EUROPEAN CORPORATE AND INVESTMENT BANKING

OUTLOOK 2019

EURO GROUP CONSULTING

EXECUTIVE SUMMARY

In this era of digial transformation, market volatility and an evolving CIB landscape, our report focuses on how European CIBs can find ways to optimise their cost base and re-energise their talent to bridge the gap with US CIBs.

Last year we identified the challenges presented by the growing global competition and analysed ways European banks could bridge the performance gap.

2018
OUR KEY FINDINGS

1	European CIBs must fully embrace digitalisation (as their US peers have already been doing), whereby digital initiatives will only be successful by aligning their strategy to the scale of disruption and maturity, and a combination of adopting new business models and embedding digital culture awareness
2	To survive the impending digital transformation, European CIBs need to bridge the gap to the new generation of the augmented banker who contains a digital mindset and skillset
3	European CIBs need to decide where they want to play and how to win dependent on their digital capabilities ambition, grasping the product and client axis opportunities for growth before them
4	As well as digital leadership, building resilience in the current evolving competitive CIB arena requires a very high level of agility, client centricity and efficiency

HOW CAN EUROPEAN CIBS NAVIGATE THROUGH TURBULENT TIMES AND CAPITALISE ON THEIR TALENT POOL?

This year, our report focuses on how European CIBs address challenges across the top line, bottom line and talent pool. Our study encompasses both primary and secondary research alongside with qualitative and quantitative data as well as interviews with numerous senior CIB executives.

2019

OUR KEY FINDINGS

1	In FY2018, a large majority of European CIBs experienced negative Jaws and find themselves in a difficult position, torn between regulatory requirements, much needed infrastructure investments and cost reduction imperatives to bridge the profitability gap with overseas competitors
2	US CIBs have strengthened their position outside their home borders notably as a result of a strong domestic market with a more favourable regulatory landscape. European CIBs have been crippled by stringent regulation and scarce resources, whilst attempting to implement cost reductions programmes to address their cost base
3	European CIBs must now consider drastic structural changes and address the fundamental constraints the industry is currently facing: cost inelasticity and revenue decline. They should focus on Asset Industrialisation and Structured Finance opportunities
4	In addition, European banks must consider the reshuffling of organisational models, alongside the implementation of innovative managerial practices, both essential to address evolving client-centric requirements and efficiency

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STATE OF THE NATION

01

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Ten years after the latest financial crisis, global Corporate and Investment Banks (CIBs) are benefiting from a bullish trend in corporate banking that has offset the declining revenues in capital markets activities. During FY18, the overall CIB revenues grew by +3.5%, mostly driven by Equity & Prime Services and a favourable exchange rate. However, by Q1'19 the Equities & Prime businesses had fallen by -21.6% causing a -10% YoY fall in operating revenue (1). With the outlook ahead looking bleak, CIBs, in particularly European CIBs, need to consider structural changes to protect their positions.

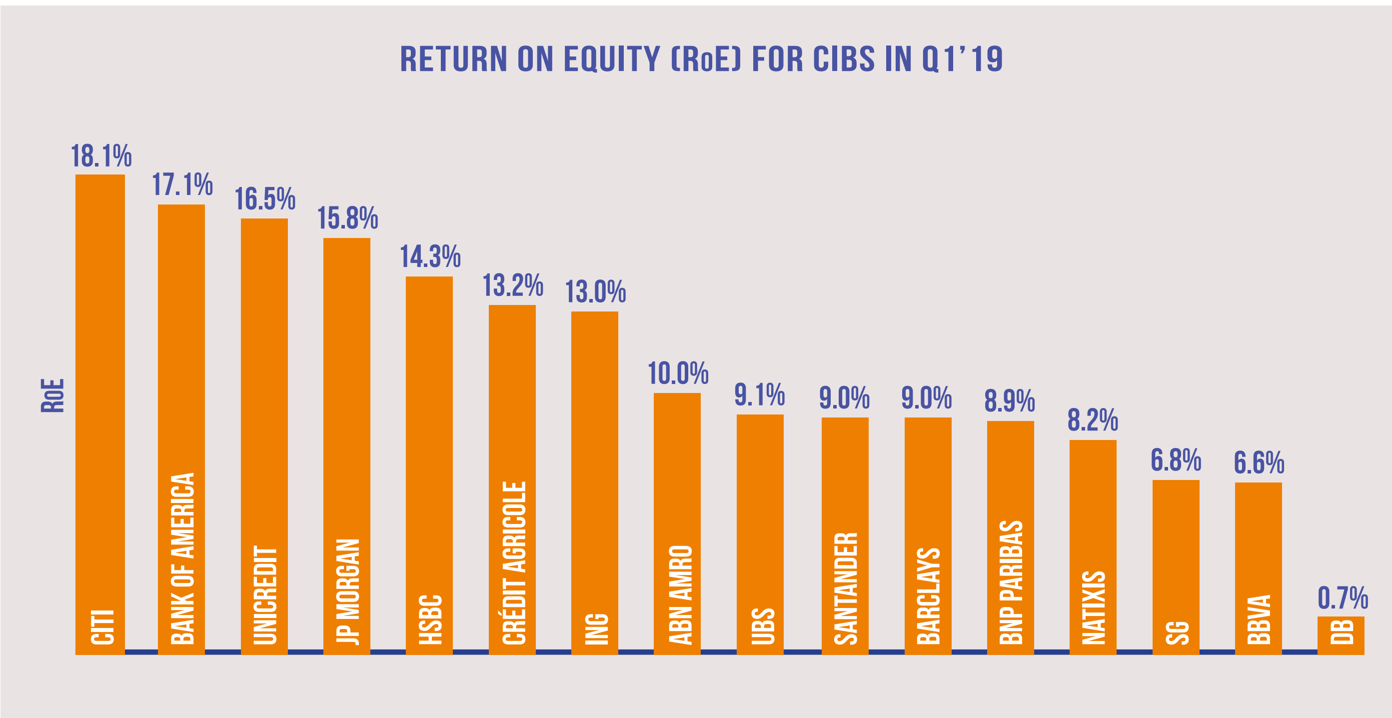
The 'war' between US and Europe CIBs continues, with US CIBs thriving once again whilst banking in Europe, particularly in Investment Banking, is in a sorry state. US CIBs have strong competitive advantages compared with their European peers. They enjoy a high level of concentration, consistent pricing discipline and a very large domestic market (2). They have demonstrated they are more profitable, tend to provide high quality of service, able to attract talent, and benefit from their regulators consistently taking a pragmatic approach. As a result, their market share in Europe has increased dramatically, at the expense of local competitors.

European CIBs on the other hand, are currently experiencing one of their most challenging periods: revenue growth has stalled due to the increase volatility in the market and unprecedently low interest rates, cost reduction programmes have struggled to keep pace with top line decline and are not delivering the benefits expected. A new wave of tougher capital regulations on the horizon is making it nearly impossible for European CIBs to plan accordingly and moreover, the introduction of remuneration caps for management has led to talent evasion, further hampering the strength of the European CIB industry.

If they are to survive on the world stage and their home markets, European CIBs should now consider drastic structural changes. These changes should embrace and address the fundamental constraints the industry is currently facing: cost inelasticity, revenue decline and talent evasion. We suggest they should look to do so through Asset Industrialisation, Structured Finance and Employee Engagement and Empowerment.

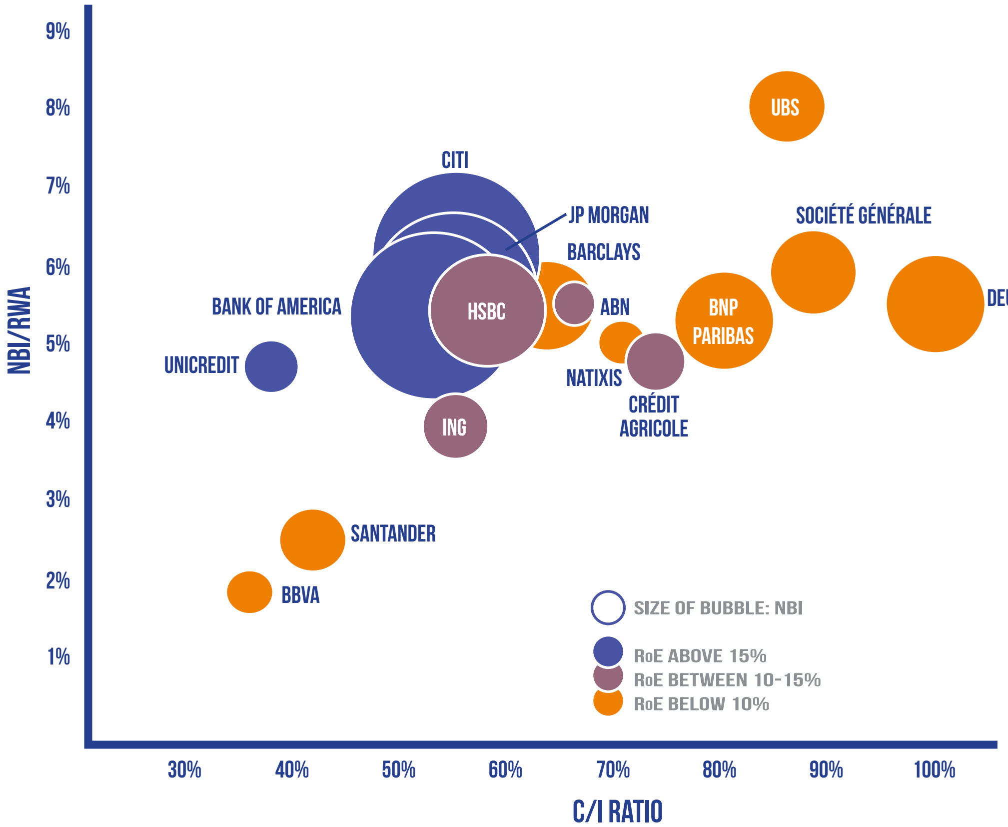
STATE OF THE NATION

Among our pool of Tier-1 and Tier-2 institutions across Europe and US, there are significant Return on Equity (RoE) disparities for their CIB divisions, with, at the end of FY18, Citi leading the pack at 18.1% and, Deutsche Bank clearly lagging behind at 0.7% (3).



