

Future of Banking

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Introduction

The founder of the World Economic Forum, Klaus Schwab, suggests that the coming intelligent era, marked by ambient technology, will be a ‘transformation will be unlike anything humankind has experienced beforeⁱ.’ People and the organisations they inhabit could change profoundly as a result. Banks of all persuasions will not be exempt from this change.

Strategic threats, through disintermediation, new market entrants and evolving models around the world are ushering in a third digital revolution that will see declining costs in tandem with rising efficiency. The mental models that underpin current banking models will need to change thanks to technology, shifting human behaviour and the ways in which the two interact. Artificial intelligence is chief among these technologies, leading a transformation happening 10 times faster and at 300 times the scale, or roughly 3,000 times the impact, of the Industrial Revolutionⁱⁱ.

Whether banks have the flexibility and change management prowess to change at speed remains an open question. They have access to many of the tools that new entries threaten incumbents’ positions with. Access to data will enable banks to form and leverage a more complete picture of the individual customer, allowing more personalisation - whether in the form of offers, real-time lending decisions or through adding value by providing gleaned insights back to the customers.

Companies like Amazon and Baidu have helped heighten consumer expectations to the point that 76 percent of consumers now expect organisations to understand, and presumably act upon, their individual needsⁱⁱⁱ. Leveraging technology will be critical in achieving this, but the larger and tougher form of systemic change lies in cultural and strategic change. Banks would be wise to prioritise consumer-centric offerings and practices with regards to collaboration, technological adoption, and the crafting of new business models.

The gap between ‘what’s possible’ and business as usual is widening. Technology is evolving at a rate far greater than many businesses can adapt to, let alone use effectively in a strategically coherent manner. Talent, technologies, strategies and structures will all need to evolve to create new value pools and markets. Banks must first consider where their strengths are, where their weaknesses are and what partnerships and ecosystem positioning is appropriate in seeking to deliver such a transformation.

Global growth: scarcity amidst plenty?

Global finance is set to outpace economic growth substantially over the next decade or so. By 2025, global financial capital could surpass a quadrillion dollars, which equates to over ten times global GDP^{iv}. This growth is concurrent with, and also partly because of, a shift in global growth towards emerging markets. Despite current woes, about 70 percent of global economic expansion to 2030 is forecast to come from emerging markets^v. Whether this coming shift proves the concept of geographic destiny remains to be seen. The variations in banks' global valuations continue to be substantial, but whereas geography accounted for 74 percent of the difference in 2010, by 2017 it lowered to 39 percent. The remaining 60 percent plus, notes McKinsey '...is due to the business model and its execution, strategy, well-aligned initiatives, and the other levers that banks command^{vi}.'

For many banks this growth, coupled with increasingly geography-agnostic success is ostensibly an ideal point in history. Such growth suggests a range of opportunities for incumbent banks, yet such headline growth masks an increasing range of challenges. History is littered with examples of product centred innovation that, absent the requisite concurrent organisational and cultural changes, resulted in spectacular failure.

If you were trying to build a model scenario for corporate success akin to the current opportunities in banking, being a cash-rich leading consumer tech company in the 1990's helping drive the development and boom of the consumer tech age may rank comparably. Having a history of cutting edge technological innovation would further reinforce this perception; developing one of the world's first digital cameras in 1975, OLED screens and cloud storage as early as the mid 1990's^{vii}. One company had all that and more, but this company was not Apple, but Kodak. Success ultimately made the organisational resistant to change and overly product as opposed to consumer, focused. Indeed, afraid of hurting its comfortably fat margins on film, it failed to market its own digital camera.

Likewise, Nokia commanded a 40 percent share of the global mobile market in 2008^{viii}. It too possessed a rich history of innovation but ultimately failed to transition to a new age. A product focus reinforced by a strategy that assumed emerging market consumers would buy its phones completely missed an emerging truth. Nokia was a very good phone company in a world that was transitioning away from buying phones. Smartphones redefined what a phone was and what a phone did. Emerging market consumers leaped technologically from no phone to smartphone and Nokia was ultimately left unable to play in the new market that had formed around it.



For institutions partially sheltered by onerous regulations, riding the bleeding edge may prove uncomfortable. However, the speed and spread of the same forces that accounted for Nokia and Kodak have both increased: the risk of stasis is now more significant than the discomfort of self-disruption. Perhaps nowhere is this more true than banking, which as an industry is still in part under the misapprehension that digital is a project to invest in, rather than a wider cultural and business transformation^{ix}.

Market change

It is suggested by Harvard Business Review that the coming phase of technological disruption is set to change banking more than the Great Recession did^x. At the core of the issue is that '... strategic success now requires a structural response. A company can't adapt to 21st-century conditions without modernizing its 20th-century structures^{xi}. Notably, around the world some 17 percent of banking and payment players evident in 2017 had entered the market since 2005^{xii}.

A new banking era

Although the emerging era will require requisite changes to culture and organisation, banks would appear vulnerable enough even in straight technological terms. 52 percent of bankers saying that their organisations do not invest enough in digital technology as part of their overarching strategy^{xiii}. Furthermore, just one in

five banks are confident they could detect a cybersecurity breach^{xiv}.

Tomorrow's organisations will increasingly inhabit a network of networks, whether they orchestrate, facilitate or contribute to such networks. People, sensors, and devices are increasingly interconnected, in many cases beyond traditional organisational boundaries. Increasingly the issues emerging from this are beyond the capabilities of the bank that relies on legacy structures and strategy.

Competition and collaboration

Since competition with agile and specifically targeted fintech is beyond the ability of the many banks that do hundreds of things moderately well but not one excellently, collaboration would appear to be banks' favoured strategy. 82 percent of banks plans to increase collaboration with fintech companies by 2020 to 2022^{xv}. Indeed, 42 percent of bank executives believe fintech collaboration will help lower the bank's cost base and one study suggests that 86 percent of bank executives expect to suffer if they don't embrace fintech^{xvi}.

It is techfin as opposed to fintech, that could prove more transformational for many banks however. These tech companies branching out into financial products will ensure '...even with the best collaboration, the ability for legacy financial institutions to compete in the future banking ecosystem will be challenged by the techfin



powerhouses^{xvii}. This is already happening, for example Alibaba's Alipay serves over 15 million small businesses in China^{xviii}.

Fintech/techfin

The number of new banking players in the British marketplace alone has risen 63 percent since 2005, with new entrants having captured 14 percent of total revenues in the sector thus far^{xix}. 'Shadow banks' and fintechs that do not aspire to be banks, held 48 percent of European financial sector assets in 2017, up from 22 percent in 2008^{xx}.

Banks and other traditional financial services provider could lose up to 35 percent of their current revenue to fintech companies by 2025^{xxi}. This risk is reflected in incumbents' own views, as they view around 23 percent of their business as at risk due to further fintech innovation^{xxii}. Growth prospects would seem robust, with the UK fintech sector is forecast to grow to more than 100,000 employees and 3,300 companies (double that of 2018) by 2030^{xxiii}. Such forecasts also have regulatory tailwinds, for example it is suggested that EU regulation with PSD2 could drive U.S banks into embracing fintech more fully or risking market share loss^{xxiv}. With China and India dominating the fintech landscape, banks will have to consider whether business models from the east will (increasingly) disrupt those in mature financial markets^{xxv}?

