FinSight

Insights for the Financial Services and Real Estate Industries in Ireland

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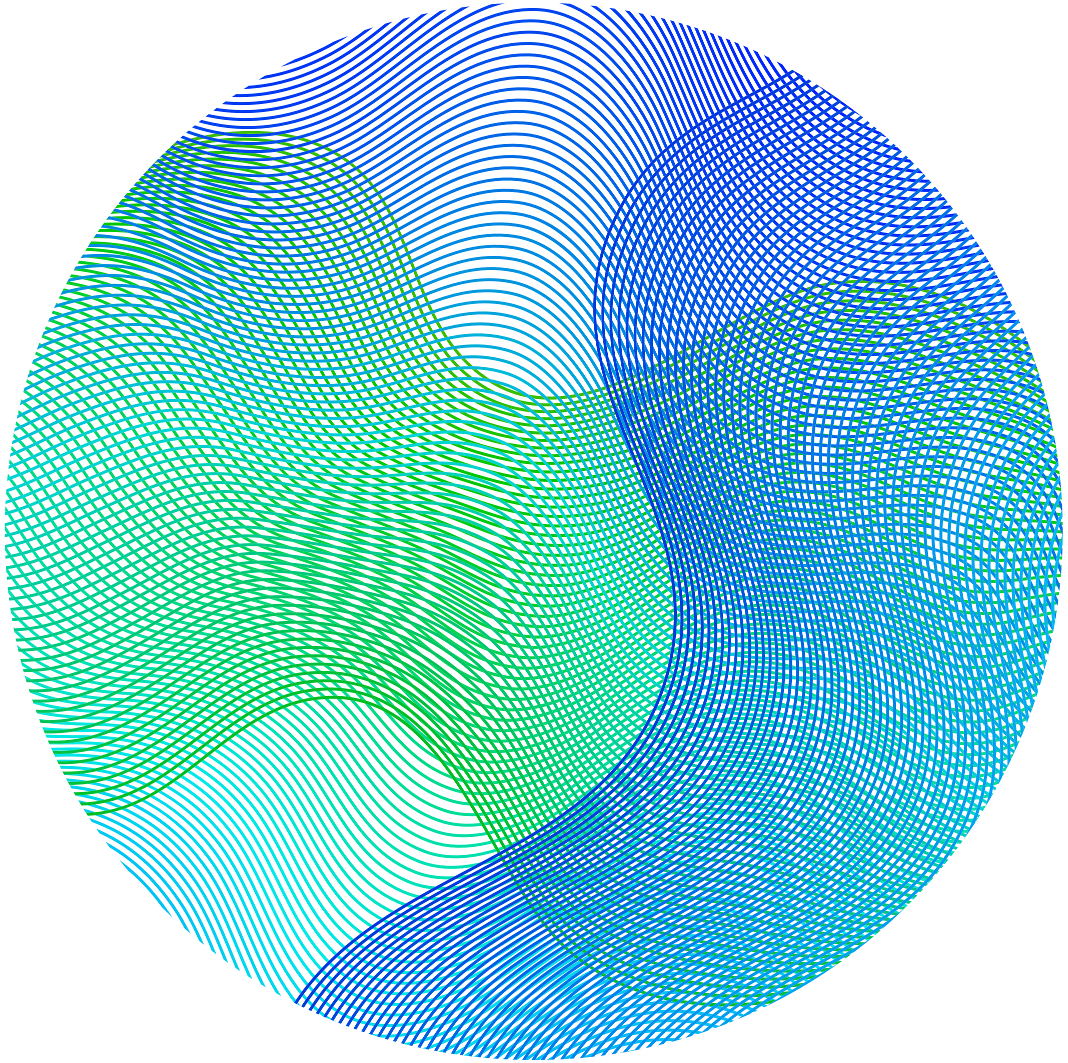

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Deloitte.

COVID-19 EDITION

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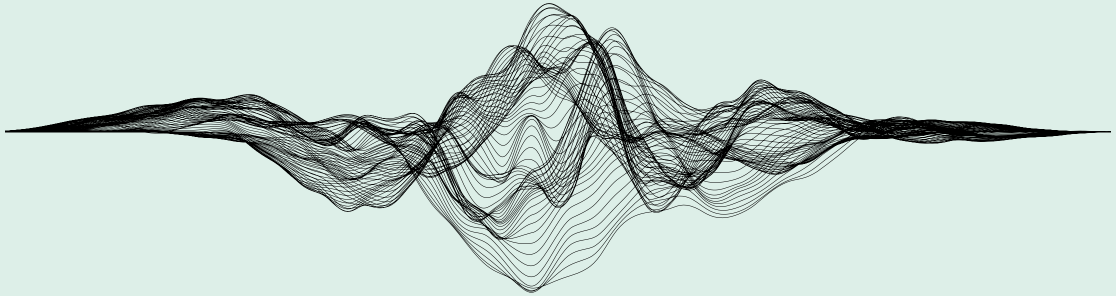

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COVID-19 EDITION

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FOREWORD

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Welcome to the fourth edition of FinSight, a collection of the latest articles and perspectives from Deloitte professionals, as well as from experts and senior leaders across the financial services industry.

There is only one place to start when we reflect on the time since our previous edition in late 2019. COVID-19 has dominated our industry and all others throughout 2020. In addition to the tragic human cost of the pandemic, the economic aftershock was considerable as governments across the globe effectively put entire swathes of their countries into a kind of enforced hibernation. All but the most essential services and sectors came to a standstill. Now, even as economies take tentative steps to reopen, there is a strong sense that we will be living with the effects of COVID-19 in our society and in business for some time to come.

That is why we have dedicated this issue to considering the many ways that COVID-19 has impacted the financial services sector – and understanding what those changes mean. Our feature article on the future of retail banking in Ireland looks at both the opportunity and the imperative for transformation. COVID-19 and its economic and social fallout are a time machine to the future: banking is being re-imagined, rapidly.

An industry that historically relied so much on personal contact saw customers and consumers switch to digital. Banks, insurance companies and wealth managers expected this transition to take years to happen; instead, it was almost overnight. The implications of that are profound. And in order to protect consumers and maintain orderly markets, regulators are raising the bar for compliance. We examine this in our article on digital risk and why it's become such an urgent topic today.

Tech time

We also look at the redrawn landscape from the perspective of fintech companies. While banks undoubtedly face challenges in the months ahead, that does not mean by implication that fintech players will have the field to themselves. Agile startups focused on delivering strong customer experience, backed by relatively modern technology may be well positioned but they're challenged in different ways. Those with global ambitions could find the routes to venture capital and private equity blocked in the current climate. For others, there will be different tests: a forex player's business model relies on consumers travelling in large numbers – the very thing health guidelines advise against.

Continuing with technology, could the stars be aligning for blockchain? Our article identifies five trends that suggest the coming decade could bring its adoption into the mainstream. As the financial services industry faces into a period of long-term low interest rates, there will be pressure on profitability and a drive to take cost out of the business. What role will there be for blockchain in this world?

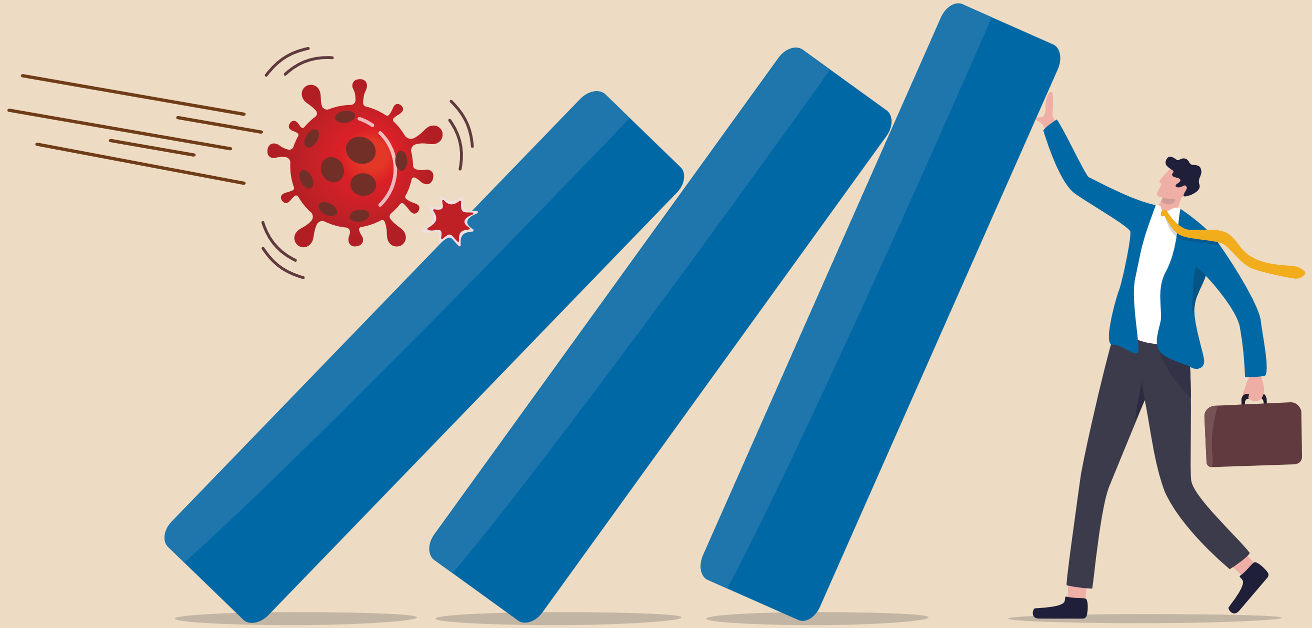
Sectoral impact

We have looked across the spectrum at how the financial services industry will respond to the crisis; in one article, we analyse the impact on sectors such as investment management, aviation finance, and real estate. We continue this theme by exploring the future of physical office space after remote working became the default model

The pandemic has proven that productive work need not be exclusive to the office.

for many of us. The pandemic has proven that productive work need not be exclusive to the office. Our article on this subject outlines key questions for finance leaders as they contemplate a return to the workplace.

The insurance sector, like so many others, adopted remote working by necessity. Ann Kelleher, President of Insurance Ireland and CEO of Ark Life, shares her views on the industry's rapid response to the crisis and how it belied its often traditional reputation.



Business resilience

Even as the full toll of COVID-19 becomes apparent, it is clear that the financial services sector, like all others, must be prepared for future events with the potential to severely disrupt normal operations. The concept of resilience had already begun to gain traction in business circles late last year, as growing numbers of companies realised the value of making their organisation strong enough to withstand external forces on the one hand, and agile enough to react swiftly to unforeseen events.

Many financial services institutions had business continuity plans in place, such as alternative infrastructure for contact centres, but they were not an option given the specific type of crisis we faced. It's clear that in the future, resilience will come to mean having strength to withstand a shock to the business, combined with flexibility to adapt to unexpected changes.

Strong leadership

And change, as much as COVID-19, is the recurring theme of this edition of FinSight. Understanding change, responding to it, and managing it, requires strong leadership. I believe now is an unprecedented moment to drive radical transformation of organisations, and the winners will be those leaders who have really grasped this opportunity. There are four practical actions that leaders can take as we come out of this crisis.

01. Challenge strategically where they are playing

This is the time for leaders to evaluate the products their firms are bringing to market today and ask hard questions about whether they are serving the right customer segments. Leaders now have the licence to make far-reaching decisions, such as moving away from traditional parts of the business that aren't value-accretive.

02. Seize opportunities around focused collaboration

Leaders need to determine what is their organisation's role in the financial ecosystem and explore who they can collaborate with to deliver better experiences to customers. Good leaders grasp that they don't have to own or build everything; they can use an ecosystem framework. Inherent in this mindset is collaboration: there are examples of things that every bank doesn't need to do themselves, such as payments, cash handling infrastructure, or KYC processes. Why not pool infrastructure and do these non-competitive activities collectively at a lower cost?

03. Truly embrace the digital business model

Being digital-first is about really thinking through the customer journey, not simply putting the services you offer today in an app. Deloitte's benchmarking study into digital banking across Europe found Irish banks were laggards compared to other markets. Although there are some historical reasons for this, such as legacy technology and the regulatory environment, these obstacles are not insurmountable. I would urge banking leaders in Ireland to investigate how to partner with fintechs to enhance the customer experience.

04. Adopt a culture of transformation

Now is a time to think more radically about what needs to change in your organisation and orient the culture towards embracing more agile ways of working. Now that the COVID-19 crisis has forced many to pivot to working from home, this should prompt leaders to re-evaluate the potential opportunities this creates. It opens up a much broader talent pool from which to recruit, and I would go further: it also enables them to do more to address the issue of diversity, which is one of the big challenges for financial services organisations. When you remove the geographical component of being close to a place of work, this could help address the historical issue of underrepresentation of women.

> Now is an unprecedented moment to drive radical transformation of organisations.

The crisis has given the financial services industry an unparalleled opportunity that might never have happened otherwise to fundamentally transform itself. It calls for strong, decisive leadership to plot a course through this change, to build resilience, and thrive. I hope this edition inspires some ideas about what this change might look like.

Kind regards,
David Dalton

BANKING REIMAGINED

COVID-19 AS A TIME MACHINE TO THE FUTURE

The pandemic's effect on retail banking in Ireland.

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Economic impact of COVID-19: Ireland is facing a recession worse than the Great Financial Crisis

From its onset, the coronavirus pandemic has not only been a global health emergency but also a profound economic shock. As the health emergency stabilises, albeit in a fragile manner, the focus will shift to the economic consequences of the pandemic. In Ireland, as in much of the world, these consequences are unprecedented in their scope and severity, as becomes clear when they are analysed in comparison to the Great Financial Crisis (GFC) and other previous downturns.

Unemployment in Ireland has increased to levels that are practically unheard-of – 28.2% in April and 26.21% in May – from a pre-crisis level of 4.7%, and it is expected to remain above 10% until Q2 2021 (figure 1). During the GFC, unemployment rates steadily increased from 5.3% at the start of 2008 to over 10% at the start of 2009 and remained over 10% until mid-2015. While unemployment is unlikely to remain at such a high level beyond 2021, there is an element of permanency to it in many sectors – not all jobs lost during the pandemic will return.

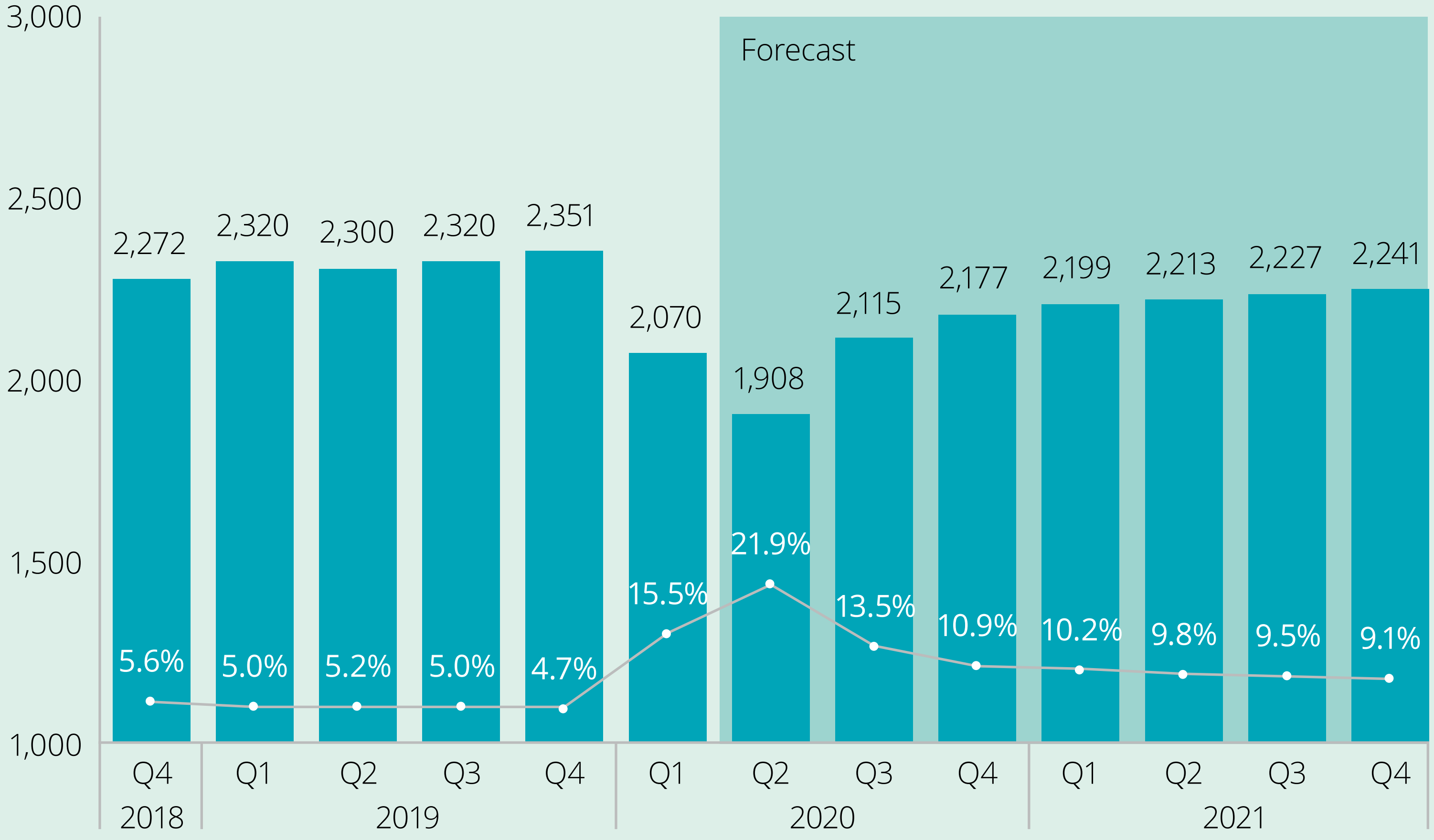
The role of unemployment is clear on consumer confidence, which has similarly fallen to all-time low levels, with the Irish Consumer Sentiment Index recording the largest monthly drop in its 24-year history in April: -42.6 from 77.3 in March and 85.2 in February (figure 2). This is the lowest measure recorded since the height of the GFC in July 2008 (39.6). The reopening of the economy will lead to gradual improvements in consumer confidence, but like employment, it is unlikely to fully bounce back in the near future.

