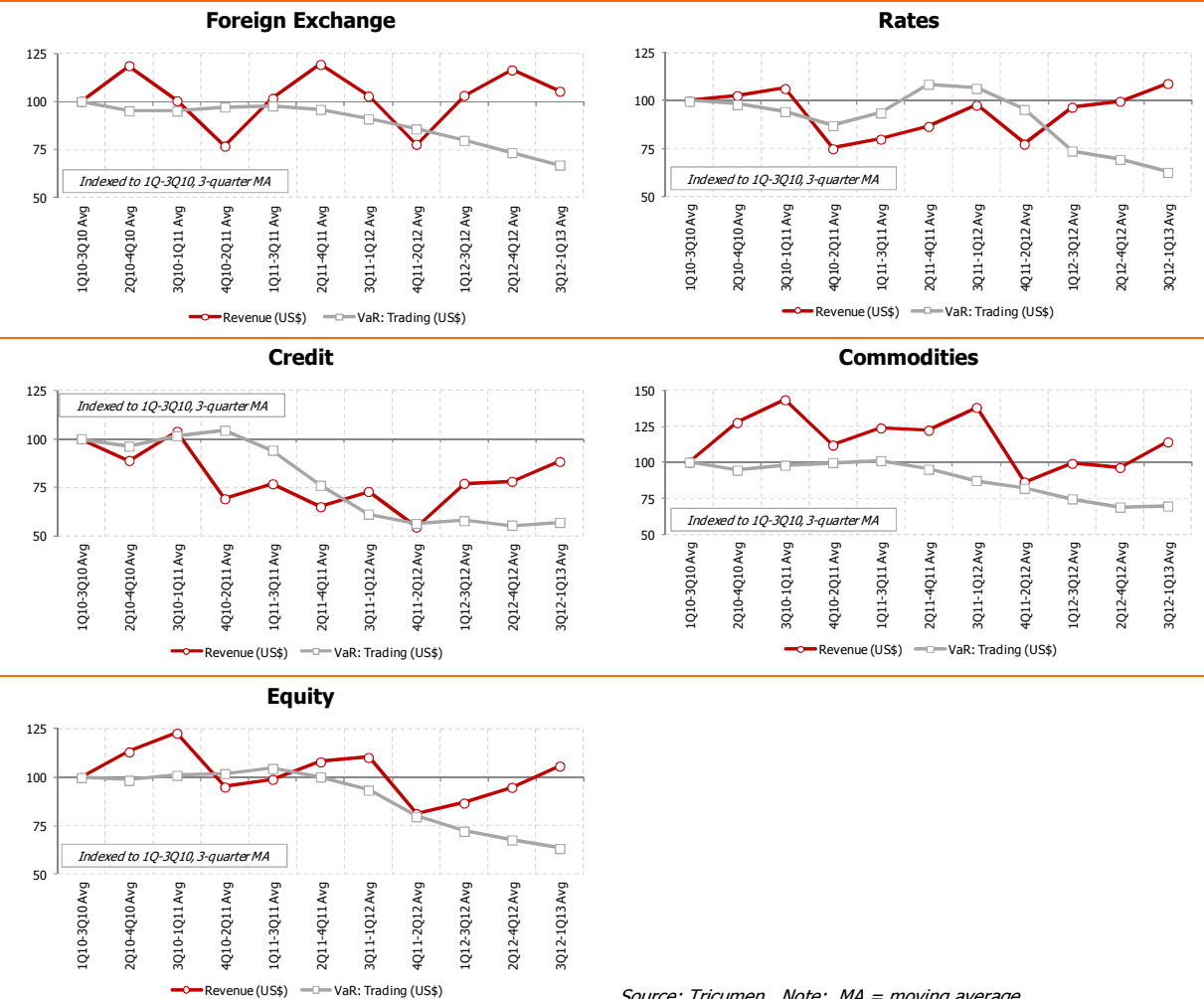
- This note seeks to answer two questions: in the post-'Crunch' world, have investment banks been able to generate sustainable revenue from ever-diminishing Trading VaR? And, have they increased revenue-vs-VaR despite a decline in market volatility?
- The answer to both questions is 'yes'. In fact, top-tier banks' have vastly improved their returns on Trading VaR in *all* key product areas; and have adapted to 'flat' markets by better monitoring of trading patterns and by successfully internalising trades via their electronic trading units.

