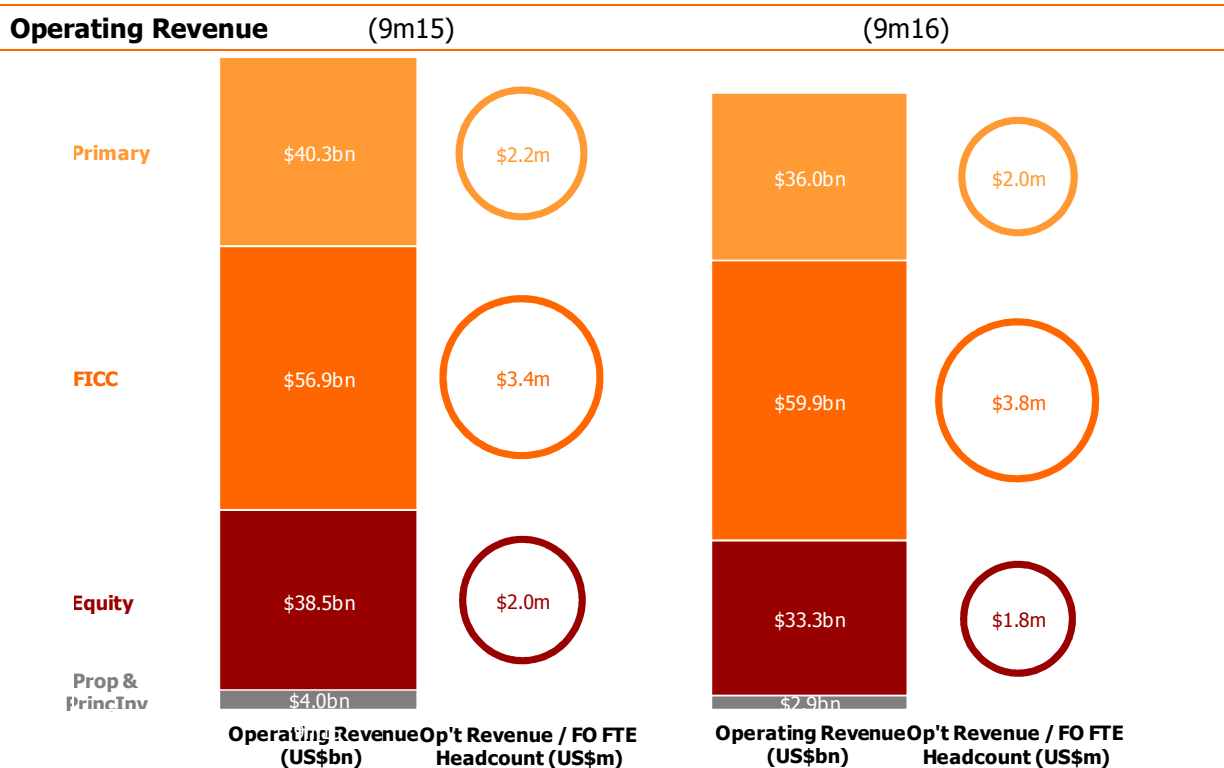


Tricumen's Results Review now contains a high-level overview of revenue, costs and productivity for six leading commercial/transaction banking players and wealth managers

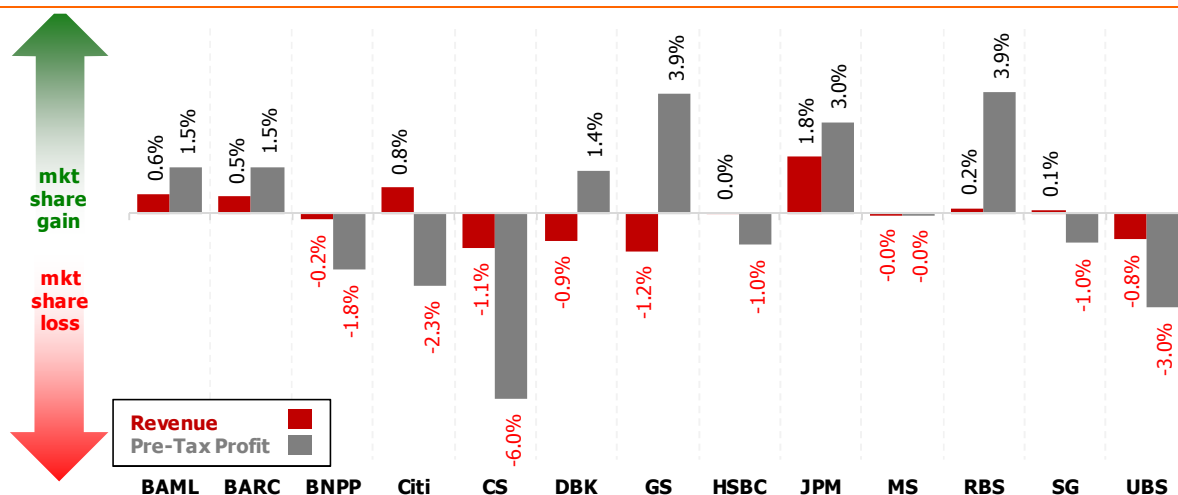
Results Review 3Q16/9m16

Capital Markets: Overview

- Capital markets' operating revenue totalled US\$132bn in 9m16, 5% below the prior-year period. FICC rates and credit outperformed in 3Q16; primary fees and Equities trading revenue declined vs 3Q15; and FICC prop trading jumped 13% as traders capitalised on market volatility. Banks demonstrated strong cost control: 9m16 operating pre-tax profit fell only 2% y/y. At end-9m16, FICC and Equities front-office headcount was 6% and 5% below 9m15, respectively.
- Three recent developments are net positive for banks. Regulators in Europe and Japan are siding with banks and are threatening 'mutiny' over 'Basel 4'; the industry claims that proposed revisions would hit some regions (Europe) more than others (USA), and regional regulators are very supportive. In the USA, the President-elect Trump seems determined to repel portions of Dodd-Frank. Finally, rumours emerged that some US banks are considering a legal challenge to aspects of the Fed's annual stress tests; even a mention of a legal challenge is extraordinary.



