

Coalition Index for Investment Banking – FY21

April 2022

Contents

Executive Summary	2
FICC	4
Equities.....	5
IBD	7
Headcount.....	8
Productivity.....	9
Operating Margins.....	10
Return on Equity (RoE)	11
Appendix: Methodology.....	12
Coalition Standard Taxonomy.....	13

Executive Summary

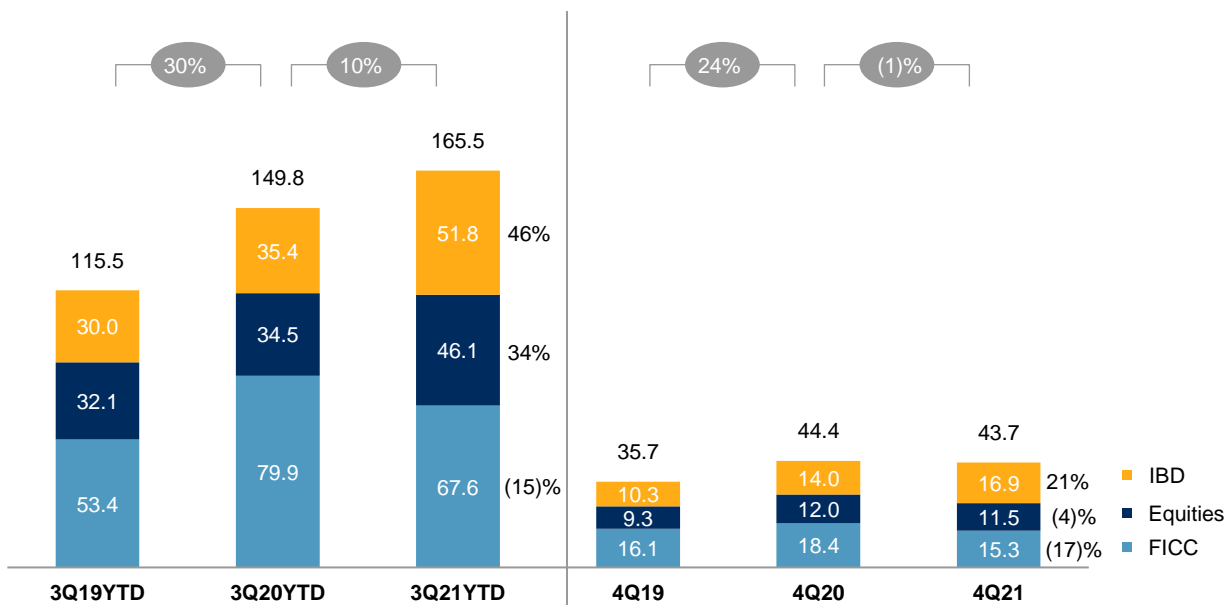
4Q21 Coalition Index Investment Banking revenues were down by (1)% on a YoY basis

IBD: Outperformance in IBD revenues was driven by strong M&A activity.

Equities: Higher balances in Prime and strength in Exotics were offset by declines in Cash Equities and Flow Derivatives.

FICC: FICC revenues continued to normalize from a higher base in 2020, especially in G10 Rates and Credit. Despite seasonal slowdown, some fluctuation was also seen in Rates and EM.

Figure 1. Revenues by Business (USD Billion)



