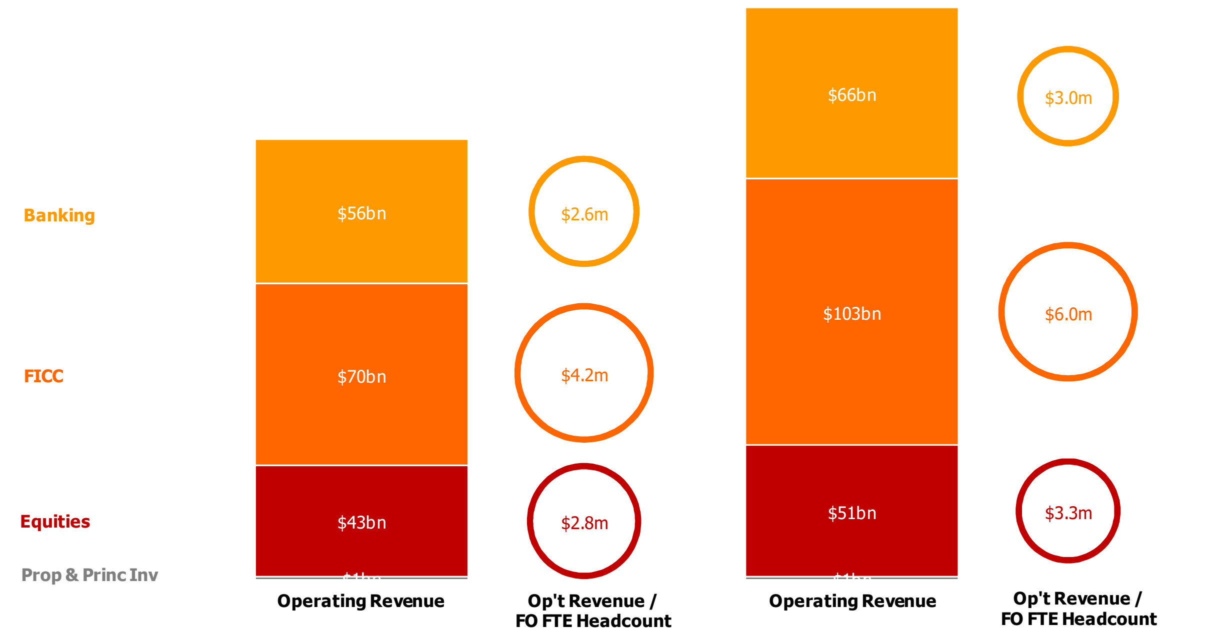
Results Review 4Q20 / FY20

Capital Markets: Overview

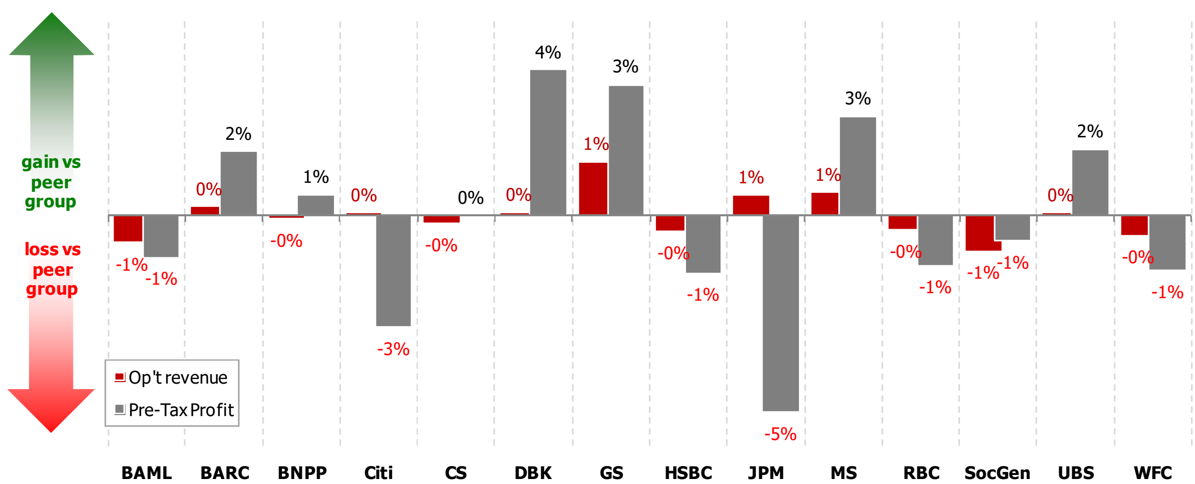
- The exceptional year ended on a high note: banks featured here reported capital markets revenue of $49bn in 4Q20, 24% ahead of 4Q19. On FY basis, revenue jumped 30% - primarily driven by US banks' Markets divisions, and FICC in particular – and per-FTE productivity by 26%. Aggregate costs also grew in 2020, but at a comparatively modest 7% y/y; US banks' continued investment and high bonuses pushed their costs up by 11%, while EMEA banks' costs were flat y/y. Pre-tax profit almost doubled to $91bn, with EMEA-headquartered banks' profits surging 140%.