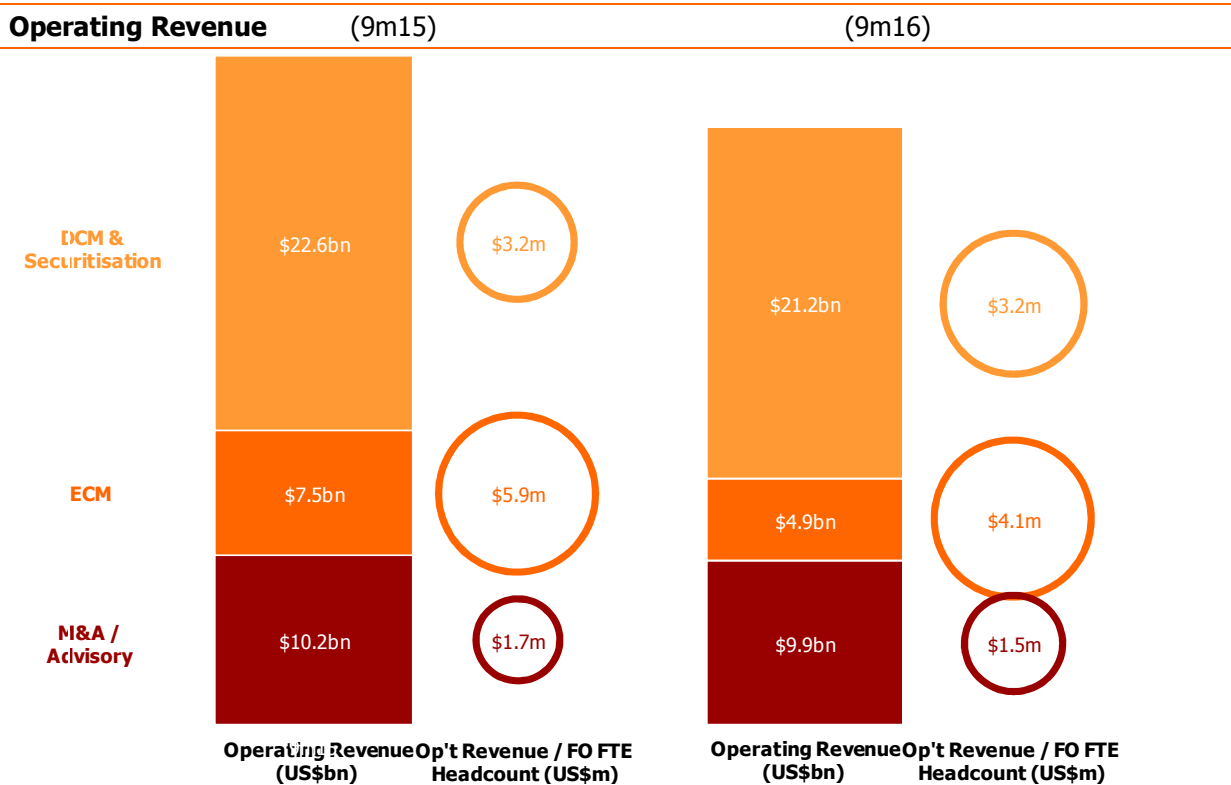
% change share of peer group operating revenue and pre-tax profit (9m16 / 9m15)



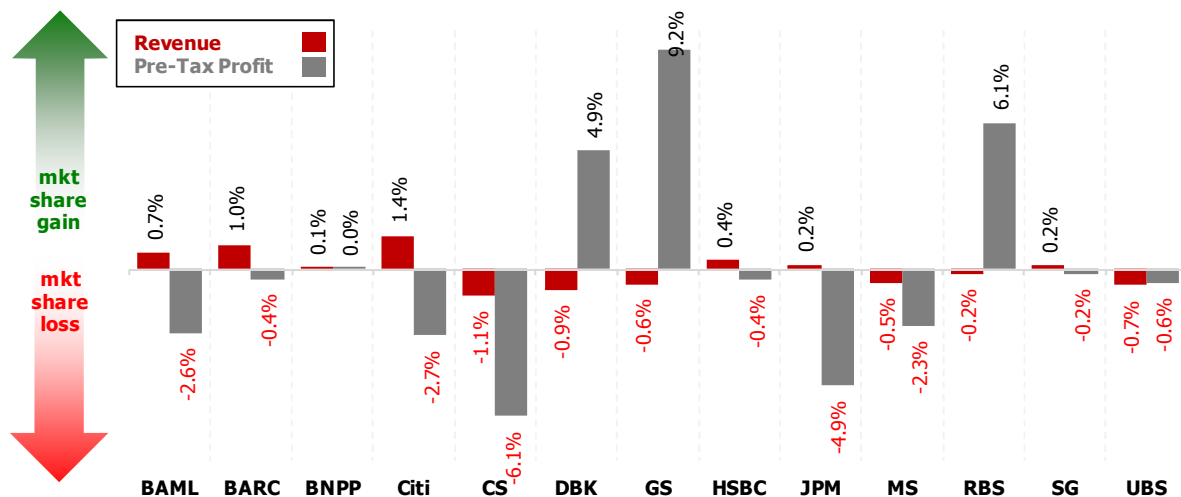
Notes: (1) Tricumen product definitions throughout. (2) Revenue is post-writedowns, excludes DVA/equivalent and one-offs. (3) Headcount: Front office full-time equivalent, adjusted for seniority. (4) Pre-tax profit excludes Prop & Principal Investments..