The impact of COVID-19 will be particularly severe on certain sectors, such as non-essential retail, tourism and hospitality, real estate, and construction. The duration of the pandemic will ultimately dictate the extent to which sectors are impacted. Irish residential property, for example, is to experience high price volatility and sharp falls in 2020, and the values and rents from Irish commercial properties are expected to fall over the next 12 months, with retail properties the worst affected.

Given the disruption to demand and supply chains with Ireland and much of the world in lockdown, current GDP forecasts indicate that Ireland is headed for a deep recession, with a -10.5% decline in annual growth forecasted for 2020 (from 5.5% in 2019). Beyond 2020, there is significant uncertainty about the severity and duration of the recession with several possible scenarios emerging.

The Irish retail banks are a critical component of the Irish financial system and economy as a whole – as lenders, custodians of their customers' deposits, managers of financial infrastructure, and employers. Consequently, they are also at the heart of the economic crisis. In addition to the major operational challenges they have faced since the onset of the pandemic, virtually all aspects of their businesses have been, and will continue to be, impacted by the economic shock and associated social developments.

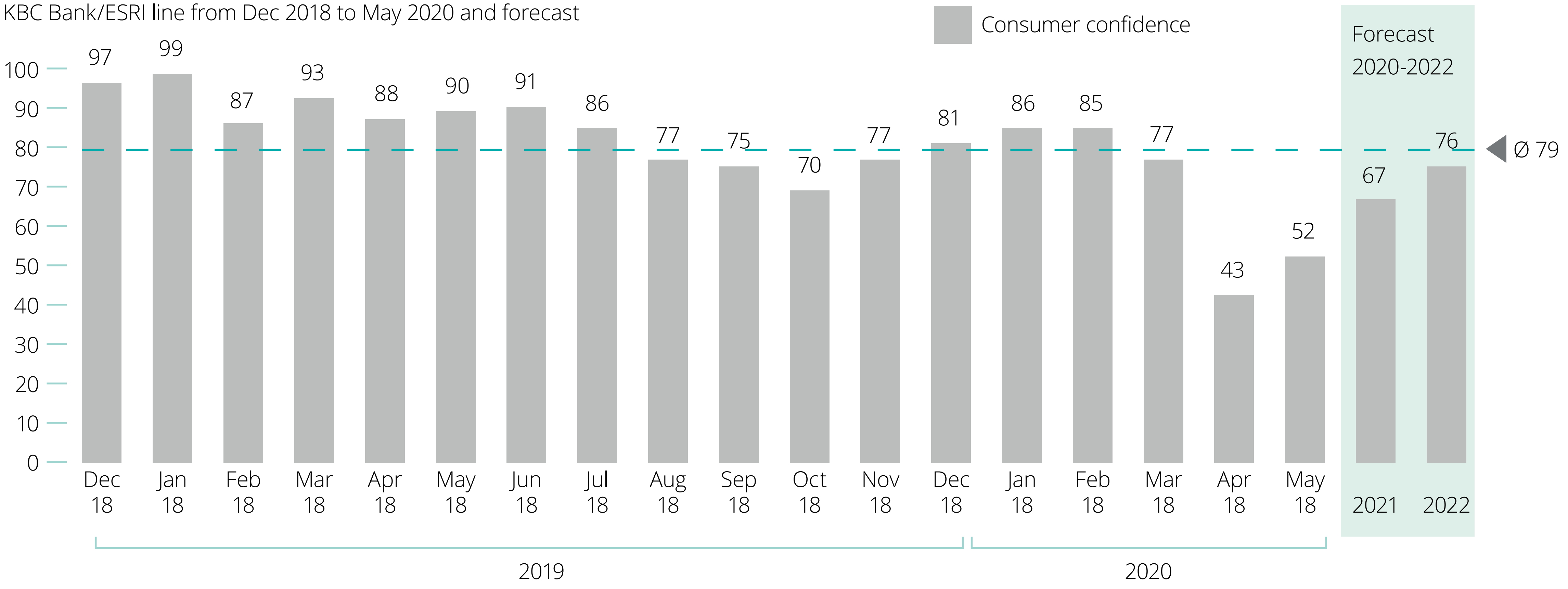
Figure 1: Irish employment rate



Notes: The Labour Force Survey (LFS) is the official source of labour market statistics for Ireland including the official rates of employment and unemployment. The LFS provides benchmark estimates of employment for each quarter since the beginning of 1998. These quarterly benchmark estimates are then used to compile monthly data. An alternative COVID-19 Adjusted Measure of Employment has been used above and by the CSO to estimate the share of the labour force that are not working due to unemployment, or due to COVID-19 related absences.
Sources: CSO, Monthly Unemployment May 2020, Department of Finance, Stability Programme Update, April 2020.

Figure 2: Irish consumer confidence

KBC Bank/ESRI line from Dec 2018 to May 2020 and forecast



Notes: Consumer Confidence Index is a survey that measures how optimistic or pessimistic consumers are regarding their expected financial situation. Optimistic consumers tend to purchase more goods and services, which should, inevitably, stimulate the whole economy.
Sources: TraceEconomics.com/KBC Bank as of 23 June 2020.

> Changes that many predicted would happen over years took place in a span of weeks.

Implications for retail banks: COVID-19 as a time machine to the future

For retail banks, COVID-19 can be seen as a time machine to the future. The overnight take-up of digital by customers is a clear example of this: changes that many predicted would happen over years took place in a span of weeks. For example, ATM withdrawals were down by 57% in April compared to March, remained down 40% in June compared to June 2019, and only 17% of customers expect to use their bank branch once the restrictions are lifted, preferring digital, more immediate ways of interaction, from mobile banking apps to Twitter and chatbots. While digital transformation is nothing new to Irish banks, digital capability has now become an immediate differentiator, and banks must adapt quickly to changing customer preferences, rethink their value proposition, and build a strategic roadmap to a sustainable future.

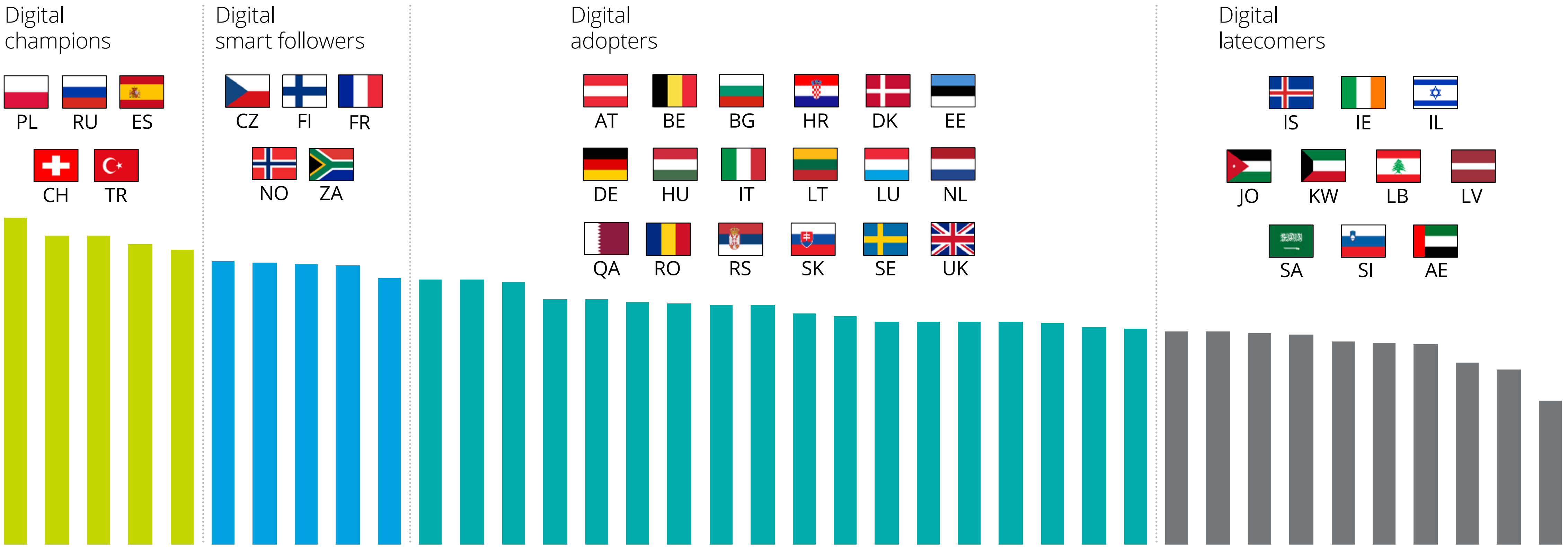
These recent observations build upon the customer feedback contained within the *EMEA Digital Banking Maturity study by Deloitte Digital*. Ireland is the only Western European market to be listed as a digital latecomer with its Digital Maturity Benchmark score (figure 3). Furthermore, the report goes on to say that become a digital champion, Irish banks need to focus attention towards open and beyond banking. Vast majority of identified functionalities are around digitalisation of traditional banking products, yet digital champions are making progress in open and beyond banking.

Banks have also been forced to respond to a new wave of customer demands and regulatory requirements, e.g. granting COVID-19-related payment breaks to nearly 100,000 customers to date. While unemployment will fall as businesses reopen, there is an element of permanence to it in many sectors, and in the coming months, many of the payment breaks are likely to turn into arrears. The critical challenge for retail banks will be to avoid the conduct failings of the GFC by treating these vulnerable customers fairly.

The impact on lending – both retail lending and lending to SMEs – will also be severe. Loans for house purchases decreased by €73M in net terms in April 2020, and non-mortgage consumer loans have been similarly impacted, experiencing a net decrease of €277M. Banks must now manage the shock to their lending portfolios, focusing on both fair treatment of their customers and managing the risk and their own appetite for lending. The banks will also play a decisive role in rebooting the economy by acting as a distribution channel of liquidity to the SME sector. 68.4% of employment – over 1 million employed – in Ireland is through SMEs, and bank lending will underpin most of the activity within this sector post-COVID-19. This will require sufficient capital.

Profitability will remain the key challenge for banks. The lower-for-even-longer interest rates and evaporation of traditional fee income streams will depress returns, and aggressive cost control may be the only real lever for banks to improve their profitability in the short to medium term – while they are also responding to the operational and strategic challenges posed by COVID-19. In light of these challenges, the Irish banks are likely to continue trading at large discounts to book value, and a tension will exist with shareholders as the banks seek to balance profits and doing the 'right thing' by supporting their communities as the recovery gets underway.

Figure 3: Benchmarked markets can be divided in four groups in terms of digital banking maturity



Note: To achieve comparable data, country averages are based on the results of the top five biggest banks in given market in terms of assets. Countries within the four categories are in alphabetical order.
The position of the flag within the group does not imply the score against other countries from the same group.
Source: EMEA Digital Banking Maturity 2018, Deloitte Digital.

The retail bank of the future must be digital by default.

Reimagining the retail bank: the opportunity and imperative to transform

Ultimately, COVID-19 may also help the Irish banks by forcing them to accelerate their transformation strategies and make some hard choices. There is both an opportunity and an imperative for each Irish retail bank to accelerate its transformation into a 'bank of the future' – to reimagine the retail bank and act on that reimagining.

First, banks must find their commercial focus. To succeed in the small Irish market and against the challenge of fintech companies, retail banks need to carefully consider where to play and how to win. The future retail bank will have understood it cannot necessarily offer 'everything to everyone' if it wishes to remain competitive. Rather, it must make choices around its sectoral focus, product portfolio, and international diversification. While the banks are unlikely to drastically reduce their product portfolio, for example, there is potential in becoming known for a few best-in-class products.

Partnerships can also be considered: banks must consider which capabilities are core and should be invested in and where the enterprise would be better serviced in seeking collaboration to leverage capabilities it does not possess.

Commercial refocusing should be complemented by a rethinking of the bank's organisation and service delivery models, facilitating its cost transformation and ultimately making it smaller and leaner. Staff-related costs currently form an unsustainable percentage of the banks' operating expenses, and the examples set by the challenger banks prove it is possible to serve a large customer base with a significantly smaller staff – Revolut, for example, has fewer than 50 employees for one million customers in Ireland.

This is also in line with historical and international trends. In Ireland, the banks have cut significant portions of their workforce since the GFC, and restructures currently form a key element of the transformation strategies of global banks such as Deutsche Bank and HSBC.

Crucially, the retail bank of the future must be digital by default. COVID-19 forced banks and their customers to go digital overnight; now, banks must forge ahead with ambition. Application processes and customer service must be made effortlessly digital: the customer should be able to buy what they want, when and how they want it, with minimal friction and maximum delight. Leveraging their traditional strengths, such as unrivalled data on their customers, the digital bank of the future can better retain its customers and a larger share of their wallets. The digital bank will also be more agile and resilient, capable of enduring future crises while retaining its competitive edge.

To survive and thrive – to do all of the above and more – the banks must attract and nurture an increasingly diverse pool of talent – to become employers of choice. Traditionally, banking hasn't been a prime career destination for STEM graduates, for example, but true digital ambition and new ways of working can become the first step in making it an attractive choice. Ultimately, the banking industry's relationship with society – its wider purpose – must evolve. The banks must become purpose-led organisations, taking a key role in promoting the recovery from COVID-19, responding to further pandemics and other global risks, and driving the growth of a sustainable economy. The challenge will be for the banks to balance these wider ambitions with commercial expectations: to do well by doing good.

Key implications

- Banking employment is likely to shrink significantly, perhaps up to 20-30% in line with cost reduction goals of the banks
- Digital banking begins to catch up with the rest of Europe
- New wave of vulnerable customers will emerge that need to be supported
- Branches will become increasingly less relevant
- Banks have an opportunity now to play a critical role in re-booting the economy
- Retail and SME lending supply will be challenged with increased costs for borrowers
- Potential for consolidation that will reduce the number of banks
- Represents a moment of truth for non-traditional players and fintech
- A new wave of portfolio sales of distressed assets as a consequence.

Five actions for banks to take:

01 Commercial focus: Fundamentally re-consider where to play

- Laser focus on customer value proposition
- Exiting unprofitable segments and products
- Manage tension between shareholder, customer, regulators and socio-environmental roles.

02 Embrace a digital business model

- Digital first mindset with physical channel retained for high-value interactions
- Accelerate the adoption of digital, transition to cloud, and retirement of legacy platforms
- Exploit the wider ecosystem partnerships (open and beyond banking) for revenue diversification.
- Harness better quality data to inform decisions and manage risk.

03 How to win — Engage in focused collaboration

- Industry utilities can reduce cost and dramatically improve efficiency
- Partnering with the ecosystem to deliver on non-core banking capabilities.

04 Adopt a culture of transformation

- Earn credibility as purpose-led organisations
- Reimagine "business as usual": empower the business to radically transform end-to-end journeys
- Embed new ways of working that build operational resilience and business agility
- Attract a more diverse workforce (including STEM graduates and part-time/remote staff).

05 Optimising capital and return on equity

- Enhanced tooling to defend, reinforce and optimise capital structure
- Consistent measurement and reporting.

COVID-19 RETURN-TO-THE-WORKPLACE STRATEGIES

EMERGING LESSONS AND KEY QUESTIONS FOR FINANCIAL SERVICES LEADERS

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KEY MESSAGES

01 Returning to the workplace in financial services will likely play out over an extended period. Many leaders are still in the early stages of developing return-to-workplace strategies, and planning maturity levels vary.

02 When assessing the range of approaches available, both roles and locations in terms of feasibility of remote work and the risk to public health should be considered, and any return-to-work analysis should consider the rapid acceleration of tech-enabled remote work.

03 It's also critical for organisations to consider pandemic management protocols (PMP), which may include use of personal protective equipment for staff, procurement and use of masks and gloves, temperature screening, a dedicated quarantine room, and maintenance of appropriate social distancing measures for customers, employees, and third-party vendors.

04 Companies may have to reorient levers of employee engagement: work protocols, orientation programmes, well-being initiatives, team building efforts, and rewards and recognition programmes.

05 In the longer term, many companies are evaluating permanent remote work for some of their workforce. Based on conversations with industry leaders, some companies may consider remote working for 30 to 35% of their workforce on a more permanent basis.

06 Even as firms re-enter, leaders should prepare for future scenarios, such as another potential stay-at-home order in case the pandemic spread resurfaces or increases. Firms may even have to make it an iterative process and show agility and flexibility to learn and adapt based on the experience in the initial weeks of re-entry.

OVER the past few months, most people across the globe have shifted to working from home, reinventing themselves both personally and professionally. To no-one's surprise, it's been an equally transformative experience for financial services institutions (FSIs). Now, another transformation is emerging: While the pandemic appears far from over, some regions are gradually beginning to re-open. Will the financial services industry follow suit? If so, when and how?