Critically, techfin entrants do not need full banking license to be able to

disrupt the industry since several low hanging fruits, such as payments, are on their own free of onerous regulation. Google has started partnering with Indian banks to provide online loans^{xxvi} in a market that has seen non-banking finance companies increase their share of overall total loans from 21 percent in 2014 to 44 percent in 2017^{xxvii}. Facebook has also made headlines for wanting access to customers' financial information^{xxviii}.



Tech change

Whether many banks have an overarching strategy capable of adjusting to the new normal is debateable. While some 86 percent of corporate banking executives acknowledge that digital will change both the competitive landscape and the economics of the business, only 43 percent admit to having an explicit digital strategy for this.

Furthermore, only 19 percent suggest their organisation has market leading digital capabilities^{xxix}. This should be conceived as a systemic issue; leadership, technology, organisation (and business models) and future skills and talent all impact each other to such a degree that, from a strategic sense, you cannot look at technology in isolation. That said, core capabilities in the narrower technology domain are appearing.

Data

In 2018, running a banking interest of any significant size is a tech-intensive proposition. The foundation underlying many emerging technologies and banks' future value propositions is data. This key, and often prerequisite, capability for wider digital transformation is alarmingly deficient in many banks. Around half are not doing enough to verify the accuracy and validity of their data, leaving them vulnerable to garbage-in-garbage-out (GIGO)^{xxx}.

The importance of data competency,

or indeed excellency, will rise as the IoT powers data generation. By 2025, around 160 zettabytes of data are forecast to emerge every year. For context, if all the words ever spoken over the last 3000 years were converted to audio files, the overall size would approach 40 zettabytes of data^{xxxi}. By this date, nearly a fifth of all data generated worldwide is forecast to be marked as 'critical' to daily life, and nearly a tenth forecast as 'hypercritical^{xxxii}.' This information is increasingly within the purview of ordinary consumers, with 70 percent of bankers suggesting both big data and machine learning will grow in importance. 23 percent expect a revolution in this space^{xxxiii}. Some banks are looking to co-opt this space, for example JPMorgan Chase has begun trading in a "dark pool," that lets clients use the bank's algorithms to buy and sell stocks^{xxxiv}.

Nevertheless, more than one in five financial institution decision-makers state they have limited trust, or even active distrust, in their analytics. Only 33 percent have a high level of trust in the way their organisation uses different types of analytics^{xxxv}. This evident gap with Silicon Valley born companies and the client-centricity its use of data enables, is critical to both talent issues and value propositions. Banks can only close this gap by '...enhancing data governance and infrastructure, building advanced-analytics capabilities, scaling up use cases, and pursuing continual improvement^{xxxvi}.' Banks may be tech companies, but few think like them. Developing the understanding, skills



and strategic propositions that are needed to yield the most from data requires technical skills – which could be acquired relatively quickly - and cultural change, which is more difficult to enact. Ultimately, change should focus on data intimacy and data leverage; whether banks become tech companies or vice versa is perhaps irrelevant^{xxxvii}.

5G

Business models will be transformed as high-speed and low-latency ubiquitous networks create a forecast \$12 trillion of related goods and services by 2035^{xxxviii}. 5G's characteristics will enable fintech innovation, necessitating a new paradigm in how banks use technology for customer experience and engagement, as well as back end processes and internal operations. It has been suggested that '...many familiar banking operations such as payment services will attain new forms extending to newer channels including wearables, IoT devices and virtual reality^{xxxix}.'

Models will shift. A focus on solving customers' issues is likely to predominate, and this could signal a subtle shift into systems architecture and other disciplines that take an enterprise-wide view of I.T systems. Since various emerging technologies create new moments for consumers; the ability to augment such moments with data driven insight or situational offers may help shift consumers behaviour and trust perception. The high-speed

and potentially increased security offered by 5G could shift capital markets in profound ways – by shortening settlement cycles significantly and lowering (or removing) latencies with real-time geographically agnostic trading capabilities^{xl}.

5G could also revolutionise the ways in which banks provide training and digital know-how. Micro-accreditation systems could be enabled by 5G – allowing precise tracking and assessment of skills in real-time. Allied with AI, this could become a recommendation engine for filling educational or digital blind spots or gaps.

Extended reality

Designing for engagement will become a critical task as the omnichannel expands to include a wider array of touch points. Since new forms of interaction will impact all core competencies for banks – from management of workers, marketing and sales to customer service – there is a need to address it at the very top of the organisation. Since this will include core users such as clients and front-line employees, banks need to ask what does interaction look like with an outside-in approach?

Overall design of corporate architecture will also receive much attention to allow companies to take advantage of deep seated changes in engagement. Banks will need to reimagine how their workers get things



done and where, how and where they interact and engage with bank clients and whether their current organisational structure is conducive to this agility.

Blockchain

Blockchain will almost certainly allow us to do things differently in the short term, but in the medium to longer term it will allow us to do different things. In a WEF survey of financial institution executives and experts, 58 percent believed that by 2025, we would hit a tipping point for blockchain. This was defined as '10 percent of global GDP will be stored on the blockchain.' Such an expression reveals a sea-change in attitudes towards digital assets and an appreciation of their ability to invert business models and unlock value. In addition, blockchain could power the nascent P2P economy. Independent of blockchain as a medium, global investment through crowdfunding could reach \$93 billion in 2025, from \$34 billion a decade earlier^{xli}.

Blockchain's potential is evidence in banks' own nascent exploration. 17 percent of banks have already generated revenue via blockchain^{xlii} and several have started experimenting with smart contracts^{xliii}. With Millennials now the most powerful consumer group in many economies, it is likely we will see movement in areas relating to trust and verification given their distrust of institutions, big business and claims in general. Broad reductions in trust^{xliiv} in business, government, NGO's and government,

but especially financial services firms – at 54 percent^{xliv} - means authority and influence is now shifting from 'leadership' to the wider population. Consumer-led trust score systems are therefore likely to emerge, leveraging an increasing array of data to assess 'trust' over a range of issues. Social blockchain could host an irrefutable trust score on its' ledger for every business^{xlvi}, compiled from real feedback directly attributable to a real person.

Artificial intelligence

'In the new economy, successful businesses will design their business processes around harnessing data from every department to fuel AI, just as industry once built around harnessing electrical power from other sources to fuel machinery^{xlvii},' notes Forbes. A.I is likely to change our industries, shift what is possible and change how we work. IBM CEO Rometty suggests that '...AI systems will touch all business decisions (with)in 5 years^{xlviii}.' Ultimately, banks will need to look at how they can explore artificial intelligence platforms for bettering the customer experience and developing a closer relationship with clients.

