CAPITAL MARKETS IN 2021

SEVEN KEY THEMES IMPACTING GLOBAL MARKETS

SPEED READ

- The industry has largely weathered the primary impacts of COVID-19, whilst broadly containing the operational risks of a rapid transition to a remote working environment. However, the pandemic has exposed stress points which will be the focus of banks and regulators for the coming years.

- There are opportunities for banks to optimize their operating models, refine location strategy, deploy new technologies and leverage their data. This will help generate growth and increased economic returns for the industry. The promise of innovative technologies is present but navigating legacy infrastructure effectively is key to unlocking this promise of digital, value-driven operating models.

- The pandemic will serve as a catalyst for transformation initiatives, driving the adoption of operating models that are not only value-driven but also more automated, increasingly data enabled, and supported by technologies such as cloud, distributed ledger, intelligent automation, and AI. Adoption of these capabilities will deliver client and shareholder value, reduce risk and lower costs (and in part a variable cost structure), a long-desired goal for the industry.

- ESG considerations will drive a transformative effect within front to back operating models and will drive a material focus on data capture and analysis in the lifecycle to support the industry's efforts to become 'net zero' and be able to report that outcome with confidence.

MOVING FROM 2020 INTO 2021

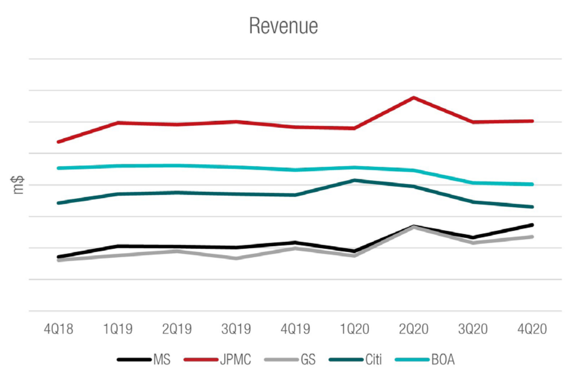
The industry has weathered the initial impacts of COVID-19 through the rapid adoption of remote working and technical evolution from existing business continuity plans. Many global markets trading desks have benefitted from the short-term market volatility and trading volume spikes. Results across the board have been respectable and, in many cases, noteworthy.

The themes resulting from 2020 are:

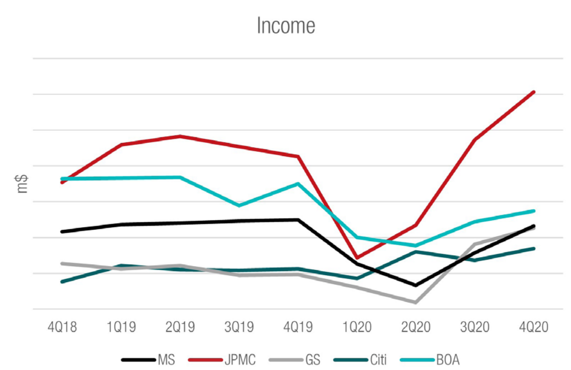
1. The return of profitability for global markets players
2. An increased focus on resiliency and bank's operating models
3. Continued systemic risk made visible by the crush for collateral and liquidity, buffered by extraordinary actions taken by global regulators and central banks.

We have seen a positive upside regarding the industry's capability to adapt through the COVID-19 pandemic, yet the challenges and opportunities evident for the last few years are still to play out, and investment to address them is only likely to accelerate in 2021.

UNITED STATES



Banks' revenue remained constant through the pandemic. There was a noticeable impact on RoE and profits in the first half of 2020.



Overall, US banks have been largely resilient to the pandemic, and those with strong global markets and trading divisions have been able to bounce back quickly by taking share from competitors in volatile market conditions.

Source: Capco Research

FOCUS ON 2021

This moment presents an opportunity for firms to reassess, re-evaluate and challenge the efficiency and effectiveness of their business model, operating model, and strategy. Further investment in resilience, enhanced digitization, unlocking the value of data, acceleration of legacy retirement, and value-driven operating models will all be key themes of the transformation ahead, hastened by the pandemic.