Source: Coalition Greenwich Proprietary Analytics

FY21 Coalition Index Investment Banking revenues were up by 8% on a YoY basis

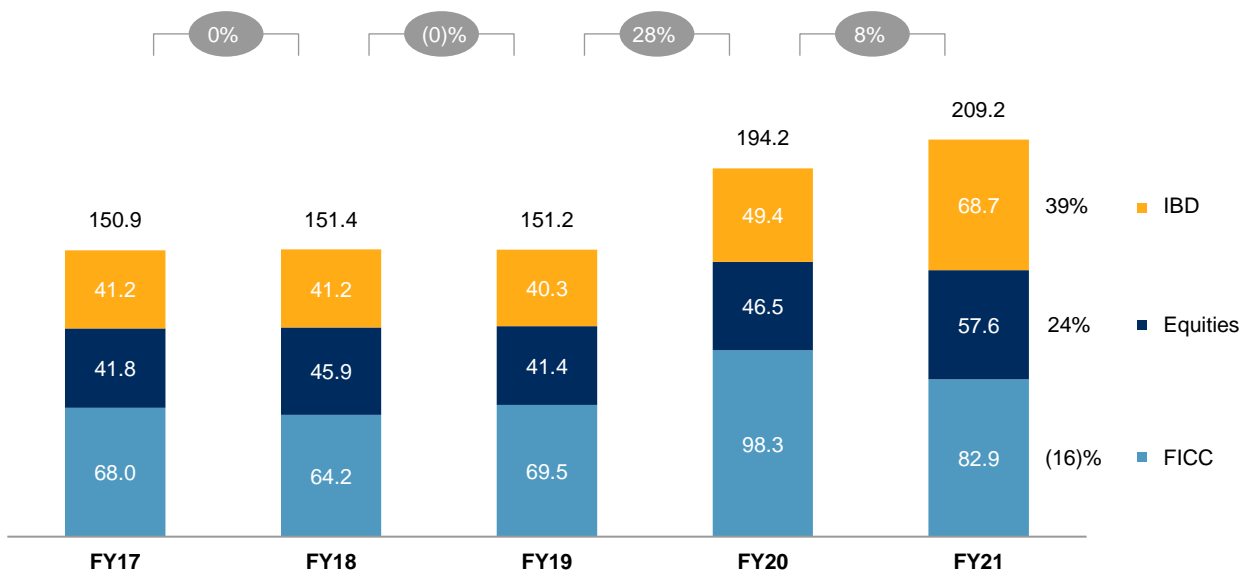
Investment Banking: Increased revenues attributed to growth in IBD and Equities, while FICC normalized from a higher base in FY20.

IBD: IBD performance for FY21 remained strong, recording the highest revenues over the past decade. This was due in part to the volume of M&A deal completion and Equity underwriting activity.

FICC: Fixed Income revenue decline attributed to a challenging trading environment in Rates, normalization in Credit, and muted activity in Currencies & Emerging Markets. Munis and Securitization outperformed as a result of improved Issuance and Financing activities.

Equities: Higher Equities revenues driven by robust retail client activity in Cash Equities and Structured Equity Derivatives coupled with normalization from dividend losses (especially in Europe). While 2H21 growth was driven by record levels of client balances in Prime plus some one-off trades which benefitted the top brokers.

Figure 2. Revenues by Business (USD Billion)



Source: Coalition Greenwich Proprietary Analytics

FICC

FICC revenues normalized compared to 2020 on the back of reduced client activity and volatility in Rates, Credit and Currencies. Strong Issuance and Financing activities in Securitization partly offset this decline.

G10 Rates: Normalization in revenues, compared to a strong FY20, was due to muted client activity and was partially offset by gains in Inflation and improvement in US Treasuries performance, especially towards 4Q20.

Credit: Underperformance in Credit was mainly driven by Flow Credit due to Spread tightening and was partially offset by growth in Structured Credit. In Flow Credit, IG and HY normalized compared to a strong base in FY20, whereas Distressed outperformed driven by one-off gains. Growth in Structured Credit was driven by strong activity in CLO coupled with improved performance in Structured Financing. EM Credit revenues declined across products.

G10 FX: G10 FX revenues declined due to continued margin compression in Spot and Forwards combined with reduced client activity and muted volatility in this product. Options revenues improved due to Deal Contingent activity on the back of higher cross border M&A.