Artificial intelligence is also reckoned to risk 2.5 million financial jobs, saving banks \$1 trillion^{xlix} including 1.7 million in the U.S and Europe by 2026^l and 32 percent of existing UK jobs in financial services by 2030^{li}. It is likely that artificial intelligence will impact 100 percent of all banking jobs, requiring new skills, competencies, roles and



leadership. Beyond simply disrupting the industry, the World Economic Forum has warned that AI ‘...may destabilize the financial system^{lii}.’ Collaboration and networking across the banking industry could therefore become a critical component in ensuring AI development – and its subsequent regulation – develop in ways that benefit banks in the long term.

The tech threat

The emerging threat is well documented by a WEF report, which suggests that banks’ dependence on tech giants for much of their ‘strategically sensitive capabilities,’ remains a structural weakness. ‘In areas of rapid technological advances—cloud computing, artificial intelligence, and data analytics—the likes of Google, Amazon, and Facebook have far more experience than most banks. It would be difficult for the financial industry to catch up with its own capabilities, if it came to that^{liii}.’

Technology has grown to represent between 15 and 20 percent of the wholesale banking cost base yet the \$30 billion spent ‘...covers all core business functions and support areas, with limited funds left over for ‘grow the bank’ initiatives^{liiv}.’ In short, grafting new technology onto legacy processes, cultures and even tech bases will allow banks to do things differently, but not different things. It is here that banks are susceptible to techfin and ambitious fintech, no

matter how deep their collaboration with fintechs reaches.

Collaboration and competitors

Mid markets positions are likely to erode in the face of increased competition, the advance of fintech, regulation, market demands and digitisation. As a result, bank strategies are likely to broadly bifurcate into niche players and ecosystem hubs, driving very different structures and core competencies at either end of the spectrum.

It is unlikely that many incumbents have the capacities needed to move into some of these spaces, however. Collective solutions in the form of platforms and ecosystems will emerge, requiring the construction of new frameworks to enable shared accountability in terms of data, cybersecurity, access and beyond. However, many incumbents not only have the tech threat to contend with, but also assess how data access, sharing and partnerships impact their wider competitive positioning. Partnership development and formation is therefore emerging as a critical competency for banks – especially in the open banking era. Restrictions on data sharing could complicate partnership formation and impact potential efficacy and potential conflicts of interest could limit the extent and longevity of many partnerships.

Organisational change

All organisations and industries are built, to varying degrees, around (traditional) assumptions and beliefs surrounding value creation as well as a resultant set of behaviours. This 'mental model,' has often been found as unfit for purpose in the digital economy and inverting some core beliefs is a prerequisite for changing wider business models and any successful digital transformation^{lv}. Cultural obstacles correlate clearly with negative economic performance^{lvi}. In many cases, it is the friction of new technology against legacy systems, legacy processes and legacy people that causes problems rather than pure tech issues per se.

Cultural and strategic change

The requisite changes in ways of doing things runs contrary to layers of accumulated and established ways of working, both within management and the day-to-day operations of workers. 54 percent of executives say that having a corporate culture unable to embrace digital technologies is one of their biggest barriers^{lvii}. 68 percent of executives say that their organisation needs new leadership to compete in the digital age^{lviii} and only 7 percent to 18 percent of organisations possess the digital dexterity to adopt new ways of work solutions, such as virtual collaboration and mobile work^{lix}. Legacy systems simply won't cut it with fifty years of digital transformation happening in the next five years^{lx}, whether from a technical, cultural,

organisational or managerial perspective.

Banks will have to go through radical change across the range of its competencies to survive and thrive amid a raft of new challengers and challenges and this has to start now^{lxi}. The efforts, in terms of time and capital, to enact cultural transformation must equal or exceed that given to operational transformations^{lxii}. Organic change against a backdrop of continuous and often rapid shifts will not suffice in the digital age, or the imminent intelligent era. To this end, bank '...executives must be proactive in shaping and measuring culture, approaching it with the same rigor and discipline with which they tackle operational transformations,' says McKinsey^{lxiii}.

Talent

At one extreme, Deutsche Bank's ex-head of equities believes banking careers are over^{lxiv}. While jobs will continue to exist in the industry, they will likely have different requirements, skillsets and purposes to the historic range of employment opportunities. There is no playbook for how financial institutions should manage the talent transformation that AI will precipitate^{lxv}, yet if the half-life of a job skill is now about five years as research claims, continuous disruption is baked into banks whether we tacitly accept it or not^{lxvi}.

Many banks start from a handicapped position with regards to digital talent;



only 7 percent of U.S. graduates see banking and capital markets as a top industry to work for^{lxvii}. Against this backdrop, some 82 percent of employees across all industries expect digital to transform their workplace in the next three years. Tech infrastructure and sophistication could become key attractions for talent within industries and companies. Talent pathways, banks' value propositions for Millennials and GenZ as employees and the way in which work is shaped by technology must all be carefully assessed. This is the case for existing jobs, their evolution, and the emergence of entirely new roles that diverge to varying degrees from the traditional skillset found in bank employees. Such jobs could include^{lxviii}:

- **Extended Reality Experience Designer:** Overlaying our physical world with a layer of digital data creates new workforce formation and empowerment options, and our future banking interactions as customers.
- **Algorithm Mechanic:** Algorithms are incredibly powerful tools, but with swathes of decision making flowing from them, it is increasingly important to validate inputs and outputs. Given the fast-changing environment of shifting regulations, new information, evolving products, not to mention instances of incomplete or outright false consumer data, these algorithms may require near constant tuning.
- **Data Scientist^{lxix}:** In addition, as technology improves, banks will be able to evaluate risk using highly complex formulas, and do it in real time. The why, when and how of consumer interaction may be increasingly personalised as a result.
- **Financial Services Partner:** Data science could drive new classes of banking jobs. A trusted advisor using algorithms and latest ecosystem knowledge could advise in an on-demand nature allied to consumer wants and needs.
- **Conversational Interface Designer:** Different mediums – from VR to voice and AR to AI will require different interface design as our dependence on the screen lessens.
- **Universal Service Advisor:** Somewhat ironically, call-centre style jobs are likely to emerge from the influx of A.I and pay extremely well. While routine questions may be handled by increasingly automated systems, complex issue will need to be handled by technologically adroit experts able to switch between technology mediums and converse confidently to meet customer needs.
- **Digital Process Engineer:** With new workforce configurations likely – chiefly team working on an ad hoc basis and virtual collaboration between ecosystem partners, a digital process engineer may be

needed to analyse, assemble and optimise various workflows in ways that maximize efficiency and remain secure.

- **Partnership Gateway Enabler:** 'In an increasingly networked business world, the digital relationships with banking partners, Gateway Controllers will balance technical knowledge of the digital interfaces with an understanding of security and risk management.'
- **Behavioural Psychologist:** A behavioural psychologist could enable a more holistic understanding of consumers. Together with data driven insight, such roles could better match products and services to customers at various touch points, including in real-time^{lxx}.
- **Community Advocacy Builder:** This role could knit together parts of a banks' given ecosystem – allowing banks to reposition themselves as lifestyle consultants rather than simply money repositories^{lxxi}.