A mid-April Deloitte survey of 100 senior FSI executives with responsibility for crisis management and business continuity planning revealed that at least half of respondent firms are developing COVID-19 operational contingency plans spanning at least the next three months. Part of the complexity around re-opening has to do with the scale and scope of FSI real estate. From office towers to data centres to bank branches, the industry is also the second largest in terms of office space leasing, accounting for more than 15% of total office leasing activity.[1]

There have already been some announcements: Capital One recently disclosed that it will not have any broad return to work until at least September.[2] Goldman Sachs began a gradual return to work through May in Hong Kong and a few other areas, but anticipates that a single strategy will not be appropriate for all of their global locations.[3] Some firms are learning from its global operations and likely will apply lessons from areas that have already re-opened: The Canadian insurer Manulife increased its in-office employees in China from 25 to 75% within four weeks of reopening.[4]

1. CBRE Research, 2020 US real estate market outlook, May 2020.
2. Jennifer Surane, "Capital One to keep most staff home until at least September," Bloomberg, May 5, 2020.
3. Elizabeth Dilts Marshall, "Goldman Sachs CEO says staff back at offices in Asia, but not New York or London," Reuters, May 6, 2020.
4. Nichola Saminather, "UPDATE 1-About 75% of Manulife China employees back in offices, CEO says," Reuters, March 23, 2020.

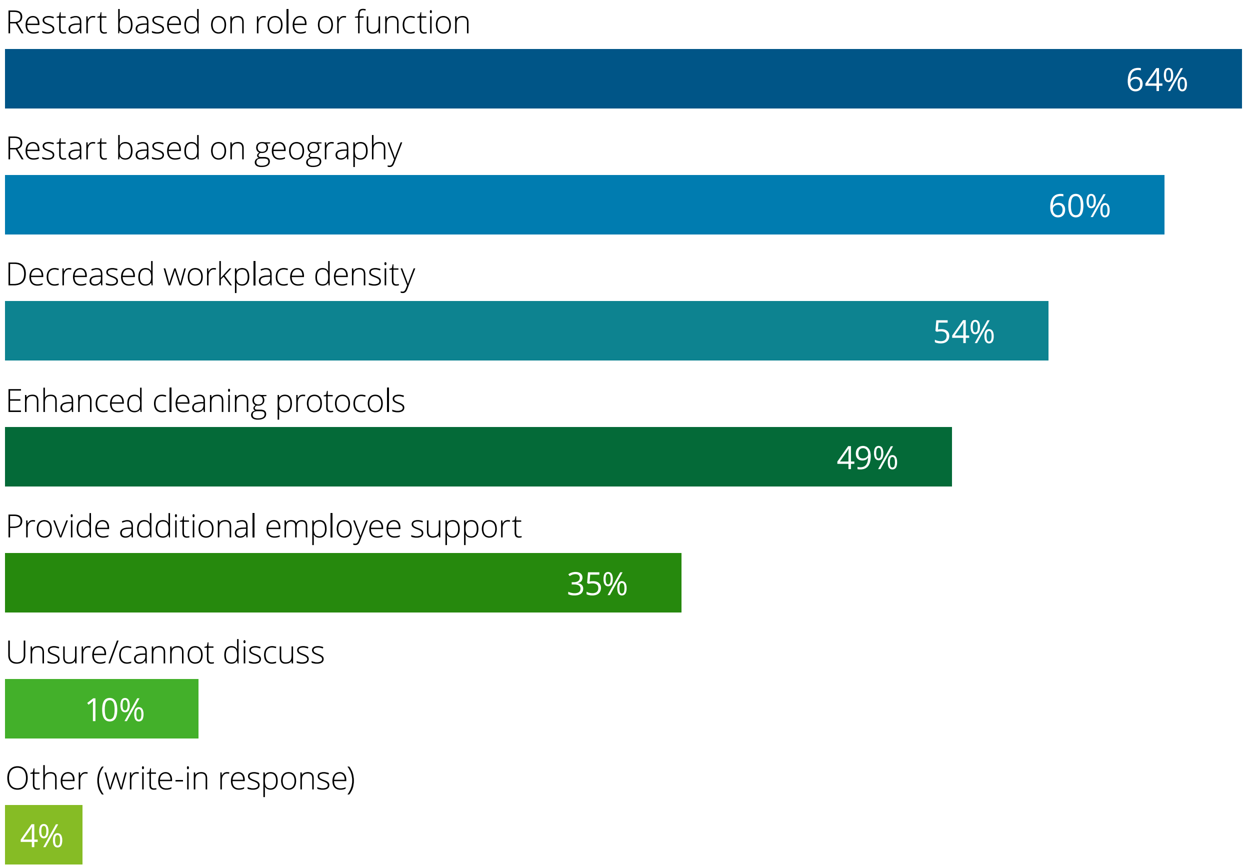
This is consistent with what we're hearing in conversations with firm leaders, who suggest that they believe this will likely play out over an extended period: One firm leader we spoke with said they hope to return 40% of their employees to the office by August 2021. Overall, the reality is that there isn't any urgency to return to a physical space; many firms have adapted to the remote work environment and significant health, safety, and sanitation challenges remain. This is especially true in investment management, where many firm leaders have reported a smooth and successful transition to remote work and are assessing the risk-reward trade-offs of even a gradual return.

Even as plans emerge, many leaders are still in the early stages of developing return-to-workplace strategies, and planning maturity levels vary. While some have created steering committees and sophisticated scenario-based plans, others are only starting to review basic decisions about how many spaces to open and how to open them.

Our survey responses reveal that restart plans were likely to be role-specific or geography-specific, or a combination of the two (figure 1). Respondents

Figure 1: Returning to the workplace

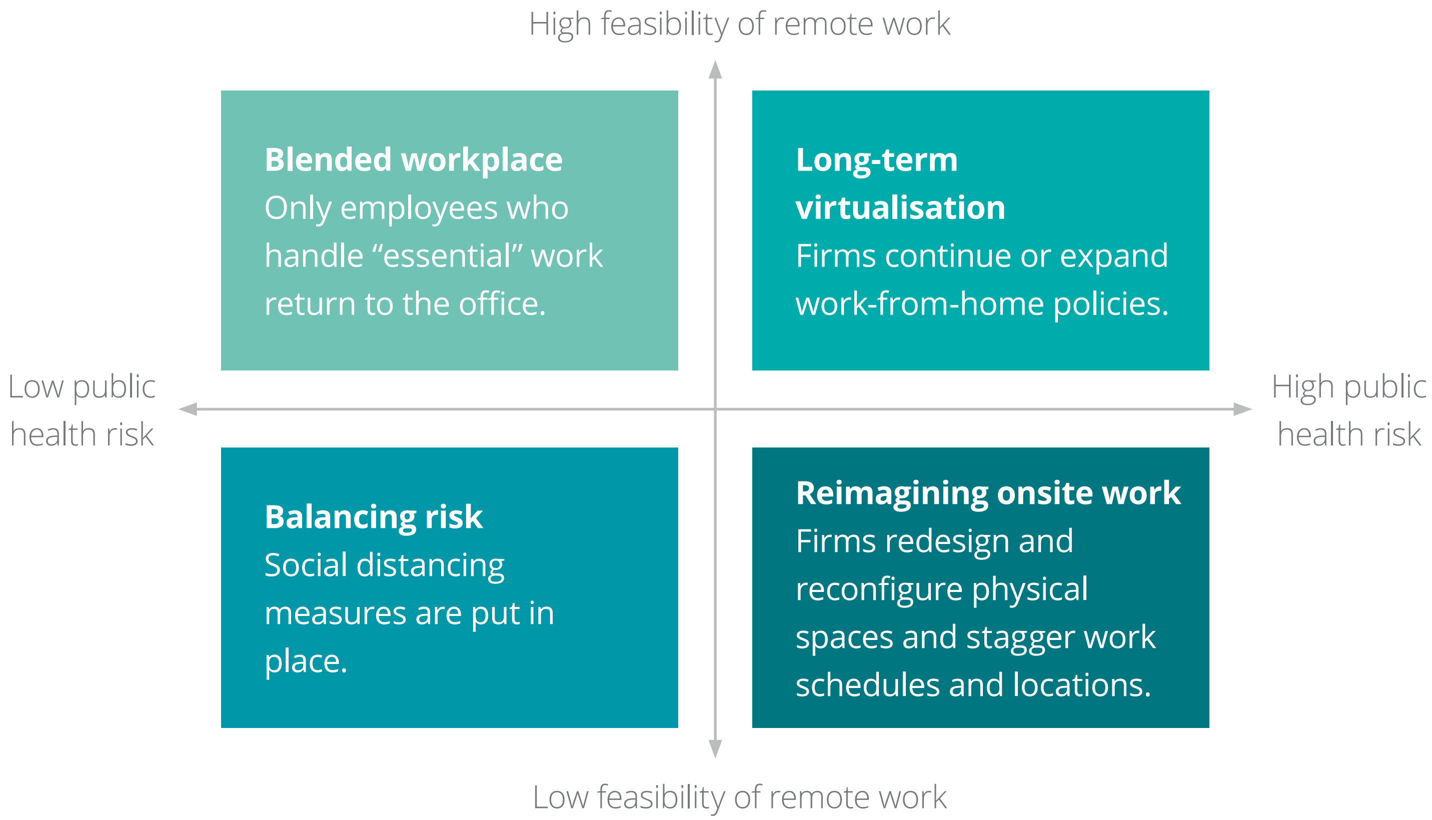
Measures and strategies FSI firms will use:



Note: Participants could choose more than onen response.
Source: The Deloitte Center for Financial Services analysis.

Figure 2: Returning to workplaces

Balancing the feasibility of working remotely with public health risks



Source: Deloitte analysis.

also cited density reduction, sanitation, and employee support measures as key factors in their return-to-work strategies. Let's look at these initiatives in turn.

Who needs to return? Who doesn't?

Leaders should consider several factors when deciding who needs to return to the workplace. To ensure an effective and successful re-entry, leaders can first create a centralised working group to oversee the entire situation that can coordinate with the leadership team and execute plans. Next, they could define critical business services and use a decision matrix to determine which jobs and roles would need to be located in workplaces versus those that could be done remotely. As the Goldman Sachs example suggests, re-entry is not expected to be a one-size-fits-all proposition. When assessing the range of approaches available, leaders can consider both roles and locations in terms of feasibility of remote work and the risk to public health (figure 2).

Any return-to-work analysis should consider the rapid acceleration of tech-enabled remote work. For example, while bank tellers may seem an obvious choice to be among the earliest to return to their workplaces, some banks are developing touchless interactive teller machines to enhance the drive-thru experience, reducing the need to have tellers onsite.[5] Claims adjusters have made a similar adjustment. Historically, adjusters have needed to travel to assess damage as part of the settlement process, but new tools have been deployed that allow this to be done remotely.[6] In contrast, while traders have mostly made the shift to home-based work, the lack of available turrets, along with potential compliance concerns, may require them to return to the trading floor as soon as feasible. Many other roles fall somewhere in between: Employees who serve in marketing roles, for example, can do most of their work remotely, although they may need to come into the office periodically to attend group meetings. For such roles, firms could consider select in-office days or staggered work hour options.

In the longer term, many companies are evaluating permanent remote work for some of their workforce. Based on conversations with industry leaders, some companies may consider remote working for 30 to 35% of their workforce on a more permanent basis. This may also result in companies exploring alternate talent models, such as gig workers or contract employees, increased opportunities to automate manual processes, and a re-evaluation of disaster recovery/back-up sites.

Many companies are evaluating permanent remote work for some of their workforce.

5. Ibid.
6. Chubb, "COVID-19 resource center," accessed April 29, 2020.

Are the workplaces ready?
From a business perspective, many employees understand why they may need to return to the office, but it is important that they feel ready, willing, and able to come in. Some may have responsibilities at home, such as child care or elder care. They may also have safety concerns, as consumers do.[7] Some large banks and investment management firms have rolled out employee experience surveys to gauge comfort levels in returning to the workplace. Other firms are considering implementing "opt-in" programmes for their workers who wish to return.

Firms, of course, also must comply with government health and safety mandates. In the United States, for example, the Occupational Health and Safety Administration (OSHA) guidelines include a wide range of hygiene, cleaning, sanitation, safety, and social distancing measures that companies must follow to minimise the risk of COVID-19 exposure in their workplaces.[8] That said, the mission of making employees and customers feel safe enough to return to offices, banks, and other physical spaces falls squarely on management.[9]

Implementing social distancing measures
Social distancing measures include factors such as reviewing seat-sharing policies, preparing structured shared-seating programmes, staggering work hours, and using large meeting rooms for smaller groups. To support social distancing, some firms are also deploying contact- and workspace-tracing apps.[10]

Extra planning will also be needed for office towers to ensure distancing measures are followed in elevators and lobbies so people can move throughout the building in an orderly and timely manner and avoid crowding. A large services firm recently conducted a simulation that showed it can take as much as two and a half hours to move people into and out of a fully occupied downtown office tower, revealing the need to stagger entry and exit times. Corporate real estate leaders will have to look at contracts for leased space to determine who would be responsible to implement these changes and will need to work collaboratively with landlords during the planning and implementation phases.

7. Jennifer Surane and Michelle F Davis, "Wall Street tries to figure out how to get back to the office," Bloomberg Quint, April 27, 2020.
8. Goodwin, "Preparing for re-entry: Key considerations for returning employees to the workplace amid the COVID-19 crisis," JD Supra, April 20, 2020.
9. Ibid.
10. Jena McGregor, "The post-pandemic workplace will hardly look like the one we left behind," Washington Post, April 23, 2020.

Regardless, most workplaces were not designed so that people could remain distant from one another. Due to pervasive space constraints, returning to previous models will present ongoing challenges. This is why some respondents said their companies are exploring ways to revamp onsite positions into ones that could be handled remotely.

Enhancing health and sanitation efforts

Companies may consider using smart building management capabilities, such as predictive maintenance solutions, air quality sensors, UV cleaning, infrared temperature cameras, and HEPA air filters for both owned and leased spaces. These can help bolster confidence among employees that they will be safe when they return to work: One of the key reasons the Chinese workforce was open to returning to the office quickly was the use of advanced and high-quality air filtration systems.[11] Companies may also consider increasing the frequency of cleaning, especially of common areas and meeting places.

It's also critical for firms to implement pandemic management protocols (PMP), which may include use of personal protective equipment for staff, procurement and use of masks and gloves, temperature screening, a dedicated quarantine room, and maintenance of appropriate social distancing measures for customers, employees, and third-party vendors. A few large institutions are conducting daily temperature checks for all in-office employees. Companies could also provide whole-health benefits and even onsite medical staff.

> Many leaders are exploring how the emerging hybrid operating model will impact firm culture.

11. Mark Wilson, "Our offices will never be the same after COVID-19. Here's what they could look like," Fast Company, April 13, 2020.

How will the employee and customer experience need to change?

With mass virtual work established, leaders will need to re-evaluate existing employee engagement practices as firms take a gradual approach to return to work. In light of growing concerns among employees about the safety of shared workspaces, one insurance company is redesigning its agile work environments within office buildings. Similarly, an investment management firm had adopted a more open workplace environment to encourage collaboration and creativity, which will now need to be dialled back. Many leaders are exploring how the emerging hybrid operating model – some workers in the office, and some remaining at home – will impact firm culture.

Respecting individual employee needs and preferences

Companies will likely have to reorient all levers of employee engagement: work protocols, orientation programmes, well-being initiatives, teambuilding efforts, and rewards and recognition programmes. For onboarding and training, many investment management firms use an apprentice-based model to train new associates, which will likely have to shift to more digital models. Firms should therefore also update employee handbooks to include new norms for both in-office and virtual work environments. One such initiative was undertaken at the Canadian insurer Manulife. The company ramped up the digital interaction skills of its 12,000 agents in China to increase client engagement and enable remote sales.[12]

FSIs are also reassessing technology protocols, processes, and the use of performance management tools. Many firms have had controls in place that restrict some activities, such as document printing to in-office locations. When their workers moved home, this slowed down performance of both administrative and client service tasks. As a result, some employees have been emailing operational reports and other documents to their personal accounts so they can print these documents at home. Firms will also need to re-implement control standards for trading operations across the board. While some traders move back to the office, others may be still at home, where they are now operating under a set of rules that were somewhat relaxed by regulators. These operating environments will need to be harmonised.

Client onboarding, too, will need to move away from certain practices, such as requiring signatures on paper documents. Another consideration is that collaborative work environments have made it possible to take quick action during a typical workday in the office. But since many schools are operating remotely and onsite summer and after-school programmes are cancelled or postponed, employees may have significant child care and other responsibilities at home. This will require leadership flexibility to manage changing productivity levels for workers remaining at home.

12. Nichola Saminather, “UPDATE 1-About 75% of Manulife China employees back in offices, CEO says.” Reuters, March 24, 2020.

Indeed, one leader in investment management suggested that child care is a challenge they haven't cracked the code on yet.

Finally, given the wide-ranging changes in how physical space may be used, firms should deploy change management and communications cascades to help customers and employees feel safe returning to these spaces. Leaders will have to educate and guide customers about PMP and social distancing measures by posting signage about social distancing and handwashing in their retail locations.[13]

State Street's return-to-work plan in China[14]

State Street had 90% of its employees working remotely during the COVID-19 spread. In its Hangzhou office in China, State Street prioritised health, safety, and well-being of employees while drafting its return-to-work plan. The company followed all required health, sanitation, and social distancing measures to make offices ready for employees to return. Employees were given a choice to return and were offered a handbook that outlined the protocols for in-office work and mobility. In the first wave, the team leaders returned to office. Thereafter, frequent and increased communication between team leaders and remote employees helped instill confidence among the staff; because of this, most employees chose to return to the office. State Street has also increased flexibility in roles, which has resulted in higher operational resilience. It plans to use its learnings from China and combine it with local factors and government guidelines to develop plans to re-enter offices in other countries. Overall, the company's emphasis on gradual re-entry, office space readiness, and employee safety will be the guiding forces behind all re-entry decisions.