This is a defining moment for capital markets leadership. The top firms in the industry are reimagining operating models through new technology and new ways of working, tapping into the cost and risk benefits offered by automation, digital enablement, data insights and next level operational resilience. Change is driven from outside as well – for example, ESG considerations are top-of-mind for investors, regulators, and banks alike. The emergence of cryptocurrencies and their move into mainstream will present further opportunity and challenge.

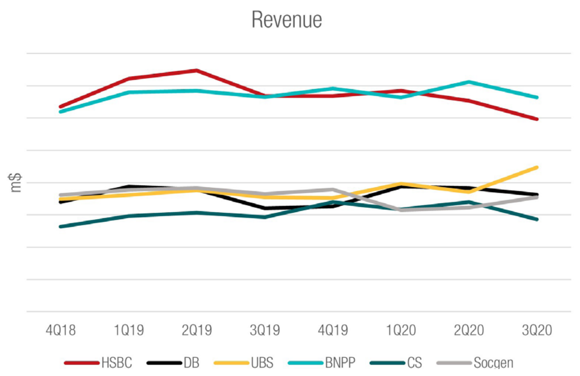
Operating models are becoming more value driven, and we are seeing a push toward Agile front to back. Many banks are transforming the way they deliver change, embracing new ways of working whilst bringing business & technology change colleagues together. Structuring delivery into cross-functional value streams and nimble execution-oriented pods enables holistic transformation of key business areas and critical functions.

Data management frameworks are shifting to focus more on unlocking the value of data and analytics at the business level, while moving away from solution-driven initiatives in search of a successful business implementation i.e. data lakes and the like. The constraining impact of legacy infrastructure is particularly acute when enterprises seek to unlock the value of data at the highest level, while moving towards more value-driven organizational constructs.

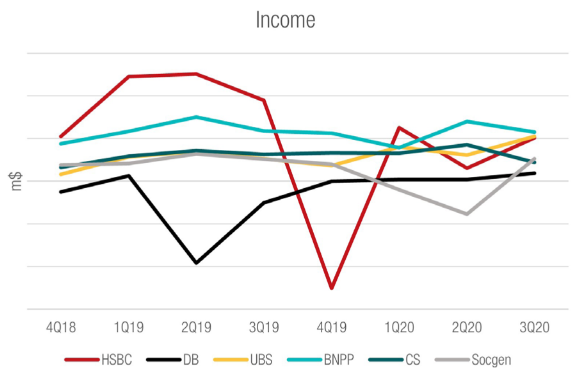
Organizations are re-assessing their global location strategies in the context of modern technology and the opportunities presented. These operating models will take into account the combined benefits of proximity and the technical evolution of our distributed working environment. The operating models must be achieved by embracing the impact of artificial intelligence, natural language processing and machine learning to adapt the dichotomy of 'automated vs. manual' as it relates to concentrations of resources. The human capital implications of this evolution will be non-trivial as workforces will need to be re-skilled and likely reduced in size to accommodate the operating model reshaping.

We have identified seven key themes that we believe will be the key focus in 2021 for global markets players. In a series of seven papers, we will explore the following key topics.

EUROPE



Mixed picture for European banks: COVID-19 did not worsen the situation, and mostly results were respectable.



Overall, while the European banks were resilient in the crisis, they were not able to bounce back from it as swiftly as their US counterparts or gain new market share.

Source: Capco Research

1 RIGHT-SIZING THE LEGACY AND OPTIMIZING COSTS FRONT TO BACK

The period of growth, merger and acquisition activity and regulatory investment over the last 30 years has left many global markets organizations with an overly complex operating model and architecture. Legacy technology in financial institutions has accumulated over a long period of time due to the ongoing emergence and evolution of regulatory requirements and shifting business imperatives. Business decisions made to meet these requirements have not always considered the sustainability of the IT infrastructure, resulting in an often overcomplex architecture which is more difficult to change and in some cases is less able to integrate with the enterprise.

Given this backdrop and the recent global challenges, it is important for global markets players to reassess their IT infrastructure to ensure that it is still fit for purpose and is modern enough to allow for the opportunities presented by cloud, artificial intelligence, and data analytics. There are no quick fixes but having a clear roadmap to architecture modernization and simplification is essential in order to remain competitive.