1. Revenue vs Trading VaR

Much-publicised shortcomings notwithstanding, Trading VaR² remains a key broad measure of risk. Here, we observe the highlights of the last 13 quarters, 1Q10-1Q13³:

- On average, Top 11 banks improved their revenues while simultaneously reducing trading VaR. In all key products, Trading VaR is 30-45% below the base 1Q-3Q10 level. By contrast, revenues (of *both* top- and bottom-quartile performers) grew in the same period; even credit trading (which arguably has a different risk profile) bounced from the low of 4Q11-2Q12.
- That said, further gains may be limited. Seasonal revenue peaks are trending down in credit and commodities, and equities FX suffered a decline in margins in recent times. Meanwhile, the decline in Trading VaR is slowing down/levelling off.

Revenue vs Trading VaR



Source: Tricumen. Note: MA = moving average.

¹ The Top 11 peer group comprises capital markets units of Bank of America Merrill Lynch, Barclays, BNPP, Citi, Credit Suisse, Deutsche Bank, Goldman Sachs, J.P. Morgan, Morgan Stanley, Societe Generale, and UBS. We also follow HSBC, RBS, Wells Fargo and Standard Chartered, but they are not included here due to their regional emphasis and revenue mix.
² We first extended our analysis to VaR (and RWA) in Mar-11, and followed that up with Stressed VaR (SVaR).
³ In our view, pre-2010 period is not directly comparable to 2010-13; e.g. VaR calculation at most banks was impacted by the residual volatility from late 2008 and much of 2009.

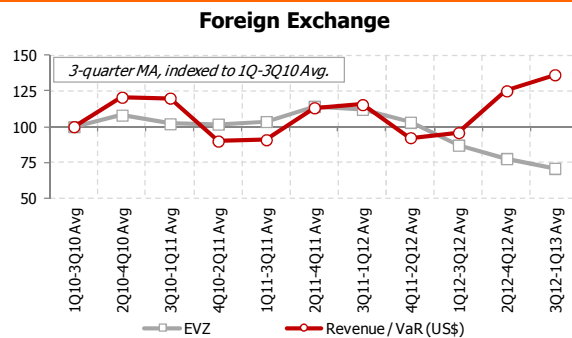
Theme

2. Revenue / Trading VaR vs volatility

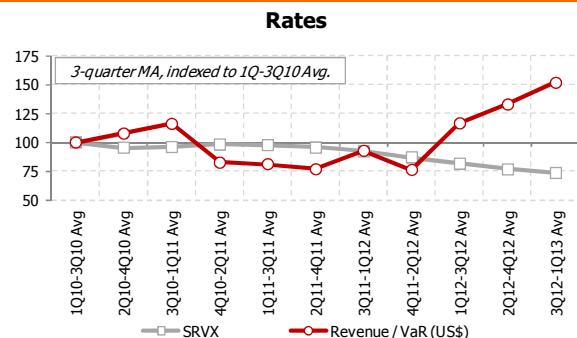
We first (publicly) commented on the link between market volatility and capital markets revenue in our Dec-11 'Revenue & VIX' note. In it, we identified 'volatility masters' among our then-core group of Top 11 banks by comparing their equities, FX and commodities revenue with main volatility indices. In this note, we widen the scope to compare Top 11's revenue/VaR with volatility indices; and extend the product coverage into rates (plotted against the CBOE's SRVX index) and credit (where we use a mix of CDS indices instead of dedicated volatility indices). Highlights:

- Banks achieved impressive returns on VaR during the period under observation. For example, seasonal 3Q-1Q revenue/VaR peaks were, in 2012/13, far ahead of comparable periods of 2010-12; only credit saw a mild year-on-year decline in revenue/VaR in 3Q12-1Q13. In all products, 1Q13 was the highest 1Q of the last 3 years; equities, FX and rates did particularly well.
- Revenue/VaR in most products was aligned with volatility indices until late 2011/early 2012. Then, the two diverged: returns continued advancing, while volatility commenced its sharp and sustained decline. To a large degree, we attribute this to two relatively new trends, most evident among top-tier banks: their vastly improved monitoring of trading patterns within the overall market activity; *and* the increased internalisation of trades via their electronic trading units.