Depending on their target market, starting point with regards to technology and ultimately, different strategies, talent mixes will diverge from bank to bank and sector to sector. While all banks will likely possess a technical base to some degree, the organisation and structure of this (in-house vs ecosystem provided for example) will result in varying talent footprints. For banks and financial services providers looking to

compete not just with fintechs but techfins too, the need to develop pathways and propositions to match big tech's will be urgent given the uneven supply of demand and supply of such talent in the wider employment marketplace. This will necessitate approaches not seen before in the banking sector; expectations from employees are being set by Google and other tech firms. New modes of working, non-salary perks and wider societal good will need to be analysed in detail. A virtual workforce, for example, is noted by Accenture as independently able to '...complete customer-facing and operational tasks to provide increased enterprise scalability and agility^{lxxii}.' Management norms, tech infrastructure and corporate culture all need to change to enable what is on the face of it, a simple shift.

Platform and ecosystems

Platforms, in all their guises, act as frameworks for collaboration between users, providers and third parties which also results in these definitions blurring somewhat. Fundamental rules of strategy are broken, with emphasis increasingly placed on external interactions, generating ecosystem value and harnessing network effects. Failure to appreciate this shift is one obvious source of disruption for business lacking the agility or culture to adapt

The power of platforms is proven across a range of industries, and this range will increase. As of April 2017, Airbnb had 4 million listings worldwide



which equates to more rooms than the top five hotel brands combined, at 3.9 million^{lxxiii}. Platform ecosystems play a strategic role in all types of businesses. They can be asset heavy like GE and Philips, asset light like Google or Uber, or those like Apple/Amazon that have powerful platform ecosystems combined with asset driven businesses. Such ecosystems are forecast to replace numerous value chains in the coming decade, which account for \$60 trillion (or more than 30 percent) in global GDP^{lxxiv}.

The shift to platforms emphasises orchestration, external interaction and ecosystem value focus. Corporate practices, internal silo, mindsets and data-ownership issues will likely need to change as a result. Those banks that succeed in developing an ecosystem strategy could possibly raise their ROE to about 9 to 10 percent, and those that create their own platforms possibly up to 14 percent^{lxxv}. Beyond open architectures platforming or pooling certain common services, banks should consider where platforms could lead. Deloitte paints the scenario of ‘...four of the world’s largest banks combining resources to develop a new form of digital currency to clear and settle financial transactions which is estimated to cost the industry \$65bn to \$80bn annually^{lxxvi}.’

Digital transformation

Digital transformation cuts across technology, organisational and market change. An Accenture study aiming to

quantify and understand the structural changes occurring within banking noted that the ‘...overarching takeaway from the study is that a digitally enhanced version of business as usual is unlikely to be a winning strategy for banks competing in the digital age^{lxxvii}.’ Technology remains a key component of digital transformation, but organisational, cultural and structural change are also required – and are perhaps more important.

Organisational changes will differ from bank to bank given different starting points, sizes and other factors, but broadly speaking, banks will need to reimagine their front, middle, and back offices. Leadership skills in innovation, risk management and services will need to be re-imagined. ‘Those that succeed will achieve as much as double-digit revenue growth, as high as a 20-percentage-point drop in cost-to-income ratios, and an ROE advantage of ten percentage points against lagging peers^{lxxviii}.’

Putting aside for one moment that digital transformation is as much a cultural, organisational and management shift as it is a technical one, some 62 percent of banks expect to be digitally mature by 2020, compared with just 19 percent in 2017^{lxxix}. As renowned financial commentator Chris Skinner notes, ‘...who knows what “digital” really is? Bankers who think they have transformed their organisations to become digital may have to think again^{lxxx}.’ With just one in ten banks currently executing an omnichannel



strategy^{lxxxix} and up to 25 percent of consumers showing an interest in voice- controlled assistants for everyday banking^{lxxxix}, such thinking had better commence quickly.

Retail banks

By 2021, Asia could surpass North America as the region with the highest retail banking revenues^{lxxxix} and by 2025 China could provide the 'single largest growth opportunity' for global investment managers, with the country's mutual fund assets forecast to multiply fivefold to reach \$7.5 trillion^{lxxxix}. Ageing Asia will also swell global assets under management by 2025, almost doubling their value^{lxxxix}. In China and across emerging markets 'super apps' are shaping the future of finance as '...digital inclusion has now outpaced and effectively substituted financial inclusion^{lxxxix}.'

In China, Ant Financial added 100 million new clients to a client base in excess of 500 million in 2016, representing a near equivalence of 10 times the number held by the world's leading banks. In 2018, Ant Financial is now rightly viewed as one of the largest financial services companies in the world considered one of the largest financial services companies in the world. Data is the fuel behind this growth as such platforms '...now have the capability to evaluate the credit risk of small borrowers with no credit or collateral history through mobile behavioural data^{lxxxix}.'

Such developments demonstrate banks need to reposition for the future. Globally, 77 percent of bankers believe that more than 50 percent of payments will flow outside traditional banking networks by 2020, with bankers in Asia-Pacific the most likely to agree^{lxxxix}.

Consumers and CX

Of the fifty largest global banks, three out of four now pledge themselves to some form of customer-experience transformation according to McKinsey^{lxxxix}. Such transformation must reorient the balance of power (i.e. information asymmetry) between banks and their customers since trust may soon be a commodity that consumers not only want from the brands with which they interact, but demand, as they become empowered by new technologies such as blockchain.

Consumer behaviour will drive banking change. 'The relationship between financial brands and consumers is poised for radical change, giving people total control and vision of their finances^{xc}.' Signs of consumer change are already visible: 63 percent of UK customers suggest they're willing to share financial information concerning their accounts with a competing bank, fintech or aggregator in pursuit of a better offer^{xc}. Banks that do not accept the shifting balance of consumer power will likely suffer, and few blueprints exist for how to capitalize on these changes. However, a close examination of how key technologies, and in what configurations, could help



drive overall strategy is a necessary first step.

This needs to include physical assets, such as the branch. Since even 93 percent of millennials want to visit a branch for at least some matters^{xcii}, it is time incumbents took a strategic look at their offerings. Second only to excessive fees, a poor branch experience is cited as the most common reason consumers switch banks^{xciii}. Statistics confirm banks' misuse of branches:

- 'Less than one in five banks offer digital appointment booking for branch visits, and most do not have visibility into the average wait time for these more specialized visits.
- Many banks still do not have any automated processes for generating loans applications, still relying on paper applications that tie bank staff up rather than speeding the transaction.
- Only 13 percent of banks have tablet-based applications for front-line staff, so most bankers remain tethered to desktops. That means they have to take customers back to their office and tie up additional time, even to answer simple questions^{xciv}.'

Tech mix

Banks will need to develop a strategic sense of how technologies connect with each other, how they enable strategy and how they enhance

consumer experience. Even relatively prosaic technology in use will need to be examined, since, for example, only around half of US customers strongly agreed that their primary bank's website lets them do everything they need, and only 31 percent agreeing for primary bank apps.