The right-sizing efforts (in some cases consolidating down to fewer or even single platforms for one or multiple asset classes, front to back), increased adoption of cloud technology, modern architecture paradigms and environments, fintech solutions including ecosystem utilities, digital solutions (such as intelligent automation, microservices, low code/no code), and an increasing overall vendor maturity facilitate new and viable alternatives to solving legacy platform challenges and reducing complexity.

This diverse toolkit enables a number of advantages which go beyond merely cost savings on platform maintenance, including capacity and quality wins, functional improvements, vendor-related benefits, and infrastructure sustainability improvements.

Global markets players will need to invest in architecture modernization to remain competitive, and this will require a multi-year focus. The prize is likely to be a 20-30 percent run rate reduction in IT spend and a lower change budget going forward on a like-for-like basis – plus the ability to cope with capacity volatility – a prize long desired by the industry.

2 GROWING REVENUE AND MARKET SHARE

The core growth challenges facing firms – such as shifting revenues, optimization of capital deployed, quality of client service and rising infrastructure costs – long predate 2020. Global markets firms should not wait until the global pandemic recedes to ramp up their efforts to tackle these issues in earnest.

We see three trends evolving as investment banks, exchanges, and other players head into the post-2020 world and position for growth. Firms must consider the following strategies and determine their optimal approach:

Smart Prioritization of the Core:

- Liquidity and RWA optimization – having a flexible framework to deploy financial resources for greatest return.
- Which regions and markets require focused commitment, with capital deployment and management alignment to the relevant regions and markets. Asia is increasingly a key opportunity for many players.
- Which businesses to properly focus and scale – leverage organizational strengths, and scale from that position of strength.
- The emergence or cryptocurrencies and their move into mainstream will present further opportunity and challenges. Likely first movers will have a significant advantage.
- Capitalize on the rise of retail investing strength in terms of new customer segments and tailored services. Expand 'institutional' products to unlock untapped client potential (e.g., retail, private).

Digitize Customer Journeys and Smart Leverage of Data:

- Start with the customer experience in mind. Align customer-facing technology as far as practical with digital efforts and digitize customer journeys end-to-end. Key examples are the deployment of technology to streamline customer onboarding or to modernize the IPO process.
- Use data and analytics to augment electronic customer-facing platforms to improve capabilities and automatically generate client leads or potential trades.
- Be agile and consider aligning business and technology change teams more closely to allow a more rapid response to key opportunities.

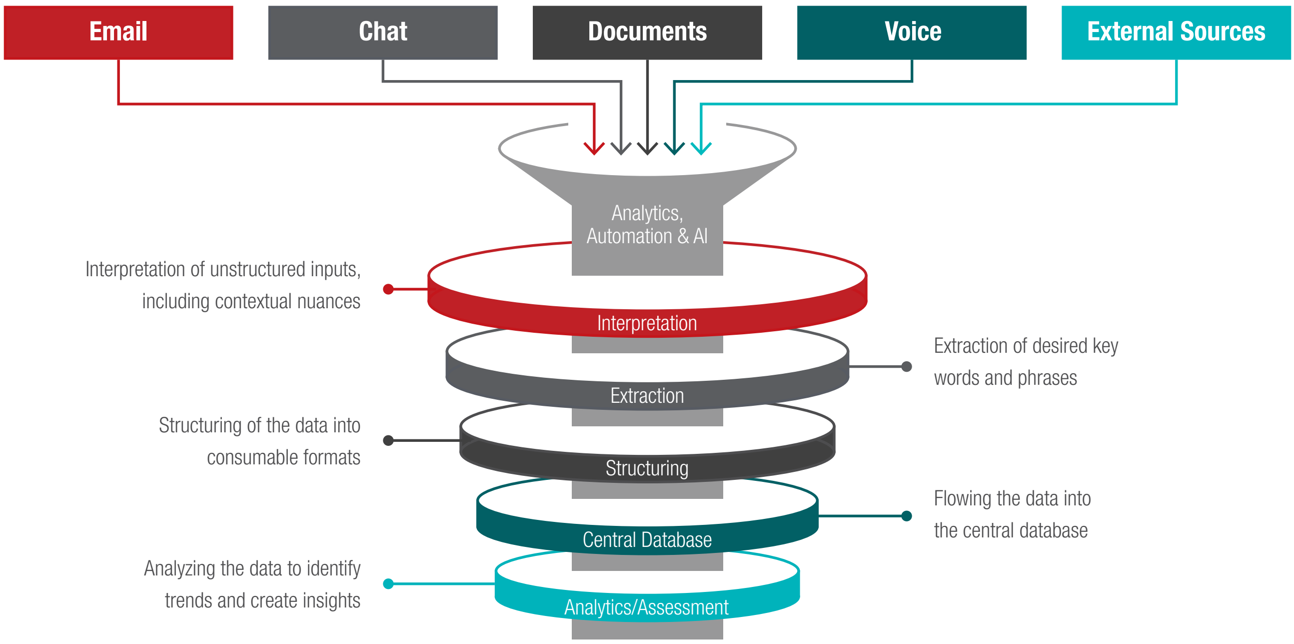
Acquire or Divest Decisively:

- Where firms see an opportunity but are sub-scale, look to acquire via inorganic strategies. With a global glut of investible capital, we expect to see increased M&A activity in that regard in 2021 and 2022.

- Some businesses and markets will not generate sufficient returns, and therefore the organization's interests will be better served via divestment.

REALIZING THE VALUE OF DIGITAL CAPITAL MARKETS

In today's world, digital has become the go-to answer for global markets firms looking to solve age-old problems and gain lasting efficiencies. The breadth of off-the-shelf solutions that have surfaced in the areas of cloud computing, robotics, intelligent automation, and artificial intelligence (AI) promise cost optimization and growth in an industry that is still embracing the potential of digital.



The near-future opportunities for financial institutions to differentiate themselves and the key trends around digitizing global markets organizations are as follows:

- Increasing deployment of intelligent automation solutions that use artificial intelligence (AI) technology to streamline the processing of customer journeys. A key use case is to deploy these technologies to accelerate onboarding timeframes and make them far less intensive from a customer perspective. Automating responses to inbound emails and the deployment of workflow technologies can reduce material effort around entrenched email-based working practices, thereby reducing costs.
- Use of regtech to ease the burden of overly costly regulatory compliance, particularly in the areas of AML compliance and transaction reporting.
- Increasing focus on expanding customer-facing data & analytics capability, as well as internal capability to improve costs, reduce risk and provide insight.
- Enhancing automation in traditionally 'hard to automate' areas such as corporate actions processing, using vendor-based solutions that are growing in maturity and functionality (and are more straightforward to implement via cloud infrastructures).
- Pushing ever more customer activity onto dealer electronic platforms to automate interactions and improve capabilities (particularly in the area of data & analytics) thereby improving customer stickiness.

DLT should be seen as a key enabling technology to simplify and reduce costs in the capital markets ecosystem. DLT provides efficient and resilient information transfer that is expected to have the potential to save capital markets billions in operating expenses in the future. We view the industry as being at a unique crossroads of DLT solution development and adoption that positions it as a near-term opportunity that can transform operating models within the next year. Specifically, we anticipate its application to the post-trade settlement process will be the next trend. Beyond instant settlement of cash and treasury transactions, DLT/blockchain can also be leveraged for equity and commodity settlements, offering benefits around liquidity and risk management.

However, realizing the value will take more than the mere deployment of new technology. The most successful adoption of the digital toolkit requires significant organizational recalibration. Realizing lasting value will require changes to delivery models along value-stream lines, as well as a significant reskilling of the workforce for both delivery and ongoing service provision. With these technologies, the nature of work changes to be more exception-based and analytical in nature, and hence the skillset required will change in line with that evolution.

4 MAKING DATA WORK FOR THE ENTERPRISE

Data is an asset that can serve as a key differentiator for global markets firms. Increasing volumes continue to increase the value of data, providing competitive advantage to those who can unlock its potential within capital markets. Whether a bank is providing bespoke client services, integrating external services, enabling decision making, eliminating manual work, reducing operational risk, or reducing time spent on low-value high-frequency tasks, the future of value creation across the enterprise is rooted in data.