  Most banks confirmed a strong start to 2021, especially in M&A, ECM and Equities (subject to a successful rollout of Covid vaccinations) and, to a lesser extent, FICC.
- The post-Brexit transition to EU trading venues went smoothly – a testament to banks' readiness. Without an agreement on equivalence, the shift in liquidity from London to the EU was immediate. In Equities, Paris and Frankfurt made gains, but it was Amsterdam that emerged as an early winner: traded volumes almost quadrupled in Jan-21, making it Europe's #1 trading venue. Also, the trading of Euro-denominated swaps in London dropped from 40% in July 2020 to just 10% in January 2021, according to IHS Markit, with volumes moving to NYC and the EU. Dublin is firming up its already strong presence in e-trading, and Amsterdam expects a surge in Technology IPOs.

Operating Revenue (FY19) (FY20)



% change share of peer group operating revenue and pre-tax profit (FY20 / FY19)

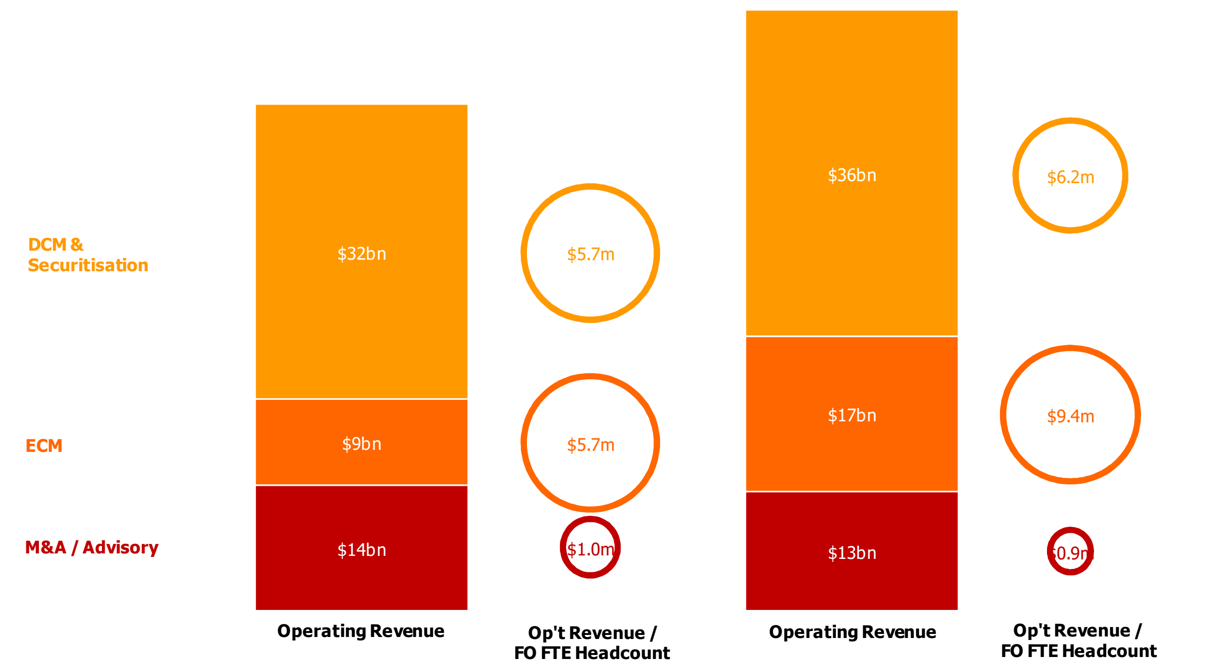


Notes: (1) Tricumen product definitions throughout. (2) Revenue is post-writedowns, excludes DVA/equivalent and one-offs. (3) Headcount: Front office full-time equivalent, adjusted for seniority. (4) Pre-tax profit excludes Prop & Principal Investments..