Capital Markets (cont.): Primary issuance & Advisory

- In the US, fees from leveraged loans - often driven by LBOs - dropped c.30% y/y to a 4-year low in 9m16 as a result of US elections, competition from cash-/stock-rich corporates, and heavier regulation of leveraged lending. This is particularly troubling for European banks, which are more dependent on such fees in the USA than their American counterparts. The volume of bond sales in 9m16, however, jumped 25% y/y - to just below 2007 - driving the 10% growth in fees as borrowers took advantage of rock-bottom borrowing costs and central banks' continued buying.
- ECM was the key driver for the sharp decline in primary issuance fees. A few banks - including BAML, CS and JPM - reported y/y growth in 3Q16 ECM fees, but most banks suffered a decline, despite a strong overall growth in deal volume. In 9m16, top banks' volumes and fees dropped c.30% versus 9m15, with all main regions deep in the red.
- M&A/Advisory fees were broadly unchanged from 9m15, despite a sharp fall in deal volumes (except in Japan, where deals jumped by nearly 30%, and fees by 20%). TMT and Energy & Power offset a fee drop in Financials, Healthcare and Industrials.



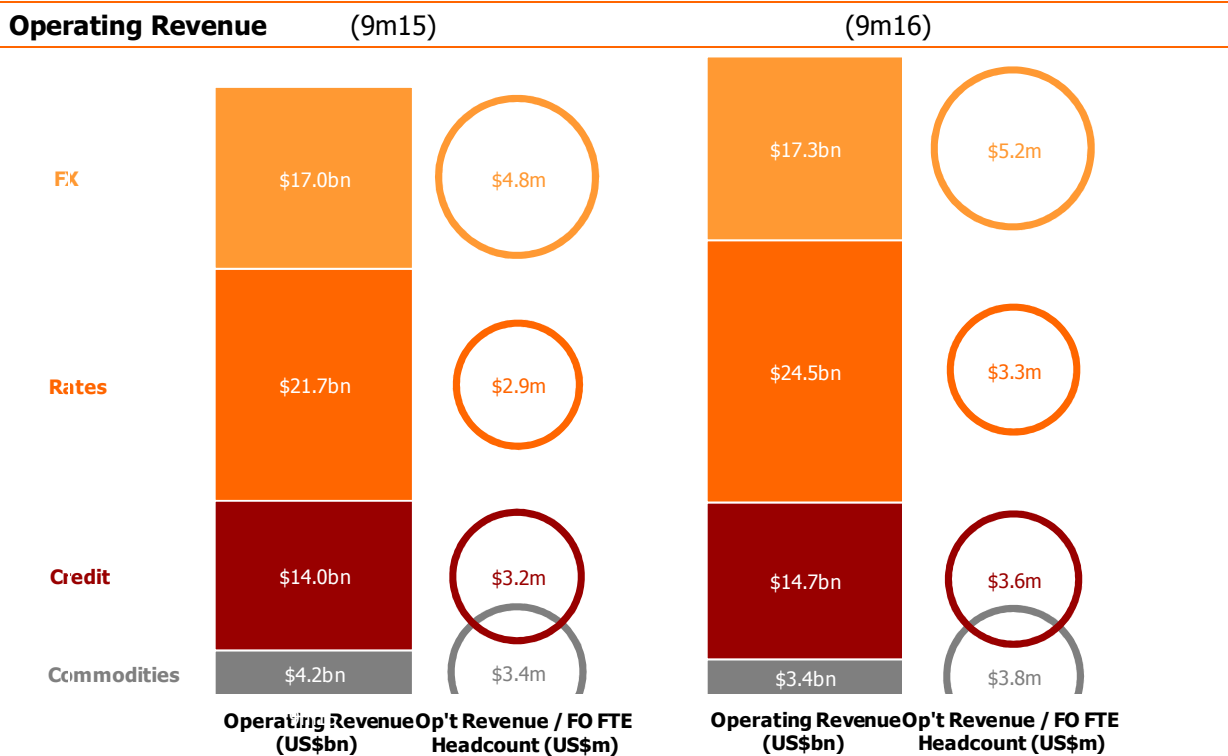
% change share of peer group operating revenue and pre-tax profit (9m16 / 9m15)



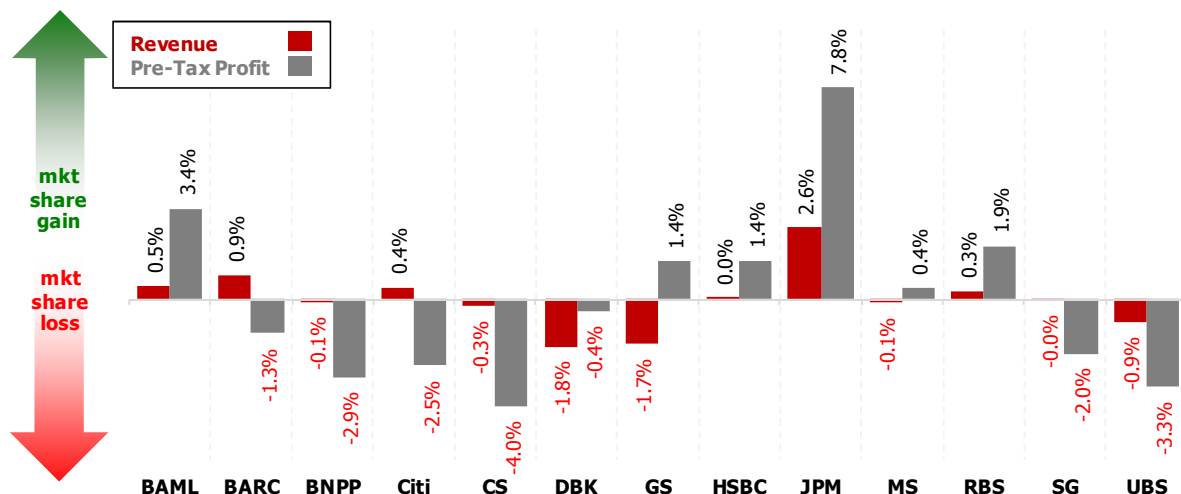
Notes: (1) Tricumen product definitions throughout. (2) Revenue is post-writedowns, excludes DVA/equivalent and one-offs. (3) Headcount: Front office full-time equivalent, adjusted for seniority. (4) Pre-tax profit excludes Prop & Principal Investments.