13. Jena McGregor, "The post-pandemic workplace will hardly look like the one we left behind," Washington Post, April 23, 2020.
14. Belinda Purkiss and Matt Leonard, "Working through COVID-19: Insights for returning to the office," Statestreet.com, April 30, 2020; NBC Boston, "Lifting the lockdown: State Street executive talks about reopening," NBC Boston, April 30, 2020.

Redesigning spaces and practices for customer comfort

Many firms with retail footprints, such as bank branches and investor centres, have remained open, using drive-thru facilities to avoid contact. For example, 80% of Chase branches are open with reduced staff.[15] In other parts of the industry, a few companies are evaluating real estate space requirements based on the number of employees who worked at each site. One insurance company CFO said they hope to convert offices with fewer than 10 people to remote models.

More PPE, such as plexiglass dividers, may need to be added: While tellers have long been separated from the banking floor, firms may want to adopt a similar approach for their higher net worth clients seeking investment advice. And while some banks had moved to a concierge-style approach, with customer service associates walking around branches with tablets in hand, this practice will have to be adjusted, at least for the foreseeable future. Banks could also consider reopening some branches with an appointment-only approach for customers who require in-person service.[16]

As these locations re-open, following the lead of major retailers may be considered. Leaders will need to assess how customer preferences are evolving in their re-entry plans, since consumer comfort with face-to-face contact will take time to rebound. A recent Deloitte global consumer sentiment tracker of retail shopping preferences revealed that only about one-third of US consumers feel safe going to stores.[17] Firm leaders should factor in these concerns in their planning, evaluating how they may impact customer service in the short term and, ultimately, engendering and maintaining brand trust. One investment management leader felt that their firm's brand and reputation in the long run will be influenced by how they manage both employee and customer experience during this time.

Remaining flexible and agile: How can leaders piece this together?

There is no one-size-fit-all solution to re-entering workplaces. Each company will have to make decisions based on its strategy, resources, and focus area. Leaders should consider detailed scenario planning, factor in all the above-mentioned variables, and conduct cost-benefit analyses. Using an algorithm and a data-backed approach may yield more accurate forecasts and enable more informed decision-making.
Even as firms re-enter, leaders should prepare for future scenarios such as another potential stay-at-home order in case the pandemic spread resurfaces or increases. Finally, firms may even have to make it an iterative process and show

15. Bryan Pietsch, "JPMorgan Chase is closing 20% of its branches and reducing staffing amid the coronavirus pandemic, but it will pay employees asked to stay home," Business Insider, March 19, 2020.
16. Olivia Rockeman, "Bank branches use drive-thrus, limited hours to cope with virus," Bloomberg, March 18, 2020.
17. Stephen Rogers and Leon Pieters, In the throes of a dual-front crisis: Establishing the road to a global consumer recovery, Deloitte Insights, April 29, 2020.

agility and flexibility to learn and adapt based on the experience in the initial weeks of re-entry. Overall, the COVID-19 pandemic has hastened the future of work across industries. Financial services firm leaders are facing the future head-on right now. Leaders should strive to find a balance between revenue and cost, while remaining committed to their organisations' purpose and ensuring that employee and customer well-being remain top priorities.

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The authors wish to thank Robert Walley, Jay Bhuta, Rima Pai, and the many others who provided insights and perspectives in the development of this article.

WEATHERING THE STORM

PLOTTING A COURSE FOR AVIATION FINANCE, INVESTMENT MANAGEMENT AND REAL ESTATE AFTER COVID-19.

COVID-19 left few parts of the global economy untouched. The disruption has been widespread. As countries across the world went into enforced lockdown earlier this year to slow the spread of the virus, many business sectors had no choice but to go into a kind of suspended animation, while others remained active but at greatly reduced capacity. A fortunate few have thrived.

Now, as economies start to reopen after Government restrictions ease, the scale of the challenges that lie ahead are starting to become clear. In this article, Deloitte Ireland experts look in depth at the implications for three elements of the financial services industry.

First, they examine the impacts for the investment management sector, at a time when liquidity is scarce and the outlook for earnings is soft. Next, we consider aviation finance – one of the most profoundly affected by the crisis. The industry comprises many different players, from airlines to banks and capital markets: How can each of them respond to a crisis of this magnitude? Next, we turn our attention to the real estate sector, which includes retail, industrial, office and residential markets. All four will feel the effects of the pandemic in different ways. Our experts examine where each sector has felt the impacts most deeply, and forecast what changes are likely in the short and long term.

Yet the changed environment also offers potential opportunities for those ready and able to act. Our commentators give guidance on how financial services providers can navigate the tricky passage to safer shores.

The following three sections assess COVID-19 implications for aviation finance, investment management and real estate in Ireland.

01

COVID-19 IMPLICATIONS FOR

AVIATION FINANCE

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The deep and immediate impact of COVID-19 has had a significant bearing on the global economy, with few industries as profoundly impacted as aviation. The effective halt in international air travel has meant a seismic challenge to airline revenues but there has also been an adverse impact on the aviation finance market.

There is a broad spectrum of market participants within aviation finance. Banks have historically been the lifeblood of the industry, providing around 30% of the funding requirements for airlines and aircraft lessors/managers. Capital markets provide roughly a third of the financing requirements in an average year, with cash making up the majority of the remaining balance (along with export credit finance, finance provided by manufacturers and other products).

As airlines are unable to meet debt financing costs, lease rental payments and other obligations, banks and lessors are facing similarly unprecedented challenges in the form of severe liquidity challenges, disruption to operating models and the push from airlines for lease rental/interest payment holidays and deferrals.

There remains uncertainty as to if and when we will see a return to pre-COVID-19 airline passenger numbers but the general consensus is that the industry will face significant headwinds until 2023 at the earliest.

That being said, there will of course be opportunities for some as a result of the global pandemic. There is an expectation of consolidation within the European airline market, akin to what was seen in the US previously. Similarly, within the aircraft lessor industry there may be M&A opportunities for those participants with strong financial support as well as for opportunistic investors with capital available to deploy.

The general consensus is that the aviation industry will face significant headwinds until 2023 at the earliest.

Key considerations for aviation finance market participants:

- Understand where the exposures are in terms of airlines and aircraft type
- Monitor closely the level of government support for airlines
- Undertake recovery scenario planning and modelling to outline liquidity requirements and to understand the options and protections available
- Ensure a robust repossession strategy and capacity is in place
- Consider the level of cyber resilience within the organisation as cyberattacks become a more urgent and pressing concern
- Consider how best to operate in a remote working environment, utilising technology to best effect and the opportunities remote working may bring in terms of attracting top talent
- Ensure open communication with investors and other stakeholders both in terms of the impact of rental/interest deferrals on cash flow as well as airline interaction and remarketing efforts
- Where capital is available to deploy, ensure agility, flexibility and responsiveness to investment opportunities as they arise
- Continue to prepare for an increasing focus on ESG going forward, in particular given a significant number of older generation aircraft are set to be retired on the back of COVID-19. New technology and fuel-efficient aircraft are likely to attract investors.

02

COVID-19 IMPLICATIONS FOR

INVESTMENT MANAGEMENT

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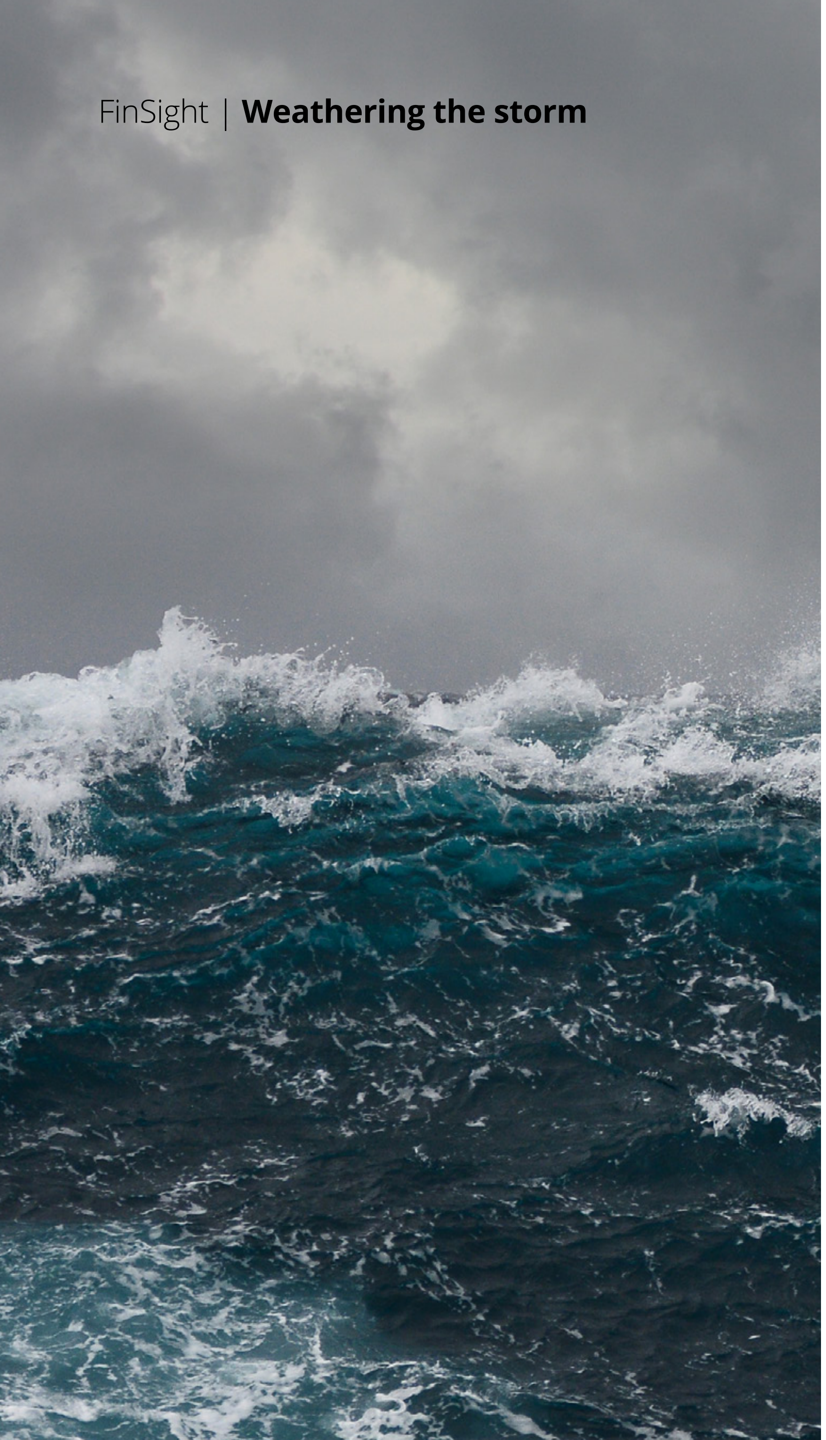
Global economic activity reduced to a standstill as the world took an aggressive stance to slow the spread of COVID-19 which is having broad implications for the investment management industry. Aggressive fiscal and monetary policy responses combined with critical containment actions around the world have made a major economic impact, yet liquidity remains scarce and the outlook for earnings is soft.



Potential long-term impact on investment managers

Market volatility has redirected the attention of most sellers and buyers as it relates to M&A activity. Buyers may emerge in a stronger position to negotiate transactions while sellers will have to perfect their competitive advantages.

Challenging times can be a catalyst for future innovation and growth. Organisational resiliency plans and overall operating models will be re-examined to advance digital transformation and agility. Work, workforce, and workplace experiences will be forever changed, supported by an ecosystem of virtual resources, technology and behavioural norms that define work as a thing we do, not a place we go. Investor confidence and trust will slowly be restored. The active versus passive debate will rage on as active managers look to advance their brand of investing. The pandemic will increase the attention of investors and boards of directors towards environmental, social, and governance (ESG) considerations.

Key questions executives and boards should be asking:

- What resiliency systems are in place (security, cyber, internal controls, personal trading and outsourced providers)?
- How do resilience and succession plans operate over the long term and across a variety of scenarios?
- How do we retain and incentivise talent?
- What will be the impact on investment capital and where will it focus?
- How can we adapt to being agile with shifting strategic priorities?
- What will be the impact of any new regulatory guidelines?

Practical next steps

- Reassure investors during short-term periods of volatility
- Drive innovation to support the "future of" scenarios
- Enhance ongoing management of investment and non-financial risks
- Ensure motivation and productivity of remote workforce.

Challenging times can be a catalyst for future innovation and growth.

03

COVID-19 IMPLICATIONS FOR THE

REAL ESTATE MARKET

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The impact of COVID-19 is starting to be felt across the real estate industry. The initial shock has been absorbed and there begins to be some clarity as to which sectors have been impacted the most, and to what extent.

It is very clear the specific sectors such as retail and hospitality have taken the brunt of the impact. Other sectors such as the office and industrial sectors, which at first appeared more insulated from the pandemic, have now started to experience similar effects.

The most substantially impacted sector is retail, where COVID-19 is hastening the demise of many retailers that were already struggling. No doubt the values of shopping centres and high street retail will start to suffer beyond the short to medium term, with evidence of longer term value implications.

Retail

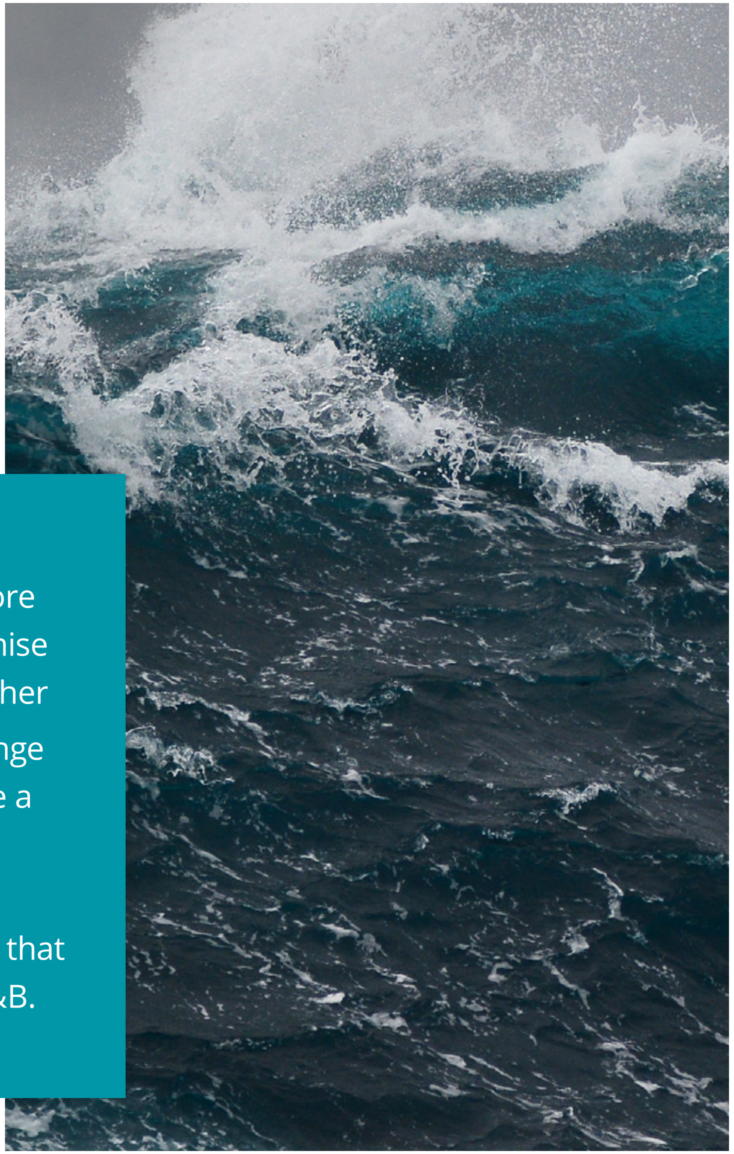
Retail and hospitality are no doubt the most challenged of all the sectors. There are a number of options for existing assets here:

- Repurposing is dominating dialogue in the UK market and is starting to be discussed in Ireland. There is a lot of uncertainty about how best to drive a repurposing and what alternative uses might work. Prior to the COVID-19 pandemic, many believed that PRS/residential was the solution, but one size does not fit all
- Whilst a repositioning of assets is the first initiative that many landlords/owners consider, many are likely to have to implement more drastic repurposing programmes
- This has been a challenge for landlords in the past, and so innovative approaches will be required in order for successful repurposing initiatives to be deemed viable.

Repurposing ultimately depends on being able to identify alternative uses that generate a positive return on the capital and time involved in achieving a transformation.

The medium-term future

- Retail rents are likely to continue to fall as more retailers encounter distress as they compromise rents, close unprofitable stores or fail altogether
- Downward pressure on rents will be a challenge for valuers to address and there is likely to be a closure on LTV gaps across the board
- Values of secondary centres anchored by supermarkets will be more stable than those that are predominantly fashion/entertainment/F&B.



Office

The impact of this pandemic is that remote working has become commonplace and an element of this is expected to remain. However, this is not the "death of the office" as has been touted by some. The office is likely to become a "destination" workplace; required for improved efficiencies, client engagement, staff engagement, training of staff, and an overall collaborative place to work.