RoE disparities can be explained amongst the CIB institutions because of their different positioning and business models. Whilst advisory activities require limited capital, structured finance and lending and capital markets activities can be extremely capital intensive. Revenues of European CIBs are heavily reliant on interest income from lending compared to US CIBs who rely more on Investment banking. Consequently, European CIBs have higher capital requirements and are more sensitive to changes in economic activity and interest rates.

ASSET PRODUCTIVITY AND COST EFFICIENCY FOR CIBS IN Q1'19

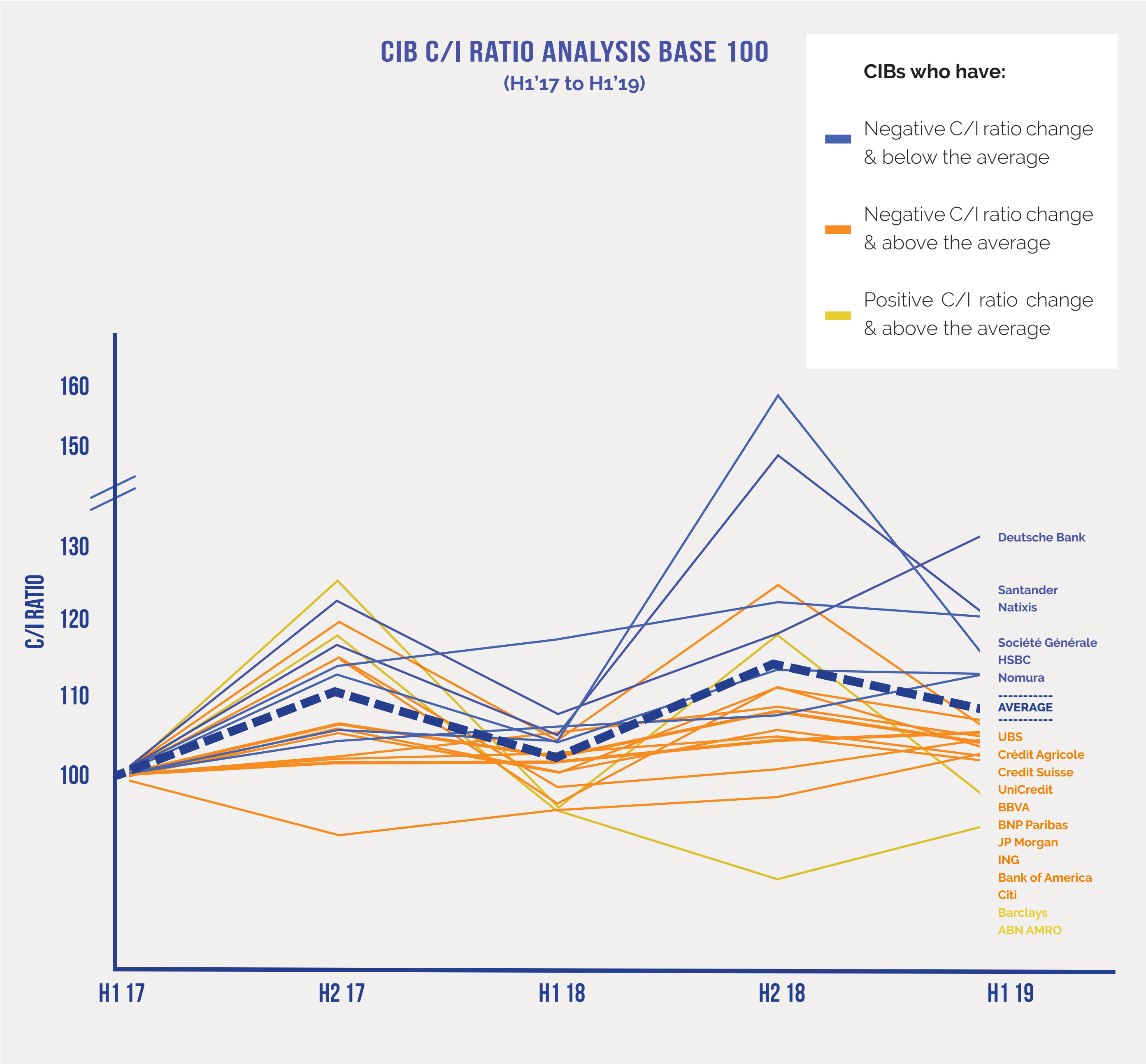


Source: EGC analysis Calculations based on trailing twelve months Net Banking Income (NBI)

Product offering and client segments dictate asset productivity and cost efficiency of all CIB players within our pool. It does not only impact revenue trends but can also generate incremental operating expenses and additional capital requirements coming from more stringent regulations. Banks' performances and ability to deliver extra value to shareholders are therefore natural consequences of these strategic decisions. In a more dynamic perspective, many CIBs have been undergoing transformation and development programmes to restructure and build conditions for future growth. The typical objectives are bottom-line, balance sheet and top-line improvements, with the most mature players already working on revenue levers.

Whilst CIBs believe they've already handled these operational topics, our analysis shows the benefits are below expectations due to the changes in the market and they should continue to focus on bottom-line and top-line initiatives. US CIBs have been more successful in their bottom-line initiatives due to completed restructuring programmes and fiscal/regulatory easing. One way for European players to bridge this profitability gap with US CIBs is to focus on improving their cost efficiency by exploring M&A opportunities with European equals.

(4) Improvements shown on a HoH basis, QoQ and YoY figures may vary



The Base 100 C/I ratio from H1'17 to H1'19 illustrates a deteriorating C/I ratio for the majority of the CIBs with only ABN AMRO and Barclays showing improvements (4). Our analysis indicates linear behaviours in FY17 across our sample, whereas, by FY18 these behaviours changed due to the increase in market volatility and some CIBs benefiting from their restructuring programmes and others worsening at a faster rate.

From H1'17 to H1'18, there is a clear trend in our sample of CIBs suggesting poor market conditions, prompting CIBs to embarked on restructuring programme. This becomes more apparent from H1'18 to H1'19 where the spectrum diversifies and there is no longer a clear trend suggesting some CIBs were more successful than others in their transformation journey whilst some CIBs experienced further turbulences.

CIBs should continue to focus on the bottom-line as well as top-line initiatives and our analysis of their Jaws ratio illustrates just this. The Jaws ratio measures the difference between the revenue growth rate and expense growth rate as a percentage.

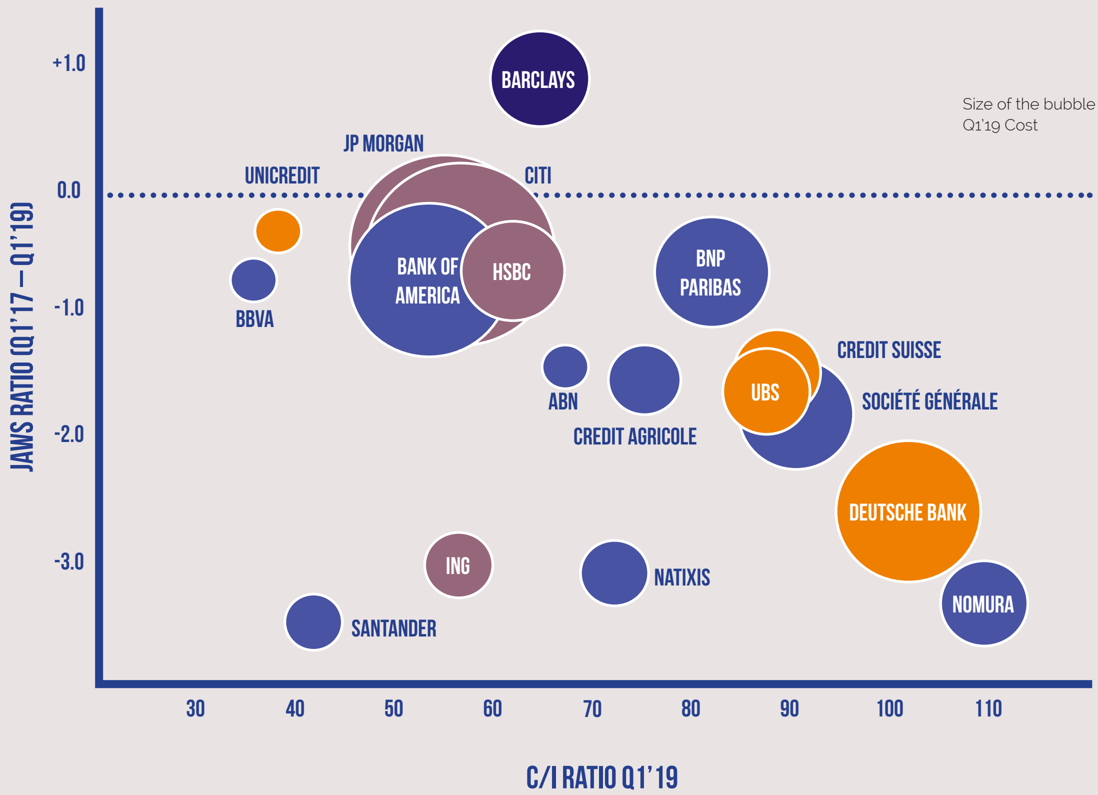
The average Compound Annual Growth Rate (CAGR) of revenue for our sample of CIBs has been decreasing by -0.5%, whilst the average CAGR of costs have been increasing by +0.4% which indicates across the sample that revenue has been falling faster than costs increasing. This is explained by the adverse market conditions CIBs have been facing over the past two years, as well as restructuring programmes not providing the expected benefits to keep up with the poor market conditions.