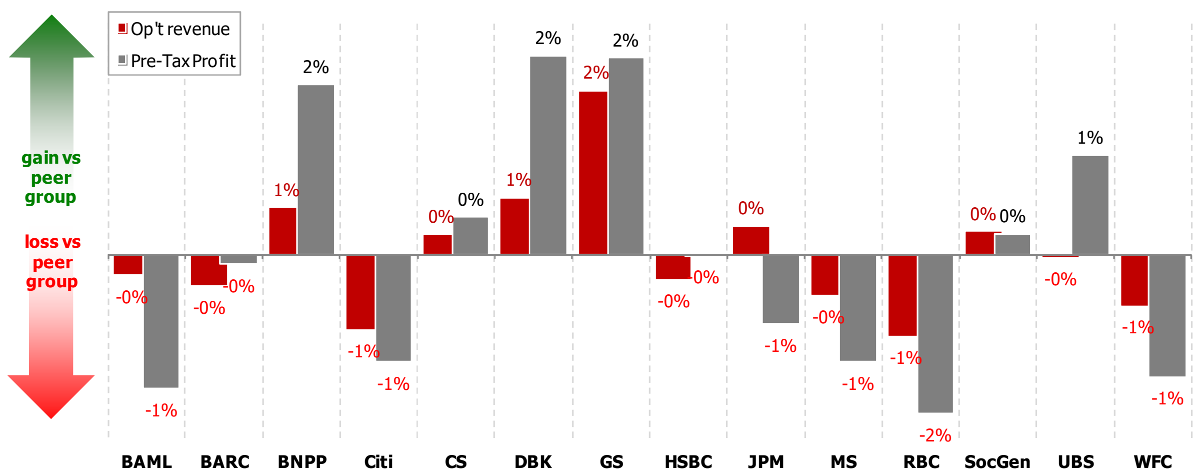
Capital Markets (cont.): Banking

- In DCM, global debt issuance passed the $10tn mark in 2020, for the first time. High grade, high yield, emerging markets, international and green bonds – all broke all-time records. The main players extended their lead while also maintaining margins amid strong client demand. Syndicated lending volumes dropped 25% y/y, and more than that in Americas; fees, however, held up better. Securitisation revenues were broadly unchanged as a decline in CMBS and Non-Agency RMBS offset the strong growth in Agency RMBS. ABS held up better. EMEA revenues dropped; we expect the impact of Covid to last well into 2021, and the quality of the collateral to (slowly) deteriorate.
- In ECM, a slow 1H20 (excepting APOs in 2Q20) was followed by a surge in 2H20, driven by IPOs. Global volumes jumped almost 60% vs 2019 - comfortably exceeding $1tn – and fees by 80%. Converts broke records, and global IPOs – excluding SPACs – totalled $220bn, the best year since 2014. In the US, SPACs boomed, raising $80bn, a fivefold increase from 2019.
- After a slow 1H20, M&A/Advisory global volumes exceeded $2tn in 2H20 - a record - and the US fees surged 70% q/q in 4Q20. Banks already anticipate strong 2021: capital costs are low, private equity and SPACs are ready to invest, and sectors that were impacted the most by the Covid crisis (including industrials, utilities and real estate) could see a recovery as the pace of vaccinations quickens. February was one of the busiest months on record.

Operating Revenue (FY19) (FY20)



% change share of peer group operating revenue and pre-tax profit (FY20 / FY19)



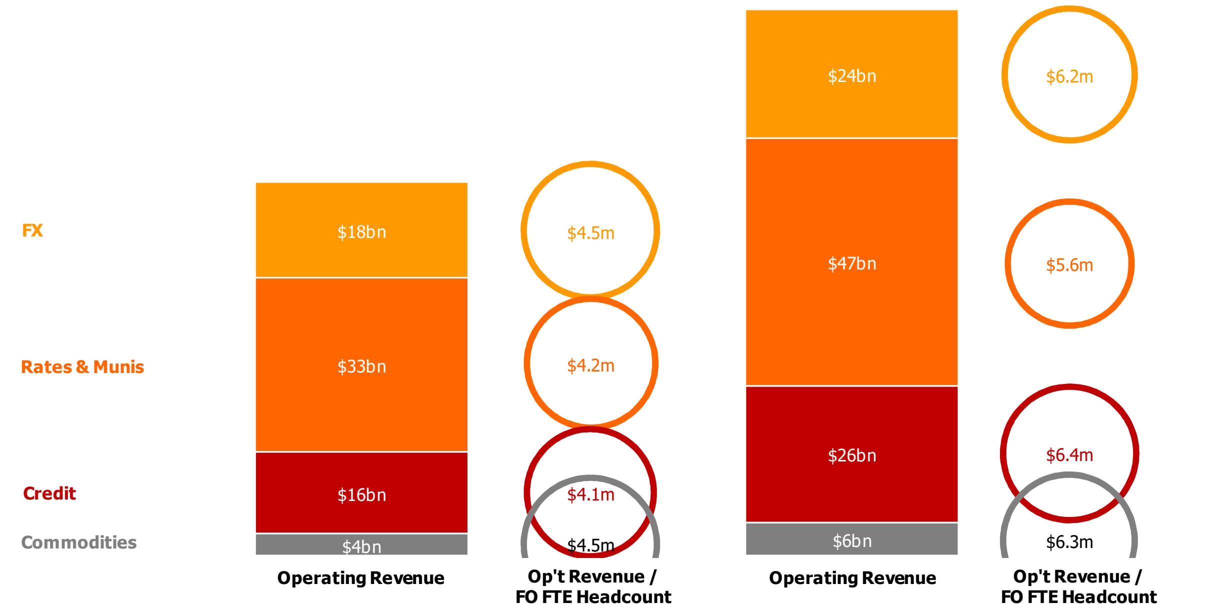
Notes: (1) Tricumen product definitions throughout. (2) Revenue is post-writedowns, excludes DVA/equivalent and one-offs. (3) Headcount: Front office full-time equivalent, adjusted for seniority.