However, larger corporates will no doubt seek to establish more permanent remote working protocols and structures. This will ultimately reduce headcount in physical floor plates on a daily basis, as more flexible working practices for staff become the norm and companies seek to reduce what is a large operating expenditure, reducing floor space requirements.

The resultant effect is that demand for office space is likely to decrease somewhat, with occupiers looking to consolidate existing offices and reduce commercial footprints.

Delivery and take up

With a substantial percentage of the commercial office stock under construction now pre-let, there will remain a constraint on the supply of new Grade A, modern office space coming to the market. It is therefore anticipated that rents will remain stable, with some yield deflation anticipated in respect of the longer-term reduced demand for commercial office real estate assets.

Whilst generally the professional services and tech sectors have to date remained insulated to some degree, they will likely be impacted by wider economic deflation. Much of the prime office assets in Dublin have already been purchased by long-term core investors meaning competition for such assets that are brought to the market for sale will remain strong.

The medium-term future:

- It is anticipated that there will likely be a mild softening of yields, more likely on an occupier sector-by-sector basis, with rental levels likely to remain relatively stable
- Whilst there will likely be lower levels of activity across the board, the suburbs may see a relative increase in interest/ activity in relation to city centre, likely to be driven by reduced affordability and budget constraints of occupiers
- The principal impact will likely be seen through the increase of incentives such as rent free/lease flexibility to occupiers.

Residential

The strong latent demand in the residential sector in Dublin remains. Some of the key factors which will impact the rental accommodation market and sales market (residential housing) are as follows:

Rental/investment market:

- It is anticipated there will be a reduction in short-term demand within the rental market, from both an influx of supply of short-term rental stock due to lack of international travel, along with a reduction in rental demand due to temporary relocation of occupiers from Dublin City until the end of 2020
- Residential rental rents are likely to remain stable in the medium term. It is anticipated that the short-term decrease in rents will be balanced by a rebound as the economy reopens and stabilises, stock is absorbed and the wider limitations in affordability of the sales market. All of this will likely increase rental demand due to limited new stock coming to market in key locations
- Landlords may consider a redesign of new stock under construction or in pre-development stage to incorporate a home office/study area, or a "co-working space" in apartment schemes to facilitate remote working
- Public transport will remain a long-term attraction in residential demand from a locational aspect, despite remote working.

Sales market

- The affordability issue remains. Economic deflation experience will likely place less certainty on income, with lenders being more cautious and already some examples of limitations and restrictions on lending
- Short-term sentiment is weak, driven by some hesitation in the market by potential purchasers on the future of remote working (which is driving locational demand), and the availability of quality stock
- Forward purchase investments are likely to stagnate until there is certainty on construction and completion timeframes, with a delay in commencement of projects currently in planning and a slowdown in the release of phases in schemes currently underway.

Delivery/development land:

The development land sector will experience the effects on a sectoral basis as outlined above. There is an expected reduction and deflation in development land values and AMV over time for residential development, which may also influence other sectors.

Some of the key factors which will impact this sector:

- It is inevitable that there will be an impact on pricing. The pricing of residential development land is influenced by many factors, but mainly variables such as GDV (end values, rents and yields), construction costs, and the funding environment; all of which are shrouded in uncertainty in the current market
- The role of Local Authorities and Associated Housing Bodies will be crucial going forward,

and the implementation of government policy on both this and the delivery of undeveloped sites will be critical

- Construction cost inflation remains an issue in the delivery of stock, due to the tight margins for developers in an uncertain market.

There is likely to be a degree of stress on some residential development land sites where excessive prices may have been paid in the acquisition. In particular, fringe and regeneration areas which had experienced substantial increases in pricing over recent months may become challenged or indeed distressed into 2021.

Conclusion

As the effects of the COVID-19 restrictions continue to be felt both locally and globally, the real effect on property values as a whole is only starting to emerge. Until such time as a normal transactional market resumes, care will need to be taken when assessing property valuations and the supporting methodologies.

ADVERSITY INSPIRES CREATIVITY

NEW OPPORTUNITIES FOR FINTECH COMPANIES

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As the COVID-19 pandemic continues to create uncertainty, many fintech companies (fintechs) are under stress on a number of fronts. Access to funding was already becoming difficult, especially for some early-stage ventures, as many investors focused on established fintechs with clear business models. In addition, recent interest rate cuts and the economic slowdown have radically changed many industry assumptions.

Yet as the broader economy shifts from respond to recover,[1] COVID-19 may create new opportunities for some fintechs. For example, as social distancing has taken hold worldwide, there has been tremendous growth in the use of digital financial services[2] and e-commerce.[3] While we can't predict what form post-crisis opportunities will take, we do believe that fintech – a sector that is steeped in innovation – is likely to generate new and transformative solutions.

How fintechs are meeting the COVID-19 challenge

The most immediate concern, of course, is managing through the current uncertainty. Many fintechs, like the rest of the financial system, have gone into overdrive to respond to the crisis. Many, including insurtech and proptech companies, are shoring up their capital and funding from investors and lenders.[4] Others have implemented cost-saving measures, including workforce reduction.[5] Because revenues for many of them are transaction and volume based, a priority strategy right now is making sure that as many expenses as possible are variable and fixed expenses are minimised.

Maintaining operational resilience is clearly top of mind as well. Lending fintechs are being inundated with customer requests for forbearance and relief, as well as for help in securing the small business loans, established in the United States for example by the Payroll Protection Program (PPP) of the Coronavirus Aid, Relief, and Economics Security Act (CARES Act). Similarly, payment- and wealth-focused fintechs are bolstering their infrastructure by expanding capacity or investing in new resources to withstand the stress to their systems from higher transaction volumes. These actions could be especially challenging for fintechs that depend on transaction volumes for revenue and are thus cash-starved at the moment.

For insurtechs, winning the attention of investors is expected to get even more difficult, given the number of startups already in the market. And attracting end-users likely won't be any easier as insurers shift their focus to immediate needs and expense management in the wake of the COVID-19 outbreak.

Current market conditions and social distancing practices have also affected proptechs' business growth, and many of those investing in real estate are being forced to pause their activities until it is clear that they will be able to sell the properties. Other proptechs, to retain their customers, are offering discounts and attractive retention offers.

Beyond these more general finance and operating considerations, each category of fintechs is responding to some unique challenges. Many online lenders, for instance, are tightening their underwriting standards to retain the quality of their balance sheets and mitigate any potential rise in defaults.[6] They may also soon find that the historical data they use to make underwriting decisions could be less reliable in today's environment, and they will have to adjust their models accordingly.

How are fintechs innovating to provide relief and enable recovery?

Fintechs tend to have some unique advantages that are allowing many to both create new ways of providing value in the current environment and position themselves to thrive in the longer term. Fintechs have a number of attributes that give them the agility needed to rapidly create and deliver new solutions. Generally speaking, they are:

- Adept at harnessing and analysing various types of data – for example, credit and life insurance underwriting data
- Unburdened by complex, disparate, legacy systems, which allows them to build platforms using a cloud-native approach that takes advantage of the application programme interface (API) ecosystem
- Laser-focused on a seamless and delightful digital customer experience
- Familiar and comfortable with partnering within the broader financial services industry and beyond
- Accustomed to collaboration: Many use collaboration tools and have designed their workflow and operations accordingly.[7]

So how are most fintechs harnessing their strengths to meet the current challenge? First, they are doing their part to provide relief to individuals and businesses coping with the effects of COVID-19. For example, in the United States:

- PayPal has waived fees on chargebacks and instant funds transfers from PayPal business accounts to bank accounts[8]
- Lending Club has added new hardship plans, including waiving late fees and allowing eligible borrowers to make interest-only payments or skip up to two monthly payments[9]
- Square is waiving software subscription fees for Square Payroll customers[10]
- Stripe is fast-tracking support for telemedicine platforms[11]
- Flock, a drone insurance provider, is allowing its commercial customers to pause their policies when no work is being conducted[12]
- Kabbage worked with other fintechs like Lendio, Finix, and Fundera to launch a platform that allows consumers to buy gift certificates to support local small businesses during the coronavirus crisis. The gift certificates can be redeemed at any time, but small businesses receive the revenue within one business day of purchase[13]
- Nomo, a platform that assists freelancers in managing their accounting, taxes, and invoices, is providing free temporary access to its new customers[14]
- Chord, the company behind the BondDroid AI engine that generates prices for corporate bonds, is temporarily offering its services free of charge[15]
- Revolut, which launched recently in the United States, and a number of other fintechs have introduced a charitable-giving feature within their apps so that their customers can donate funds to those affected by COVID-19.[16]

Fintechs have a number of attributes that give them the agility needed to rapidly create and deliver new solutions.

Next, many fintechs are innovating to create new products that address the rapidly evolving economic environment:

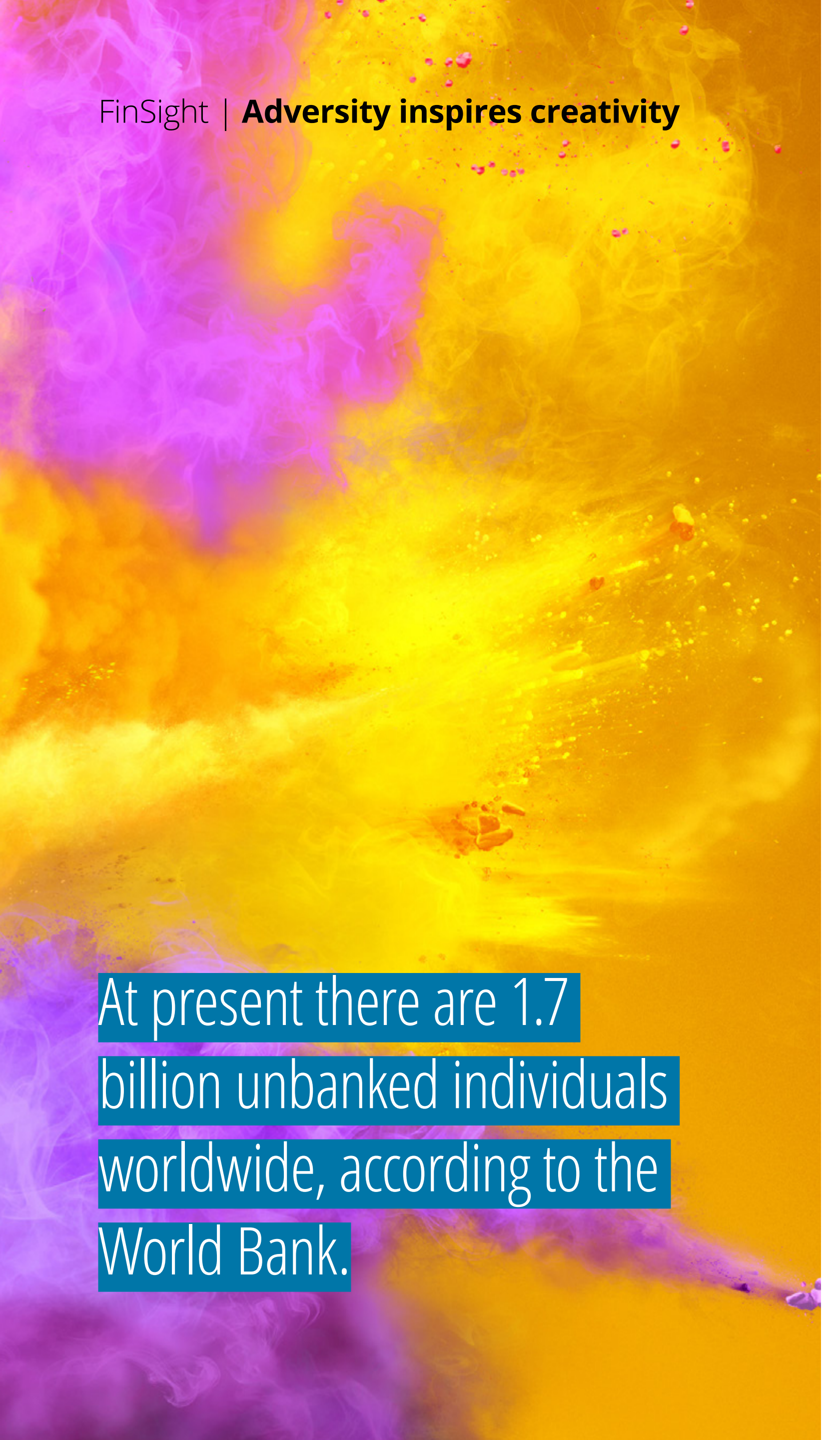
- In the UK, Trade Ledger, Wiserfunding, Nimbla, and NorthRow have formed a business-lending taskforce to provide a turnkey origination and underwriting platform that allows banks, alternative lenders, and private debt lenders to virtually and digitally deploy funds to businesses during the COVID-19 outbreak[17]
- Israeli fintech company Innovesta launched its COVID-19 Resilience Innodex (CRI). Using a proprietary artificial intelligence technology, the CRI assigns risk scores based on a business' ability to withstand the effects of a pandemic such as COVID-19[18]
- iwoca, an online lender, announced OpenLending, a platform that allows fintechs and banks to extend iwoca's lending capabilities to more than two million UK businesses.[19]

Finally, a number of US-based fintech companies – those that provide financial services as well as those that enable financial services – are helping to facilitate the financial relief provided under the CARES Act:

- nCino has a developed a new solution to optimise the PPP loan process[20]
- ODX, a subsidiary of OnDeck, also has a solution that is specially configured to the CARES Act[21]
- Lendio is enabling small businesses to apply for loans[22]
- Unqork developed a small business digital lending platform[23]
- Numerated, another digital lending platform, is seeing an increase in banks' interest in using its technology to handle the rise in loan demand.[24]

In the United States, even prior to the CARES Act, companies like Biz2Credit set up dedicated websites offering information about the Small Business Administration (SBA) Economic Injury Disaster Loans (EIDL) and other types of funding for businesses in need of working capital during the coronavirus pandemic.[25] A number of other fintechs have announced plans to offer PPP-related services. We expect that numerous companies are working around the clock to tailor and deploy these CARES Act-specific solutions.

Social distancing is accelerating customers' use of online – especially mobile – channels to view and manage their finances.



At present there are 1.7 billion unbanked individuals worldwide, according to the World Bank.

Keeping an eye on future opportunities

Fintech companies may be forced to re-examine their mission and business models after COVID-19. A key question is how to leverage both existing and newly developed assets to seize new opportunities in the future. It could be an opportune time to think big and act boldly.

First and foremost, it is apparent that social distancing is accelerating customers' use of online – especially mobile – channels to view and manage their finances. Because many fintechs are purpose-built for the mobile channel, they often excel in offering presentation, onboarding, underwriting, data visualisation, and providing the right context for transactions. These capabilities will likely become even more relevant and important as a greater number of financial transactions are conducted through digital channels.

01 Expanding partnership strategies

An important outcome of COVID-19 for fintechs may well be the continued acceleration of partnerships with financial institutions, which can offer the benefits of capital, distribution access, and compliance infrastructure, but often lack highly sought-after digital solutions. For example, Blend, an established digital mortgage software provider, is seeing a strong increase in the number of interested banks that do not yet have digital mortgage-lending solutions.[26]

Fintechs may also continue to look for partnership opportunities with other fintechs, bigtechs, and nonfinancial services firms. This partnership trend, including white-labelled fintech solutions, is expected to accelerate. Growth in open banking and banking-as-a-service regulations and initiatives could play an important role here.

For example, there is huge potential in holistic financial services that integrate consumers' financial needs and behaviours, such as healthcare. Integrating payments and other financial products into health services is often considered needed in the United States and elsewhere. Partnering with nonfinancial services firms, such as retailers in the "tailfin" space, could have potential. Examples of these innovative partnerships already exist, like the ones Walmart has with PayPal and Green Dot.[27] There are myriad opportunities for fintechs to collaborate with partners in other areas – for example with the big technology firms – especially on a global scale.

02 Advancing financial inclusion programmes

The economic disruption of the pandemic is highlighting the importance of serving people who are currently outside the financial system, both in developing and developed economies. For instance, at present there are 1.7 billion unbanked individuals worldwide, according to the World Bank.[28] The Federal Deposit Insurance Corporation estimates that in 2018, 6.5 % of US households were unbanked and 16% were underbanked. Even for those who are in the banking system, 40% would have difficulty covering an unexpected expense of even $400,[29] and almost three-quarters of employees in the United States "would experience financial difficulty if their paychecks were delayed for a week,"[30] according to results from the 2019 Getting Paid In America survey conducted by the American Payroll Association.

It is possible that COVID-19 may lead to greater financial inclusion as a result of recent government programmes around the world to help low-income households. Fintechs can play an important role, perhaps through strategic partnerships across a broad ecosystem of players – including financial institutions, retailers, and the government sector – in distributing benefits to more vulnerable populations. Indeed, many fintechs made it their mission to democratise financial services by providing basic financial services in a fair and transparent way.

03 Accelerating economic relief efforts

Numerous payments companies may be well positioned to aid in the more rapid disbursement of government relief funds, especially to those without bank accounts. Square, Venmo, PayPal, Finix, Plaid, Marqeta, and others – in addition to payroll-processing companies like Gusto – may play a big role in the coming weeks and months.[31, 32]

04 Empowering gig workers

Gig economy workers, numbering more than 50 million in the United States alone, are another attractive segment for fintechs.[33] Given their inconsistent or unpredictable income patterns, gig workers typically have unique financial, insurance, and tax requirements.[34] For this reason, they are generally underserved by banks, making them a growing opportunity for fintech firms.