Capital Markets (cont.): FICC

- FX markets grew versus 3Q15 on strong forwards and options; spot trading, however, declined.
- In rates, solid volumes and improved margins resulted in strong short-end revenue. Swaps also grew, although there was a continued decline in options trading. Muni trading volumes continued to rise, almost doubling from the slump in 4Q15. In Europe, the sell-off of sovereign bonds continued in September as a direct result of ECB's failure to extend the stimulus package.
- Credit revenue trading grew in 3Q16 on the back of US high grade and European credit trading, especially in the high-yield markets as investors hunt for yield, depressed by ECB and BoE corporate bond purchases. Although US high yield markets were down sequentially, they were nonetheless significantly above 3Q15. CDS trading was subdued.
- The sharp decline in the combined 3Q16 commodity revenue was caused by business exits. The remaining players benefitted from the increased volatility in the USA, steady European markets and uncertainties in the global economy which supported high volumes in precious metals trading. The Fed continued pushing for restrictions on banks in physical commodities by proposing an increase in capital, a ban on activities involving power plants and ownership and storage of copper.



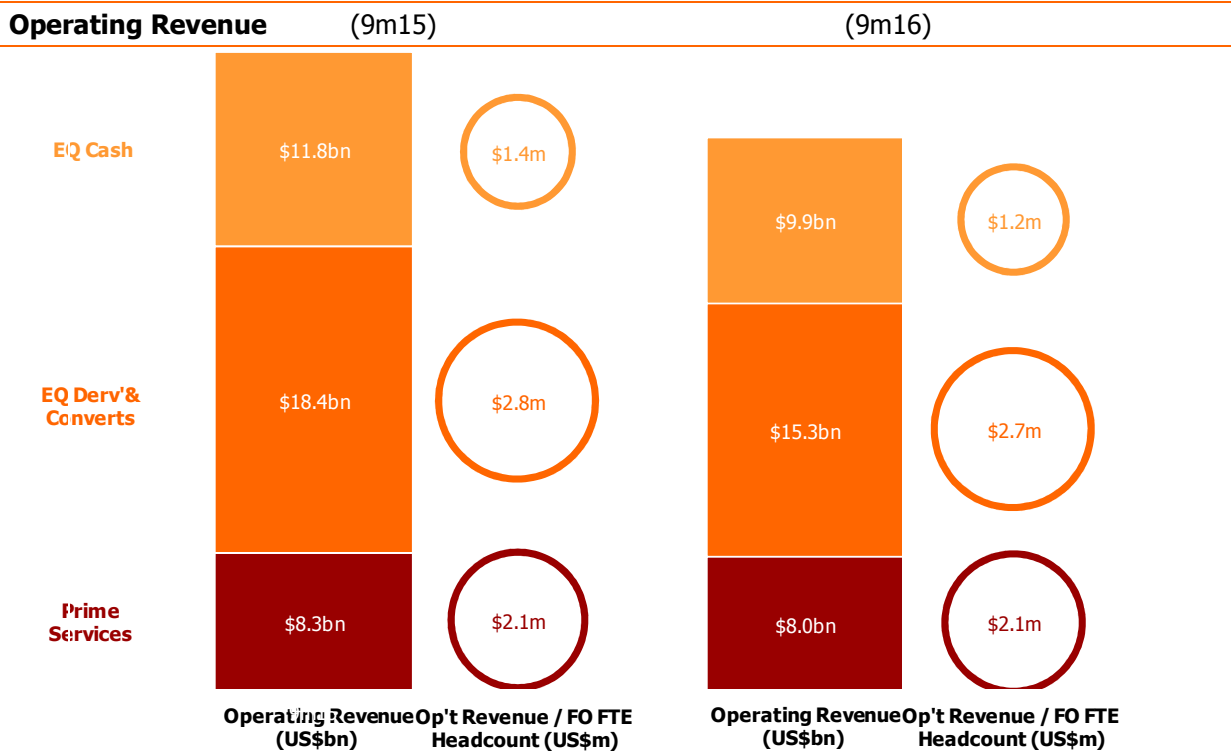
% change share of peer group operating revenue and pre-tax profit: (9m16 / 9m15)