A key message is to remember that '...angling for quick disruptions is no longer sufficient: everything and everyone is getting connected, everywhere and at all times^{xcv}.' One of the key architectures for this is the IoT; over 40 percent of banks are experimenting with IoT^{xcvi} and 80 percent of retail banks are expected to by 2020. Chase, for example, is testing beacon technologies to 'pre-announce' customers before they approach a human bank teller or ATM^{xcvii}, if that is, the customer has opted in.

Analysis by Deloitte suggests that perhaps as many as fifty percent of all sensors deployed by 2020 could be of use to the financial services sector, up from 33 percent in 2015 and 25 percent in 2013^{xcviii}. Whether one takes a conservative estimate or else an optimistic one on just how many sensors will be deployed by 2020, there will be several billion sensors deployed within two years that could provide a range of useful data to financial services organisations^{xcix}. This alone should prompt a look at where banks could operate within new ecosystems, what they could do with this data that benefits their customers and how to build new models around it. In the short-term the IoT may add to complexity as applications in banking



migrate from common uses with tangible measures to new and experimental uses with intangible measures^c. However, IoT applications could also enable banks to improve their underwriting processes and reach new markets. 'The pattern of 'life data' could emerge as an innovative way to de-commoditize consumer financial products. Consequently, new businesses may emerge to meet the market need for access to these data flows^{ci}.'

The promise, of course, is that access to this data will enable banks and other financial providers to both form and leverage a more complete picture of the individual customer. This should allow more personalisation - whether in the form of offers, real-time lending decisions or through adding value by providing IoT gleaned insights back to the customers. Banks could, for example, '...help to fraud occurring in the first place, given that tracking the geolocation of a customer's assets can assist in discerning where risk particularly lies^{cii}.' With wearable technology use rapidly expanding - some 345 million people are forecast to use wearable devices on a daily basis by 2020, significant virtual and real time markets are opening up. That could enable banks to collate, and re-dispense people's own data back to them in insightful ways that enable better decision making, pre-emptive behaviour and better adherence to financial goals^{ciii}.

PwC's Dean Nicolacakis suggests that automation and its synergies with other technologies could compel

financial services to become '...embedded directly into the user activity itself as a native, not a separate, function^{civ}.' A couple of years ago, PwC made the claim that banks as we know them may no longer be needed by 2025. The continuation of an ever-more connected digital lifestyle, the emergence of the IoT and a profusion of digital applications is likely to augment this trend in which banking becomes embedded in everyday activities to a greater degree. Data driven, tech-savvy banks should be able to adapt a truly customer-centric model if they are able to use their data stewardship to open new value chains. The opportunities in such a move would appear significant, but are matched only by the challenges of ignoring this trend; API-powered and data fueled business models are already appearing, such as with Figo and Open Bank Project.

In transitioning to an 'ambient' bank able to use platforms to dispense personalised information, data and insights unobtrusively and at actionable points, incumbent financial institutions are essentially accepting the value proposition of fintech. The adoption of a fintech veneer is easy enough yet the processes, systems and culture of the incumbent must align with the technology is its' full potential is to be realised. To adapt legacy systems and legacy people to enable the deeper benefits that come from excellence in data provenance, interface design and value proposition are more difficult, but will help distinguish those who disappear from



those who choose to become invisible in the digital age.

The shift from people to platforms that AI encourages is visible with the emerging roles of robo-advisors. \$2.2 trillion could be managed by 2020 through these platforms^{cv}, and it is plausible that '...investors will use several robo-advisors to manage their money, like they use several bank accounts today^{cvi}.' Autonomous personal finance could increasingly represent the future of 'banking' for many, with elements of autonomy appearing. Swedish bank SEB, uses a virtual assistant called Aida as a tool for interaction. By interrogating swathes of data, Aida can deal with FAQ's, ask follow-up questions flowing from them and analyse the caller's tone of voice^{cvi}. Such autonomy can help free up talent for more value adding tasks.

The impacts of AI have other perhaps lesser appreciated features. Some two thirds of financial services firms in the U.S say they are hindered in AI adoption by operations, regulations and budget /resource limitations^{cvi}. Such limitations may push such banks towards a cost cutting implementation of AI – focused on outright automation replacement for example, but leaving more interesting combinations of talent and AI to fintechs and techfins.

Such digitally mature competition could capture 35 percent of full service banks' market share by 2020^{cix} and even in areas of relative consumer conservatism such as Europe, 21 percent within the next five years^{cx}.

Opportunities exist for partnerships advantageous to incumbents since post-GFC regulations offer some protection against direct like for like competition, but as emergent new comers focus on the lower hanging fruits, delaying such partnerships may increase the pain at the margins for incumbents and create a slide into irrelevance.

Future models and footprints

Banks' short term options include pursuing M&A, focusing on product specialisation, or deciding to collapse the value chain and participate in financial ecosystems or platforms^{cx}. Irrespective of the direction, as the shift towards consumer-centric, technologically enabled models progresses, a sea change is likely in how we conceive of banks. Within our lifetime, generations will likely think of banking as we think about dial-up internet or landlines^{cxii}. Indeed, a senior Deutsche Bank executive has even suggested that a hitherto core banking component – bank accounts - could be obsolete within 15 years^{cxiii}. Despite the opportunities inherent in technology, most banks' business models remain poorly equipped to adapt to technological disruption^{cxiv}, whereas fintechs – unencumbered by legacy - can innovate unique offerings via A.I and other technologies and utilise open banking to access data. New paradigms for incumbents will be needed to combat what could become a terminal threat.

Four broad although not mutually exclusive models could emerge from



the turbulence set to impact banking, as outlined by Bain^{cxv}.

- The first is for banks to become the ‘infrastructure’ providers in an open banking environment. Banks may even extend their core infrastructure to other financial institutions in an effort to remain consumer centric but need to undergo substantial organisational and strategic change.
- Indeed, future banks may increasingly look like an IT company with a banking license^{cxvi}. Another option that satisfies this is for banks to become ‘aggregators.’ The economics of aggregators hinge on taking a larger share of the banking wallet, earning greater loyalty from customers and taking a fee for various value-added transactions flows. There is, however, a huge cultural shift in moving from control to curation.
- Digital pure play banks, exemplified by Atom in the UK and Marcus by Goldman Sachs are another option, running off a lower cost base and well placed for future trends. 72 percent of the UK adult population are forecast to bank via a phone app by 2023 and only visit a branch twice a year^{cxvii}.
- Embedded component experiences. The economic model here revolves around transaction fees from the retailer or other company

running the online platform. Nearly 78 percent of bankers believe that platformisation of the banking sector will help them to retain and regain businesses against new payment players^{cxviii}.