While it is unclear how COVID-19 might impact the growth of the gig economy, fintechs may end up targeting these individuals more directly. There are already a number of fintechs and challenger banks that serve the gig economy, including Green Dot, Salaryo, Joust, Qwil, Steady, and Cogni.[35] Some provide features such as advances against unpaid invoices[36] and the ability to find gig jobs on the app itself.[37]

Likewise, a few fintechs in the United Kingdom – Credit Kudos, Fronted, 11:FS, Coconut, Capital on Tap, Mazuma, SeedLegals, and TrueLayer – have formed a consortium and created a new concept called Covid Credit to cater to freelancers affected by the COVID-19 crisis.[38]

05 Harnessing the Internet of Things

Another area is Internet of Things (IoT)–enabled contactless payments, such as connected cars that allow consumers to pay for fuel or food without handling cash or other potentially infected surfaces.[39] In fact, it is possible that COVID-19 will accelerate the adoption of IoT-enabled payments.

The light at the end of the tunnel

The current uncertainty has placed businesses everywhere under economic duress, and fintechs are no exception. But many in the sector are already rising to the challenge, adjusting their products and services to meet the needs of customers who are struggling through the pandemic themselves. What's more, given their differentiated capabilities – namely adaptability and innovation – many fintechs are well positioned not only to survive the crisis, but also to contribute to the industry and society in meaningful ways once the crisis is behind us. If history provides any lessons for this unprecedented crisis, it may be that adversity inspires creativity.

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CHANGE, COVERED

IN CONVERSATION WITH ANN KELLEHER

ANN KELLEHER
PRESIDENT
INSURANCE IRELAND

President of Insurance Ireland and CEO of Ark Life, Ann Kelleher, reflects on the industry's rapid response to COVID-19 and assesses where the sector stands as restrictions lift and we look to the future.

CAN YOU BRIEFLY DESCRIBE YOUR ROLE AS PRESIDENT OF INSURANCE IRELAND, ITS REMIT AND YOUR MEMBERSHIP?

Insurance Ireland is the representative organisation for the insurance sector in Ireland. It has 135 member firms serving 25 million customers in Ireland and also globally, because we are operating in 110 countries, so it's a significant sector here. 95% of the companies that are operating here are members of Insurance Ireland, so we would have a strong leadership voice in the sector.

The president is elected typically every year and they chair the board on a non-executive basis every year. I was elected president in 2019, but it was an unusual year with a lot of change, so I'm staying on an extra year until April 2021.

Compared to being a CEO, as president you're not the person rolling up your sleeves; you're more guiding and directing and chairing and facilitating the sessions with other board members. A membership organisation is very different to an ordinary commercial organisation, where within your control you set the agenda, you go for it, and you don't have to continuously ensure that all your members are with you. What's different in a membership organisation is that you're going to have different perspectives, members who would prioritise differently and you need to look to find the areas of commonality and get people working together cohesively. You're figuring out areas where it makes sense to collaborate and bring everyone with you on that journey. Sometimes the decision making process can be slower than in a commercial organisation, but it often makes sense to invest that time because you get better decisions.

COVID-19 HAS AFFECTED EVERY FACET OF LIFE AND BUSINESS IN 2020. WHAT ARE YOUR THOUGHTS ON HOW THE INSURANCE INDUSTRY REACTED?

Firstly, I think the industry responded remarkably well. I think the industry almost surprised itself at how it was able to, almost overnight, transform to organisations that were no longer office-based and where big and small companies had the vast majority of their staff working from home and answering customers.

We wouldn't necessarily be known as an industry that moves at a very fast pace but in fact the member companies did a tremendous job at executing and transitioning at pace and I think by and large it worked rather well. For sure, we're helped by technology: tools like videoconferencing really came into their own and facilitated us, and the industry maximised the tools available.

There were two key focuses for most companies: look after the staff and ensuring continuity of service to customers. On both of those, I think the industry delivered really well.

The question is, now that we've moved into a new normal, companies are pleasantly surprised at how well it's worked, how productive people are and how much you can do, and the question arises: where will we end up ultimately?

From a longer-term perspective, I would say it's unlikely we will go back to the way things were just before the pandemic. It's probably opened our eyes to the different ways that you can work, and the different models will be considered – maybe some sort of blended working and office-based working.

I do think that working from home is not the panacea; how does somebody join an organisation and learn and understand about the company norms and culture of the organisation – or how do you maintain the culture of an organisation when everyone is working remotely? Where there's a significant level of learning required, it's often by sitting alongside more experienced people, almost by osmosis. That mentoring can't happen from home.

HOW DO YOU LOOK AT THE INSURANCE SECTOR'S RESPONSE TO COVID-19: SOME PROVIDERS ISSUED REBATES TO CUSTOMERS, BUT OTHERS WERE REFUSING TO PAY OUT ON CLAIMS BY BUSINESS CUSTOMERS?

Clearly there was a call to arms across the country, what could businesses do to support other businesses, and the industry very much recognised the ask of it. There are a lot of examples of how the industry responded well; in the life and pensions sector where I operate in my day job [as CEO of Ark Life], we facilitated customers who needed to take premium holidays, there were forbearance measures introduced. In the non-life sector, insurance was extended to cover a range of scenarios where people were operating differently than their insurance contract might have envisaged, so there was forbearance in that sense. There were premiums returned in the motor and health insurance sectors.

The one that has been a huge talking point has been business interruption. Obviously for businesses the length and breadth of the country, this has been an incredibly difficult time, and those businesses have suffered; we never would have imagined this widespread enforced closure. It's completely understandable how, when you're running a business and this happens to you, you would look to see 'does my insurance policy cover it'? The unfortunate reality is that, in the vast majority of cases, the risk is just not covered: there was no pandemic insurance in place.

The reality also is that no market in the world can provide widespread pandemic insurance; the cost would just be too prohibitive. It does beg the question of, given this has happened now – and hindsight is all very well – but how do we prepare for something like this happening again? I know discussions have started certainly in other countries and will probably happen here, around having some sort of pandemic fund and Insurance Ireland is very happy to participate in those discussions and explore what role the industry has to play here.

HOW DO YOU ASSESS WHERE THE SECTOR STANDS AS WE START TO LOOK AT LIFE AFTER COVID-19?

The impact of the closure goes way beyond what the insurance sector is able to do and it goes beyond what cover was available for this pandemic. I don't think as a sector alone we'll be able to cater for it in any future pandemics, either second waves or beyond, but I do think it's right to have the dialogue which is starting now around what lessons are to be learned and what is the role of all the different parties, and what can we do differently to be better prepared for a hit like this the next time.

In terms of life after COVID-19, it is an exciting time now with a new Government just coming into office. The new executive has decided to establish a cabinet sub-committee on economic recovery, which will be chaired by An Taoiseach, and this sub-committee will oversee the insurance reform agenda. Insurance Ireland is looking forward to having an opportunity to contribute to the work of this sub-committee.

WHAT OTHER AREAS WILL INSURANCE IRELAND BE LOOKING AT?

There are other familiar hot topics where we'll continue to have dialogue with the new Government, such as the discussion around the cost of claims and the series of reforms that the insurance industry is keen to introduce on the non-life side. We've seen good progress, but we need to see more. Research shows that the cost of the claims we pay out in Ireland is way out of line: four times the size paid out by our nearest neighbour. There were a series of actions recommended to help bring those in line and that in turn and ultimately reduce the cost of insurance, which is obviously very important, particularly on the motor side.

In the life and pensions sector, we have been very supportive of the Government's proposals to introduce auto-enrolment. We have a significant pensions gap and we want people to start saving early, and we believe there is a lot of merit in the Government's proposal.

LOOKING AHEAD, WHAT'S ON YOUR AGENDA AT INSURANCE IRELAND?

We're starting to work on the new strategy under [new CEO] Moyagh Murdock's leadership. I would see a few key themes that are likely to be continued and expanded on as we develop our strategy. For example, the sustainability agenda which is clearly important in all industries. There is definitely scope to have a stronger voice in this space at industry level.

Another area is insurtech: we operate in a market where a lot of the global tech companies have a very strong presence here, and equally we have a number of the global insurance players. Ireland's insurance market is the sixth largest in the EU, and our reinsurance market is the second largest. That would suggest there should be great opportunities for those two industries to collaborate together and potentially attract new players that could want to partner with some of the more established industry players, so that's an interesting area where we'll want to do more.

> "There are great opportunities for global insurance and tech companies to collaborate."

And diversity and inclusion is a hot topic. I'm working in this industry since 1992 and it has transformed in terms of that agenda. From a gender perspective, we see more women in senior leadership positions and on boards, but we're still not where we'd like to be, it's fair to say. There are lots of good things being done at individual member company level, but I think it's an area where, as an industry body, we can do more and support our members more.

ON A SIMILAR NOTE, INSURANCE IRELAND HAS VARIOUS STRATEGIC ALLIANCE PARTNERSHIPS, INCLUDING ONE WITH DELOITTE IN THE AREA OF TALENT AND D&I. WHAT CAN YOU TELL US ABOUT THESE PARTNERSHIPS?

Insurance Ireland has operated a strategic partnership model for the last number of years, and I think it's served us really well, including one in the area of talent with Deloitte. For our members, attracting and retaining talent has been a critical issue for the last few years. Just pre-COVID, we had been pretty much at full employment and insurance maybe isn't regarded as the most exciting industry to forge a career in, and so we're competing against the big tech companies for talent and then competing to retain it.

While Insurance Ireland has insurance industry experts, the fantastic thing about the strategic partnership is that it gives us access to world-class thinking in different areas. In the case of Deloitte as our talent partner, their professionals are the experts in this area, not just in insurance but in other industries. What Deloitte has done really well is share their expertise with us and also facilitate the industry to share some of the best practice and learnings. And those sessions are all really well attended. All the members are extremely interested in learning better ways and new ways of attracting and retaining talent and this agenda is high up. As we go into more economic challenges, attracting and retaining the best is always going to be hard to do.

"COVID-19 has shown how the industry can embrace change and execute quickly."

So it's in all our interests in insurance to build the profile of the industry as an employer of choice. It is an industry where people can have a fantastically varied career, and I have done a lot of different things myself in this industry... I think our membership has a common objective, to get the message out there about the opportunities and then provide them, and that training. It's a great opportunity for us to share best practice and new thinking.

DO YOU THINK THE PERCEPTION OF THE INDUSTRY WILL CHANGE AFTER COVID-19?

As an industry, we have an image of being very staid, conservative, and slow to move. I'm not sure that would be my own experience, but I think that's the perception. If you think about the recent example of COVID-19 and how we've had to pivot to a completely different way of working, I think that's shown how the industry can move at pace, embrace change and execute quickly. I think the industry would look at other sectors with admiration and a desire to be maybe more agile, but with a nervousness. We're one of the last industries to move away from business attire... but then COVID happens, and everyone's working from home, wearing their tracksuits! But that's fine – everyone's still doing the work.

I think the industry is very conscious of the potential to learn from other industries. When you've always done something a certain way and you're there a long time – and you're a large organisation as a lot of our members are – you don't change those things very quickly. There will be lasting changes as a result of this acceleration and dramatic change to how we operated. It's also a lesson to us that if you really want to do something, you probably can do it faster than think you can. That's a lesson we can take with us on how we can execute change in the future.

This interview took place on 22nd June 2020.

TURN RISK TO REWARD

MANAGING RISK IN FINANCIAL SERVICES TO GET FIT FOR A DIGITAL FUTURE

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Technology and Digital Risk

Amid the humanitarian and economic shock of COVID-19, the digital forces reshaping the financial industry have gone into overdrive. Nearly overnight, firms have pivoted to digital channels, technologies, and ways of working.

All this has taken place against a backdrop of customer demands for greater choice, transparency, and frictionless delivery in the products they receive. Innovative startups and non-traditional players are responding via new modes of competition. To protect consumers and maintain orderly markets, regulators are raising the bar for compliance.

The impact is just as dramatic inside the organisation. From cloud computing to artificial intelligence, advancing technology is transforming the front, middle, and back offices. Operating and talent models are bending to the demand.

These trends are shot through with a common thread: digital risk. In the discussion that follows, we'll examine digital risk along its various dimensions, then break it down by type. Before we do that, however, let's review what digital risk really means for financial services – and why it's become such an urgent topic today.

The landscape of digital risk

Regulators now expect financial institutions to withstand severe business disruptions. Examples include a global financial crisis, geopolitical event, or worldwide pandemic such as COVID-19. A key part of this operational resilience is the ability to manage risks associated with an increasing reliance on digital business practices.

Digital risks include those related to software and hardware, such as service outages or unauthorised access. But they also include risks related to the application of digital technology. Consider the following examples:

- **Retail lending.** An artificial intelligence (AI) system processes a high volume of inputs through hundreds of steps to arrive at a lending decision. But it isn't clear that the decision is fair – and between the system's complexity and its ability to learn on its own, it can be extremely difficult to understand why the system behaves as it does.
- **Derivative trading.** Two parties agree to a simple interest rate swap through a blockchain. They set up a smart contract that transfers value at the end of each settlement period based on market data from a central authority. However, the blockchain authenticating the trade potentially exposes the details of the trade to competitors.
- **Underwriting.** Facing declining margins, a life insurance company turns to emerging markets where the potential for growth is significant. However, these locations have no agent networks, making mobile technology the practical way to reach customers. The insurer partners with a fintech firm to develop an app, only to find itself disintermediated as the partner gains control of the customer relationship.

To protect consumers and maintain orderly markets, regulators are raising the bar for compliance.

Financial institutions tread a narrow path between speed and control, prompting the need for more agile risk and assurance processes.

As these examples indicate, digital risk can be strategic, financial, operational, regulatory, or reputational in nature. Digital risk is also highly nuanced and subject to ongoing change as digital ecosystems, business, and service models evolve.

The examples also reveal a tension at the heart of operational resilience. On the one hand, it demands that firms mitigate the new digital risks they're exposed to. On the other hand, operational resiliency more broadly reflects the firm's ability to respond to fast-changing business conditions. Said differently, financial institutions tread a narrow path between speed and control, prompting the need for more agile risk and assurance processes. The implications include:

- New culture and skills for informed risk taking and experimentation
- New frontiers of engaging in a vast and complex global ecosystem
- New speed of execution when near continuous change is the norm
- New accountabilities for operating in the physical and digital domains
- New ethics in the wake of opportunities and challenges that didn't exist before.

If all this seems incredibly complex, you're not wrong. Fortunately, there are ways to think through the risks so that firms can identify and manage them systematically. One place to start is by exploring the dimensions of digital risk from an organisational perspective.

Findings from the Deloitte Global Digital Risk Survey

To gauge the organisational impact of disruptive technology, Deloitte UK recently surveyed 167 senior executives around the world in the financial services industry.[1] Among respondents:

- Most (69%) need more than six months to convert new ideas into live solutions
- Over a third (36%) experienced significant incidents due to disruptive technologies going wrong
- Only 7% believe the information provided to governance bodies to help them manage risks effectively is comprehensive and produced efficiently
- On a scale of 1 to 10, most (60%) rate the effectiveness of their risk management tools at 5 or less
- Fewer than one in five (19%) are fully confident their digital delivery teams have the appropriate skillset to manage risk in a digital organisation.

The upshot? Many of the barriers to achieving true digital transformation are no longer related to technology. Instead, they arise from gaps in the organisation's ability to manage risk.

Dimensions of digital risk

Like other types of risk, digital risk often hides in plain sight. To find it, financial executives need an idea of what they're looking for. An intuitive approach is to look across the following organisational dimensions for signs that point to risk.

New digital ecosystems, business, and service models

These use partners and suppliers in different ways. What to do now: Identify who you're doing business with, how much of your customer data they might have, and whether they're hosting your systems on the cloud.

Experiences and engagement

News about how you engage with partners, customers, employees, and regulators can travel farther and faster today. What to do now: See whether your digital investment is inclusive and achieving positive outcomes for stakeholders.

1. Deloitte, Beyond the hype: Global Digital Risk Survey 2019

Ambitions and aspirations
It takes agility to realise strategic opportunities in a digital world. What to do now: Gauge your ability to deliver digital transformation safely and securely.

Changing external environment
The risks associated with digital transformation are leading to increased regulatory scrutiny. What to do now: Assess your relationship with global regulators.

Culture and leadership
It takes a digital-first mindset to embrace new ways of working. What to do now: Gain insight into the degree of digital sophistication at all levels of your organisation.

Branding
A financial firm's brand should reflect the digital ambitions of leadership. What to do now: Investigate what your customers and employees are saying about your business (including supply chain partners).

Organisation and workforce
Digital success relies on a workforce that can stay abreast of change without compromising onsecurity. What to do now: Determine how prepared your risk and control teams are to accommodate an agile workforce.

Enterprise operations
Risk management must keep pace with a more dynamic and automated operation. What to do now: Analyse the appropriate balance between post-event assurance and pre-event monitoring.

Platform, data, and infrastructure
As you digitally evolve, legacy systems can hold you back. What to do now: Find out how much technical debt exists and whether expenditures on new technology are sufficient.

Types of digital risk

Although the digital risk profile is unique to each organisation, certain types of risk are common among financial institutions. Here are some of the most significant.

01 Cybersecurity risk

As processes and data become more digitised and networked, cybersecurity risk goes up. Firms may exacerbate the risk by trying to protect all digital assets equally rather than shifting more protection to the "crown jewels." They may also focus on avoidance of cybersecurity incidents at the expense of mitigation strategies, and vigilance at the expense of ease of doing business.

02 Ecosystem risk

Business ecosystems create more opportunities for cyber-intrusion and systemic risks. For instance, partnerships and outsourced services can boost organisational exposure to bad actors, contagion, and errors from model miscalibration. Meanwhile, systemically important technology and data providers can introduce single points of failure.