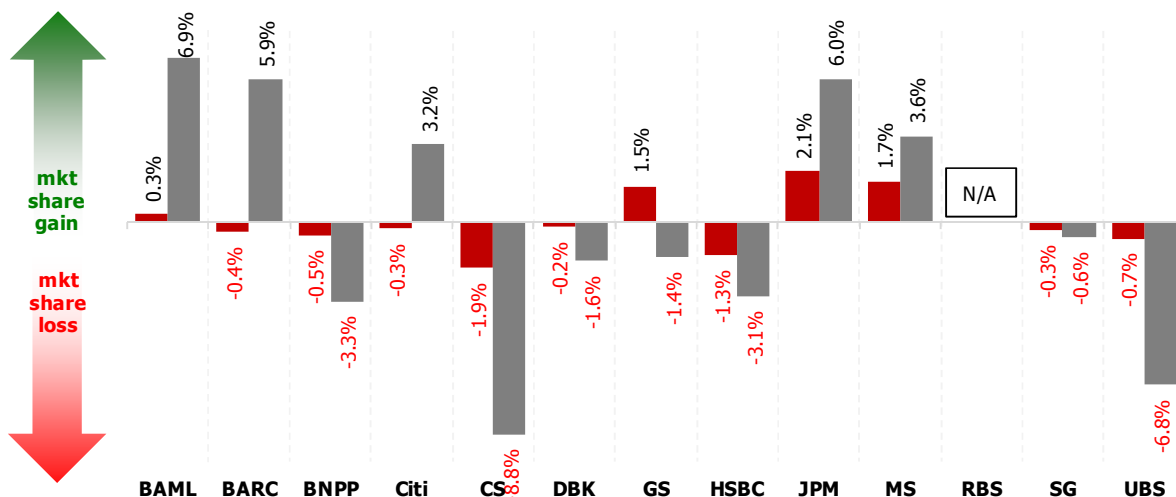
Notes: (1) Tricumen product definitions throughout. (2) Revenue is post-writedowns, excludes DVA/equivalent and one-offs. (3) Headcount: Front office full-time equivalent, adjusted for seniority. (4) Pre-tax profit excludes Prop & Principal Investments.

Capital Markets (cont.): Equities

- A weak quarter for cash equity markets was driven by subdued high-touch volumes in the USA, Europe and in Japan. These were partially offset by improved electronic and off-exchange trading volumes in all three regions.
- A decline in equity derivatives revenue was primarily driven by flow options trading. Swap trading was resilient; structured product issuance grew slightly in the USA and was steady in Europe and APAC.
- Prime services rebounded in 3Q16 with improved securities lending activity making up in part for sharp 25% y/y fall seen in 2Q16. Hedge fund balances continued to grow.



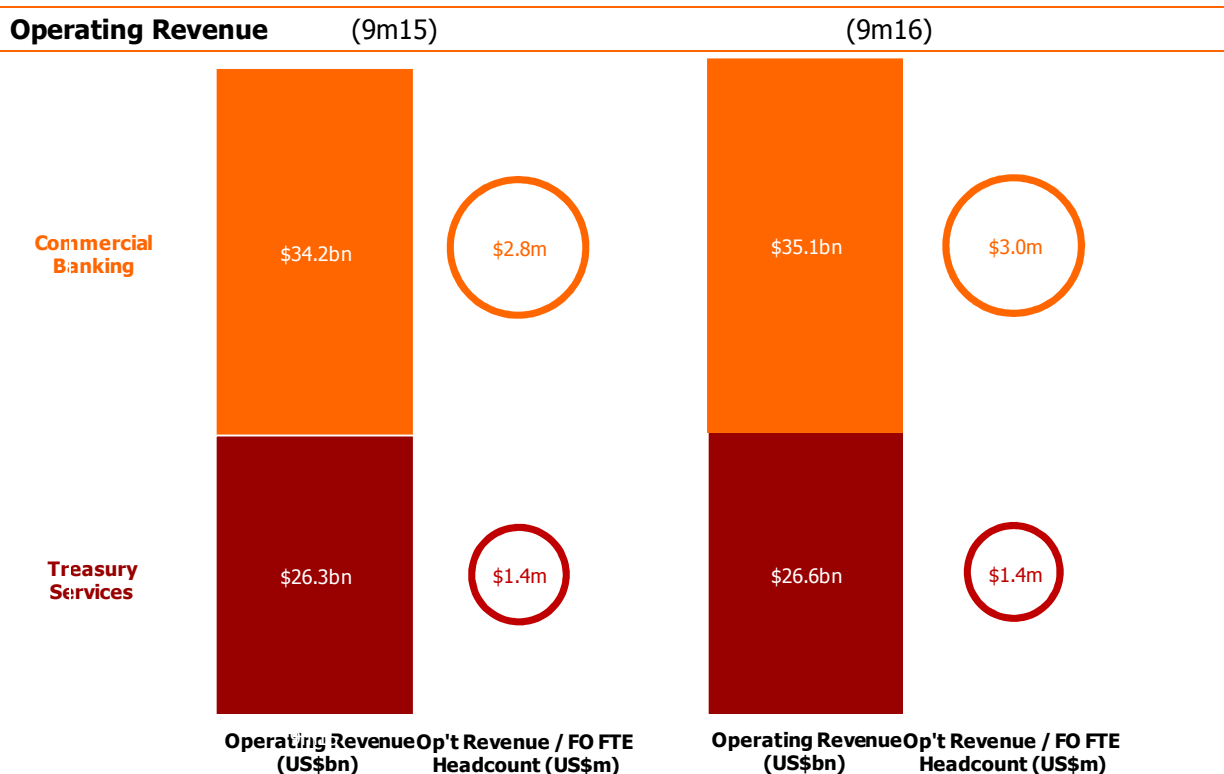
% change share of peer group operating revenue and pre-tax profit (9m16 / 9m15)