- Another possible model lies in the banking of digital identity. Outlined by the World Economic Forum, it is suggested that a ‘...person’s data should reside in an account where it would be controlled, managed, exchanged and accounted for^{cxix},’ by around 2028. If data does indeed become a bankable commodity then banks have an opportunity to become the safe-keepers of the underlying digital identity. Digital identity systems will likely proliferate as a medium for managing personal data flows (i.e a consolidated point of control as consumers gain increased control over how their data is used) Digital identity, as part of a wider initiative, could enable banks to reposition themselves as trusted advisers. BBVA, for example, has launched Veridas along with the start-up Das-Nano. It ‘...specializes in biometry that helps develop customer identification and authenticity systems that are securer and easier to use^{cxx}.’
- A further possibility, hinted at earlier in this paper, repositions the bank as a life events manager that focuses on how consumer stress points in the



wider sense could be mitigated. Managing big events – from weddings to moving home, could see banks partner with the wider and provide services that reach across current industry boundaries. Since nearly activities – and certainly major life events- have significant personal financial implications, banks could develop a more holistic understanding of money management^{cxxi}.

An additional banking model that could appear, albeit one unavailable for incumbents, is the techfin model. Bain estimates that a banking service from Amazon could pull in more than 70 million US customer accounts within five years, equalling the size of the country's third-largest bank, Wells Fargo^{cxxii}. Another possibility, mixing elements of the above models, lies in a low-cost airline carrier type model whereby the bank competes on price and ensures consumers have full transparency on services and charges. The platform for such a bank already exists, notes Insead, but is '...vastly underutilised by large banks^{cxxiii}'.

Key takeaways

- Many retail banks will undergo reinvention and become part of an ever-widening yet integrated networks^{cxxiv}.
- Retail bank leaders will need to look beyond traditional targets and goals to develop the ability to adjust to a changing and volatile macroeconomic environment.
- That may require new performance metrics, planning techniques and even organisation structures.
- Personalization will become the new mass market.
- A.I and other technologies could revolutionise banking, making it almost omnipresent/invisible and more embedded in everyday life.
- A vast array of new models are appearing, but the time and space to make the adjustment or jump - is closing.
- Sources of competition are evolving and expanding. Developing unique selling points is vital
- The interplay of data, platforms and regulation will be key in determining appropriate ecosystem positioning.

Commercial banks

The urgency to anticipate and respond to change within the wider corporate and commercial bank industry runs along two lines. The first is an accelerating need for adaptive change in which new business models evolve in response to shifting market opportunities and challenges. The second, more destructive form sees new organisations and new business models push incumbents into irrelevance. The problem for commercial banks is that both are happening at once and each requires different responses, yet a common theme can help anchor efforts to deal with both. Central to both streams of change is the requisite repositioning of the client at the centre of the business model

Clients and CX

Developing a more client centric proposition will require better data use and a resulting superior value proposition. These can both arise from multiple places. For example, as Deloitte notes, intelligent risk culture is set to become a key source of competitive advantage but the technical shift from overnight to real-time analysis requires new organisational capabilities^{cxxv}. Developing a new perspective on CX cannot be achieved by plug and play technology.

McKinsey cites four transformational levers for corporate banks^{cxxvi} - all of which require technological and organisational responses – that could

help orient the model around clients' needs and wants.

- Strengthen client relationships with differentiated multichannel coverage.
- Digitize processes end-to-end.
- Redefine the product offering.
- Build an advanced-analytics DNA.

However, as few as one in five executives feels that their bank has made significant progress towards their target state^{cxxvii}. Whether because of poor leadership, cultural inertia, lack of technical know-how, the burden of legacy technology or insufficient change management nous, stasis and the status-quo will not work in an era of accelerating client expectations. Commercial customers are also retail customers too, so even though some of the needs will differ, the basics of customer experience expectations will be similar. As ever, those eschewing innovation risk being left behind.

Over the next five years, BCG expect new digital platforms and channels to attract around 30 percent of traditional corporate banking revenue^{cxxviii}. This risk is reflected in incumbents' own views, as they view around 23 percent of their business as at risk due to further fintech innovation^{cxxix}.

Tech mix

It is difficult to suggest whether commercial banks' focus on prosaic technologies is a result of their relatively meek attempts to craft digital propositions thus far or else a worrying



lack of imagination. Either way, some 68 percent of banking execs suggest the biggest tech impact on their business in the next five years will come from banking apps. No doubt they will be important, but alone such apps will rarely lead to a market leading position. In terms of disruption, commercial bankers also rank such apps highly, with only cryptocurrencies and virtual assistants reckoned to have a greater disruptive potential. Surprisingly, only 32 percent suggest machine learning will have a future influence on the sector^{cxxx}.

This latter figure is especially jarring given the emerging uses of machine learning. WEF notes that AI in general is ‘...launching a commercial banking renaissance through improved data integration and analytics tools that unlock a vast underserved market^{cxxxi}.’ Machine learning and deep learning could yield whole new business models and revenue pools in a way that apps simply can’t. Incumbents, for example, generally have no real-time visibility as to the financial situation of their clients. Integrating data streams into client advisory with the help of machine learning and predictive analytics could almost certainly improve decision making and boost advice quality.

Machine learning also has a large part to play in the vulnerability of many codified, repeatable tasks and jobs seen within the industry. McKinsey notes that ‘...within commercial banks, relationship managers, underwriters, and portfolio managers still spend more than 40 percent or more of their

time on non-core administrative, repetitive, and automatable tasks^{cxxxii}.’ Nevertheless, signs of outright replacement are emerging: as many as 10,000 jobs at Citi’s investment bank could be automated from a total of around 20,000 jobs, according to a senior executive with tech and operations positions deemed most vulnerable^{cxxxiii}. Existing experience with deploying intelligent automation technologies across capital markets organisations ‘...suggests that most firms could reduce FTE costs by up to 30 percent from defined back-office and corporate processes alone^{cxxxiv}.’

Other uses of machine learning are emerging. For example, Germany’s second largest bank, Commerzbank, is exploring the use of AI to write analyst reports and differentiate itself from competition^{cxxxv}. McKinsey notes that ‘...in Europe, more than a dozen banks have replaced older statistical-modelling approaches with machine-learning techniques and, in some cases, experienced 10 percent increases in sales of new products, 20 percent savings in capital expenditures, 20 percent increases in cash collections, and 20 percent declines in churn^{cxxxvi}.’

Other possibilities are emerging at the intersection of multiple technologies. For example, ‘Commonwealth Bank of Australia, Wells Fargo and trading firm Brighann Cotton claim to have completed the first global trade transaction between two banks using blockchain, smart contracts and the IoT. The transaction involved a shipment of cotton from Texas to



China^{cxxxvii}.’ Standard Chartered and Huawei meanwhile, have developed an IoT solution that ‘...could change how companies communicate with banks for financing or payments^{cxxxviii}.’

Likewise using a mixture of technologies – this time smart wearables and the Oculus headset - Polish fintech Comarch ‘...has created an AR ecosystem for small investors and business owners. Communication takes place via smart watches and smartphones, and data can be presented in virtualized meetings via the headset^{cxxxix}.’ With 75 percent of financial services ranking the enhancement of customer service as a top objective of their fintech strategy, we would expect further development in the extended reality space^{cxl}.