New technology and an ever more connected capital markets ecosystem places data at the heart of bank operating models and strategies to better serve customers, drive product creation, lower cost and reduce risk. Being able to harness integrated and quality datasets is key to derive value from enterprise data and enhance competitive differentiation, automation, and operational resilience. ESG considerations will place an even greater emphasis on the accuracy and utility of the data ecosystem.

Legacy and siloed infrastructure, unstructured and inconsistent datasets present challenge and increased costs for organizations to extract value. There is a clear opportunity to address this challenge for the better as architecture modernization efforts are underway, with increased data standards, governance and lineage embedded within the fabric of the organization. The cloud journey in itself presents a clear opportunity.

We see five core trends:

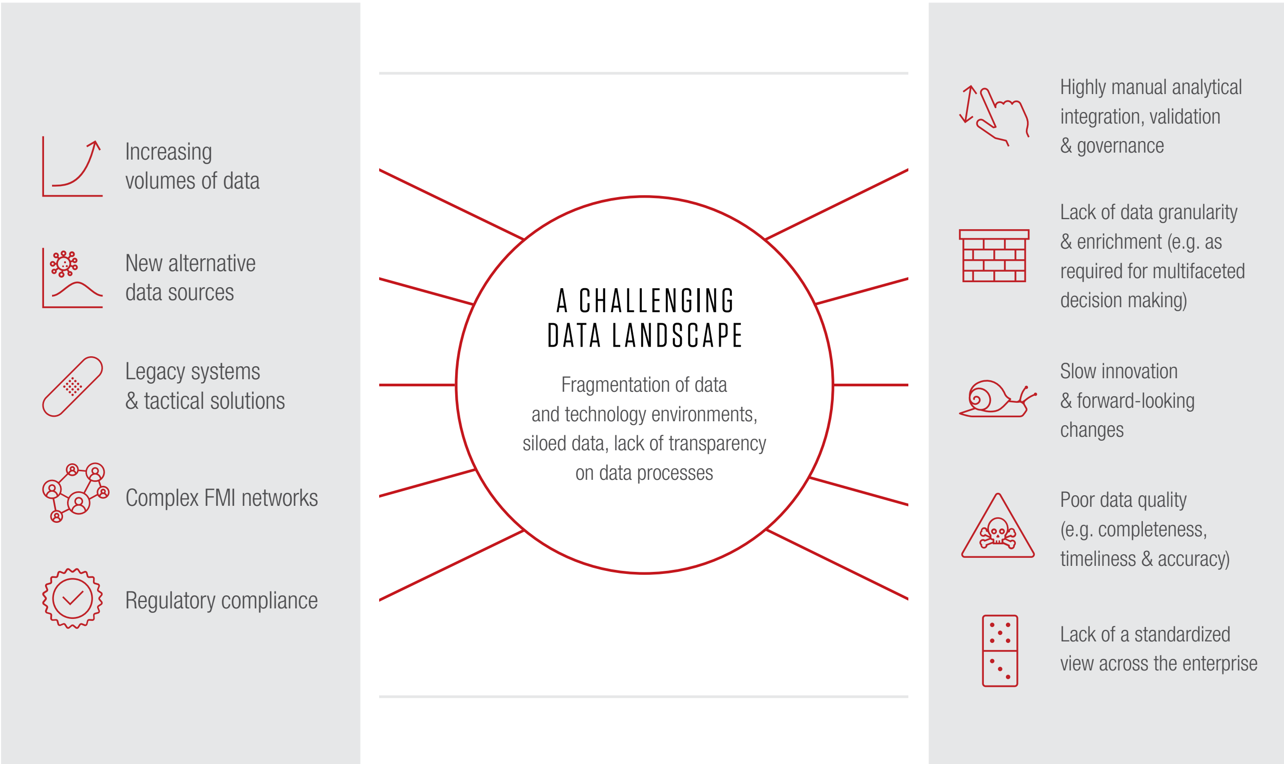
- Banks are placing data at the core of their customer-facing electronic platforms to further increase their value proposition. There will be ongoing investment in this area to deliver differentiation.

- Data is a key focus of regulatory efforts and being able to prove quality and provenance is critical. There will be material investment to ensure quality, including reference data strategies, product taxonomies and master data strategies to ensure a single source of customer and transaction data. Data analysis can also be used to support compliance with post-trade regulations and operating model changes such as CSDR.