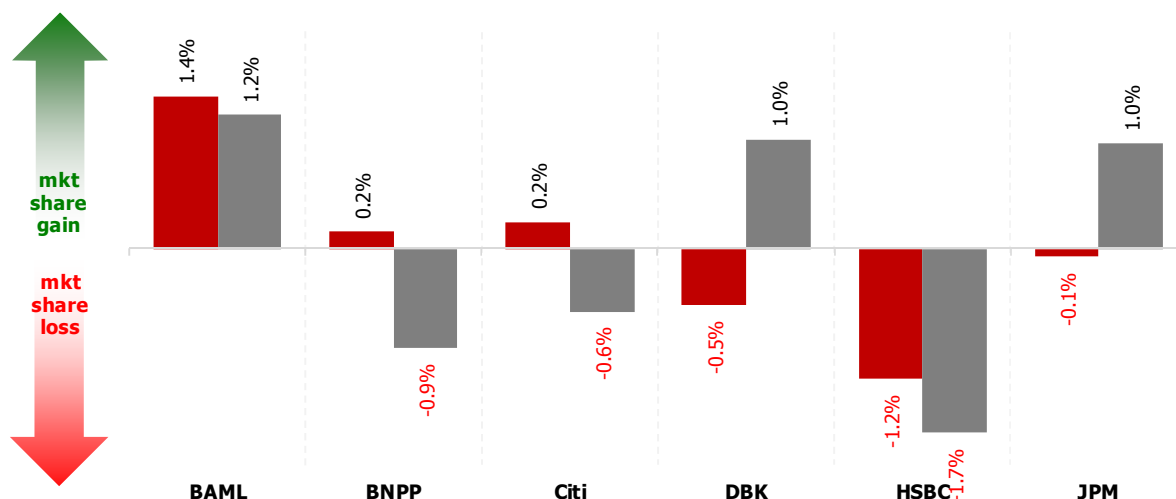
Notes: (1) Tricumen product definitions throughout. (2) Revenue is post-writedowns, excludes DVA/equivalent and one-offs. (3) Headcount: Front office full-time equivalent, adjusted for seniority. (4) Pre-tax profit excludes Prop & Principal Investments.

Commercial/Transaction Banking

- Commercial banking in the USA benefitted from the improvement in net interest margins and an increase in lending activity. This trend was repeated in most major economies across the globe with the mid-cap/SME segment outperforming the large-cap/MNC.
- In treasury services, a 6% y/y decline in trade finance activity, caused by weaker trade flows along APAC trade corridors, depressed revenues. This was, however, more than offset by improved payments flows and liquidity management.



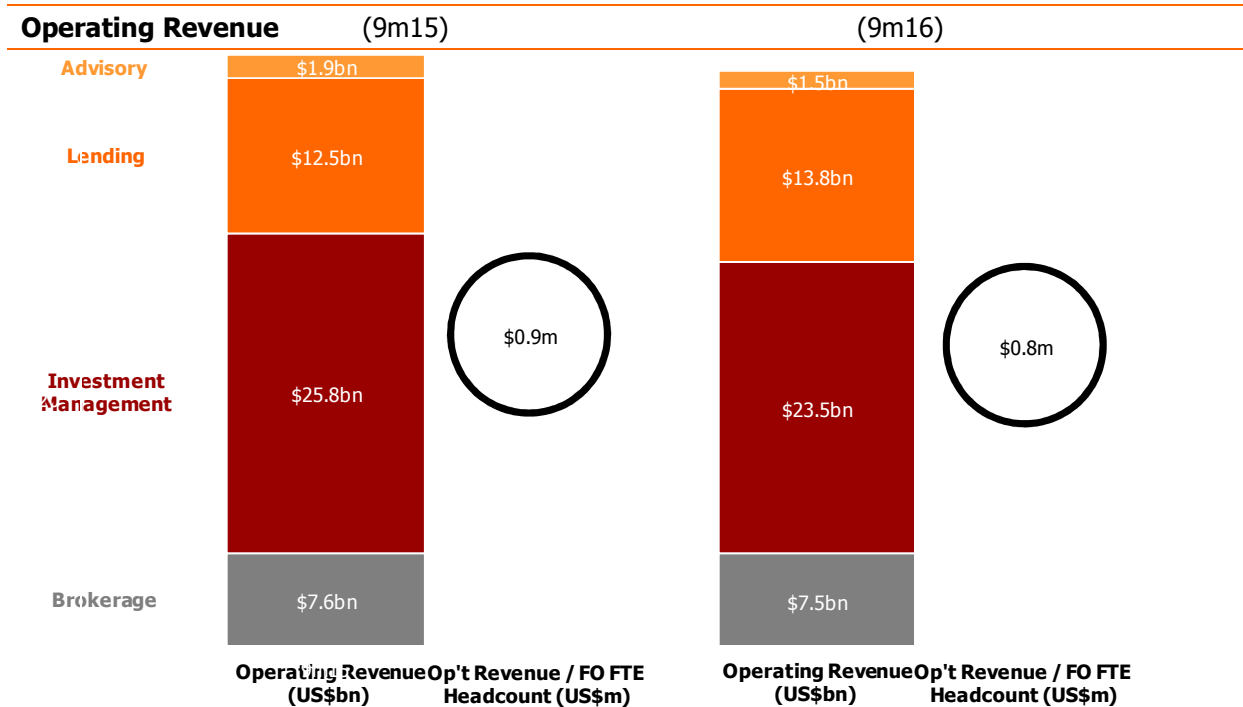
% change share of peer group operating revenue and pre-tax profit (9m16 / 9m15)



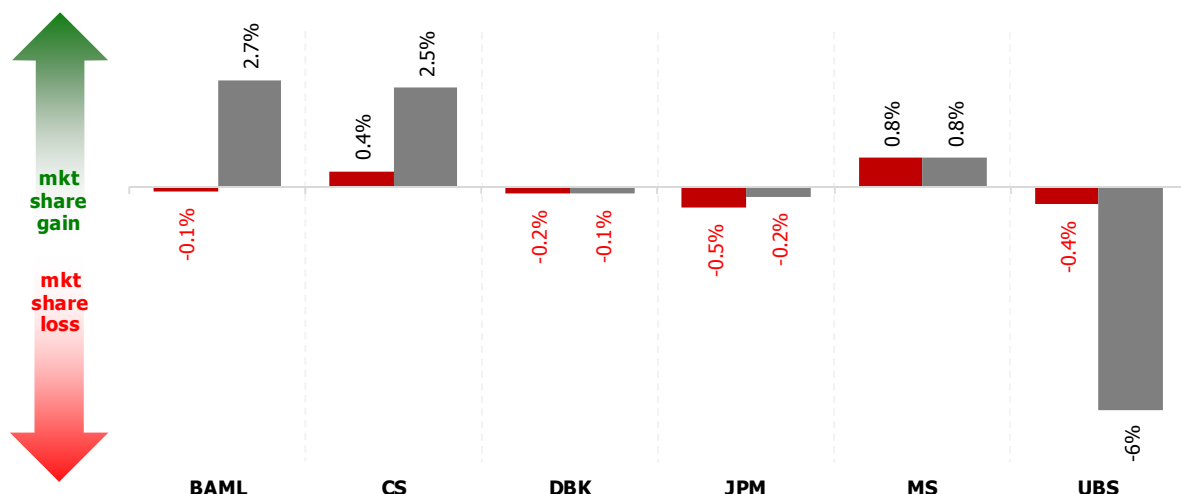
Notes: (1) Tricumen product definitions throughout. (2) Revenue is post-writedowns, excludes DVA/equivalent and one-offs. (3) Headcount: Front office full-time equivalent, adjusted for seniority. (4) Pre-tax profit excludes Prop & Principal Investments. (5) In-scope: Large Cap/MNC and Mid-Cap/SMEs.