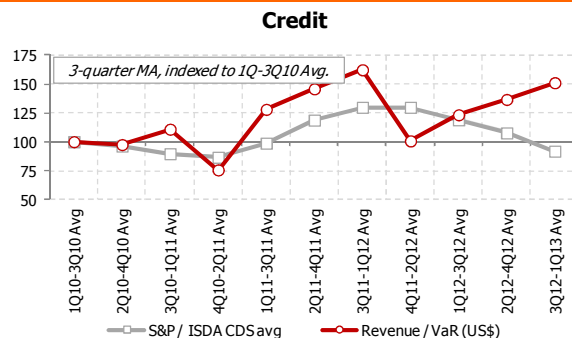
Revenue / Trading VaR vs volatility



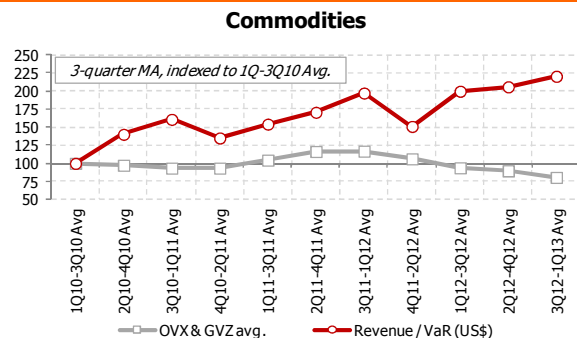
Source: CBOE, Tricumen. Note: EVZ = the CBOE EuroCurrency volatility index.



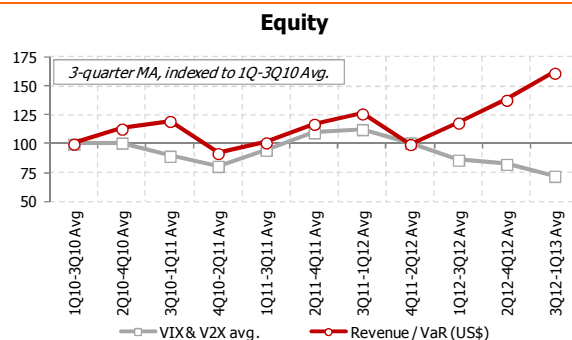
Source: CBOE, Tricumen. Note: SRVX = the CBOE Interest Rate Swap Volatility Index.



Source: S&P/ISDA, Tricumen. Note: S&P/ISDA CDS average calculated from CDS US IG Index, CDS US HY Index, Eurozone Developed Nation Sovereign CDS Index, and International Developed Nation Sovereign CDS Index.



Source: CBOE, Tricumen. Note: OVX = the CBOE Crude Oil ETF Volatility Index ('Oil VIX'); GVZ = the CBOE Gold ETF Volatility Index ('Gold VIX').



Source: CBOE, Tricumen. Note: VIX = CBOE Volatility index; V2X = Dow Jones EURO STOXX 50 volatility index.

Source: Tricumen. Notes: (1) CBOE = Chicago Board Options Exchange; (2) Tricumen product definitions. (3) Revenue excludes CVA, DVA, one-offs and dedicated prop; (4) Trading VaR normalised to 1-day holding period, 99% confidence level, and 3-year historical data. It excludes revenue from dedicated proprietary operations and some physical holdings, as both would distort peer group-wide comparisons. Further detail on our approach and methodology for VaR and SVaR is available on request.