- Leading banks will be investing heavily in data sourcing, analytics capability and use of external data sources (for activities such as automating KYC reviews).

- Data literacy is a critical enabler given the value of data, and the ability to deliver key tooling to the front-line end user will provide further advantage. Data functions will provide increasingly important career journeys with dedicated learning pathways.

- Using and understanding data to manage ESG considerations and provide the required transparency. This is likely to need a material revamp of the data captured from external sources such as suppliers and the granularity of the data model at transaction, product & client level.



MANAGING THE REGULATORY BURDEN IN 2021 FOR COMPETITIVE ADVANTAGE

Going into 2021, firms will be faced with a diverse and challenging change agenda across a portfolio of current and upcoming regulations. These include the phasing out of the Interbank Offered Rate (the IBOR transition) and Capital Requirements reforms (CRRII & CRDIV, including complex calculations for market risk capital requirements under the Fundamental Review of the Trading Book (FRTB).

Firms will need to closely monitor ongoing industry consultations and regulatory reviews of the vast and continuously evolving requirements set out under the Markets in Financial Instruments Directive/Regulation (MiFID/MiFIR), as well as preparing themselves for the final implementation phases of the upcoming Uncleared Margin Rules (UMR). Compliance with emerging regulations regarding cryptocurrencies will also need to be considered.

The UK's Financial Conduct Authority is leading the way in respect of new regulatory obligations to strengthen operational resilience in the financial services sector. In addition, firms operating within the European region will need to carefully navigate the challenging and potentially divergent implementation across the UK and the EU of the Settlement Discipline requirements set out within the Central Securities Depository Regulation (CSDR). At the same time, they will need to continue to monitor the ongoing debate around market access and regulatory equivalence in the post-Brexit environment.

2021 will also see an increased focus on sustainable finance. While regulatory guidance around ESG monitoring and reporting is still taking shape, there is already a clear focus on green change initiatives. In addition, there is a clear focus on operational resilience within an ESG framing, with local regulatory regimes pressing for change in this area.

Given its significant cross-functional impact, regulatory compliance needs to be viewed holistically across the organization as a whole, rather than as a segmented compliance or operational responsibility. As regulatory change initiatives continue to monopolize investment spend, firms should view this as an opportunity to differentiate themselves from their peers and gain a competitive edge.

2021

Q1

11 January 2021 SFTR
Non Financial Counterparties, excluding those in the UK

10 March 2021 ESG: DISCLOSURES
Disclosure obligations apply

Q1/Q2 2021 OPERATIONAL RESILIENCE
Regulatory requirements

SEC **1 January 2021**

Solvency II **January 2021**

Volcker 2.0 **1 January 2021**
Compliance date

EMIR REFIT & EMIR 2.2 **2021**
Further phasing in an updates expecting on the EMIR regime review and amendments

MiFID II **End of Q1 2021** - ESMA Consultation process
Early Q3 2021 - Final Report submited to EC

FRC Stewardship Code **31 March 2021**
Next report

Q2

26 June 2021 (EU) IFD / IFR

SM & CR **31 March 2021**
Revised go live

NSFR **June 2021 (UK)**

CRR II **June 2021**

Q3

Q3 2021 FRTB
Report updated capital requirements under FRTB Standardized Approach

SCA UK Deadline 14 September 2021 PSD2 & Road to PSD3

MiFID II **Q3 2021**
ESMA to submit final report to the EC

UMR Phase V **September 2021**
Revised go live

PRIIPs / KID **2021**
UCITS KID Exception ends / RTS amendments

RAF **October 2021**
Go live extended

Q4

Q3/Q4 2021 ESG: Various
MiFID II, UCITS, AIFMD, Solvency II amendments expected to apply