TRICUMEN

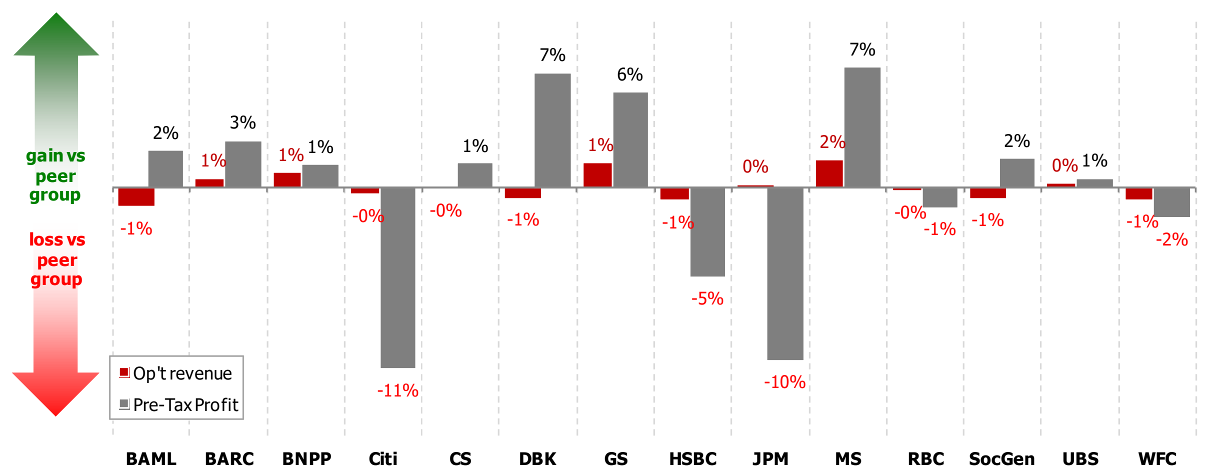
Capital Markets (cont.): FICC

- FX had an excellent year; banks which utilised intra-Group collaboration and/or trading books outperformed. Emerging markets were also strong, led by APAC; CEEMEA dropped.
- After a very strong 1H20, Rates revenues stabilised in 3Q20 and dropped in 4Q20. In Europe, the volume of government bond issuance doubled in 2020 to more than $2tn as countries took measures to counter economic shutdowns. This, in turn, led to a surge in traded volumes, and banks' revenue. The future looks busy – the EU alone may issue EUR1tn in the next couple of years – possibly prompting the return of some primary dealers to the market. After a tumultuous 1H20, munis recovered in 2H20, ended the year on a strong note and had a good start in 2021.
- Credit was driven by G10 Flow; by contrast, complex products caused losses at several banks and distressed markets plunged. The most significant development of 2020, however, was a surge in electronic trading in corporate bonds, including portfolio trading. Steady growth seen throughout 2019 was interrupted in 1Q21, but then grew – and accelerated – during the rest of the year, to reach a quarter of all high-yield and more than a third of high grade volume.
- Oil was the main driver in commodities in 2020, followed by power & gas and precious metals. Several banks achieved exceptional – though not quite as high as publicly rumoured -revenue in specific products. 2021 could also prove lucrative: investors' appetite remains strong - at the end of February, Bloomberg Commodity Spot Index hit the record, 60% above lows seen in 1Q21 – and elevated volatility persists, especially in precious metals.

Operating Revenue (FY19) (FY20)



% change share of peer group operating revenue and pre-tax profit: (FY20 / FY19)



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.

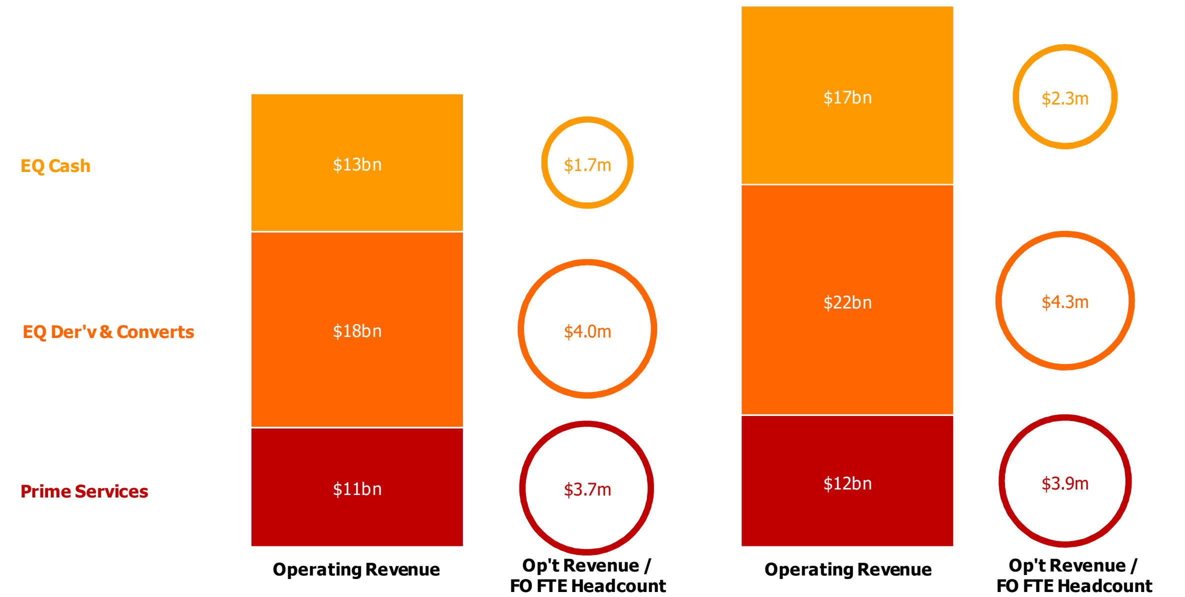
Capital Markets (cont.): Equities

- Equity markets and flows extended gains seen in 9m20. USA and APAC drove growth in cash equities. In the US, retail investors directed an ocean of money into equity funds, eagerly buying into every dip, and occasionally overwhelming even the big brokerages' websites. One-off events (e.g. Tesla Inc's inclusion in the S&P 500) also helped volumes. APAC revenue jumped 20% y/y in 2020, driven by China.