Our analysis shows, from Q1'17 to Q1'19 many of the CIBs in our sample experienced negative Jaws which means, either that;

- revenue has declined and expenses have increased
- revenue has declined more rapidly than expenses have been declining
- revenue has increased but expenses have increased even more
- expenses has declined more than revenue has been increasing

CIB JAW ANALYSIS

(Q1'17 to Q1'19)



Our analysis indicates, from Q1'17 to Q1'19 Citi, JP Morgan, HSBC and ING all had increases in revenue but with expenses increasing at a higher rate. Indeed, CIBs had focused on increasing revenue even if that meant investing more through higher expenses.

Bank of America, BNP Paribas, Société Générale, Crédit Agricole, Santander, Natixis, BBVA, ABN and Nomura all had revenues declining and expenses increasing over the same period which illustrates they had not changed or adopted new business models to keep in line with the fluctuant market conditions. They may have embarked on cost reduction programmes, however, the benefits were not as visible as for others.

CIBs such as Deutsche Bank, UBS, UniCredit and Credit Suisse all had a bigger decline in revenues than a decline in cost which illustrates that, whilst they have embarked and benefited from cost reduction initiatives, the benefits are not in line with the decrease in revenues caused by the turbulent market conditions.

It should also be noted, that the size of the bubble illustrates the Q1'19 costs for the CIB division. CIBs such as Santander, Natixis and Nomura have a small cost base and have the worst Jaws ratio. In these instances, CIBs should focus on revenue growth initiatives as well as cost transformation as reducing the cost base further may not yield the benefits required to get them back to a RoE where the market would want them to be.

CIBs who have negative Jaws should consider hard levers such as Asset Industrialisation and Structured Finance model as the most suitable options. However, regardless of whether CIBs need to focus on revenue and/or costs, they should also address the talent challenge, since without engaging with their employees, none of the benefits derived from the hard levers can be achieved.

ILLUSTRATIVE EXAMPLE

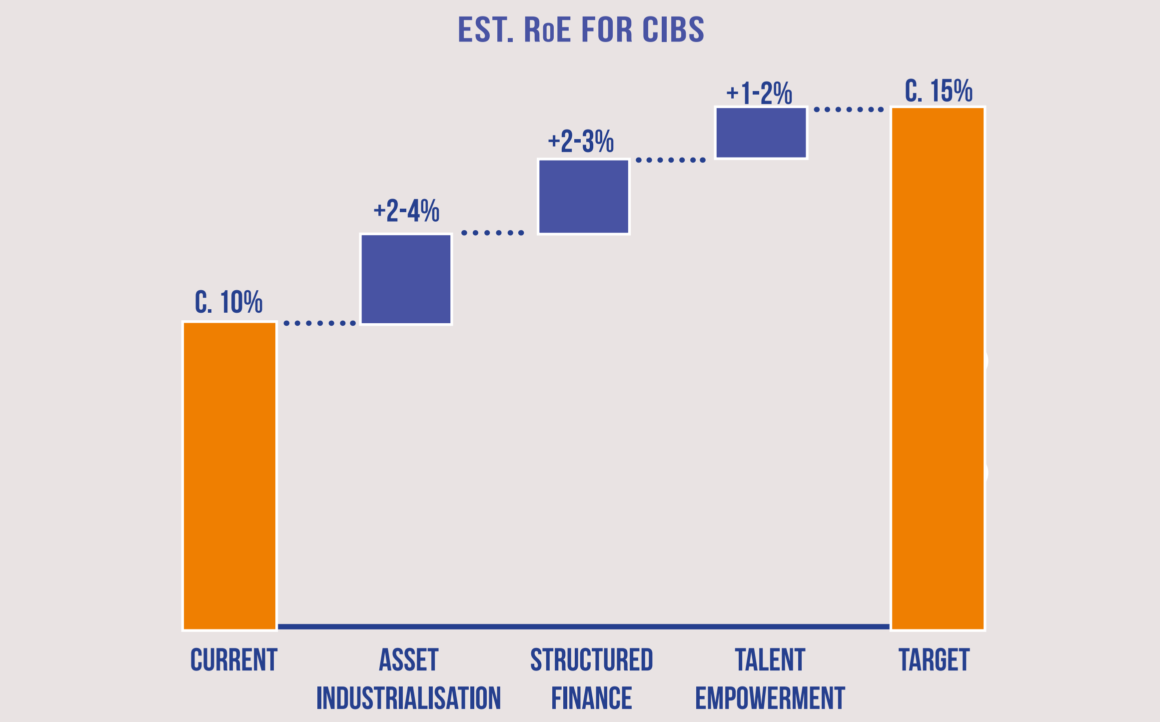
The analysis below demonstrates how much of their Cost-to-Income ratio institutions would need to reduce to achieve a theoretical 10% RoE for their CIB division. Our calculations are based on individual CIBs with steady state revenues, estimated CIB allocated risk weighted assets and group tier 1 ratio. CIB A who has an estimated C/I ratio of 120% would need to reduce it by -41% equating to removing $2.5bn of costs to achieve 10% RoE. This seems unfeasible as there is limiting factors when reducing large amounts of fixed and variable costs without impacting the overall business model.

CIB	EST. C/I RATIO %	CALC. TARGET C/I RATIO TO ACHIEVE THEORETICAL 10% RoE	EST. % COST BASE REDUCTION REQUIRED	EST. $BN COST BASE REDUCTION REQUIRED
A	120%	79%	-41%	-2.5
B	111%	46%	-65%	-1.4
C	95%	76%	-19%	-2.7
D	92%	81%	-11%	-0.7
E	80%	79%	-1%	-0.1

HOW EUROPEAN CIBS CAN FIGHT BACK

European CIBs' underperformance coincides with disappointing revenue, C/I and RoE figures. To address this underperformance, Europeans CIBs need to take drastic structural actions to address the 3 key constraints of Revenue, Cost and Talent. We believe that hard levers such as Asset Industrialisation and Structured Finance Model accompanied by soft enablers such as Talent Empowerment initiatives form part of an answer.

Assets Industrialisation is an opportunity to review the banks' key assets, while Structured Finance offers CIBs the opportunity to identify strategic client segments, implement the appropriate operational adjustments and efficiently adapt to a fast-changing regulatory environment (e.g. Basel IV). However, none of these options can be successfully achieved without engaging employees, especially at a time where banks declare themselves as client-centric.



Our analysis indicates that Asset Industrialisation will address both revenue and cost constraints and we estimate successful delivery could increase RoE by c.+2-4%. The Structured Finance model will provide revenue growth opportunities and increase RoE by c.+2-3%. Finally, the soft enabler Talent Empowerment will tackle the constraints from the current workforce and act as an enabler and increase RoE by c.+1-2%. The combined benefits could result in RoE reaching c.15%.

ASSETS INDUSTRIALISATION IS A MUST IF EUROPEAN CIBS WANT TO STRUCTURALLY SOLVE THEIR CURRENT CHALLENGES

02

As previously illustrated, CIBs, in particular European institutions, are currently experiencing one of their most challenging periods. They are suffering from rising costs due to inefficient operational models, shrinking revenues, weak client experience, increasing global competition, slow uptake of digitalisation, enhanced regulations, and complex risk and capital management. In order to start delivering value to shareholders again, the mid-long term remediation lever Assets Industrialisation has become a hot topic for CIBs.

Assets Industrialisation offers the opportunity, through the use of buy, partner, or build-and-sell to be a key mid-long term component of a cost reduction and value creation portfolio. It is an approach that identifies resources and assets that can be extracted and pooled together with potential partner(s) to generate possible short and long-term synergies. It offers the opportunity, via structural change, to:

DISRUPT THE EXISTING COST STRUCTURE by on average 20-40% savings (e.g. economies of scale, mutualisation of Run-The-Bank and Change-The-Bank costs across participants)

CREATE COMMERCIAL VALUE as valuation of Tech companies average 2 to 5 multiple of Banks on an EBITDA basis (e.g. initiate a commercial entity attracting third-party investments and fees from external users)

IMPROVE EFFICIENCY though standardisation of processes and methods, including regulatory requirements and opportunity to redirect resources to business priority areas

LEVERAGE BEST PRACTICE and institutions' core capabilities, opportunity to tackle bank's issues via industry best practices, offers capacity to focus on differentiating activities

ADDRESS BALANCE SHEET CONSTRAINTS as many banks are encountering Capex challenges from recent restructurings, as well as liquidity and capital improvements