UCIDS / AIFMD **Q4 2021**
Anticipated entry into application of amendments

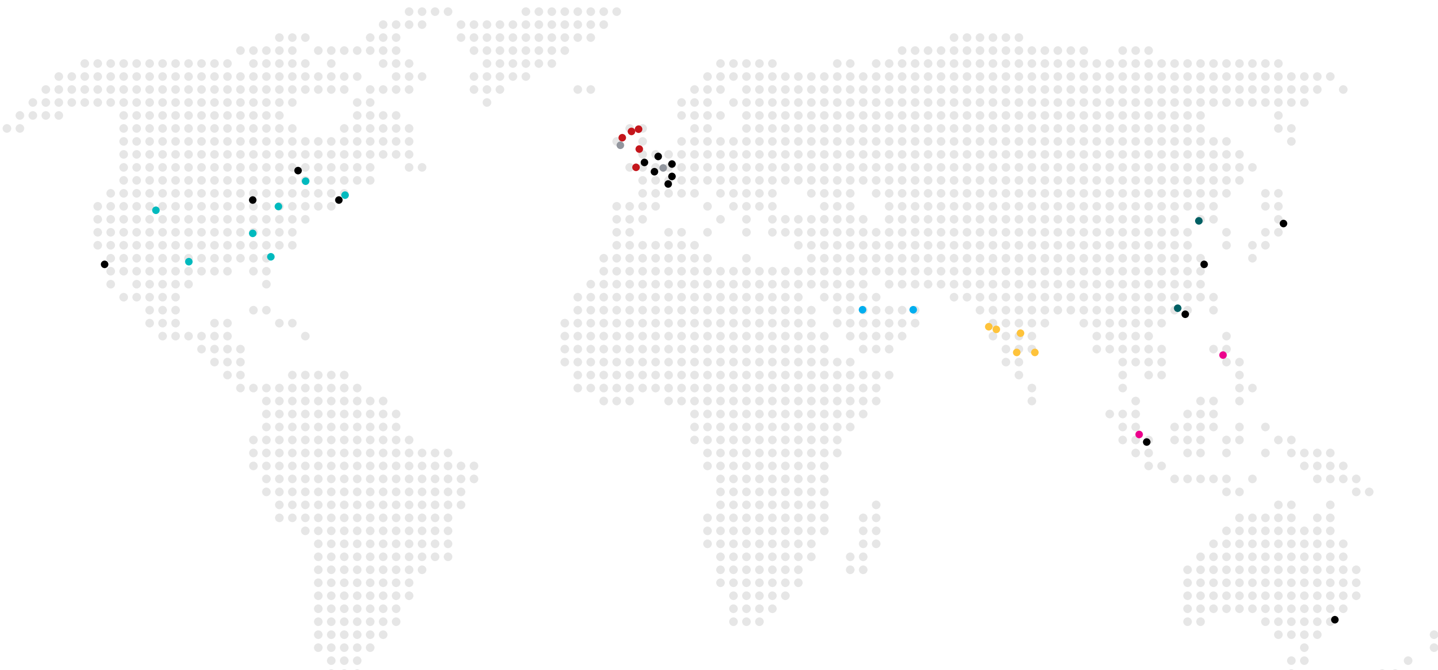
PRIIPs / KID **31 December 2021**
UCITS KID exemption ends

6

NEXT GENERATION LOCATION STRATEGY

Operating models and location strategies for banks are always under review as the often mutually exclusive pressures and forces of customer intimacy, relationship management, availability of talent, costs, and regulatory concerns intersect and evolve. There is no 'one size fits all' model.

There has been a broad consensus that front office presence should be maintained in key global financial centers, with support functions to varying degrees serviced from offshore and near-shore centers. The technology function is often Asia-centric in deployment (with an emphasis on India), particularly for application development and infrastructure support activities. Near-shore and regional delivery centers have come to the fore during the past 10 years, with material investment in out of metro centers such as Birmingham in the UK, Scotland, Poland, and Florida, Texas, and other Southern states in the US. This is not an exhaustive overview by any means, and many other countries and models have been utilized.