Appendix 1/2: Operating Revenue / Trading VaR (Global)

Capital Markets: Secondary

| | Rank | | 3m13 / 3m12 (Movement) |
|------|------|------|---------------------------|
| | 3m12 | 3m13 | |
| JPM | #1 | #1 | ↓ |
| SG | #5 | #2 | ↑ |
| DBK | #2 | #3 | ↓ |
| GS | #3 | #4 | ↓ |
| CS | #9 | #5 | ↑ |
| Citi | #7 | #6 | ↘ |
| UBS | #11 | #7 | ↑ |

EQ Cash

| | Rank | | 3m13 / 3m12 (Movement) |
|------|------|------|---------------------------|
| | 3m12 | 3m13 | |
| JPM | #1 | #1 | ↘ |
| UBS | #11 | #2 | ↑ |
| SG | #5 | #3 | ↘ |
| CS | #9 | #4 | ↘ |
| BARC | #6 | #5 | ↘ |
| DBK | #2 | #6 | ↓ |
| Citi | #7 | #7 | ↘ |

EQ Derv & Converts

| | Rank | | 3m13 / 3m12 (Movement) |
|------|------|------|---------------------------|
| | 3m12 | 3m13 | |
| JPM | #1 | #1 | ↓ |
| UBS | #11 | #2 | ↑ |
| SG | #5 | #3 | ↘ |
| DBK | #2 | #4 | ↓ |
| BARC | #6 | #5 | ↘ |
| CS | #9 | #6 | ↘ |
| Citi | #7 | #7 | ↓ |

FICC FX

| | Rank | | 3m13 / 3m12 (Movement) |
|------|------|------|---------------------------|
| | 3m12 | 3m13 | |
| JPM | #1 | #1 | ↘ |
| BARC | #6 | #2 | ↑ |
| CS | #9 | #3 | ↑ |
| DBK | #2 | #4 | ↓ |
| Citi | #7 | #5 | ↘ |
| UBS | #11 | #6 | ↑ |
| SG | #5 | #7 | ↓ |

FICC Rates

| | Rank | | 3m13 / 3m12 (Movement) |
|------|------|------|---------------------------|
| | 3m12 | 3m13 | |
| JPM | #1 | #1 | ↓ |
| DBK | #2 | #2 | ↓ |
| BARC | #6 | #3 | ↑ |
| GS | #3 | #4 | ↓ |
| SG | #5 | #5 | ↓ |
| Citi | #7 | #6 | ↘ |
| UBS | #11 | #7 | ↑ |

FICC Credit

| | Rank | | 3m13 / 3m12 (Movement) |
|------|------|------|---------------------------|
| | 3m12 | 3m13 | |
| JPM | #1 | #1 | ↓ |
| DBK | #2 | #2 | ↓ |
| GS | #3 | #3 | ↓ |
| Citi | #7 | #4 | ↑ |
| SG | #5 | #5 | ↓ |
| BNPP | #10 | #6 | ↑ |
| BAML | #8 | #7 | ↘ |

FICC Commodities

| | Rank | | 3m13 / 3m12 (Movement) |
|------|------|------|---------------------------|
| | 3m12 | 3m13 | |
| GS | #3 | #1 | ↘ |
| JPM | #1 | #2 | ↓ |
| BNPP | #10 | #3 | ↑ |
| SG | #5 | #4 | ↘ |
| UBS | #11 | #5 | ↑ |
| BAML | #8 | #6 | ↘ |
| BARC | #6 | #7 | ↓ |

Source: Tricumen. Notes: (1) VaR = Value at Risk; trading portfolios only, excludes diversification effect/equivalent; period average; normalised to 1-day holding period, 99% confidence, 3-year historical data; annualised for inter-year periods; (2) Arrows indicate movement in ranking relative to the entire peer group (see the 'Notes' section, below); up/green arrows indicate Top 25% performance, red/down arrows indicate Bottom 25% performance. (3) Further Notes & Caveats are at the back of this report. (4) This Appendix was extracted from our regular quarterly league tables ranking of Top 7 peers by profits as well as returns per headcount, and on VaR and RWA. Full details are available on request.