Future models

Despite the opportunities inherent in technology, most banks' business models remain poorly equipped to adapt to technological disruption^{cxli}. In part, this is because most corporate banks have essentially the same business model. The future will hold an increasing divergent set, with BCG painting four of these broad models as^{cxlii},

- ‘Concentrating on offering their own products and services. Although attractive as requiring the least change, this will require significant resources and capabilities.
- Another path is for a bank to

leverage an element of its existing business that it excels at and create a digital ecosystem to serve that segment completely.

- A third option could see the development of a highly efficient digital platform where corporate customers can access a vast array of solutions from the bank as well as from other banks and third parties.’ There is, however, a huge cultural shift in moving from control to curation.
- Banks could also conclude that its ‘...strengths are related mainly to its products and services, so instead of managing corporate customer relationships directly, it would rather supply its products and services to other banks and third-party platforms.’ Banks extend their core infrastructure to other financial institutions attempting to remain client centric, but need to undergo substantial organisational and strategic change^{cxliii}.

Key takeaways

- Many commercial and corporate banks remain behind the curve with regards to adopting transformational tech, and aligning it closely to strategy.
- Information asymmetries lie at the heart of many financial models, where the institution has more knowledge than the individual user or company. The IoT could change this, requiring banks to provide new sources of value.
- The tipping point is imminent in crafting on a new direction. Waiting for competitor movement before deciding a course of action will increase the risk posed by emerging market entities, fintech and other sources of competition.
- Strategic partnerships will be critical in determining tomorrow's winners, with access to data, the correct governance of it, and the ability to develop insights from it, of high import.
- Developing a new perspective on CX cannot be achieved by plug and play technology. Banks must develop new value propositions – enabled by technology – to defend the 30 percent of revenue deemed at risk and open new revenue streams.
- Radical new ideas are made possible by the shift from the digital era to the intelligent era. The Commonwealth Bank of

Australia, for example, is reportedly considering the implications of a future in which '...machines have their own bank accounts and pay for replacement parts and engineers to service them^{cxliv}.

- Developing the cultural and leadership skills, or cache, to deal with a wider transformation is a prerequisite for success.



Investment banks

Currently the industry faces a range of headwinds: the value chain is rebalancing and disintermediating, automation is impacting internal processes and even talent acquisition and retention. At the same time, with negative publicity, fee compression and constantly evolving regulation also impinging on the industry, wholesale redesign is necessary to combat this range of issues.

However, one of the principal dangers in how digital transformation is conceived, is of the concept of an end state. Given the range of factors confronting capital markets and investment banks, continuous change and flux looks set to become the norm. Agility, the ability to both adapt to and create new opportunities and to do so in ways that satisfy both market demand and regulation, will become central to competitive advantage. As with other banking sectors, this requires not only a streamlined use of technology, but structures, processes and even workforces that can be scaled at short notice.

Clients and CX

The array of client expectations is at risk of exceeding the ability of incumbents to provide them. Some 80 percent of clients expect increased demand for products that incorporate a range of values^{cxlv}.

Amidst these trends, some cultural challenges for investment firms exist:

- Only 14 percent say their firm has a very large cultural and financial commitment to innovation in products and services.
- Only 51 percent say their firm's top technology priority is use of technology for client engagement.

Although greater general banking M&A could provide short term gains for investment banks, their financial advisor model could come under strain. Online investment adviser Betterment was launched in 2010 with the aim of providing fully automated investment management that would thus democratise traditional wealth management. With strategies dependent on an individual's goals and risk appetite, the lack of investment minimum and fees between 0.15 percent and 0.35 percent provide a new concept that could sidestep traditional models. The service also provides no investment minimums and provides cues on tax implications of transactions and behaviour that could change the risk/reward balance. 'By April 2016, Betterment had \$4.3 billion in assets under management, up from \$1.1 billion at the end of 2014. Betterment still represents a tiny fraction of the \$3 trillion US investment market^{cxlvi}, yet could represent a typical medium through which investment banks face decline by a thousand cuts.

Technology will inevitably evolve from allowing us to do things differently to doing different things, hence the need to evolve process, strategy and how



customers are both engaged and served. Strategic partnerships are likely to prove a common vehicle for accessing capabilities that may remain beyond the remit of existing talent and structures.

Tech mix

In its paper on capital markets, Accenture notes that ‘...the emergence of digitally enabled ecosystems that provide component services across technology, processes, skills and data could provide up to 30 percent or more of savings across the enterprise in a steady state. On typical baseline profiles, that could translate into more than \$10 million of savings per year^{cxlvii}.’

This technological basis must contain strong client-centric propositions. Real-time analysis and data visualisation encompassing multiple data silos could enable better responsiveness and enhanced customer insight. Goldman Sachs has already entered into partnership with Kensho to use its real-time statistical computing and analytics technology across the firm. The Kensho system ‘...uses massively parallel statistical computing, natural-language inputs, big data and machine learning to answer complex financial questions posed in plain English^{cxlviii}.’ The introduction of machine learning could also help drive better customer profiling and in turn rationalised and more efficient client support operations. In some cases, ‘...such interventions could generate annual

cost savings in the double-digit millions^{cxlix}.’

Part of this, no doubt, would arise through a more focussed, effective yet reduced labour need in support positions. This would continue a well-established process within finance; in the year 2000, Wall Street employed 150,000 people. Despite (or perhaps because) of a subsequent rise in transaction volumes and profits along with the disruption of the Great Financial Crisis, the number employed is now less than 100,000, thanks in no small part to the advent and widespread penetration of artificial intelligence and trading algorithms into the financial system^{cl}.

In terms of both talent, medium and provision, AI is prompting investment managers to shift their business models by replacing or altering core differentiating capabilities^{cli}. This could even occur at the product level, for example ‘...passive products could increasingly develop active characteristics as models mimic complex strategies or develop their own^{clii}.’ In addition to uncovering synergies and new revenue streams, A.I can help simplify risk. In June 2016 Nasdaq announced that it had begun testing an artificial intelligence ‘surveillance’ platform with the aim of spotting potential rogue traders^{cliii}. Indeed, ‘...given the strict regulatory environment in the banking industry, regtech oriented AI can keep companies up to date on the latest regulatory implementations and advise insurance companies on policy development and pricing models^{cliv}.’



Another key technology, blockchain, is thought capable of increasing global trade volumes by \$1.1 trillion by 2026, from \$16 trillion currently. Bain suggests that blockchain based solutions could provide a \$2 billion annual revenue lift in documentary trade finance by 2026 for the global banking industry^{clv}. Forbes notes that ‘...investment banks alone could save up to \$12 billion per year by adopting blockchain and smart contracts, effectively a program code that automatically performs some actions when pre-defined conditions occur (i.e. if X does Y, then execute Z)^{clvi}.’ Others are less optimistic with regards to timing but still supportive of the general direction, with Juniper Research projecting that banks' cost savings from using blockchain will reach \$1 billion by 2024, but then rising substantially to reach \$27 billion by 2030^{clvii}. It is likely that smart contracts will disrupt the derivatives market even if the exact date of the tipping point remains unknowable. Indeed, it is posited that distributed ledger technology could reduce trade finance operating costs by between 50 percent and 80 percent^{clviii}. This is likely to be the start, rather than the endpoint, of blockchain applications since the State Bank of India has suggested that blockchain could cease all traditional banking services by 2030^{clix}.