WHY ASSETS INDUSTRIALISATION IS MEANINGFUL NOW AND THE SIZE OF THE PRIZE

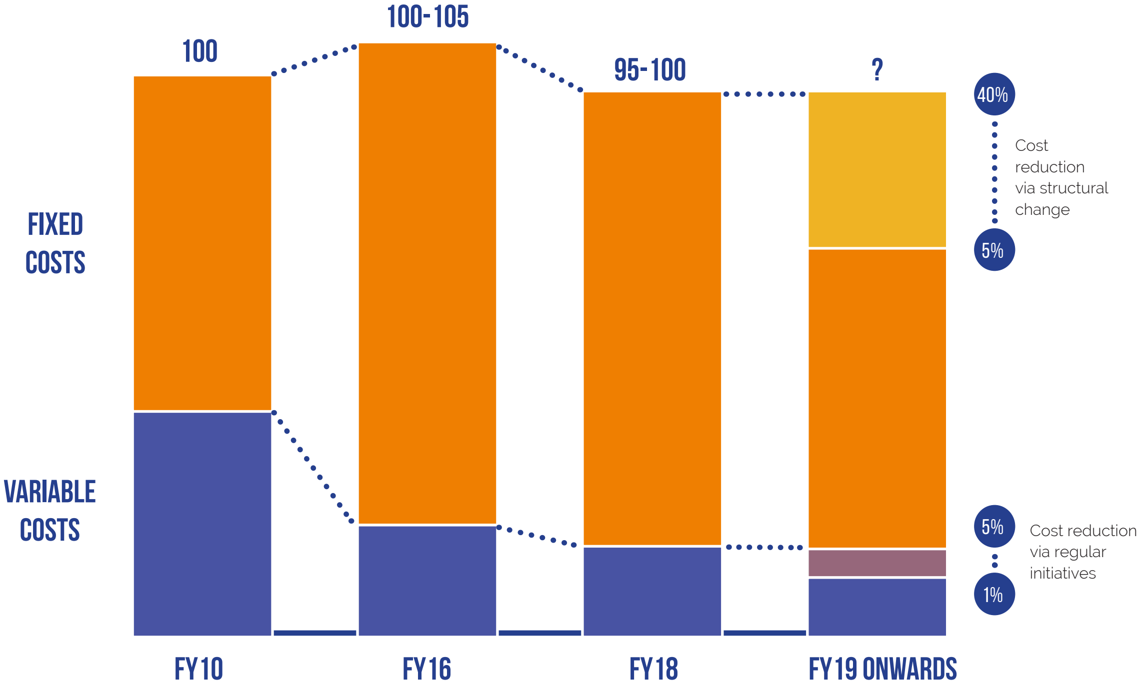
European CIBs have been on a cost reduction drive for the majority of the last 10 years. Unfortunately, the continuously widening performance gap with US CIBs is clearly displayed and European CIBs are undertaking various short-term measures to combat this negative situation. As illustrated in the previous section, US banks (including Bank of America, Citi, HSBC and JP Morgan) had a C/I ratio of 55-60% over the last 2 years, whilst the ratio for some larger European banks (including Credit Suisse, Deutsche Bank, UBS, Société Générale, BNP Paribas) was 75-95% in contrast with smaller European banks (including ING, Credit Agricole, BBVA, Santander, Natixis) at 50-70%. This data potentially shows that the smaller European banks with usually a narrower product suite might have a better unique selling point than larger European bank competitors who are trying to act like top tier global banks with a full-service universal bank offering but falling short for a number of reasons. It is apparent from their C/I ratio that large European banks, need to structurally change and decide whether they want to fully compete with their US competitors in a more efficient manner or undertake an industrialisation process where they become more of specialised European institutions.

Consequently, whichever path European CIBs decide to undertake, due to struggling profitability, many European banks are looking to further reduce costs. After around 10 years of cost reduction measures since the financial crisis, from our analysis and experience there is only so many costs, in particular variable costs, that can be compressed further by traditional cost saving initiatives (as shown on the next page). In addition, some CIBs need such large cost savings to bring about a satisfactory RoE that traditional cost reduction levers will not be sufficient.

It is time to structurally act now as opportunities arise with the ageing workforce and legacy infrastructure of most European banks impacted by a wealth of digital levers at their fingertips to provide solutions. Therefore, unless European CIBs want their performance gap with their US counterparts to exacerbate further as to a point of no return, European banks should be pro-active and look at cost reduction via structural change to substantially decrease costs in FY20 onwards. They may have lost the battle over recent years, but not the 'war'. These European banks need board and senior management level sponsorship to address this significant challenge, and in order to achieve the aim of delivering value to their shareholders Assets Industrialisation is one pertinent answer.

ILLUSTRATIVE EXAMPLE

COST REDUCTION EVOLUTION ACROSS THE CIB INDUSTRY (BASE 100)



Source: Eurogroup Consulting analysis from a pool of active cost reduction banks

QUANTIFYING ASSETS INDUSTRIALISATION

We estimate that Assets Industrialisation should be able to create a 2-4% total overall RoE improvement. There are 5 core benefits and opportunities of undertaking Assets Industrialisation and from Eurogroup Consulting analysis and experience across financial services and non-financial services they can be quantified as follows:

DISRUPT COST STRUCTURE

Centralising and mutualising processes (e.g. IT, back office, middle office) across participants in a separate vehicle, outsourcing more functions, optimising your required FTE capacity to deliver services transferred to a new external format, optimising the location strategy (e.g. on, near, and off shore) and digitalisation of front to back processes are some of the key methods to reduce general run-the-bank costs for all institutions involved. This can produce on average a 20-40% overall run-the-bank cost savings for selected departments and functions in an institution, leading to a possible RoE increase of 1-2%.

01

CREATE COMMERCIAL VALUE

It can materialise via different avenues, dependent on the choice of Assets Industrialisation undertaken. For example, entering into a joint venture can create unique opportunities to develop a commercial entity that utilises the expertise and resources of participants, which attracts third-party investments and fees from external users (e.g. white-labelling). Dependent upon the service offering, fees for a successful white-labelling product in banking can generate on average a 0.5-1% RoE improvement on a like-for-like basis. The valuation of the separate entity could easily surpass the valuation of the incumbent banks, especially if it is designated as a technology company where they average 2 to 5 multiple of Banks on an EBITDA basis. As well as fee generation, additional value will be extracted due to the ability to pass on restructuring charges via Assets Industrialisation.

02

IMPROVE EFFICIENCY

Standardising processes and methods, redirecting resources to business priority areas, opportunity for increased controls, ability to mutualise change-the-bank activities as well as overcoming increasing regulatory requirements (primarily from a technological and data perspective) in a productive manner, can cause efficiency to improve by 5-25% cost per employee and 5-15% revenue per employee within each impacted area, causing a potential RoE improvement of 0.25-0.5%.

03

LEVERAGE BEST PRACTICE

Ability to leverage the bank's and other firms' core capabilities (e.g. technology), opportunity to tackle bank's issues via industry best practices and offers the capacity to focus on differentiating activities. These best practices can lead to cost reduction of 5-15% for each department and function involved, possibly creating a RoE rise of 0.25-0.5%.

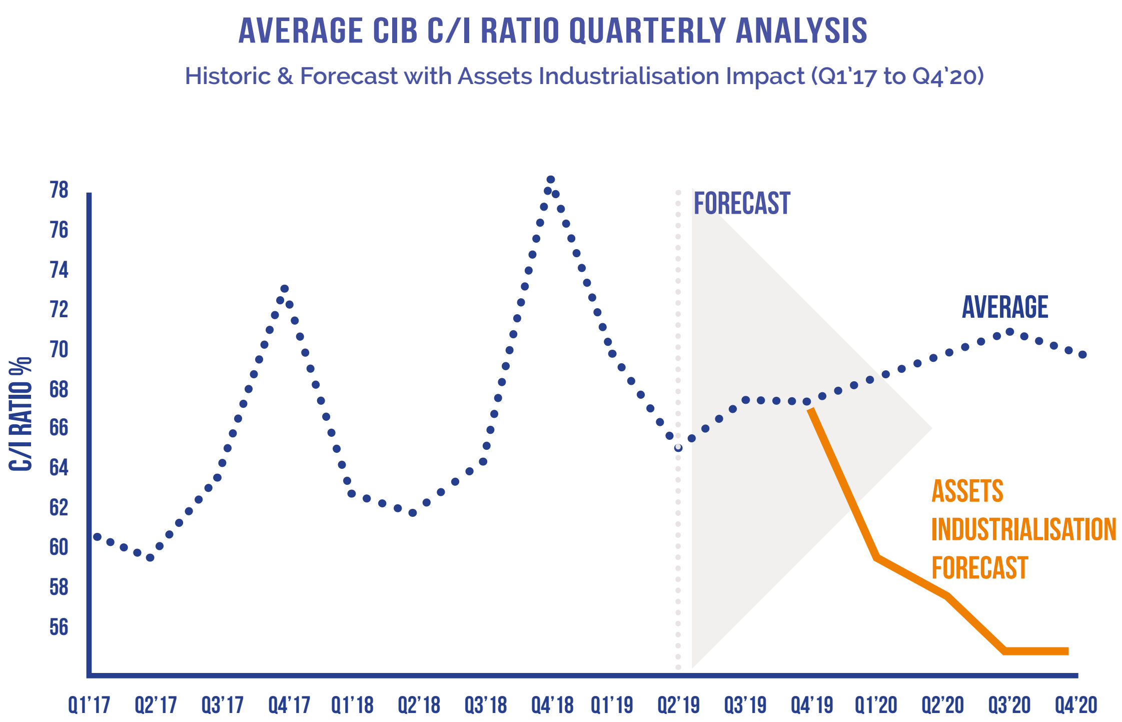
04

ADDRESS BALANCE SHEET CONSTRAINTS

Potential to overcome ongoing capital expenditure challenges which have resulted from recent restructurings. Capital allocation improvements can be generated due to RWA decreasing from the setting-up of a new commercial entity and the leverage ratio (e.g. debt to equity ratio) optimised as a result of lower liabilities on the balance sheet with the new set-up. This can cause financial institutions to feasibly achieve a 3-9% RWA / Leverage ratio improvement from Assets Industrialisation.

05

Therefore, for CIBs, Assets Industrialisation can solve both the cost reduction aim as well as desirable revenue enhancement and capital optimisation target, which would impact both the income statement and balance sheet (especially on a 3-5 year horizon). Consequently the all important C/I ratio should improve considerably, as displayed in the graph below using our analysis (based on our pool of CIB banks).