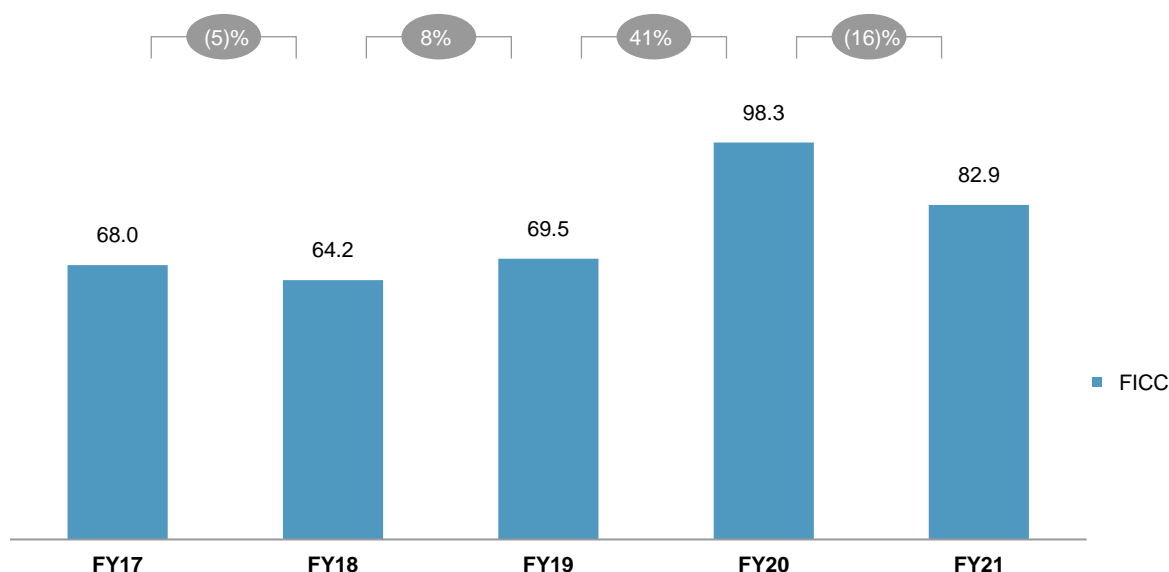
Securitization: Continued improvement in Financing activities and higher Issuance volumes in ABS and CMBS contributed to a strong performance in Agency Trading in 1Q21, resulting in higher revenues in Securitization

EM Macro: Revenue decline in EM Macro was driven by reduced client activity due to spread reduction and lower volatility, which was offset by large one-offs in CEEMEA.

Commodities: Commodities revenues declined as Oil and Precious Metals normalized due to muted client activity and lack of one-off gains compared to FY20. This was partially offset by Power & Gas which benefitted from volatility triggering events and increased demand. Base Metals revenues improved owing to higher prices and increased client activity.

Municipals: Strong revenues in Municipals owing to normalization in the Secondary market as a result of trading losses from FY20.

Figure 3. FICC Revenues (USD Billion)



Source: Coalition Greenwich Proprietary Analytics

Equities

Excluding Archegos Impact

Outperformance of Structured products in EQD coupled with the record level of client balances in Prime, as well as increased cash equities from strong volumes and client activity resulted in higher revenue for Equities.

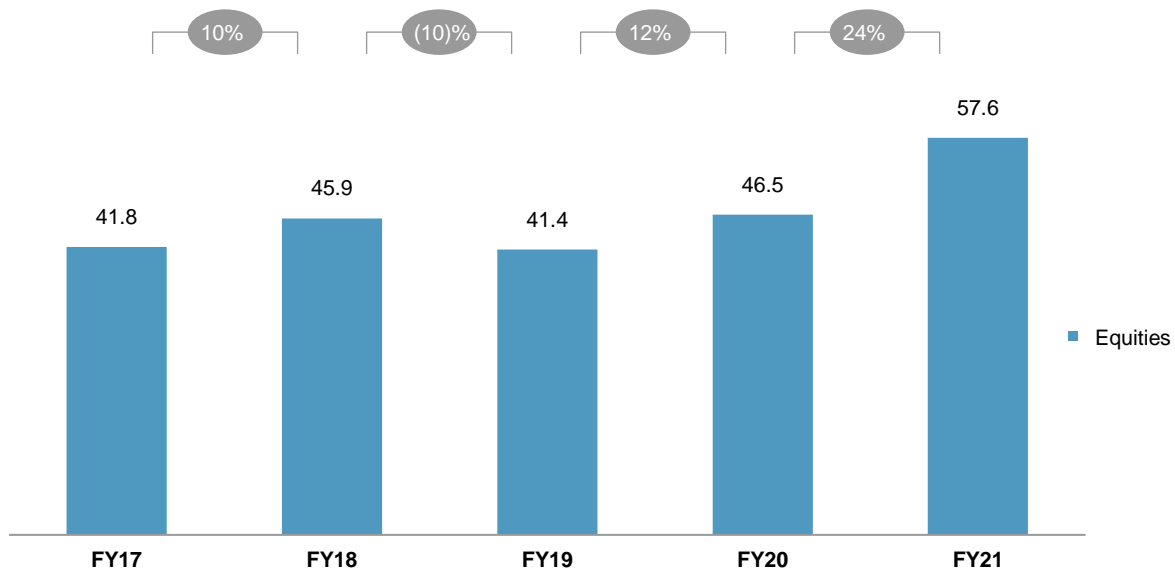
Equity Derivatives: Equity Derivatives revenues increased significantly mainly driven by a strong recovery and heightened client activity in Structured products. Flow Derivatives trading normalized due to a less volatile environment compared to elevated levels seen last year. CED remained robust throughout the year driven by strength in Non-Linear activity.