Future models

Several of the models highlighted in the retail banks and commercial banks sections apply to varying degrees to investment banking. The underlying

key to long term success is likely to involve crafting a more effective ecosystem, rather than a bigger bank. This inevitably involves new organisational and operating models. Ernst & Young suggests the latter ‘...will be far more aligned to legal entities and will have a much thinner spine than investment banks have today, making extensive use of industry utilities and a diverse range of partners to deliver better services, drive out cost, manage risks and help protect the organisation^{clx}.’ Such flexibility, if concurrent with virtual work models, could result in ‘...a diminished legacy estate, (with) expenses more 30 percent lower than they are today.’

None of these changes, or the work implied in their implementation, are incremental. The challenge for investment banking is for leaders to embark on broader transformation. Very few future visions that set forth new directions are apparent. The winners of tomorrow will rely on how they transfer innovation ideas into new models, and how successfully they can orchestrate wider ecosystem formation with their partners.



Key takeaways

- Blockchain could enhance compliance; once the conditions of a blockchain based smart contract are fulfilled, exchanges and transfers could happen automatically, with associated tax and compliance done automatically.
- Applications of AI and machine learning to data could result in new and unexpected forms of interconnectedness between financial markets and institutions.
- Network effects and scalability of new technologies may give rise to third-party dependencies and strategically important players and platforms.
- Develop organisational coherence and adaptable leadership.
- 'Organisations must ensure maximum transparency with respect to exercising fiduciary responsibility; build a better framework for measuring client perceptions of value and outcomes; and communicate early and often^{clxi}.' In short, investment banks should aim to build fiduciary culture around client outcomes.
- All investment firms should try to understand clients' and stakeholders' wider concerns and needs in the pursuit of both better customer experience and new revenue streams.

Regulation

It is noted by many that the unfolding age of continuous change ushered in by technology will change banking more than the global financial crisis did. Regulation, however, is set to remain an on-going challenge for banks and perhaps even increase in import as tech-related regulations emerge. Although compliance is considered a cost in many cases, it may acquire strategic significance. The evolution of data regulations, for example, will likely prove significant in determining the roles and relative positioning of different players in financial services ecosystems. In this case, a strategic view of regulation could be critical in assessing an appropriate future ecosystem position, form and role.

Currently, the inconsistent international patchwork of regulations cost financial services companies between 5 and 10 percent of their annual revenue, and the global economy some \$780 billion annually^{clxii}. KPMG suggests that on balance, regulation and supervision are more likely to be extended in the period to 2030 than rolled back in some fashion, concluding that ‘...in part this will reflect regulation moving into new areas (or expanding in existing areas) largely unrelated to the financial crisis of ten years ago, including fintech, cyber security, anti-money laundering and counter terrorist financing, wholesale conduct, and potentially a raft of regulation driven by social objectives such as climate change and financial inclusion^{clxiii}.’

Given many banks drive to transform into tech companies, digital companies and perhaps in the future, IoT companies, it is worth considering how regulation in these spheres is evolving. Chris Skinner has suggested that tech firms will be regulated like banks in the future^{clxiv}. Perhaps banks have a comparative advantage vis a vis emerging techfin or fintech competitors in this area given their recent history of adapting to complex regulatory requirements, but prudence would be wise in monitoring what changes could happen and how they would impact long term strategy as well as day-to-day operations.

Scenario planning could help, as could a client-centric view on how things may unfold, especially with regards to technology and data. ‘Regulators might engage by beta testing regulations, sandboxing small segments of innovation as a litmus test, turning to crowdsourced Q&A, and rely upon consumer data and demand to decide how, when, and where to exercise control over tech^{clxv}.’ Adopting standards that are conducive to transparency, client empowerment and input now are less likely to need radical overhaul in the near or distant future. Indeed, staying ahead of regulation may be needed as a way of building trust, value propositions and more, since merely complying will not yield any comparative advantage within the industry. Indeed, efficient compliance may become a commodity.



Conclusion

Whether banks have the flexibility and change management prowess to change at speed remains an open question. They have access to many of the tools that new entries threaten incumbents' positions with. Access to data will enable banks to form and leverage a more complete picture of the individual customer, allowing more personalisation - whether in the form of offers, real-time lending decisions or through adding value by providing gleaned insights back to the customers. Incumbents should also acknowledge the power balance that lies between big tech and banks dependence on such data; today's partners and sources of comparative advantage could easily become formidable competitors.

Leveraging technology will be critical but the larger and tougher form of systemic change lies in cultural change. Banks of all persuasions would be wise to prioritise client-centric offerings and practices with regards to organisational change, technological adoption, and the crafting of new business models.

In its analysis of successful companies, MIT Sloan correctly notes that '...history warns us that mastering digital technology won't determine which companies become corporate winners. Instead, making the necessary organizational and leadership changes will^{clxvi}.' These areas – new jobs, reorganisation of current jobs, change management and how A.I is grafted into overall structures and strategies – will define

tomorrow's winners. At first A.I and automation will demand we do things differently, but in time it will allow us to do different things. Banks are well positioned to capitalise on this shift but they must act now. Banks have no right of place in the new economy and if they themselves do not enact systemic change, their Kodak moment could imminently arrive.

Our current thinking, embedded in models from the 20th century, is ill-prepared for the fundamental changes that automation heralds for tasks, jobs and the wider banking industry. Banks building strategies around a strategic mix of emerging technologies will need to develop new organisational capabilities and adopt different behaviours. For companies to make the most of the raft of emerging technologies, their organisations '...must embrace data-driven decision making and capabilities and create environments in which relevant information is made available to the right decision makers (which could be people or algorithms) in a timely manner^{clxvii}.'

Risk selection and management skills will become critical levers of success, while redefining the IT and operating models are no longer optional activities. This will require a shift in focus from silos and towards outcomes. If we apply the same thinking to our organisations, we start on a path of accepting that organisational agility is a critical competitive advantage and a prerequisite for rapid tech adoption and strategic alignment.



About the author

David is a leading strategic futurist who combines the experience gained from a 35 year IT, marketing and business career with strategic visioning to help organisations better prepare for the future. His career has spanned European and US corporations. He is a much sought-after keynote speaker and is the author of many works on embracing change and the drivers of change. Before establishing Global Futures and Foresight, an independent futures research firm, he created and ran the Unisys internal Think Tank, The Global Future Forum. Prior to this he was head of strategic marketing for their \$2bn global financial services business.



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www.theforum.co.uk or call Jasmine Butler-Burnham on 020 3657 9899

About Marcela Lopez, Artist (Front cover by Marcela).



Marcela Lopez, Colombian artist with European influences based in UK. Commissions and artwork for sale. My subject matter is landscape. Using my hands I choose plaster to capture the movement of water and trees on wooden boards. Through my artwork I intend to invite viewers to a peaceful moment of reflection. I see my artworks gently brightening up any space and being a source point of serenity and comfort.



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