Appendix 2/2: Operating Pre-Tax Profit / Trading VaR (Global)

Capital Markets: Secondary

| | Rank | | 3m13 / 3m12 (Movement) |
|------|------|------|---------------------------|
| | 3m12 | 3m13 | |
| JPM | #1 | #1 | ↓ |
| SG | #5 | #2 | ↗ |
| DBK | #2 | #3 | ↓ |
| Citi | #3 | #4 | ↓ |
| UBS | #10 | #5 | ↑ |
| BARC | #8 | #6 | ↘ |
| BAML | #7 | #7 | ↓ |

EQ Cash

| | Rank | | 3m13 / 3m12 (Movement) |
|------|------|------|---------------------------|
| | 3m12 | 3m13 | |
| UBS | #10 | #1 | ↑ |
| DBK | #2 | #2 | ↘ |
| CS | #9 | #3 | ↑ |
| JPM | #1 | #4 | ↓ |
| SG | #5 | #5 | ↘ |
| MS | #4 | #6 | ↓ |
| Citi | #3 | #7 | ↓ |

EQ Derv & Converts

| | Rank | | 3m13 / 3m12 (Movement) |
|------|------|------|---------------------------|
| | 3m12 | 3m13 | |
| JPM | #1 | #1 | ↓ |
| UBS | #10 | #2 | ↑ |
| DBK | #2 | #3 | ↓ |
| SG | #5 | #4 | ↓ |
| BARC | #8 | #5 | ↘ |
| CS | #9 | #6 | ↘ |
| GS | #6 | #7 | ↓ |

FICC FX

| | Rank | | 3m13 / 3m12 (Movement) |
|------|------|------|---------------------------|
| | 3m12 | 3m13 | |
| JPM | #1 | #1 | ↘ |
| SG | #5 | #2 | ↑ |
| BARC | #8 | #3 | ↑ |
| Citi | #3 | #4 | ↘ |
| DBK | #2 | #5 | ↓ |
| UBS | #10 | #6 | ↑ |
| GS | #6 | #7 | ↘ |

FICC Rates

| | Rank | | 3m13 / 3m12 (Movement) |
|------|------|------|---------------------------|
| | 3m12 | 3m13 | |
| JPM | #1 | #1 | ↘ |
| SG | #5 | #2 | ↑ |
| BARC | #8 | #3 | ↑ |
| Citi | #3 | #4 | ↘ |
| GS | #6 | #5 | ↘ |
| DBK | #2 | #6 | ↓ |
| UBS | #10 | #7 | ↑ |

FICC Credit

| | Rank | | 3m13 / 3m12 (Movement) |
|------|------|------|---------------------------|
| | 3m12 | 3m13 | |
| JPM | #1 | #1 | ↓ |
| Citi | #3 | #2 | ↘ |
| DBK | #2 | #3 | ↓ |
| GS | #6 | #4 | ↘ |
| BAML | #7 | #5 | ↘ |
| CS | #9 | #6 | ↑ |
| BNPP | #11 | #7 | ↑ |

FICC Commodities

| | Rank | | 3m13 / 3m12 (Movement) |
|------|------|------|---------------------------|
| | 3m12 | 3m13 | |
| SG | #5 | #1 | ↘ |
| BNPP | #11 | #2 | ↑ |
| UBS | #10 | #3 | ↑ |
| JPM | #1 | #4 | ↓ |
| BAML | #7 | #5 | ↘ |
| DBK | #2 | #6 | ↓ |
| MS | #4 | #7 | ↓ |

Source: Tricumen. Notes: (1) VaR = Value at Risk; trading portfolios only, excludes diversification effect/equivalent; period average; normalised to 1-day holding period, 99% confidence, 3-year historical data; annualised for inter-year periods; (2) Arrows indicate movement in ranking relative to the entire peer group (see the 'Notes' section, below); up/green arrows indicate Top 25% performance, red/down arrows indicate Bottom 25% performance. (3) Further Notes & Caveats are at the back of this report. (4) This Appendix was extracted from our regular quarterly league tables ranking of Top 7 peers by profits as well as returns per headcount, and on VaR and RWA. Full details are available on request.

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Tricumen was founded in 2008. It quickly became a strong provider of diversified market intelligence across the capital markets and has since expanded into transaction and corporate banking coverage. Tricumen's data has been used by many of the world's leading investment banks as well as strategy consulting firms, investment managers and 'blue chip' corporations.

Situated near Cambridge in the UK, Tricumen is almost exclusively staffed with senior individuals with an extensive track record of either working for or analysing banks; and boasts what we believe is the largest capital markets-focused research network of its peer group.

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