Source: Annual and quarterly reports

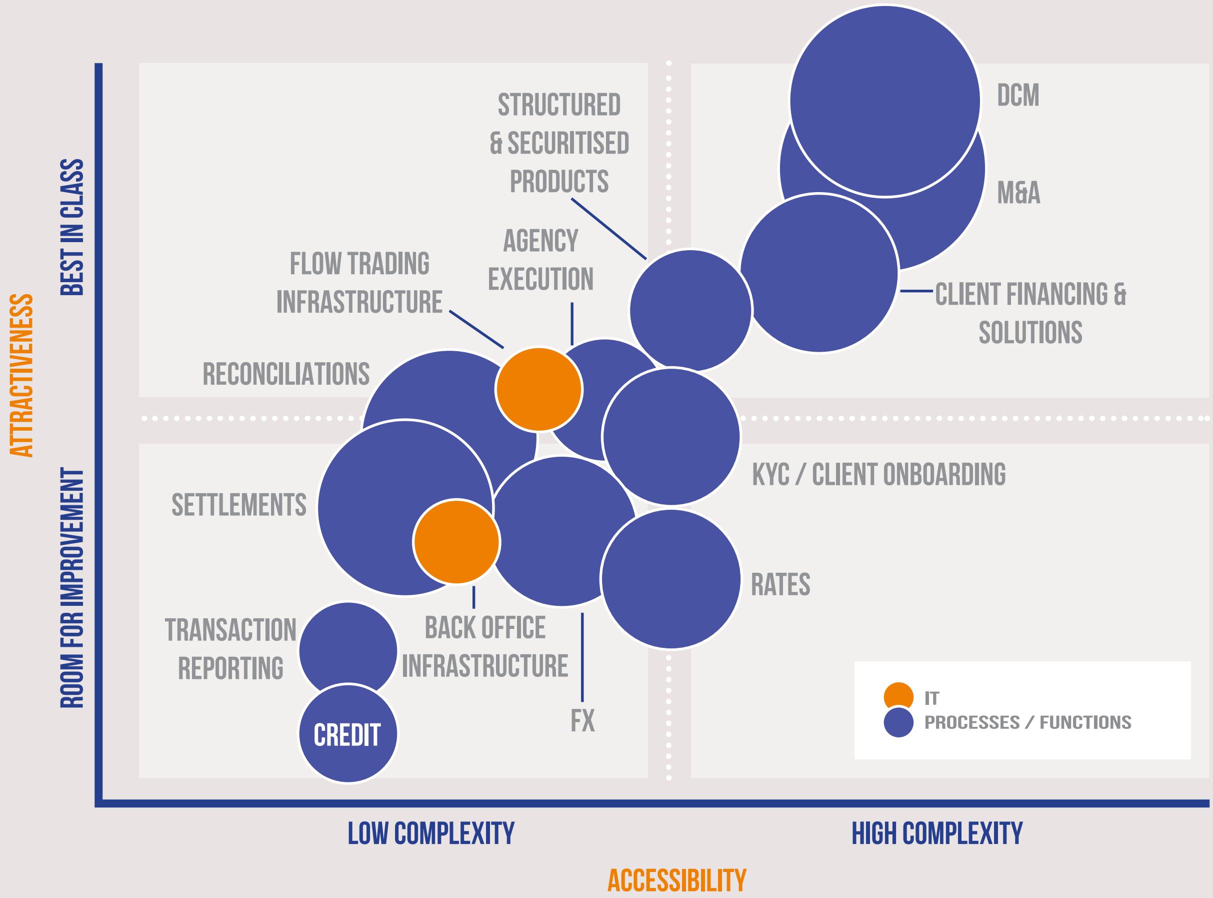
From our analysis one struggling large CIB would need a 41% reduction in its cost base (equal to c.$2.5bn) in order to achieve a RoE of 10%, whilst in the market it has stated it needs to remove a more attainable $1bn without any RoE target. Furthermore a supposedly stable European CIB still needs a 11% cost decrease (equal to c.$0.75bn) in order to produce a RoE of 10%. Both examples illustrate the urgent need for cost reduction amongst all banks should they want to improve profitability as well as the fact that traditional cost reduction measures will not be enough and they will have to think more innovatively and creatively in order to structurally solve their problems and change the bank over the mid-long term.

ASSETS ASSESSMENT

Assets Industrialisation can be used on different parts of the CIB value chain, and its impact varies depending on the area and scale of undertaking. A priority asset assessment would be required for banks to understand where the most relevant results could be extracted through Assets Industrialisation. This assessment can be taken in various forms; for Eurogroup Consulting an important review comprises an attractiveness versus accessibility comparison as per the illustrative graph below. On top of this comparison would be a Total Cost of Ownership (TCO) quantification to understand the cost dynamics of each asset under review.

ILLUSTRATIVE EXAMPLE

ATTRACTIVENESS VS ACCESSIBILTY HIGH-LEVEL PRIORITY ASSESSMENT GRID FOR RELEVANT ASSETS



Going forward, Eurogroup Consulting estimates Assets Industrialisation will extract the most value creation (i.e. revenue and cost benefits) within back office and support functions.

There have been over 45 Assets Industrialisation solutions already formed within the wider financial services sector to date across a varied number of functions and services. Particular areas of focus have been within:

KYC ONBOARDING

Allowing simplification and standardisation of the KYC and onboarding process whilst enhancing client service by making it possible for clients to upload data to a utility only once.

REFERENCE DATA

Delivering a single source of reference data based on industry standard rules.

POST TRADE SERVICES

Providing securities and transactions post trade processing to a range of financial institutions globally, leveraging standardised operations and technology to drive down cost.

COLLATERAL MANAGEMENT

Providing centralised collateral management driving down margin costs.

ADDITIONAL SELECTED ASSETS INDUSTRIALISATION EXAMPLES IN FINANCIAL SERVICES:

MARKET UTILITY 1

One leading financial services sector example is Aladdin, which was devised by BlackRock. As part of Blackrock's aim to increase revenues from technology to 30% of the firm's total by 2022, the Aladdin platform was set-up with partners to combine sophisticated risk analytics with portfolio management, trading and operations tools in a single solution to answer market demand. It allows institutions to join an existing market utility, and, if applicable, their existing functions or assets within the company are now superseded by the market utility service. More than 200 institutions and around 25,000 investment professionals now use Aladdin, with c. $18 trillion managed on the Aladdin platform. Aladdin's success is further illustrated by their recent 2019 expansion via acquiring alternative risk analytics provider eFront for $1.3 billion.

ASSET MONETISATION 2

Two large European banks have been in discussions over combining a number of their operations functions via a joint venture that would achieve large cost saving over a long-term time horizon as well as create a valuable commercial enterprise. It will monetise existing desirable assets (e.g. functions) on the balance sheet as well as set-up a new commercial entity where the assets will continue servicing the CIBs in question as well as other prospective clients.

JOINT VENTURE 3

In addition, within the wealth management market, in June 2019 UBS signed a joint venture deal with Sumitomo Mitsui Trust, aiming to crack the Japanese wealth management market where it has struggled to grow over the last 15 years. The two banks will create a venture majority-owned by UBS that will expand the services both firms can offer their high net worth and ultra-high net worth customers, utilising UBS' renowned offerings.

POTENTIAL CIB EXAMPLES IN THE NEAR FUTURE

As stated, Eurogroup Consulting anticipates Assets Industrialisation will extract the most value creation (i.e. revenue and cost benefits) within back office and support functions. This is because these functions usually comprise quality improvement opportunities, low complexity, low criticality, low differentiation and require large resources.

Trade & Post-trade Services

Within the CIB sector, one such area is most likely to be trade and post-trade services, for example equity derivatives platforms. Many banks still employ very costly old post-trade platforms and need large capital expenditure to improve them. Also most of these banks suffer from complexity costs in this area, firstly, redundancy, which stems from the lack of a 'golden' source and, secondly, subscale operations. A combination of Distributed Ledger Technology and market utilities can substantially reduce these costs. Therefore many CIBs are now seeking to utilise third party post-trade platforms where applicable which will remove the asset from their set-up and allow them to use streamlined and efficient solutions. As it is a non-differentiating activity for clients, CIBs (with best in class post-trade offerings) are contemplating, and in some cases launching, moves with partners to offer their post-trade platforms to the market. For the banks receiving third party post-trade services this move would generate cost improvements of not utilising a legacy system as well as not investing a large amount to upgrade their platform and also eventually removing their asset from the balance sheet, which will allow restructuring charges to be posted and help with capital and liquidity ratios going forward.

Compliance

Compliance is another ripe area in the CIB landscape, in which Eurogroup Consulting is in discussion with a leading CIB. All CIBs need to undertake compliance to a defined standard, but achieving it in a low-cost manner as well as offering a high level of customer service is often very challenging. One CIB with a renowned compliance unit is looking to monetise its service and offer it to other institutions in the market. Eurogroup Consulting's compliance benchmarking data states the cost of compliance can be between 1 - 3% of overall operational costs, whilst FTEs within the second line of defence can be 0.5% - 2.5% of total FTEs in the bank. These wide ranges illustrate that some banks are suffering more than others from the cost of compliance, which are predicted to increase in the near future due to increasing levels of compliance required and regulatory impacts.

EXAMPLES IN NON-FINANCIAL SERVICES

Outside of financial services, there are many successful use cases that illustrate embracing structural change when an industry's business environment is struggling is a smart choice. For example Amadeus was devised by Air France, Lufthansa and Iberia to create a common ticketing service platform that could be shared not only by the founder airlines, but also by every airline and travel agency. It currently has a market capitalisation of c. €30bn from €7bn in 2010 (as a reference, Air France KLM market capitalisation is €4.5bn), and is achieving strong profitable performance with profit after tax increasing by 103% to FY 2018.

In addition, within the healthcare sector, leading corporation Smith & Nephew combined its biologics and clinical therapies asset into a joint venture with Essex Woodlands, named Bioventus in 2012. Essex Woodlands will own 51 percent of Bioventus while Smith & Nephew will retain a 49 percent stake. The core reason is to advance the technological aspects of the business, using both companies experience. For example Bioventus' offerings include Exogen, a noninvasive device that stimulates bone healing by using ultrasound waves to activate cells near the site of the break. Still a fledging business that is private, however international expansion and new products have made it a leading player in the biologics and clinical therapies industry. Its 2018 revenue has increased 34% since foundation and it is reportedly on the verge of undertaking an IPO on the Nasdaq.