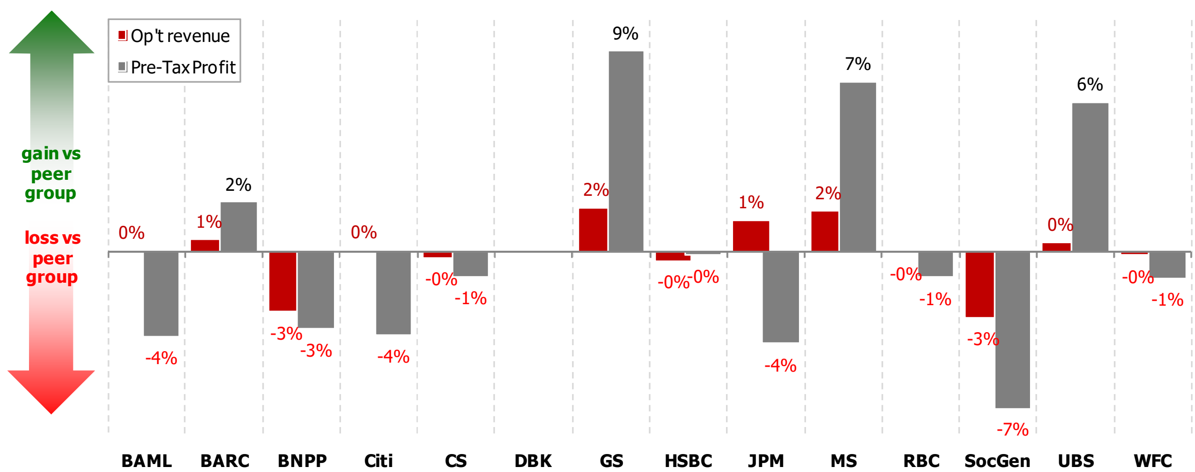
  Equity analysts remained in demand, but investors are unwilling to pay the full price for video-only consultation: Covid lockdowns halved the cost of meetings with analysts.
- As structured product losses seen in 1H20 disappeared, equity derivatives revenue surged in 2H20. Growth was driven by the US, especially flow and, to a lesser extent, corporate derivatives. EMEA was at the other end of the scale – revenues were well below 2019, due to 1H20 losses and, put politely, a subdued corporate derivatives market. Converts also advanced, partly due to sustained interest from hedge funds' arbitrage.
- Prime services was, by comparison, unexciting: revenues were broadly unchanged from 2019. Global hedge funds AuM grew to $3.8tn in 4Q20, 13% above 3Q20. In view of the ongoing fiscal stimulus and continued low interest rates, hedge funds may stay in demand in 2021, too.

  The big story of 2020 was China: AuM managed by local firms – which dominate the mainland market – surged by 50%, or $200bn, in 2020.

Operating Revenue (FY19) (FY20)



% change share of peer group operating revenue and pre-tax profit (FY20 / FY19)



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.

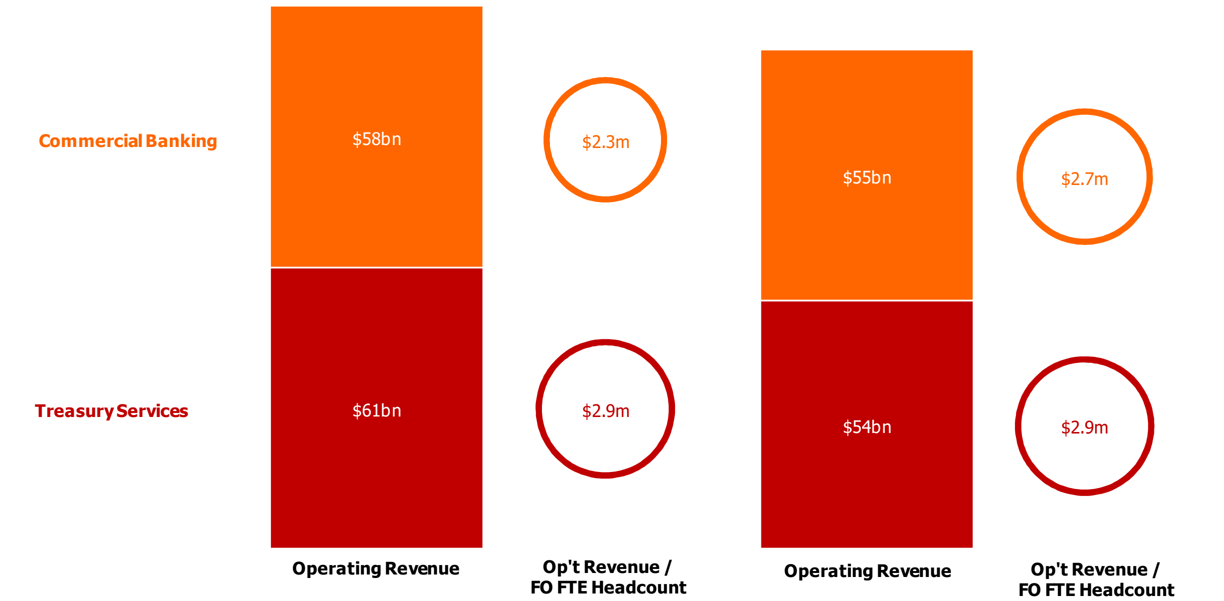
Commercial Banking & Treasury Services

New arrival: Wells Fargo.