Wealth Management

- APAC continues to produce great challenges, but also long-term opportunities. Banks - Credit Suisse and UBS in particular - continue their heavy investment in the region, but compliance concerns are causing some to shed low-yielding clients. In October, Deutsche Bank's former Head of APAC wealth management Ravi Raju, the key architect of the bank's wealth management operation in the region, left to join UBS.
- Lending volumes continued to grow, driven by clients' demand for relatively cheap financing.
- Investment management and brokerage 3Q16 revenue declined versus the prior-year period, due to client's cautious investment behaviour. As volatility returns to the markets, investment revenues may well recover.



% change share of peer group operating revenue and pre-tax profit (9m16 / 9m15)



Notes: (1) Tricumen product definitions throughout. (2) Revenue is post-writedowns, excludes DVA/equivalent and one-offs. (3) Headcount: Front office full-time equivalent, adjusted for seniority. (4) Pre-tax profit excludes Prop & Principal Investments.

Revenue dynamics

9m16 / 9m15 (Operating revenue, % change, US\$, Global Level 1)

	BAML	BARC	BNPP	Citi	CS	DBK	GS	HSBC	JPM	MS	RBS	SG	UBS	Top 25%	Bottom 25%
Capital Markets	↔	↑	↓	↔	↓	↓	↓	↔	↑	↓	↑	↔	↓	+2%	-14%
Primary	↔	↑	↓	↑	↓	↓	↓	↑	↔	↓	↓	↔	↓	-1%	-20%
DCM Bonds	↑	↑	↓	↑	↔	↓	↑	↔	↓	↓	↓	↔	↓	+7%	-4%
DCM Loans	↔	↔	↓	↑	↔	↑	↓	↑	↔	↓	↓	↓	↓	-3%	-18%
Securitisation	↑	↔	↓	↑	↓	↓	↔	↑	↓	↓	↓	↔	↔	+8%	-21%
ECM	↓	↔	↑	↓	↔	↓	↓	↑	↔	↓	N/M	↑	↓	-20%	-39%
M&A / Advisory	↔	↔	↓	↓	↑	↓	↓	↓	↑	↑	N/M	↔	↓	+4%	-14%
Sales & Trading	↔	↑	↓	↔	↓	↓	↓	↓	↑	↔	↑	↔	↓	+3%	-11%
FX	↓	↓	↓	↑	↔	↓	↔	↓	↑	↔	↑	↔	↓	+9%	-7%
Rates	↔	↔	↔	↔	↓	↓	↓	↑	↑	↓	↑	↓	↓	+18%	+3%
Credit	↔	↑	↔	↓	↓	↓	↓	↔	↑	↑	↓	↔	↓	+25%	-14%
Commodities	↔	↓	↓	↑	N/M	↓	↓	↔	↔	↓	N/M	↑	↑	-6%	-28%
EQ Cash	↔	↓	↑	↓	↓	↓	↔	↓	↑	↑	N/M	↔	↓	-7%	-27%
EQ Derv & Converts	↔	↓	↓	↔	↓	↔	↑	↓	↑	↑	N/M	↓	↓	-10%	-30%
Prime Services	↑	↓	↔	↔	↓	↓	↑	↓	↔	↓	N/M	↑	↓	+1%	-6%
Prop Trading	N/M	↓	↓	N/M	↔	N/M	↑	↑	↓	N/M	N/M	N/M	N/M	-0%	-46%
Principal Investments	N/M	N/M	N/M	N/M	↓	↔	↓	↑	N/M	↓	N/M	N/M	N/M	-29%	-40%
Commercial / Transaction Banking	↑	N/M	↑	↑	N/M	↓	N/M	↓	↔	N/M	N/M	N/M	N/M	+3%	-3%
Commercial Banking	↑	N/M	↔	↔	N/M	↓	N/M	↓	↓	N/M	N/M	N/M	N/M	+3%	-3%
Treasury Services	↑	N/M	↑	↑	N/M	↓	N/M	↓	↑	N/M	N/M	N/M	N/M	+3%	-1%
Wealth Management	↔	N/M	N/M	N/M	↑	↓	N/M	N/M	↔	↑	N/M	N/M	↓	-0%	-6%
Advisory	↔	N/M	N/M	N/M	↓	↓	N/M	N/M	↑	↓	N/M	N/M	↓	-7%	-27%
Lending	↓	N/M	N/M	N/M	↔	↓	N/M	N/M	↑	↑	N/M	N/M	↓	+14%	+7%
Investment Management	↑	N/M	N/M	N/M	↔	↑	N/M	N/M	↓	↑	N/M	N/M	↑	-7%	-12%
Brokerage	↔	N/M	N/M	N/M	↔	↓	N/M	N/M	↑	↔	N/M	N/M	↓	+5%	-5%