Cash Equities: Revenues increased YoY driven by a recovery in Quant Funds and increased Retail client activity coupled with record levels of ECM issuance and overall client activity and volumes.

Prime Services: Prime Services revenues excluding Archegos increased significantly YoY across products and regions, with balances reaching all-time high levels. This was coupled with recovery from losses in Delta one in 1H21. Additionally, some banks benefitted from idiosyncratic trades in 3Q.

Futures: Weaker results in Futures due to subdued volumes and client activity. Equity Futures were flat whereas FICC Futures declined on the back of lower volumes and continuous low interest rates.

Figure 4. Equities Revenues (excl. Archegos Impact) (USD Billion)

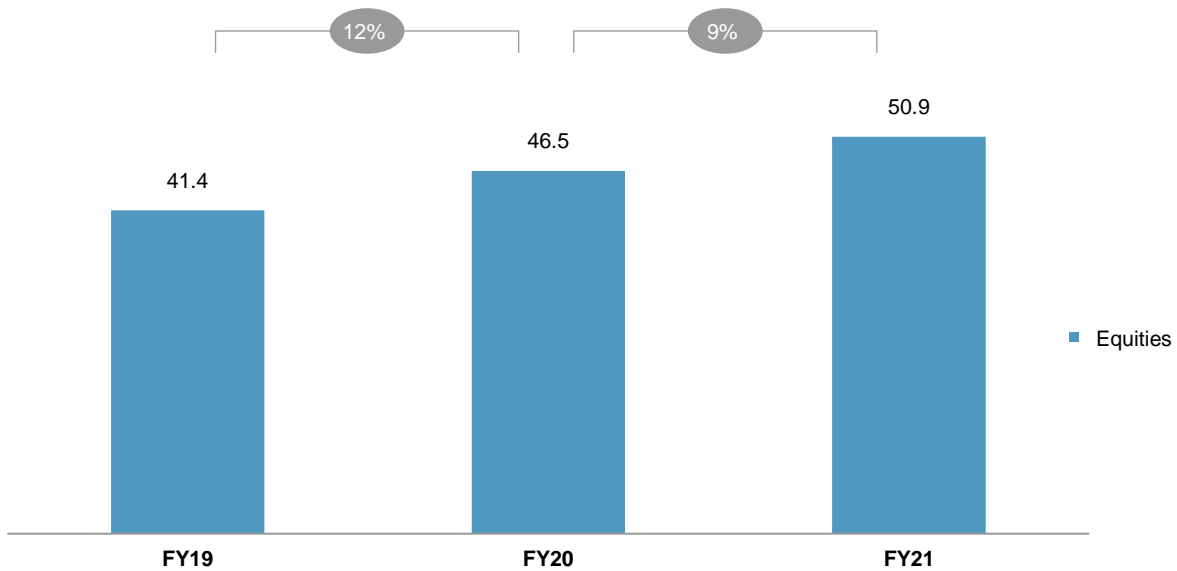


Source: Coalition Greenwich Proprietary Analytics

Including Archegos Impact

Strong results in Structured products on the back of robust retail client activity coupled with improved results in Delta One and Cash Equities was partially offset by significantly lower revenues in Synthetics due to Archegos losses and normalized results in Flow Trading in a more stable environment.

Figure 5. Equities Revenues (incl. Archegos Impact) (USD Billion)