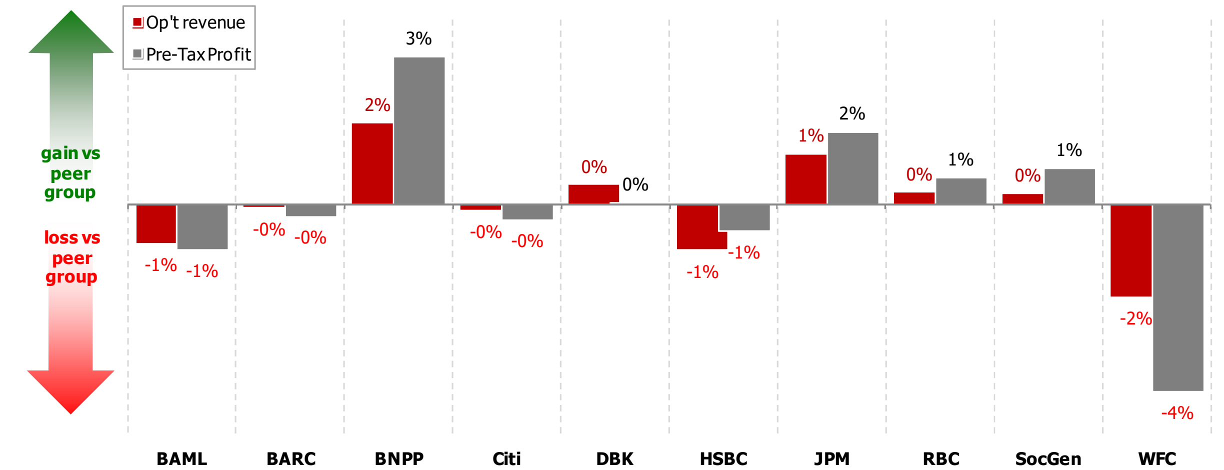
Product definitions updated.

- Partly due to Wells Fargo's weak performance, European banks' 2020 revenue and profits held up better than was the case at their North America counterparts, in both Commercial Banking and Treasury Services. EMEA banks' aggregated Commercial Banking pre-tax profit was unchanged from 2019, while AMERs' profit dropped 18% y/y. Also, in Treasury Services, EMEA banks' profit declined 13% y/y, easily outperforming AMER peers.
- Demand for corporate loans remains soft due to an uncertain economic outlook and strong activity in capital markets. At big US banks, criticized commercial loans more than doubled in 2020, on average, with sectors hit hardest by the lockdowns – consumer, retail, automotive, energy, real estate – registered the sharpest increase.
- Most market commentators expect a recovery in 2021, especially in trade finance. However, that is contingent on a successful rollout of vaccines and gradual relaxations of restrictions and the impact (especially on lending to SMEs) from Basel 4. Until firm trends are established, we expect banks (those headquartered in EMEA in particular) will proceed with caution and focus on margins, rather than volumes.

Operating Revenue (FY19) (FY20)



% change share of peer group operating revenue and pre-tax profit (FY20 / FY19)



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) In-scope: Large Cap/MNC and Mid-Cap/SMEs.

Revenue dynamics

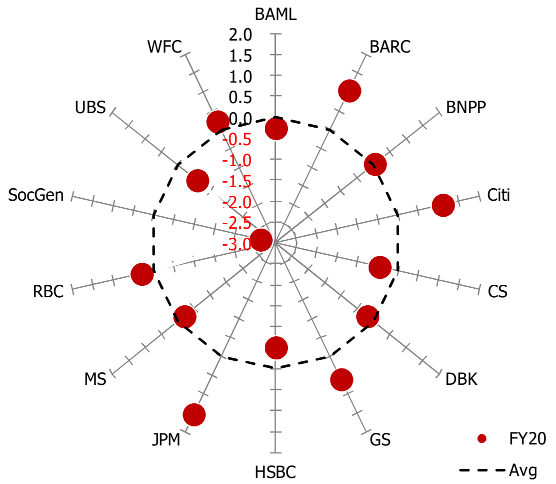
FY20/FY19 (Operating revenue, % change, US$, Global Level 1)