3Q16 / 3Q15 (Operating revenue, % change, US\$, Global Level 1)

	BAML	BARC	BNPP	Citi	CS	DBK	GS	HSBC	JPM	MS	RBS	SG	UBS	Top 25%	Bottom 25%
Capital Markets	↓	↑	↓	↓	↓	↓	↔	↑	↔	↔	↑	↔	↓	+25%	+12%
Primary	↑	↔	↓	↑	↔	↔	↓	↑	↔	↓	↓	↓	↓	+18%	-6%
DCM Bonds	↔	↑	↓	↑	↔	↓	↓	↑	↔	↔	↓	↓	↓	+51%	+6%
DCM Loans	↓	↔	↔	↓	↔	↑	↓	N/M	↑	↓	↓	↓	↑	-14%	-39%
Securitisation	↑	↓	↓	↑	↓	↓	↔	↑	↔	↓	↓	↔	↔	+41%	-17%
ECM	↑	↑	↓	↓	↔	↔	↔	↓	↑	↓	N/M	↓	↓	+20%	+4%
M&A / Advisory	↓	↑	↓	↔	↑	↓	↓	↓	↔	↓	N/M	↔	↑	+9%	-17%
Sales & Trading	↓	↑	↓	↓	↓	↔	↔	↓	↔	↑	↑	↔	↓	+34%	+10%
FX	↔	↑	↓	↔	↑	↓	↑	↓	↔	↓	↔	↓	↓	+22%	+6%
Rates	↓	↑	↔	↓	↔	↓	↔	↓	↔	↑	↑	↓	↓	+73%	+35%
Credit	↔	↔	↓	↓	↓	↓	↔	↑	↔	↑	↑	↓	↔	+218%	+42%
Commodities	↔	↓	↓	↑	N/M	↓	↓	↔	↓	↑	N/M	↔	↑	-5%	-19%
EQ Cash	↓	↔	↔	↓	↓	↑	↓	↓	↑	↑	N/M	↔	↓	-13%	-26%
EQ Derv & Converts	↓	↑	↓	↓	↓	↑	↔	N/M	↔	↔	N/M	↑	↓	+14%	-24%
Prime Services	↑	↔	↑	↓	↓	↓	↔	↓	↓	↑	N/M	↓	↔	+2%	-5%
Prop Trading	N/M	N/M	↔	N/M	↓	N/M	↔	↑	↓	N/M	N/M	↔	N/M	+36%	-28%
Principal Investments	N/M	N/M	N/M	N/M	↓	N/M	↔	↑	N/M	↓	N/M	N/M	N/M	+142%	-61%
Commercial / Transaction Banking	↑	N/M	↔	↔	N/M	↓	N/M	↓	↔	N/M	N/M	N/M	N/M	+5%	-3%
Commercial Banking	↑	N/M	↓	↓	N/M	↓	N/M	↓	↓	N/M	N/M	N/M	N/M	+0%	-2%
Treasury Services	↑	N/M	↑	↑	N/M	↓	N/M	↓	↑	N/M	N/M	N/M	N/M	+4%	-0%
Wealth Management	↔	N/M	N/M	N/M	↑	↓	N/M	N/M	↔	↑	N/M	N/M	↓	-2%	-8%
Advisory	↔	N/M	N/M	N/M	↓	↓	N/M	N/M	↑	↓	N/M	N/M	↓	-10%	-29%
Lending	↓	N/M	N/M	N/M	↔	↓	N/M	N/M	↑	↑	N/M	N/M	↓	+17%	+9%
Investment Management	↑	N/M	N/M	N/M	↔	↑	N/M	N/M	↓	↑	N/M	N/M	↑	-8%	-12%
Brokerage	↔	N/M	N/M	N/M	↔	↓	N/M	N/M	↑	↔	N/M	N/M	↓	+7%	-3%

Source: Tricumen. Notes: (1) Tricumen product definitions throughout. (2) Arrows show % change in revenue vs peers. Up-/down-arrows: top-/bottom-quartile. (3) Revenue is post-writedowns, excludes DVA/equivalent and one-offs, as described in the Company Section. (4) In-scope: Large Cap/MNC and Mid-Cap/SMEs.

About Tricumen

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.

Notes & Caveats

No part of this document may be reproduced or transmitted in any form by any means without written permission of Tricumen Limited. Such consent is often given, provided that the information released is sourced to Tricumen and that it does not prejudice Tricumen Limited's business or compromise the company's ability to analyse the financial markets. Full acknowledgement of Tricumen Limited must be given.

Tricumen Limited has used all reasonable care in writing, editing and presenting the information found in this report. All reasonable effort has been made to ensure the information supplied is accurate and not misleading. For the purposes of cross-market comparison, all numerical data is normalised in accordance to Tricumen Limited's proprietary product classification. Fully-researched dataset may contain margin of error of 10%; for modelled datasets, this margin may be wider.

The information and commentary provided in this report has been compiled for informational purposes only. We recommend that independent advice and enquiries should be sought before acting upon it. Readers should not rely on this information for legal, accounting, investment, or similar purposes. No part of this report constitutes investment advice, any form of recommendation, or a solicitation to buy or sell any instrument or to engage in any trading or investment activity or strategy. Tricumen Limited does not provide investment advice or personal recommendation nor will it be deemed to have done so.

Tricumen Limited makes no representation, guarantee or warranty as to the suitability, accuracy or completeness of the report or the information therein. Tricumen Limited assumes no responsibility for information contained in this report and disclaims all liability arising from negligence or otherwise in respect of such information.

Tricumen Limited is not liable for any damages arising in contract, tort or otherwise from the use of or inability to use this report or any material contained in it, or from any action or decision taken as a result of using the report.

© Tricumen Limited 2016. All rights reserved