Source: Coalition Greenwich Proprietary Analytics

IBD

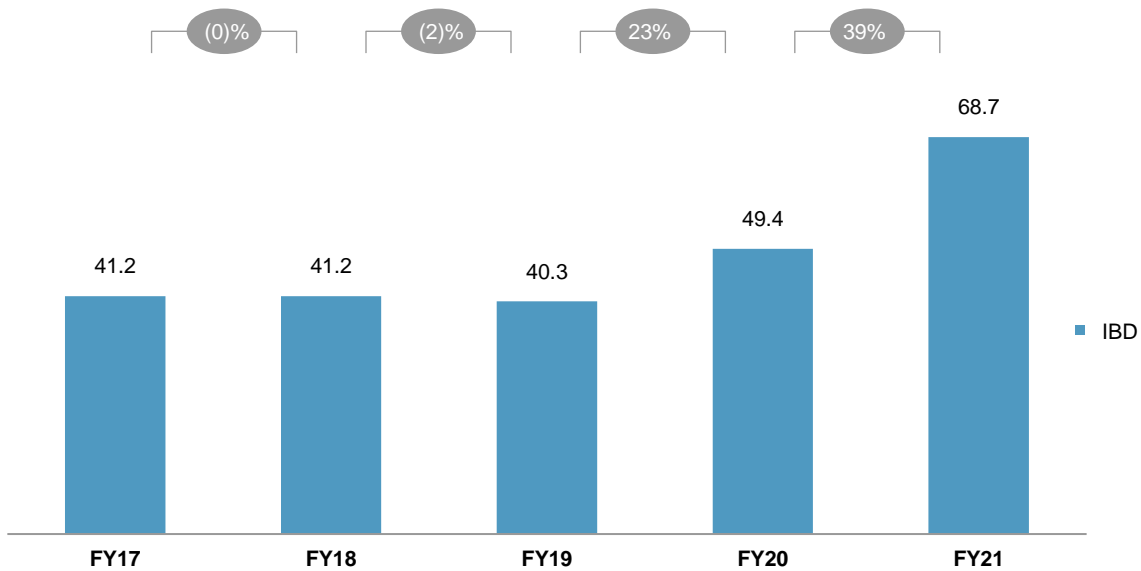
Increased revenues due to robust M&A, Equity Underwriting and Loan Syndication activity. Bond underwriting declined marginally.

M&A: Robust M&A performance due to exceptional deal completion activity of large deals and strong pipelines throughout the year.

ECM: A strong IPO performance, supported by record SPACs in the first half of the year, drove higher revenues in Equity underwriting.

DCM: Moderate increases as a robust performance in Leveraged Loan Syndication activity was offset by a decline in US High-Grade Bond issuances.

Figure 6. IBD Revenues (USD Billion)



Source: Coalition Greenwich Proprietary Analytics

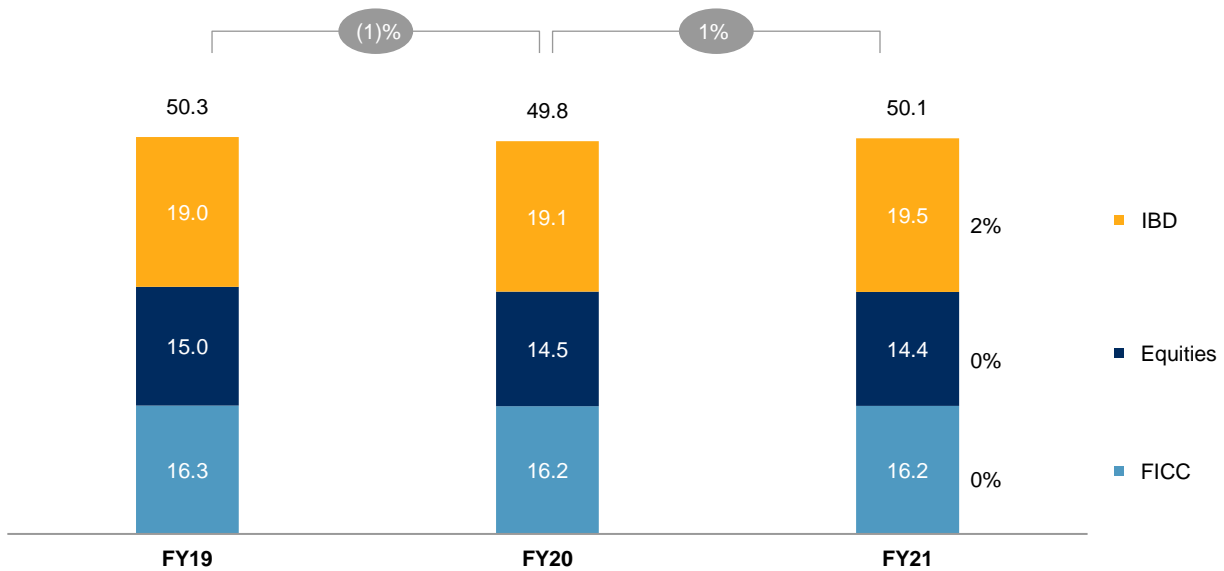
Headcount

European Equities peer headcount was largely driven by recent BNPP acquisitions (mostly in Cash Equities and EQD). However, American peer's headcount remained flat.