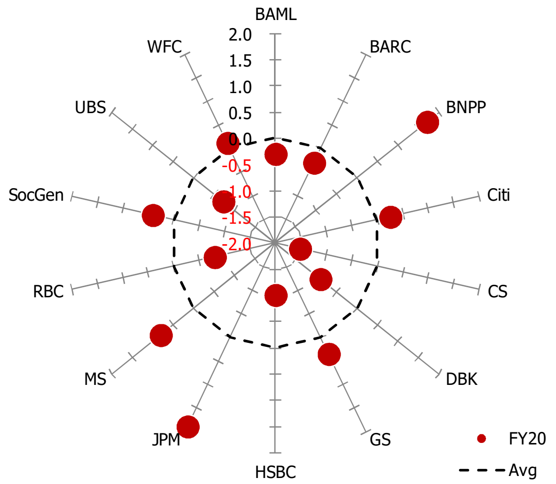
	BAML	BARC	BNPP	Citi	CS	DBK	GS	HSBC	JPM	MS	RBC	SocGen	UBS	WFC
Capital Markets	↗	↑	↗	↗	↗	↑	↑	↘	↑	↑	↘	↓	↗	↘
Banking	↗	↘	↑	↘	↗	↑	↑	↘	↗	↗	↓	↑	↗	↘
DCM Bonds	↑	↗	↗	↘	↘	↑	↗	↘	↗	↘	↓	↑	↘	↘
DCM Loans	↓	↘	↗	↓	↘	↘	↗	↓	↘	↘	↓	↑	↓	↓
Securitisation	↗	↑	↗	↑	↗	↑	↑	↗	↑	↓	↑	↓		↗
ECM	↗	↘	↘	↗	↗		↑	↗	↗	↗	↓	↑	↗	↘
M&A / Advis	↘	↓	↘	↓	↘	↓	↘	↓	↘	↘	↓	↑	↘	↘
Markets	↗	↑	↗	↑	↗	↗	↑	↗	↑	↑	↗	↓	↑	↘
FICC	↓	↗	↑	↘	↘	↘	↑	↓	↘	↑	↘	↓	↗	↓
FX	↘	↘	↑	↘	↑	↓	↗	↘	↑	↑	↓	↓	↑	↓
Rates & Munis	↘	↘	↑	↓	↓	↘	↓	↓	↓	↗	↓	↓	↘	↓
Credit	↓	↗	↘	↑	↘	↓	↑	↗	↘	↗	↘	↓		↓
Commodities	↓		↓	↗			↑	↓	↑	↗	↗	↓	↘	↘
Equities	↑	↑	↓	↑	↗	↘	↑	↗	↑	↑	↑	↓	↑	↗
EQ Cash	↘	↗	↓	↑	↓		↑	↗	↗	↑	↓	↓	↑	↑
EQ Der'v & Conv't	↘	↗	↓	↘	↑		↗	↘	↗	↗	↘	↓	↘	↘
Prime Services	↗	↘	↘	↘	↓		↘	↓	↘	↗	↑	↘	↘	↘
Prop & PI			↑		↓			↓	↗	↘				
Comm Bank / Treas Serv	↓	↓	↑	↘		↗		↓	↗		↗	↗		↓
Comm Bank	↘	↓	↑	↘		↑		↗	↑		↗	↘		↘
Treas Serv	↘	↗	↑	↗		↑		↓	↗		↗	↑		↓

Source: Tricumen. Notes: (1) Tricumen product definitions throughout. (2) Arrows show % change in revenue vs peers. Up-/down-arrows: top-/bottom-quartile. (3) Operating revenue is post-writedowns, excludes DVA/equivalent and one-offs. (4) Commercial/Transaction Banking includes Large Cap/MNC and Mid-Cap/SMEs.

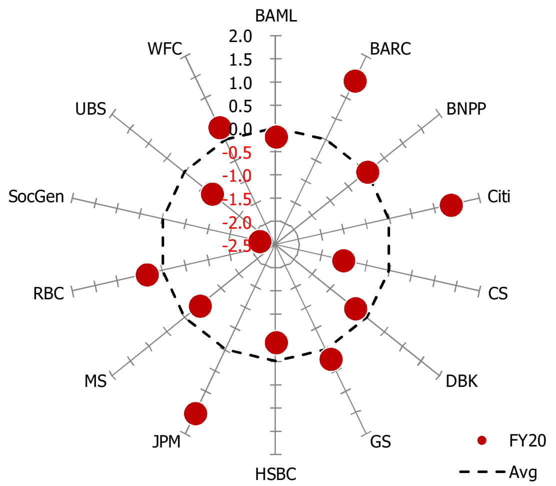
Pre-tax profit margin (US$)