Taking into consideration the struggling CIB market, particularly in Europe, as well as the disruptive technology available, now is the time for Assets Industrialisation to be at the forefront of CIBs' strategic and structural plans. Not only could costs be substantially reduced, it can potentially generate a successful commercial venture and an array of long-term positives, in particular a possible 2-4% RoE improvement according to our analysis.

European CIBs may have the lost the battle over recent years with their US counterparts, but in order to not lose the long-term war and close the performance gap before it is too late, European banks must be pro-active and undertake Assets Industrialisation where applicable. ■

NEXT GENERATION FINANCING MODEL

03

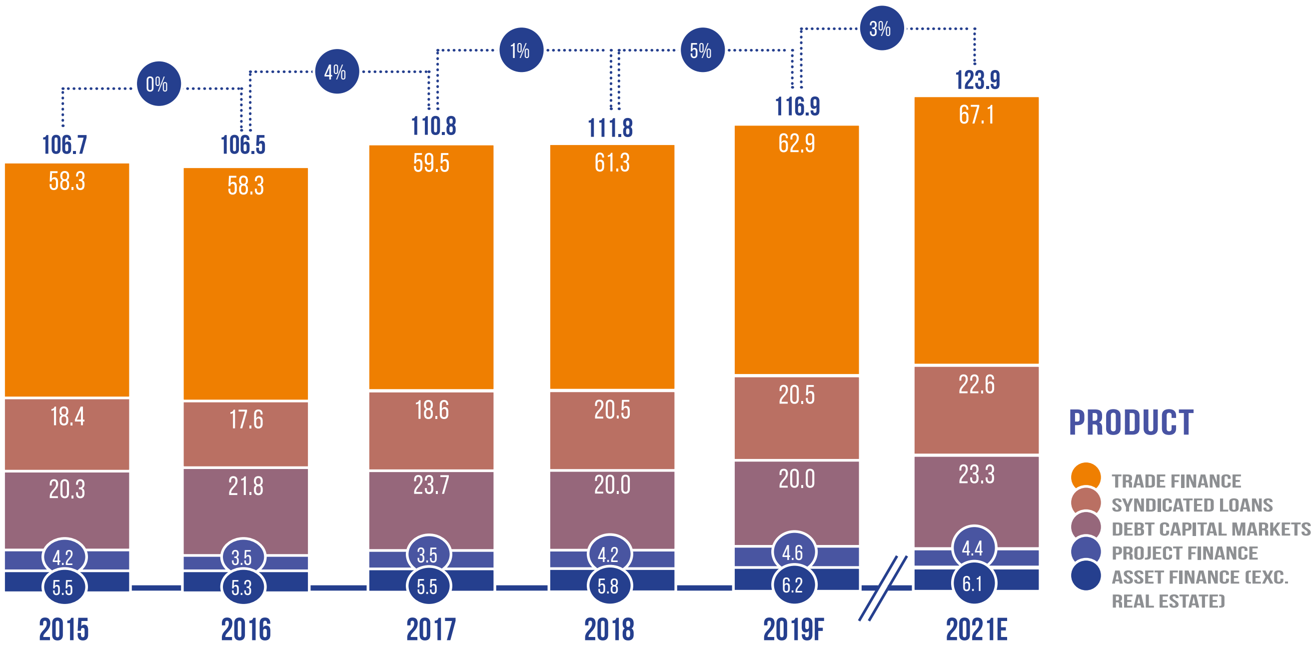
Beyond asset industrialisation, we see clear opportunities within the Structured Finance market that could enable European players to capture up to +2% to+3% in Return on Equity (RoE) by 2022. To achieve those ambitious objectives, EU institutions should identify strategic segments they intend to focus on, implement the right operational adjustments and efficiently adapt to a fast-changing regulatory environment (e.g. Basel IV).

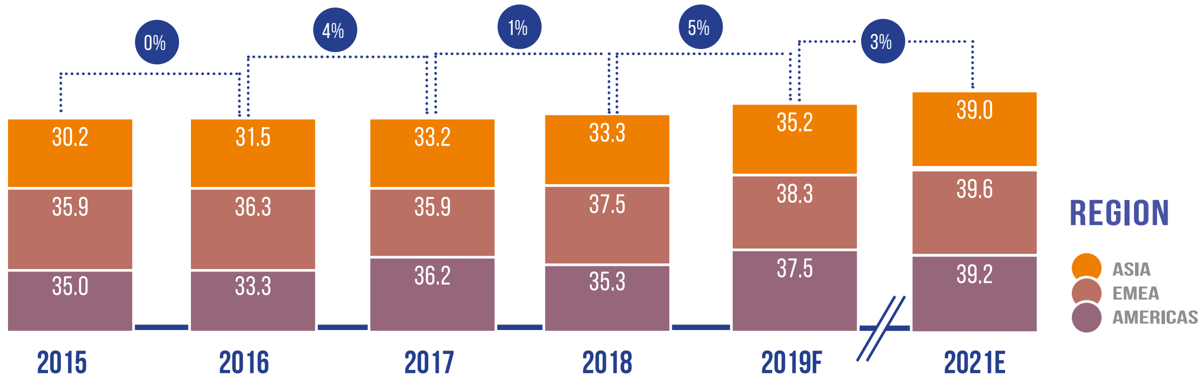
STRUCTURED FINANCE MARKET DYNAMICS

Looking at the structured finance market, we can clearly see that the market remains somehow volatile and that it is slightly growing (+2.5% CAGR) on our analysis perimeter (2015 - 2021E). Among the five covered asset classes, we globally see growth potential, particularly in DCM, with +11% revenue growth in 2019F, due to a correction following a bad 2018 exercise. The trend is more limited for trade finance, project finance and syndicated loans. Looking at geographies, Asia has been continuously growing within the structured finance perimeter, and both Asia and Americas showed solid growth rate in 2019F.

FINANCING MARKET SIZE AND TRENDS

Estimated market revenues by product & region (US $ bn)





(1) * Calculated using a pool of Tier 2 European CIBs, applying a C/I and generic tax rate of 30%, with no additional RWAs

As a result, we have identified several growth plays for EU institutions, ranging from syndicated loans across regions (particularly leveraged loans - TLB) to DCM Americas.

Indeed, in terms of supply, increasing firepower of private equity and debt funds (i.e. record level of dry powder in 2019) acting as both borrowers and lenders on financing transactions seems to support credit markets. Besides, growing amount of funds capital is being allocated to fixed income solutions ($8.4 trillion in 2018), impacting DCM segments.

Moving forward, with the impact of upcoming regulations (such as Basel IV, IFRS9, Competition law) and the development of digital initiatives by legacy and disruptive players, we think that EU institutions should protect and expand their core (e.g. arrangement, advisory), while being opportunistic in non-core segments (especially geographies) by leveraging existing positioning.

STRATEGY

To profit from the core and beyond in a changing market environment, EU structured finance players need to embrace a “AAA” positioning:

A
ADVISORY

In an increasingly commoditised market, advisory is progressively regarded as a differentiating and value generating solution. In this regard, institutions need to strengthen their advisory offering.

A
ARRANGING

Arrangement can help both secure incremental financing transactions and generate additional fees (without capital commitment). Obviously, in a capital constrained environment, arrangement can strengthen return on equity, but this requires important investments on the distribution side.

A
AGENCY

Even though margins are relatively thin for agency activities, it can reasonably be performed with some selected clients to upgrade relationships, reduce churn rates and capture incremental customer value.

Looking at precedents, with a 2 to 3 year time horizon, European players could target a

+12% INCREASE OF THEIR REVENUES

by entering or developing these 3 areas (conservative alignment with forecasted financing market growth from 2019 to 2021), meaning a Return on Equity increase of approximately +1% (1) by 2022.

OPERATIONAL ADJUSTMENTS

To build or optimise this AAA positioning and achieve those ambitious objectives, EU structured finance institutions should adapt their financing operating model following several structuring principles.

OPERATING EFFICIENCY

To positively impact cost structure, customer experience and risk management, there is a need to develop setups that ensure maximal efficiency, industrialisation of processes and adoption of digital disruption when productivity impacts are clear (e.g. LenderCom).

DEVELOPMENT OF CONNECTIVITY WITH EXTERNAL ACTORS

To ensure collaboration with disruptive and non-disruptive players, institutions should focus on building modular architecture and investing in investor portals.

ENHANCEMENT OF DISTRIBUTION ABILITY

To reduce capital consumption, EU institutions need to adjust their setups to management intent (IFRS9), optimise asset allocation and embrace new distribution solutions.

STRENGTHENING OF ORIGINATION CAPABILITY

Coupled with distribution, origination and underwriting capabilities need to be strengthened through enhanced pre & post trade reporting and monitoring, and through the adaptation of middle office & servicing systems to allow lead roles for EU institutions.

OPERATIONAL ADJUSTMENTS TO LOAN TRANSFORMATION

To adjust to loan market transformation (e.g. large pools) and new and upcoming regulations, players need to promote flexible systems that can better adapt to those changes, enabling for example better asset rotation through an optimised management of large pools and better regulatory response through solid audit trail.

DEVELOPMENT OF AN INVESTMENT DRIVEN CULTURE

To differentiate themselves and build a structure that can outperform other institutions, EU players should focus on shortening the distance between the frontline and operations, enabling the development of an investment driven culture that would allow the optimisation of both revenue and cost elements. Among other things, with the emergence of competition law, such a culture will need to enhance market information capture, as banks will be less likely to collaborate on market or investor data moving forward.

No matter the solutions, the overall idea is to maintain a modular vision of the global architecture, with such a modularity and agility that it will be adaptable enough to adjust to potential market changes, habits, technologies and / or regulations 5 years from now.

IMPACT OF BASEL IV AND MITIGATION TOOLS

In December 2017, the Basel Committee on Banking Supervision (BCBS) finalised the Basel 4 standards, which would have to be fully implemented from January 1st, 2022.