Fixed income headcount remained flat driven by increases in spread products (especially in EM Credit) offset by declines in G10 Macro. EM Macro headcount increased as banks invested, especially in Asia

IBD Headcount increased across all banks with significant hiring across M&A and ECM to meet increased client demand.

Figure 7. Front Office Producer Headcount by Business (FTE '000s)

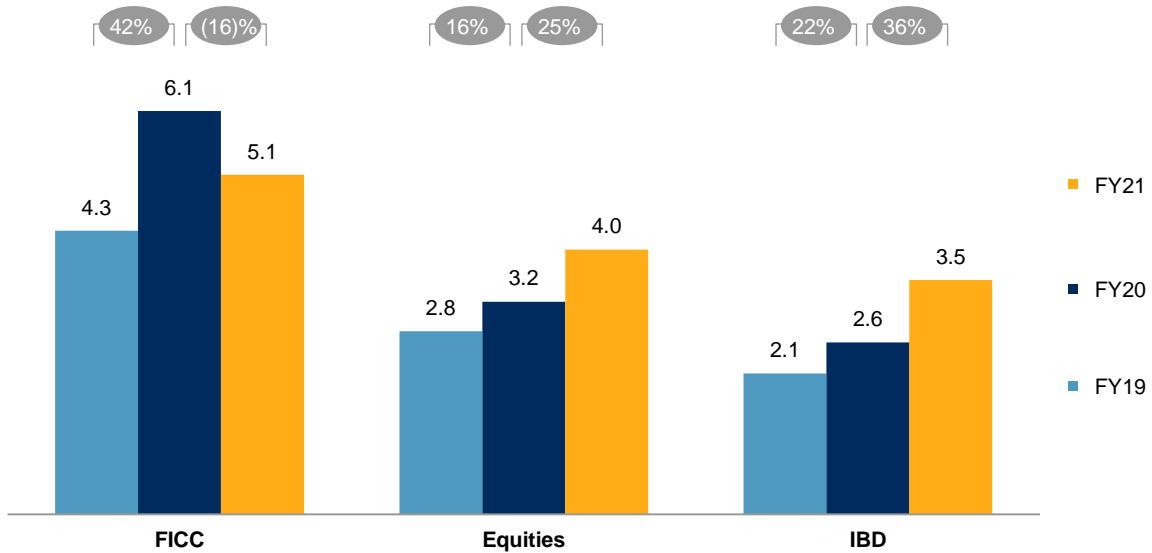


Source: Coalition Greenwich Proprietary Analytics

Productivity

Increased productivity in Equities was driven by sizeable growth in EQD and Prime revenues with limited increase in Headcount. In FICC, the decline in productivity was driven by notable decreases in revenues from a strong FY20 (especially Macro). IBD productivity grew as revenues increased 37% and headcount only increased by 2%.

Figure 8. Productivity by Business (USD Million/FTE)



Source: Coalition Greenwich Proprietary Analytics

Operating Margins

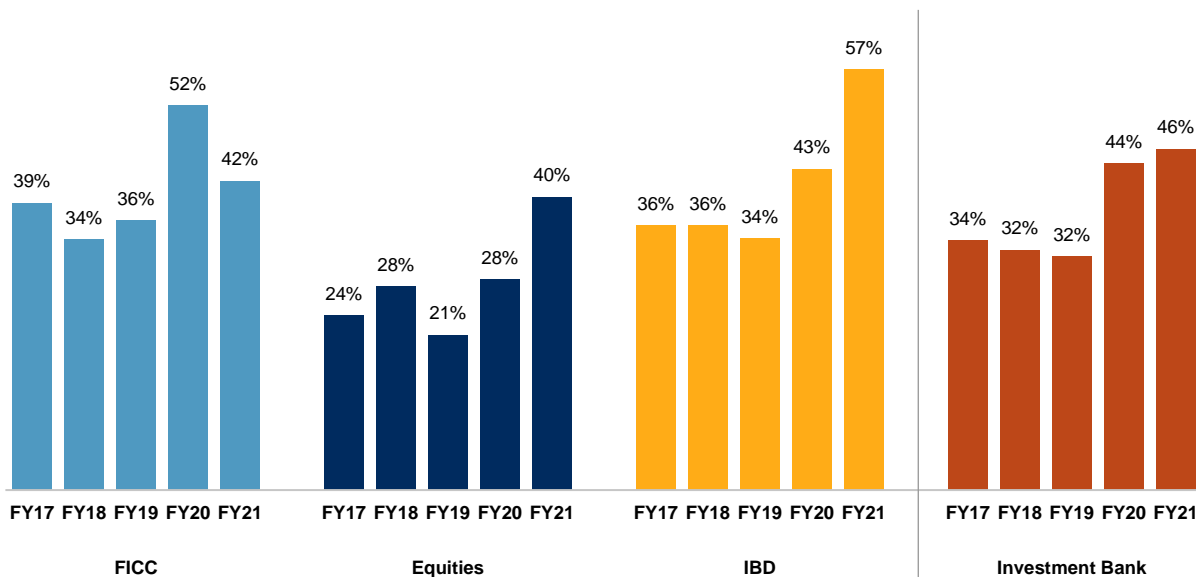
Investment Banking operating margins (excluding the effects of Archegos) improved by ~two percentage points, surpassing the previous five year trends. This was driven by record level revenues mainly in IBD and Equities. This was partially offset by higher Compensation, normalization in Professional fees and Travel & Marketing expenses, and continued investment in Technology, Risk and Control functions.