03 Emerging technology risk

The greatest digital risks may be from technologies that don't exist yet. Think financial exclusion as technology systems invent their own logic, unintentional collusion as institutions interact through high-speed networks, and breach of fiduciary duty as digital systems take on broader sets of customer-facing responsibilities.

04 Execution risk

To be successful, digital projects require fundamental, top-down shifts in how organisations execute. Without those shifts, firms may run into challenges with user adoption, institutional buy-in, and integration with legacy systems. In addition, organisational structures may hamper rather than support agile execution.

05 Fraud risk

Amid increasing volumes of digital transactions – especially cross-border ones – strong know your customer (KYC) and anti-money laundering (AML) processes become more important than ever. They help fight fraud associated with open banking, money transfers, new account activation, and more in an environment where it can be unclear who owns the liability of fraud.

06 Privacy risk

Data is proliferating – and so are laws around data privacy and transparency. Between them, these two trends raise the stakes of a data breach involving personally identifiable information. Retention of unnecessary data can add to the risk. So can a lack of clarity on data ownership, uses, and alteration.

07 Legal and regulatory risk

Around the world, regulators are issuing new rules addressing the increasing digitisation of financial services. These regulatory regimes are in various stages of maturity and may contradict existing business practices. A rush to comply can add to the risk by creating complex, overlapping layers of compliance requirements and systems.

08 Brand and reputational risk

Data loss, outages, and misuse can significantly impair a financial institution's reputation. Beyond that, digital tools may introduce ethical pitfalls and biases that can reflect negatively on financial services. Examples include incomplete or unrepresentative data sets, bias in input data, and subconscious developer bias that influences the internal logic of a digital application.

09 Strategic risk

Strategic choices can intensify digital risk. For instance, firms may opt not to integrate their IT and business strategies. They also may opt to digitise existing processes without improving them or emphasise short-term cost savings over an upgrade of the full digital environment. Another choice might be to ignore new partners and technologies rather than embrace them.

10 People and culture risk

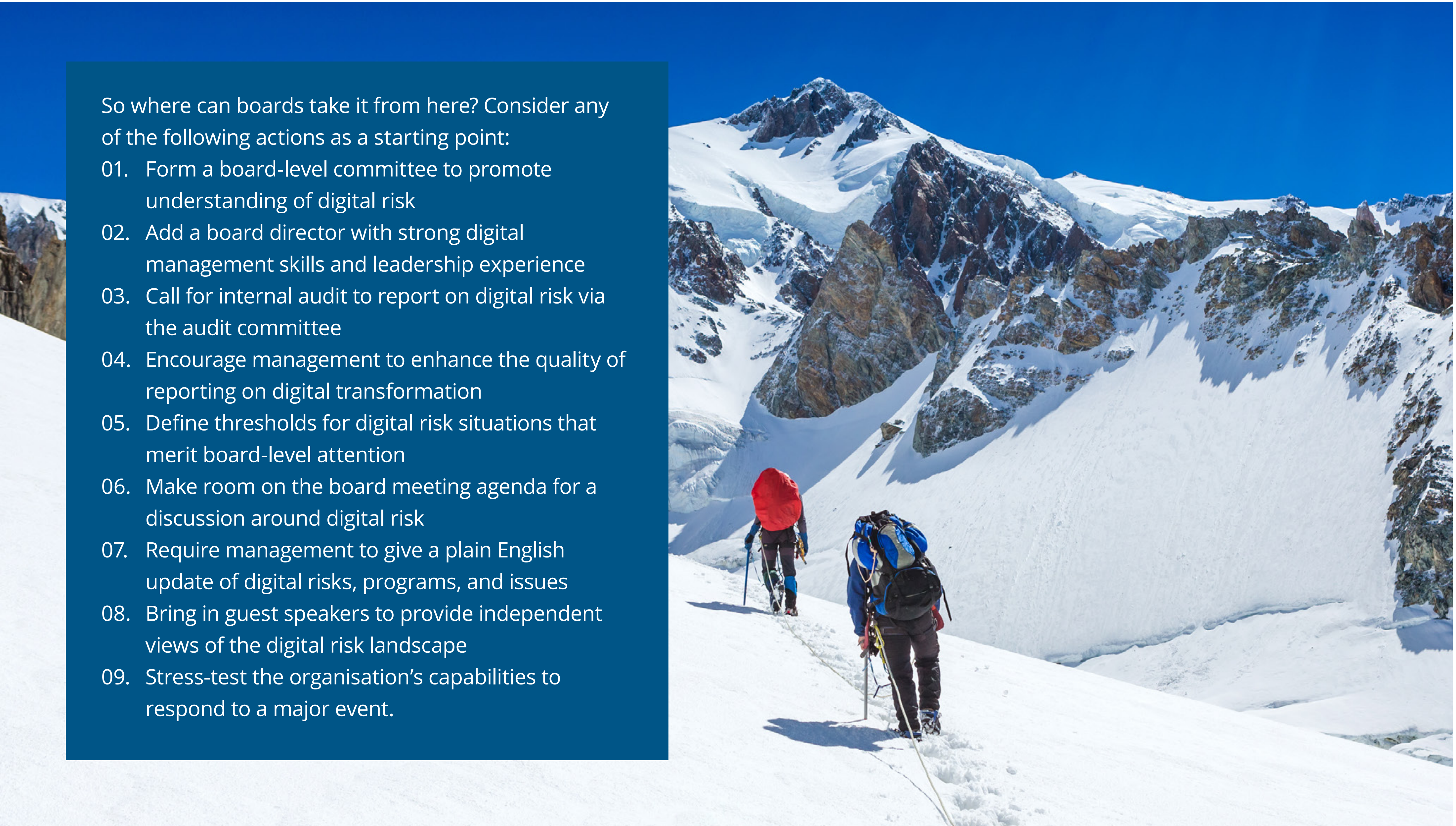
Talent to support digital transformation – examples include data scientists and developers – can be in short supply. At the same time, opportunities to upskill or cross-train staff may be limited. Some employees may resist digital transformation for fear of losing their jobs, while long-term trends may prompt financial institutions to accommodate more flexible ways of working.

Turn digital risk into digital advantage

Financial firms are in the midst of significant digital disruption. This disruption is changing the nature of risk as well as introducing new risks that might not have existed in the recent past. At the same time, digital technologies and processes offer financial institutions the opportunity to redefine business models and transform customer interactions.

In a world dominated by financial and regulatory risk, it's easy to overlook the risk that arises from digital transformation. The good news is that digital risk can be easier to understand than it seems; common sense is a reliable guide. And by getting a handle on digital risk, board members have a chance to deliver a better customer experience, get their firms fit for the future, and do their part to create a more resilient financial services ecosystem.

> The greatest digital risks may be from technologies that don't exist yet.



So where can boards take it from here? Consider any of the following actions as a starting point:

01. Form a board-level committee to promote understanding of digital risk
02. Add a board director with strong digital management skills and leadership experience
03. Call for internal audit to report on digital risk via the audit committee
04. Encourage management to enhance the quality of reporting on digital transformation
05. Define thresholds for digital risk situations that merit board-level attention
06. Make room on the board meeting agenda for a discussion around digital risk
07. Require management to give a plain English update of digital risks, programs, and issues
08. Bring in guest speakers to provide independent views of the digital risk landscape
09. Stress-test the organisation’s capabilities to respond to a major event.

TIME TO SHINE

THE DECADE OF BLOCKCHAIN IS HERE

DAVID DALTON
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A glance back... The global COVID-19 pandemic has offered a new lens through which individuals, businesses and governments view the world. Now, in our new reality, we have an interesting opportunity to look back at how far technology has brought us and its potential to bring us further still.

Just as we had begun to settle into 2020, the world changed dramatically as the COVID-19 pandemic unfolded. In spite of this uncertainty in which we now find ourselves, 2020 started as a promising year for blockchain and there remains a number of things that we know to be true – we know that the market is maturing and that stakeholders feel more confident about blockchain technology and its potential to aid their business. We know that no matter why businesses choose to adopt blockchain in the coming months, solutions will struggle to succeed without a clear plan for governance. We know, and have seen in the past number of months, both in our personal and professional lives, that the world is becoming increasingly digital – it's likely that digital assets are now closer than ever to mainstream adoption.

Moving forward in 2020

Now eleven years on from the mining of the genesis block on the bitcoin network, the popularity of blockchain technology has seen a historic rise and a significant fall. 2020 brings with it an opportunity for the technology to move further away from experimental PoCs and pursue more significant investment for real business-ready solutions should the economic environment allow.

Where did 2019 leave us?

Like a small child, the early years of a nascent technology bring dramatic growth spurts coupled with a changing personality and growing pains. This rings especially true for young adolescent blockchain, who turned 11 in the early days of 2020. Despite her youth, her tenth year was full of moments which will define the coming years. 2019 saw the proposition of Facebook's Libra and the People's Bank of China's announcement that it would soon launch a sovereign digital yuan. These bold reveals, which bring the potential of a global digital currency ever closer, caused ripples across the global financial services sector.

> "This is the beginning of the decade of blockchain, and I think in 2020, we'll start to see the global recognition of crypto assets in the financial services industry."

Antonio Senatore
Deloitte EMEA Blockchain Lead

Across the board, we saw greater participation from governments and central banks in discussions regarding the regulatory environment that this disruptive technology should exist in. And in the growing blockchain community, we observed a move away from get-rich-quick schemes grabbing the headlines in the blockchain space and more viable solutions and consortia taking their place. 2019 brought a broader range of industry players into conversation on blockchain, moving away from the financial services industry focus that we had years ago predicted.

True, the adoption of the technology has not occurred with the ferocity which the crypto hype of 2017 indicated to many. Rather, we have seen the slow and challenging growth of ecosystem consortia highlighting that companies are "waking up to the idea that to go far, they ought to go together".[1]

Blockchain is here to stay. And 2020 is the start of her decade.

Top five trends

- The hype is over
- Evolving platforms
- Adoption rates across industries
- Governance is critical
- The rise of tokens

1. "Will 2020 be the year blockchain overcomes its hype?", World Economic Forum, January 2020.

THE HYPE IS OVER

The Deloitte 2019 Blockchain Survey showed that blockchain adoption has shifted. As the technology matures, we have seen a move away from experiments toward the development of robust enterprise-ready solutions.

The corporate blockchain hype cycle is slowing

In recent years, blockchain has been heralded as a major disrupter on track to rattle almost every industry from agriculture and manufacturing to financial services and insurance. While in many cases, the technology's promise can be clearly seen, faith in blockchain has fallen victim to "the massive hype and irrational exuberance in the past, driven largely over a Bitcoin-buying frenzy."[2]

In the wake of the hype, a tendency toward blockchain tourism developed – where we would see intrigued companies come to gawk at the technology, kick it around for a few weeks before deciding they were more comfortable where they currently were. But as we moved through 2019, we saw a fall away in this trend and a greater focus developing on utilising the technology to solve real business issues and deliver value.

2019 revealed the emerging shared belief that blockchain is real and that it can serve as a pragmatic solution to business problems. Even leaders, initially wary of tech-based solutions, appeared to see potential in the technology. Specific supporting indications from our *2019 Global Blockchain Survey* include the increasing perception of blockchain as a top-five strategic priority, the sustained levels of blockchain investment, and the improved sentiments measured across an

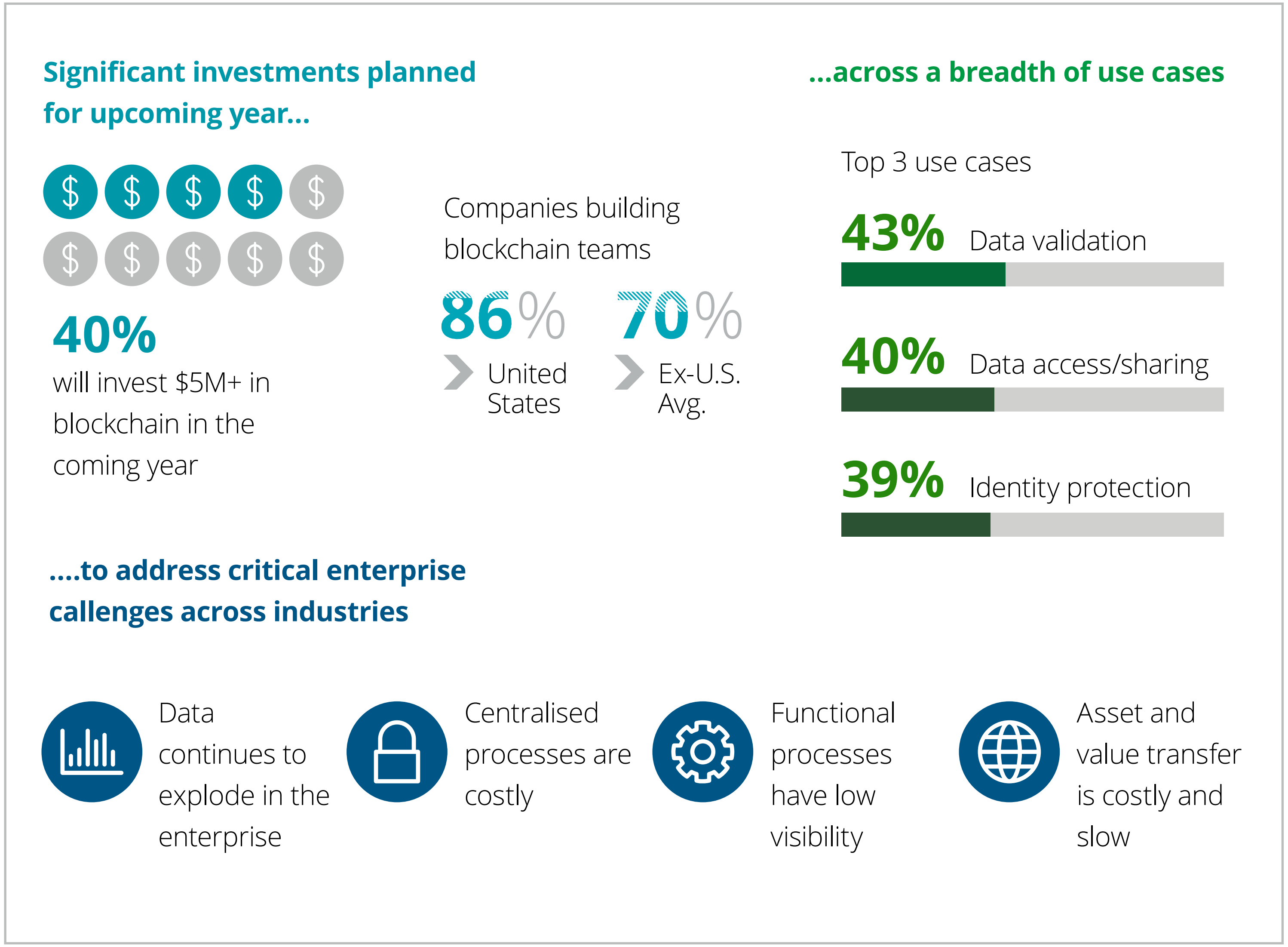
2. "Blockchain Still Shows Great Promise After The Hype", Forbes, August 2019

array of attitude statements, including the share of respondents who agree that blockchain offers compelling use cases.

Learnings for the year ahead

Additional signs of blockchain's maturation could be seen in the diverse – and sometimes discordant responses of surveyed CEOs; the barriers to entry that they faced varied, as did the perceived advantages of blockchain which they identified. Such diversity of thought can be viewed as a mark of maturation because it reflects an enhanced sense of seriousness in consideration of the technology's possibilities and limitations.

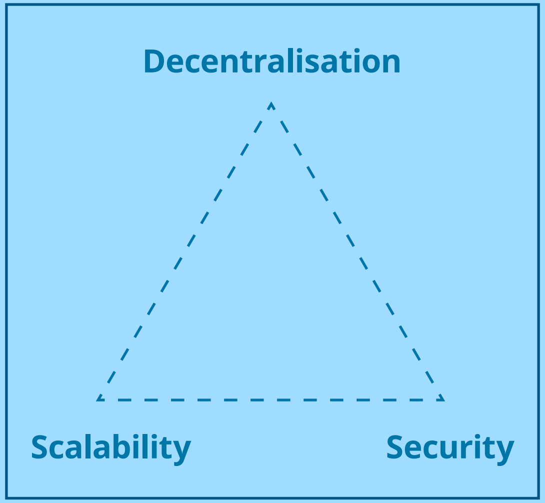
Now, in 2020, we can see that the prevailing question among executives is no longer, "Will the technology work?" but rather, "How can we make technology work for us?"



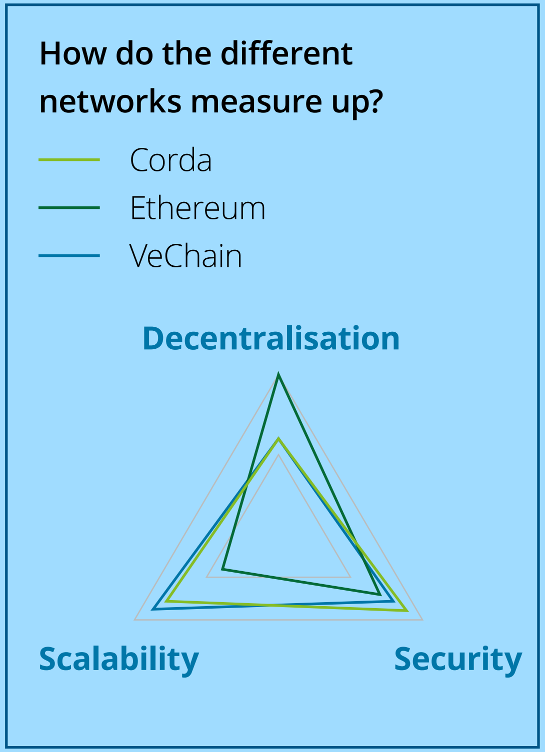
EVOLVING PLATFORMS

The leading platforms at the end of 2020 will be those that can offer a unique combination of features to players and consortia building enterprise-level solutions.