Major financial markets hubs

London, NY, LA, Chicago, Toronto, Paris, Zurich, Geneva, Frankfurt Amsterdam, Singapore, HK, Shanghai, Tokyo, Sydney

Asset servicing / Custody centres

Dublin, Luxembourg

Middle East Regional Locations

Dubai, Riyadh

UK Regional Locations

Birmingham, Belfast, Edinburgh, Glasgow, Bournemouth

US Regional Locations

New Jersey, Buffalo, Austin, Columbus, Jacksonville, Nashville, Salt Lake

India Regional Locations

Bangalore, Mumbai, Chennai, Pune, Hyderabad

China Regional Locations

Dalian, Guangzhou

Asia Regional Locations

KL (Malaysia), Manila (Philippines)

Given the pandemic and attendant resilience concerns, there will be a rethink of this strategy and an opportunity to change the model:

- The perceived success of remote working will allow some banks to further reduce their real-estate footprint in metropolitan centers.

- However, resiliency concerns are likely to mean some activities that were India-centric may be brought back to HQ locations or near-shore locations to reduce reliance on single centers for processing. For those banks where costs and scale are of particular concern, India remains an attractive option as a processing center.

- The emergence of agile methods and the need for customer intimacy is changing the math on location strategies. This means it may be more efficient to deploy transformation efforts onshore and have key IT and change delivery capability in those onshore locations.

- The on-going digital technology deployment will likely mean that more commoditized activities, such as securities processing, may be increasingly automated. This will reduce the size of offshore processing centers and also change the nature of the skills in demand.

It is clear that location strategies and operating models will continue to evolve as organizations aim to optimize along cost, expertise and growth lines.

7

CLOUD 2.1 – WHERE TO IN 2021?

Offering agility and scalability, the cloud has played a key role as firms have mobilized rapidly to counter the operational stresses and wider market turmoil arising from COVID-19. The world's virtualized infrastructure, data and applications have, on the whole, shown real flexibility and resilience in the face of an unplanned, sudden and huge dislocation in how the world works and lives.

Most financial institutions are at some stage along the path to cloud adoption and are already benefitting from some of this flexibility, but this is a journey which now needs reassessing. How do you quantify costs and benefits in an extremely uncertain world? How do institutions make the most of the tools that are available to them? And what might happen next?

At a time when organizations are looking to deliver immediate cost reductions while also trying to minimize the long-term impacts of recent volatility on their businesses, cloud technology can help businesses save on costs in the short term while also creating a foundation for rapid growth and innovation in the future. However, the reduced friction around provisioning infrastructure also drives the need for strong governance and control of a firm's cloud utilization.

The resilience demonstrated in the past year has given a boost to many of the arguments supporting more widespread cloud adoption. But maximizing these benefits, and doing so in a safe, resilient and secure manner demands appropriate care and attention.

There is no doubt that over the next few years, there will be a continued and increasingly material shift to cloud as the dominant compute and storage model in the financial services industry. The myriad use cases are being explored by leading global markets firms and all of the leading cloud service providers – from compliance with the compute intensive requirements of FRTB regulations to transforming how the finance function operates, there will be a marked increase in cloud adoption in 2021.

CONCLUSION

Recent demonstrations of resilience and creativity, and the swift emergence of a path forward post COVID, instils faith in global markets firms' ability to transform both themselves and the way capital markets work.

The pandemic will continue to serve as a catalyst for transformation initiatives, driving the adoption of operating models that are more automated, increasingly data-driven, and supported by technologies such as cloud, DLT, intelligent automation and AI. Adoption of these innovations will help deliver lower cost, value-driven operating models, a long-desired goal for the industry. This is a key focus for 2021.

This is the moment to reassess and reimagine operating models through new technologies and new ways of working, tapping into the cost and risk benefits offered by automation, digital enablement, data insights and next-level operational resilience.

The winners who emerge from the pandemic will be those global markets players that recognize and embrace this opportunity. 2021 will be characterized by an acceleration of transformation efforts to remediate deficiencies that have largely been hidden during the prolonged bull market of the last decade.

This will include projects to enhance digital channels and deepen end-to-end automation, as well as leverage data-driven models and solutions. Cost reduction related transformation will be a key theme. Remote working will be further ingrained within value-driven operating models. Further investment in resilience, enhanced digitization, unlocking the value of data, acceleration of the retirement of legacy systems, and value-driven operating models will all be key features of the transformation ahead.

The whole world is hoping that 2021 will allow most of us to 'return to normal' – but the firms that lead the way in financial services have already begun transforming their organizations in preparation for a 'new normal' in the decade ahead.

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ABOUT CAPCO

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