FICC: Operating margins dropped by ten percentage points, normalizing to the FY19 levels. This is attributed to lower revenues and continued investments in the business, technology spend, especially in Rates & Credits, and continued regulatory pressures.

Equities: Record increases in revenues coupled with material restructuring in certain banks helped improve the margins by ~12 percentage points. This was partially offset by higher Compensation and Technology spend. After factoring in the impact from Archegos losses, the margin improved by four percentage points YoY.

IBD: Improved margins driven by significant uptick in revenues, mainly in M&A and ECM, partially offset by increased compensation and normalisation of Travel & Marketing expenses and Professional fees.

Figure 8. Operating Margin by Business (OMR, %)



Source: Coalition Greenwich Proprietary Analytics

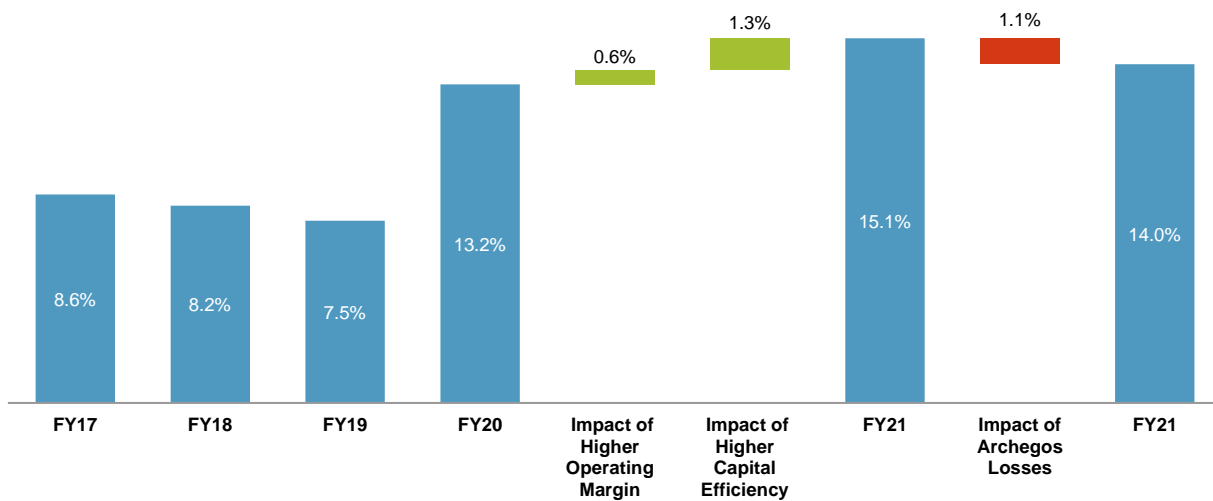
Return on Equity (RoE)

On average, RoE for the index banks excluding Archegos losses increased c.1.9 pp to 15.1% in 2021 driven by strong capital efficiency and better operating margins

Capital allocations to Investment Banks remained muted relative to 2020 levels as a result of re-deployment of leverage balance sheet from FICC to Equities to facilitate client demand

RWAs too remained stable relative to 2020 levels as client activity-driven growth in credit risk was offset by lower market risk as a result of normalization in volatility.