The primary impact of these changes is on the denominator of the solvency ratio, and therefore more specifically credit, market and operational risks, with the objective of at last being able to compare the risk-weighted assets of different banks.

The changes relating to credit risk focus on an overhaul of the standardised method, which may include the application of external ratings, for jurisdictions that authorise it, setting up 'floors' to constrain the existing internal models

The changes relating to market risk are driven by the Fundamental Review of the Trading Book (FRTB) which aims to reduce the regulatory arbitrage opportunities between the trading book and the banking book.

The changes relating to operational risk focus on the implementation of the new Standardised Measurement Approach, which disregards the internal model methods, notably the Advanced Measurement Approaches and introduces a variable that is not just about Net Banking Income, but also a parameter that better reflects the bank's business and operational loss history.

According to our analysis, if banks do nothing to mitigate the Basel IV impacts, these rules will require approximately €120 billion in incremental capital, while reducing the banking sector's return on equity by 0.5 percentage points. This is obviously a game changer for the European banking industry, which will need to launch and implement initiatives to protect their RoE.

BASEL IV MITIGANTS

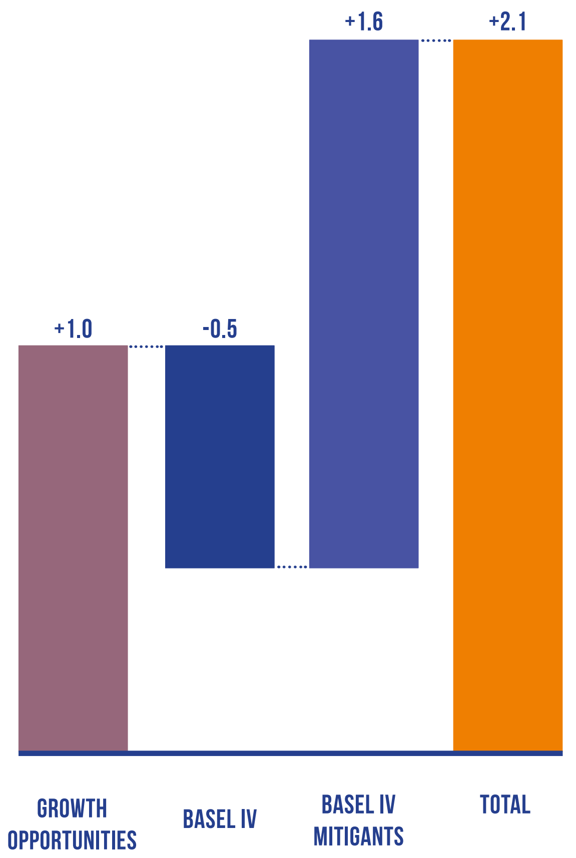
Source: Eurogroup consulting analysis

ELEMENTS	DETAILS	RoE IMPACT	ACCESSIBILITY
OPERATIONS	• Resolution of data quality and process related problems (e.g. unrecognised security / collateral, ratings) • Decrease in buffer requirements (e.g. Goodwill, intangibles, Pillar-2 elements) • Optimisation of existing product portfolio • Assessment and exit of unprofitable clients • Optimisation of commercial approach (e.g. pricing, cross-selling)	+0.6%	
STRATEGY	• Balance sheet optimisation • Portfolio strategy (e.g. exit of selected businesses and / or geographies, growth areas)	+1.0%	
STRUCTURE	• Customer driven culture and capital conscious behaviour • Optimised IT and processes to deliver top-notch RWA reporting • Optimised performance and capital steering management	n/a	

In this context, there are multiple levers that can be used to mitigate the impacts of Basel IV on RoE levels. We estimate that the implementation of such levers could help EU players increase their RoE by at least 1.6 percentage points.

NEXT GENERATION FINANCE MODEL

RETURN ON EQUITY IMPACTS [% POINTS]



IMPACT DETAILS

GROWTH OPPORTUNITIES	Recent market trends call for the adoption of strategic guidelines that should focus on expanding arrangement, advisory and agency services to protect and expand the topline (+12% by 2022)
BASEL IV RoE	Updated rules will require approximately €120 billion in incremental capital, while reducing the banking sector's RoE by -0.5%
MITIGANTS	Combination of tactical and structural mitigation tools that could help institutions limit the negative impact of Basel IV standards on RoE levels
TOTAL	Taking into account growth potential, regulatory changes and potential mitigants, EU institutions could be able to increase their RoE levels by c. +2.1% by 2022

Looking at the overall picture, we believe that by mixing their financing growth opportunities with regulatory and mitigants impacts, EU institutions could be able to approximately deliver incremental +2.1% in RoE by 2022.

TALENT EMPOWERMENT IN BANKING

04

(1) "Artificial Intelligence: AI Struggles In Enterprise, Because Of Human Frustration", Autonomous Research, August 2018

HOW PEOPLE MANAGEMENT IS THE MISSING LINK BETWEEN TECH AND PERFORMANCE

The banking sector in the early 2000's was one of the most attractive industries to work for, and now twenty years on, this industry is ranked no. 12 of a list of 23 other sectors. No other industry has declined at such rate over such a short period of time and now one must ask why this is the case. One could blame the 2008 financial crisis which forced bank closures and mass redundancies but even now in 2019, banks are still disclosing huge headcount reductions, in an attempt to control costs, making it an even less attractive industry to work for.

Over the past ten years the banking industry has faced a tough challenge with revenue pools and headcount figures declining and, with the end of year bonus pools drying up, it is now time to call for comprehensive restructuring of internal operations together with more adequate people management.

In a world of ominous information and a volatile labour market, banks can no longer afford to be complacent. The ever-changing dynamics of Brexit, new technologies and new available ways of working provide the perfect ecosystem and opportunity for banks to take a stance and redefine their identities; as product centric or high-tech service providers. However, this will not be an easy task as competitors from within the industry such as FinTechs or other industries are increasingly luring talent whilst reducing the revenue pool available, heightening talent constraints within the industry. As mentioned in earlier sections, CIBs can optimise operations and capitalise on smart management of assets, however the RoE benefits available to gain from these sole changes will not suffice if they do not consider organisational interaction and above all, the way they manage their workforce capitalising on employee engagement.

American institutions have already acknowledged this market change and have been pioneers in the sector with the redefinition of their human resource policies. European institutions, in geopolitical turmoil and under economic pressure, are trying to do this by rebuilding their employee value proposition (EVP) for better alignment to new market standards.

WHAT EUROPEAN CIBS SHOULD LEARN FROM THEIR TRANS-ATLANTICS PEERS

European CIBs over the past 3 years have been under immense cost reduction pressures and this has been predominantly addressed through headcount reduction. Deutsche Bank IB division have reduced their front office full-time equivalent (FTEs) employees by 56% from 2013 to 2019 and recently announced they will cut 20,000 more jobs from the group. Such news does not bode well for the banking sector, especially in the context of high job turnover and the ongoing threat of robotic process automation (RPA) and artificial intelligence (AI). A recent article published by *Autonomous* (1) suggested, 70% of front-office jobs will be impacted by AI (approx. 480,000 tellers, 218,000 customer service representatives, 94,000 financial managers and 12,000 compliance officers), driven by the implementation of advanced technologies in anti-money laundering, compliance as well as the use of chat-bots which will gradually replace the current relationship managers.

American CIBs have not endured such drastic changes as the European CIBs, allowing them to control the number of FTEs at a steady state. Recently, the overall trend in the US has been positive. Our analysis indicates, the particular role of data science segments and quants have been growing in demand over the last years. CIBs such as Goldman Sachs and Bank of America have indeed been hiring FTEs to support their growth strategy. The former, for example, recently created its new quant technologists' brand called "Strats" with the ambitious objective to expand its footprint across all of its core locations.

We furthermore noticed that CIBs have opened several positions externally for individuals who are able to interpret and realise machine computations' full potential. US CIBs in particular have been hiring and providing specialist training to quants who can understand the new commerciality aspect of their role as well as support and interact with traders. We have noted that CIBs are in the market for individuals who do more than quant research, who can perform algorithmic trading executions, data analytics and portfolio optimisation. At Credit

(2) MIT Sloan, "The Jobs That Artificial Intelligence Will Create", Management Review, Summer Issue 2018
(3) Gartner Trend Insight Report, "Predicts 2019: Leadership Means Expanding Options, Not Limiting Them.", 2019
(4) Robert Walter, "Attracting and retaining millennials professionals"
(5) Eurogroup Consulting research and survey on engagement

Suisse for instance, there is a team who has created new technology for their risk modelling group and at J.P. Morgan, a team of quants have developed a new pricing system. What is new is that for all these front-office tasks, quants are categorised as revenue generating employees and thus paid accordingly with access to the bonus pool boosting attractability in the market. The same cannot be said for European CIBs, which are lagging behind whilst advertising for external vacancies for data scientists positions. The tech talent within Europe is not as free flowing towards the banking sector as it currently is in the US and other sectors.

EUROPEAN CIBS NEED TO TAKE A STEP-BY-STEP ACTION TOWARDS SYSTEMIC CHANGE

To navigate the uncertain future, European CIBs need to address the elephant in the room which goes far beyond the discomfort the current workforce is experiencing. Underlining factors such as new technologies and characteristics of millennials play a vital part of this, both in a positive and negative way. Banks need to rethink their business needs and requirements expectations in order to align them to the recruitment process.

The industry is continually benefiting from new technologies and over the past two years we have seen a shift from the Automated Banker to now the Whole Advisor, who some describe as the engineering artist, the wizard pulling the strings of artificial intelligence solutions today. The artist dimension calls upon high emotional intelligence quotient, and long-term vision to realise the full potential of technology. An MIT report published in 2018 explained, '*In the future, all employees will be trainers, explainers, or sustainers of AI*' (2). Trainers will be the ones configuring artificial intelligence systems to the organisation's goals, explainers will teach humans to interact with machines, and sustainers will ensure that these systems are ethically compatible with society. This is all the more important in view of the fact that in 2022, one in five employees will have a machine as their co-worker (3).