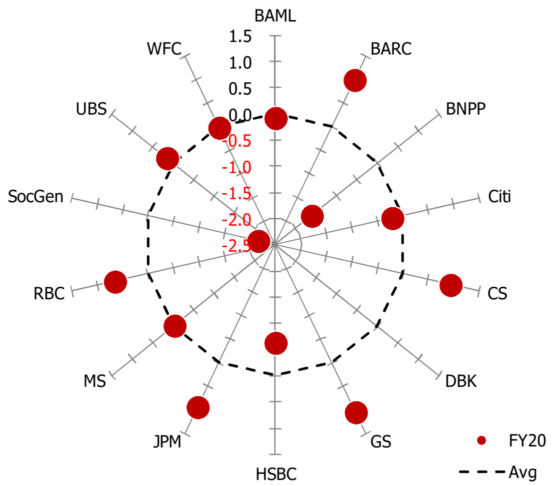
Capital Markets	**Banking**



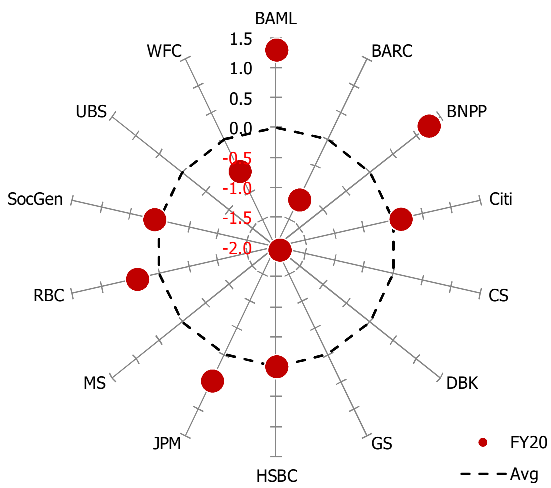


FICC	**Equities**





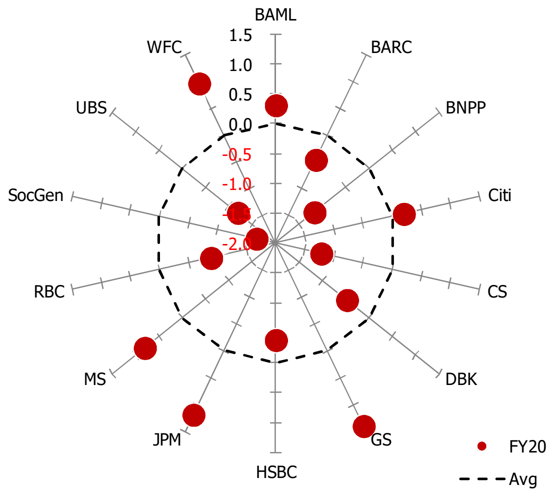
Commercial Banking / Treasury Services



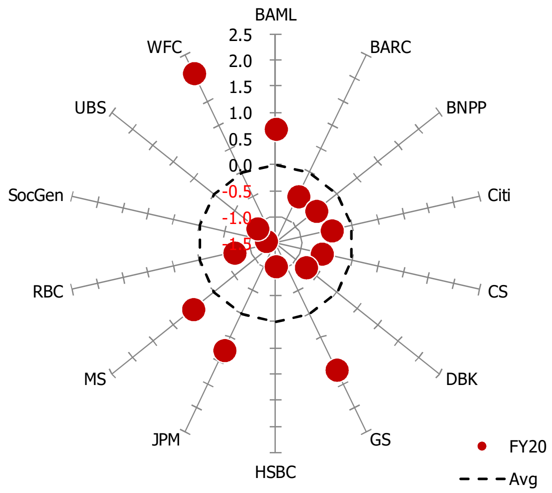
Source: Tricumen. Notes: (1) TRIC product definitions, standard deviation, product Level 1; (2) Operating expenses exclude one-off non-operational items, insurance-related benefits & claims, and credit expense/recovery/NPL provisions. Capital expenditure is included as accrued. Litigation expense is allocated to front-line units. (3) positive values = outperformance; negative values = underperformance, relative to the peer group featured in this report; (4) missing values = N/M; no Tricumen coverage; or a bank is not a significant competitor.; (5) outliers are excluded.

Operating Revenue / Front Office FTE (US$)

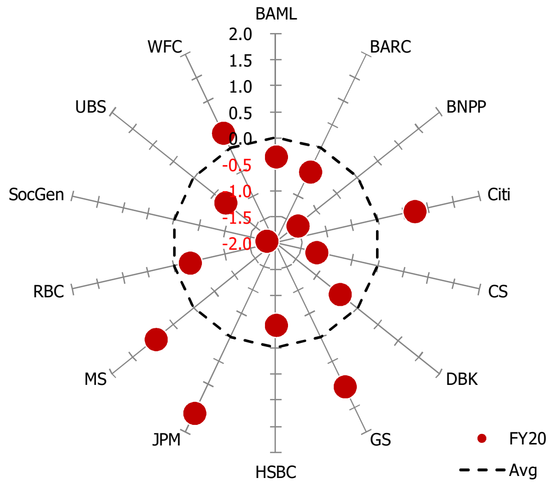
Capital Markets



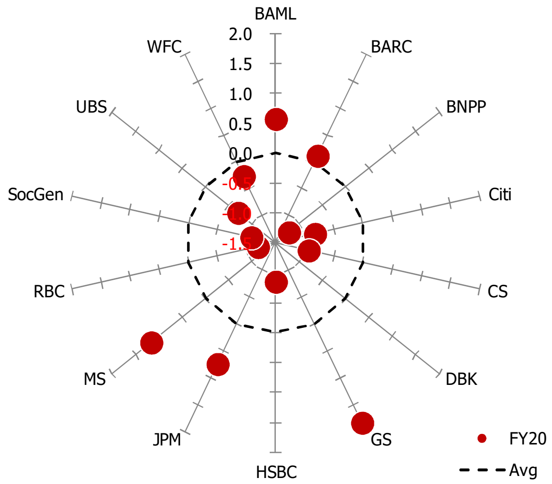
Banking



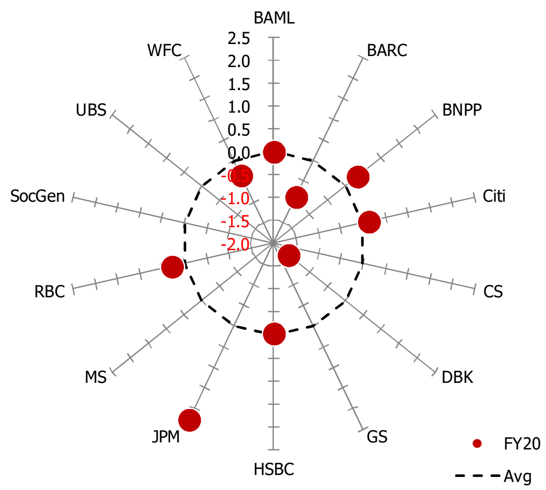
FICC



Equities



Commercial Banking / Treasury Services



Source: Tricumen. Notes: (1) TRIC product definitions, standard deviation, product Level 1; (2) Operating expenses exclude one-off non-operational items, insurance-related benefits & claims, and credit expense/recovery/NPL provisions. Capital expenditure is included as accrued. Litigation expense is allocated to front-line units. (3) positive values = outperformance; negative values = underperformance, relative to the peer group featured in this report; (4) missing values = N/M; no Tricumen coverage; or a bank is not a significant competitor.; (5) outliers are excluded.

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, asset servicing, and asset and wealth management. 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

Tricumen Limited places no restrictions on reproduction or transmission of data contained in this report, provided that information released is sourced to Tricumen Limited 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.