Figure 9. Return on Equity for Investment Bank (%)



Notes: Post-tax RoE (tax rate = 30%) with Capital calculated on both RWA and Exposure.
Source: Coalition Greenwich Proprietary Analytics

Appendix: Methodology

The Coalition Index tracks the performance of the 12 largest Investment Banks globally. The Index comprises:

- 2017 to 2021: BofA, BARC, BNPP, CITI, CS, DB, GS, HSBC, JPM, MS, SG, UBS
- The Coalition Index is refreshed for 1H and FY

Results:

- Numbers may not add up due to rounding.
- Percentages are based on unrounded numbers.

Sources:

- Public domain information including financial disclosures, investor presentations, media articles
- Independent research
- On-going validation by an extensive network of market participants

Methodology:

- Performance is benchmarked against CRISIL Coalition's Standard Product Taxonomy
- Adjustments are made to publicly reported performance. Examples:
 - Exclusions: write-downs, non-core, ring-fenced Proprietary Trading, Principal Investments/ Private Equities and products that are reported in non-Investment Bank divisions (even if they appear in the Standard Product Taxonomy)
 - Accounting adjustments: brokerage costs and gains/losses on own debt
 - Business structure adjustments: removal of non-Investment Bank businesses (e.g., Retail Foreign Exchange, Corporate Lending)
 - Legacy business adjustment: where reported within the Investment Bank, revenues from legacy portfolios and the relevant portion of internal joint ventures, are included in the respective products (e.g., Securitization, FX)
 - Exclusions: one off regulatory fines/legal settlement costs, amortisation of intangible assets and impairment of goodwill
- Coalition Headcount is defined as revenue generating front office headcount. Headcount is provided on a full-time-equivalent (FTE) basis.
 - Inclusions: Equities and FICC include headcounts in Sales, Trading and Research functions; IBD includes headcounts in Advisory, Coverage, ECM and DCM functions.
 - Exclusions: Front Office Administrative Staff, Temporary staff; Contractors and Supporting Functions (e.g., Middle Office and Back Office); Rotating Graduate/Trainees.
- Coalition Productivity is measured as revenues divided by revenue generating front office headcount.

Coalition Standard Taxonomy

Investment Bank	
Fixed Income, Currencies & Commodities (FICC)	
G10 Rates	Government Bonds, Swaps, Vanilla Options, Short Term Interest Rates/Money Markets, Repurchase Agreements, Exotic & Structured,
G10 FX	Spot, Forward, Options
EM Macro	Rates, Foreign Exchange
Commodities	Power & Gas, Oil, Metals, Coal, Agriculture, Commodity Investor Product
Credit	Investment Grade, Loan Trading, High Yield and Distressed, Exotic & Structured, Emerging Market Credit
Securitization	Asset Backed Securities, Commercial Mortgage Securities, Residential Mortgage-Backed Securities, ABS CDO; (Primary & Secondary)
Municipals	US Municipals (Primary & Secondary)
Equities	
Cash Equities	Direct Market Access, Program Trading, Shares & Block Trades
Equity Derivatives	Convertibles (Secondary), Flow Derivatives, Strategic Equity Transactions, Fund Derivatives, Warrants, Variable Annuity, Index & Single Stock Exotics, Hybrids, Custom Indices
Prime Services	Synthetic Financing/Delta 1, Equities Prime Brokerage, Fixed Income & Foreign Exchange Prime Brokerage
Futures	Equities, Fixed Income
IBD	
Mergers & Acquisitions	M&A, Advisory
Equity Capital Markets	Initial Public Offerings, Follow-on Public Offerings, Right Issues, Convertibles (Primary)
Debt Capital Markets	Bonds, Loans

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Coalition Greenwich is a leading analytics and business intelligence provider to the global financial services industry with unique analytics and insights for Corporate and Investment Banks, Asset Managers and Fintechs. We support Corporate and Investment Banks with their strategic and tactical decision-making in three areas:

- **Competitor Analytics:** Benchmarking revenues and headcount to assess competitive positioning and opportunities
- **Financial Resources:** Analysing costs, RWA, exposure and returns to understand efficiency and resources requirements
- **Client Intelligence:** Quantitative franchise benchmarking through sizing individual client wallets across Institutions and Corporates to assess opportunities, coupled with qualitative voice of client feedback, to define an actionable client strategy (recently launched Q² offering)

Coalition Greenwich is a business division of CRISIL, a global, agile and innovative analytics company driven by its mission of making markets function better.

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