With the second underlining factor being the arrival of the new millennial generation, CIBs must look to entice this new generation workforce to join the industry through adapting their training programmes, breaking organisational silos, and placing the employee at the heart of the customer relationship to secure engagement and smooth embracement of the use of technology. A recent survey indicated 53% of millennials are more likely to take the job offer with an employer who uses the same technology as they do (4). Millennials feel more are home in a digital workplace than any other generation. CIBs must bear in mind when weighing up the cost and benefits of implementing any new systems for their business, the potential that such investment has in attracting millennial professionals.

European CIBs have struggled to attract tech talent whilst facing the ever-growing regulatory constraints and complexity of financial products, they might find salvation with a re-energised, experienced, agile, engaged workforce, but how can European CIBs attract and engage with such talent?

The drastic reshuffling of human resource policies go hand in hand with organisational change, and for once, it should be focused on revealing and utilising internal levers. Earlier this year, the Eurogroup Consulting Leadership Innovation lab held a conference on employee engagement with speakers from various industries on how they measure the impact of employee engagement on corporate performance. The outcome was that harnessing employee engagement was believed to boost performance over 80% (5). We then extrapolated good practices to our banking clients and realised many banks were sleeping on a gold mine, while not using the full potential of their talent. We estimate that harnessing employee engagement could have a positive impact on banks' RoE of c. +1-2%.

HARNESSING EMPLOYEE ENGAGEMENT COULD HAVE A POSITIVE IMPACT ON BANKS' RoE OF C. +1 TO 2%

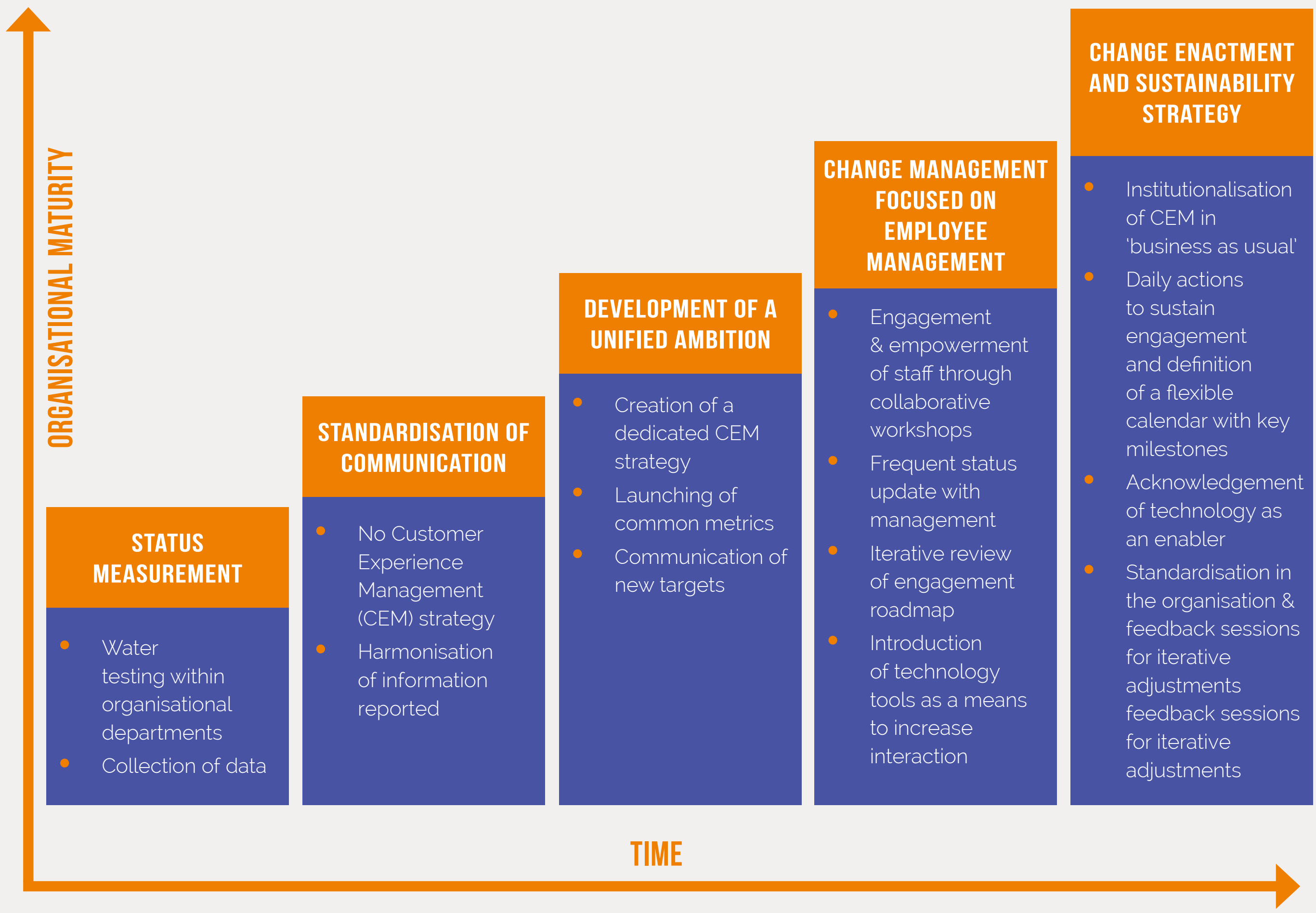
(6) The term "squads" refers to "team" in ING terminology

Anecdotally, the retail company Decathlon introduced in their model volunteering for extracurricular projects based on employee passion for a particular sport or activity; Deutsche Bank encourages volunteering too but orients it towards charity rather than internal projects and ING has implemented an "Orange code" which are values based on 'you take it and you make it happen' allowing their squads (5) of employees to be empowered and work on multiple projects of their choosing.

Empowerment is a key lever to enhance employee engagement and an integral part of this comes with the empowerment given to employees to interact with customers directly. The car rental company Autonom streamlined its organisation to put the employees in direct interaction with the customer to enhance customer service and the results exceeded expectation. At a large American bank, the management team ran an employee satisfaction study which resulted in employees highlighting good tools, empowerment, and prioritisation as key conditions to realise the potential of customer relationship building and management.and ignite 'a spirit to serve' as they define it.

In the organisations we analysed as part of our study, reaching employee alignment followed the below step-by-step process:

ENCOURAGING ENGAGEMENT WITHIN THE ORGANISATION



(7) Gartner Trend Insight Report, "Predicts 2019: Leadership Means Expanding Options, Not Limiting Them.", 2019
(8) Tapestry Networks and Bank Governance Leadership Network "The future of talent in banking"
(9) As defined by the Global Impact Investors Network (GIIN)

Our study showed that, the more aware and aligned employees were with customer goals, the more successful the company was. Employee engagement had increased up to 82% in a sector where the average is c.40%, and customer satisfaction increased with it. Technology has therefore become the intermediary between employees and customers, whilst human interaction is still essential for providing somewhat empathy to cold interactions with machines. To build a trusted and valued relationship requires a continual monitoring from coach-managers, whose role is to teach employees to handle machine learning and artificial intelligence solutions to deliver better client services.

QUANTITATIVE RESULTS ALONE FAIL TO GRASP THE COMPLEXITY OF TECHNOLOGY POTENTIAL ON EMPLOYEES

The key issue firms face with employee engagement is that very few can or know how to accurately measure it whereas technology has some very visible and measurable impacts: by 2030, about $1 trillion in cost will be exposed to artificial intelligence, 70% of the current front-office jobs (7) will be impacted as well as back office functions such as compliance, through the use of efficient chatbots, anti-fraud machine learning and biometric technology. Overall, artificial intelligence is believed to eliminate 1,8m jobs and create 2,3m jobs that will be more skilled oriented and customer focused. Technologies such as robotic process automation, machine learning, and adaptive intelligence are already beginning to have a significant impact on compliance, payments, and retail services, among other banking functions. Banks need employees with the skills to understand how these technologies can be effectively applied, and they need agile and adaptive workforces to navigate these changes(8).

In terms of efficiency and performance, there are no surprises: technology will enable firms to become more efficient and improve performance. An internal study led by BNY Mellon reported that the use of technology led processing time to decrease by 88% annually, and promoted efficiency by reducing the time taken to reconcile failed trade from 6 minutes (human) to a quarter of a second.

Digital talent is a huge challenge for the industry and machines on their own fail to solve this crisis. Millennials today are seeking to work with machines, not against them. Creating positive synergies in an organisational context will allow many of the millennials to realise the higher purpose other than profit. Impact investing is a good example of this, defined as investments with the intention of generating positive social and environmental impacts alongside financial return (9). The Global Impact Investing Network estimates green assets have doubled compared to last year (as high as $228 billions). With green portfolios, banks have the power to put clients as well as employees at the service of noble causes. A parallel can be drawn with the energy sector, which has had to redefine their offer in green energy to attract talent: traditional sectors are having to increasingly adapt core business to societal priorities.

Shifting the status quo will take more than just optimising assets return or new IT infrastructure. Banks should focus on how they can attract and retain talent, before they go to market, and they need to capitalise on resources they already have. If the current workforce is not being adequately trained, the introduction of artificial intelligence or other technologies across traditional customer support functions will fail or underperform at best.

Banks and other institutions should consider upskilling employees to ensure they have the right skills with them to understand the technology they are handling, as well as the customer data that sits behind the interface and how this will enable them to make better decisions, ultimately increasing performance. Tech-savvy employees who have the right skills will help fulfil the Whole Advisor model, the banker of tomorrow, and work along with machines, taking-over from them when they reach their emotional limits. Finding and upskilling Whole Advisors is a prerequisite to the achievements of all levers identified. ■

APPENDIX

05

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