2018 saw a much-needed cleanup of the blockchain ecosystem as overhyped projects failed and shady get-rich-quick schemes were weeded out. 2019 brought the rise of blockchain's viable platforms and more pragmatic developers such as VeChain, Corda, Hyperledger, and Ethereum. Now in 2020, the leaders will emerge based on the unique combination of features that they offer to companies and consortia building production level solutions.



The blockchain trilemma



What has often been coined as 'the blockchain trilemma', refers to the trade-off in any network between **scalability, decentralisation and security**. Any two will succeed at the expense of the third.

The balance of these three characteristics is thus a major consideration for any blockchain network provider, as well as for its customers who choose to build their solutions on the network.

In 2019, we saw a diversification in the industries investing in blockchain with a particular rise in players from supply chain, life sciences and TMT. Their needs differ from the needs of the initial forerunner, e.g. the financial services industry, and thus the network that appeals the most, also differs.

	Permissionless	**Permissioned**
Public	• Anyone can **join, read, write** and **commit** • Hosted on **public servers** • **Anonymous**, highly **secure** • **Low scalability** vechain ethereum bitcoin	• Anyone can **join and read** • Only authorised and known participants can **write** and **commit** • **Medium scalability** vechain ethereum ripple
Private	**Not possible/futile**	• Only authorised participants can **join** and **read** • Only the network operator and authorised nodes can **write** and **commit** • **High scalability** ENTERPRISE ETHEREUM ALLIANCE corda Quorum HYPERLEDGER

We have found that, for the vast majority of enterprise use cases, a permissioned and private network is usually the best fit.

ADOPTION RATES ACROSS INDUSTRIES

2019 brought a greater diversification to the pool of players and ecosystems investing in blockchain technology. We anticipate that diverse adoption will continue throughout 2020.

Adoption across industries is not even

Deloitte's *2019 Global Blockchain Survey* revealed that blockchain is going through a path of diffusion across industries far beyond its initial fintech applications. More organisations in more sectors – such as technology, media, telecommunications, life sciences, health care, and government – are expanding and diversifying their blockchain initiatives.

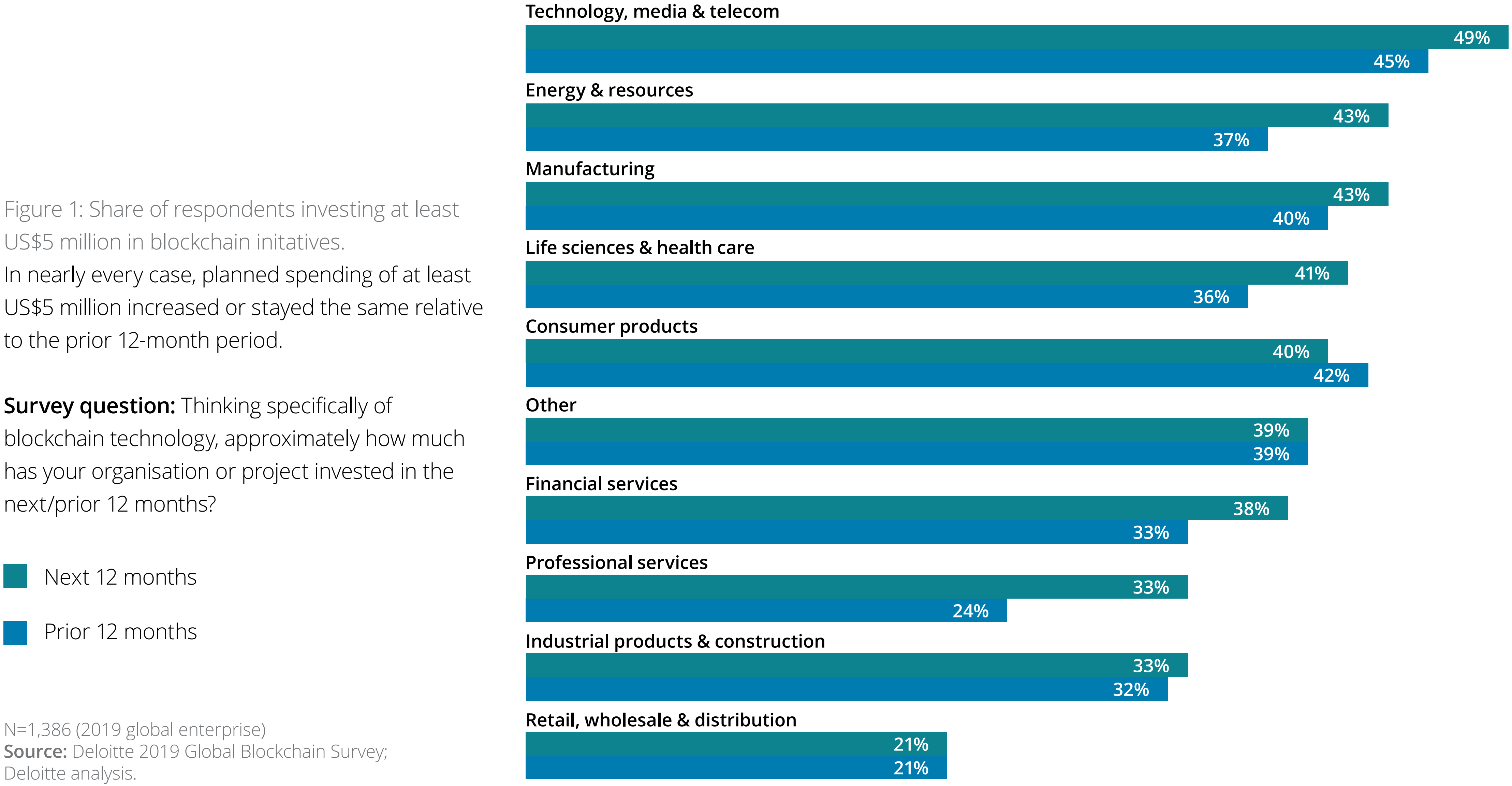
With leaders across industries looking at potential applications, many may wonder: how are different industries adopting and leveraging blockchain technology? Why might companies in one industry – but not others – be highly concerned about a particular kind of barrier to adoption? Do blockchain attitudes and investments vary by industry because of something inherent about the technology? Or is it something about different industries' individual cultures?

Figure 1 confirms that blockchain investment across industries is varied. TMT leads with 49% of respondents confirming that their company is planning to spend at least US$5 million in the coming year. This industry also leads the adoption charge with 32% of respondents saying that they have already implemented blockchain in some area of their business. Interestingly, TMT's intention to invest has increased by 4% over the 2018 figure, indicating a steady increase in belief in the technology.

Figure 1: Share of respondents investing at least US$5 million in blockchain initatives.

In nearly every case, planned spending of at least US$5 million increased or stayed the same relative to the prior 12-month period.

Survey question: Thinking specifically of blockchain technology, approximately how much has your organisation or project invested in the next/prior 12 months?



N=1,386 (2019 global enterprise)
Source: Deloitte 2019 Global Blockchain Survey; Deloitte analysis.

Industries where we are seeing rapid adoption and potential for 2020

As new industries explore blockchain applications, they do so in ways that reflects their own respective operational and strategic needs. Regulatory issues emerged as a central concern of respondents in the 2019 survey which may shed light on why some industries, more than others, have found it more difficult to identify opportunities to implement blockchain solutions in their business. We have seen particular interest emerge from the life science and healthcare sector, as well as farming and supply chain. The financial services industry has expanded its suite of use-cases and also promises to be a sector in which we will see further blockchain growth in 2020.

01. Life sciences and healthcare

There may be nowhere that blockchain can have a more immediate and meaningful impact than in life sciences and health care – an industry in which data transparency, speed of access, immutability, traceability, and trustworthiness can provide the information necessary for life-altering decisions. The possibility of utilising blockchain technology in clinical trials and pharmaceutical supply chains have been at the centre of much experimentation in the past 12 months. While few have reached production, we envisage that there will be a wave of solutions which will go live once regulatory concerns have decreased.

Another area of interest is that of digitising health records, a particularly challenging transformation that appears inextricably linked to the emergence of self-sovereign identification. The WEF and the World Bank have acknowledged the need for this development to realise a more inclusive and patient-led healthcare experience and we look forward to significant developments in the coming year.

02. Farming and supply chain

The supply chain is at the heart of every manufacturing organisation; it is the channel through which information, materials, services, and financial resources flow from idea to end-use delivery in a life cycle of value-added transactions.

Blockchain is a technology which enables scrutiny and optimisation of processes in a supply chain that traditionally falls outside of enterprise solutions. We anticipate that its rise could lead to an evolution of supply chain management and logistics in the not so distant future. The IBM Foodtrust platform established itself as a meaningful provider in the Track and Trace space in 2019, working with Walmart, Carrefour and Nestlé. Undoubtedly, there is room for other players here and we would expect to see an increase in interest throughout 2020.

03. Financial services

Financial services was the sector tipped to see both the most disruption and most significant investment in blockchain technology. Although other sectors now look like they may rival it, the previous statement remains largely true. The news in 2019 was dominated by projects like Libra,

Calibra, J.P Morgan's stable coin and the Interbank Information Network as well as Central Bank Digital Currencies (CDBCs) from the European Central Bank and The People's Bank of China. Financial sector players big and small have entered the blockchain game.

Although investment in blockchain projects and ICOs was down in 2019 over 2018, we can expect a steady increase in this figure throughout 2020. Interest remains high, particularly with governments joining the conversation to provide financial institutions with regulatory clarity around the technology.

GOVERNANCE IS CRITICAL

As the technology matures, we can see that the core challenge in the path of blockchain's large-scale adoption is stakeholder management and bringing competitors and unlikely collaborators together to solve shared problems.

2019 made clear that technology barriers are not holding blockchain back – but rather human barriers. With our clients, we have discovered that many of the core benefits of blockchain technology are only realised through collaborating with other parties in the ecosystem or indeed forging new cross-industry partnerships. In short, a solution's value is often directly linked to the value of the network it serves.

McKinsey has suggested that blockchain is still three to five years away from feasibility at scale, primarily because of the difficulty of resolving the "coopetition" paradox to establish common standards. Gartner's senior VP for technology, Peter Sondergaard echoed this, saying "there are still technical things that you need to solve and scale and there are still counter-aspects – business model wise – that aren't necessarily fully clear."

Emerging governance models

Centralised governance has allowed business leaders to experiment with the technology while sidestepping controversial questions around security, consensus, identity and anonymity, among others. Yet the centralised model also creates new risks around how the technology, economics and governance of the blockchain are controlled.

The core benefits of blockchain technology are realised through collaborating with others parties in an ecosystem and establishing a consortia.

Core challenges in developing blockchain consortia

01 Allying with competitors

02 Agreeing on participants

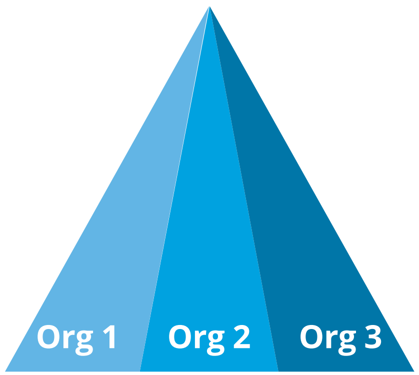
03 Reaching consensus on shared goals

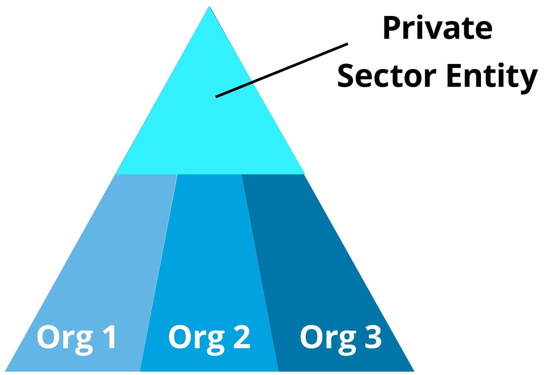
04 Defining a funding structure

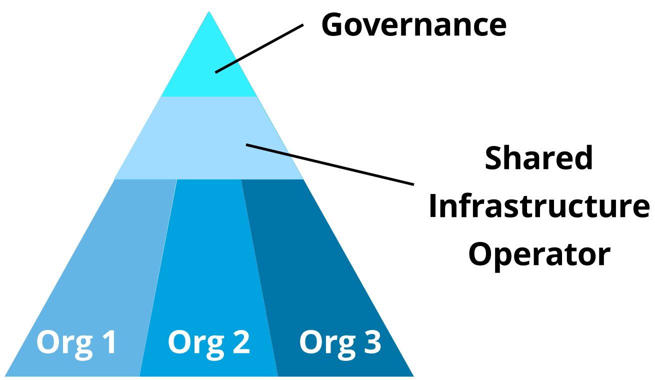
05 Sharing both risks and successes

Consortia governance models

Three major governance options are emerging for blockchain consortia:







Working group

As in a traditional working group, this governance model works on the basis of equal power and contribution. Decisions are made through consensus and members contribute resources in the pursuit of driving a shared objective. A working group does not operate as a legal entity – each participant owns and operates their own node.

Private sector entity

A separate and autonomous legal entity is created in order to establish a private sector entity governance structure. The platform is typically offered as a utility for participants who operate their individual nodes. The project tends to be jointly funded by founding members as core stakeholders in the Steering Committee.

Hybrid

A hybrid governance model can typically involve a shared infrastructure operator as a key facilitator to create an organisation jointly owned in the industry. Members follow the organisation's directives and contribute in order to drive a common objective.

Core challenges in developing blockchain consortia

Strategic considerations:

Goals of collaboration
Which goals do the involved parties want to achieve? How will success be measured?

Responsibilities of involved parties
What is expected of each involved party? What are the major responsibilities and how are they divided?

Contribution
How high should the financial contribution be for each involved party? Should it be possible to contribute partially or fully in FTE?

Intellectual property
Should the intellectual property lie with all involved parties or only with those who took part in the technical development?

Technology considerations
Which blockchain technology or platforms should be used? Will it be possible to change the technology depending on the project progress?

Confidentiality agreement
In which cases will it be allowed to share information about the project? Will involved parties be restricted from independent projects?

Legal entity
Is founding a legal entity part of the plan for the project? What are the strategic considerations and which parties would take part?

The human challenges that arise in the building of a blockchain solution require personal collaborations to be remedied.
What have we learned from blockchain solutions so far?

Adoption is the measure of success

- The key to a successful consortium is industry-wide adoption
- A consortium needs to be established in such a manner that will entice others to participate
- In an industry consortia, one company should not be in a position to have more power than the rest of the participants.

Decision making should be based on level of participation

- Equal participation can slow down decision making
- Votes should reflect investment and sub-committees should reflect interests.

Do not underestimate the human factor

- Collaboration is hard
- Understanding the individual and company interest for participation
- Buy-in from decision makers is needed; participants must be willing to commit time and resources to support the initiative
- Building a community platform in addition to the technical platform is key for stakeholder engagement.

A strong business case for all participants

- Start with an efficiency case as the business case is much easier to assess
- The platform needs to bring some form of value to all participants.

THE RISE OF TOKENS

From art to property, the way we invest in assets is on the verge of fundamental change. Tokens are becoming more sophisticated and aren't as far away from mainstream adoption as we might think.

Digital technologies have in recent years made possible a new class of assets called "digital assets". We define a digital asset as "something represented in a digital form that has an intrinsic or acquire value." There is no practical limit as to what can be characterised digitally and therefore be considered a digital asset. Examples of digital assets include land, goods, certificates, identity, works of art and literature, rewards, and even currency, among many others.

A new token economy could make the financial industry more accessible, cheaper, faster and easier, thereby possibly unlocking trillions of euros in currently illiquid assets, and vastly increasing the volume of trade.

Tokens have been broadly sorted into two categories: Fungible and non-fungible.

Fungible token

Fungibility refers to the ability of a good or asset to be interchanged for another good or asset for like kind. Therefore a fungible token is one which might represent currency, crude oil, shares, bonds. Each token, or fraction of a token, is equivalent to the next.

Non-fungible tokens

A non-fungible token represents an asset or commodity which is not interchangeable. NFTs are designed to be special or unique. Two tokens representing different cars are not interchangeable as the underlying asset is different and unlikely to be valued equally.

Non-fungible tokens (NFTs) have seen a rise in the past 18 months, carving out a niche in the Ethereum ecosystem in which they are governed. The most common non fungible token standard, ERC-721, saw dramatic growth of 350% in 2019 largely driven by decentralised gaming. Although this is a niche area of the market, this rise and the new ERC1155 standard suggests that we will see increased numbers of mainstream players in this arena by the end of 2020.

It goes without saying that obstacles continue to stand in the way of widespread adoption, principally in the form of regulation. The bold suggestion from industry in 2019 of an imminent digital currency will push governments to provide guidelines on this uncharted territory sooner than they may have envisaged paving the way for the rise of tokens to mainstream society. We can remain confident that only institutions that engage with the technology, plan for the future and adapt to the realities will thrive.

Ready to play?
Considerations for financial institutions entering the token economy:

Platform integration
Platform selection should be guided by regulatory requirements, service offering, product strategy and size and scale of community.

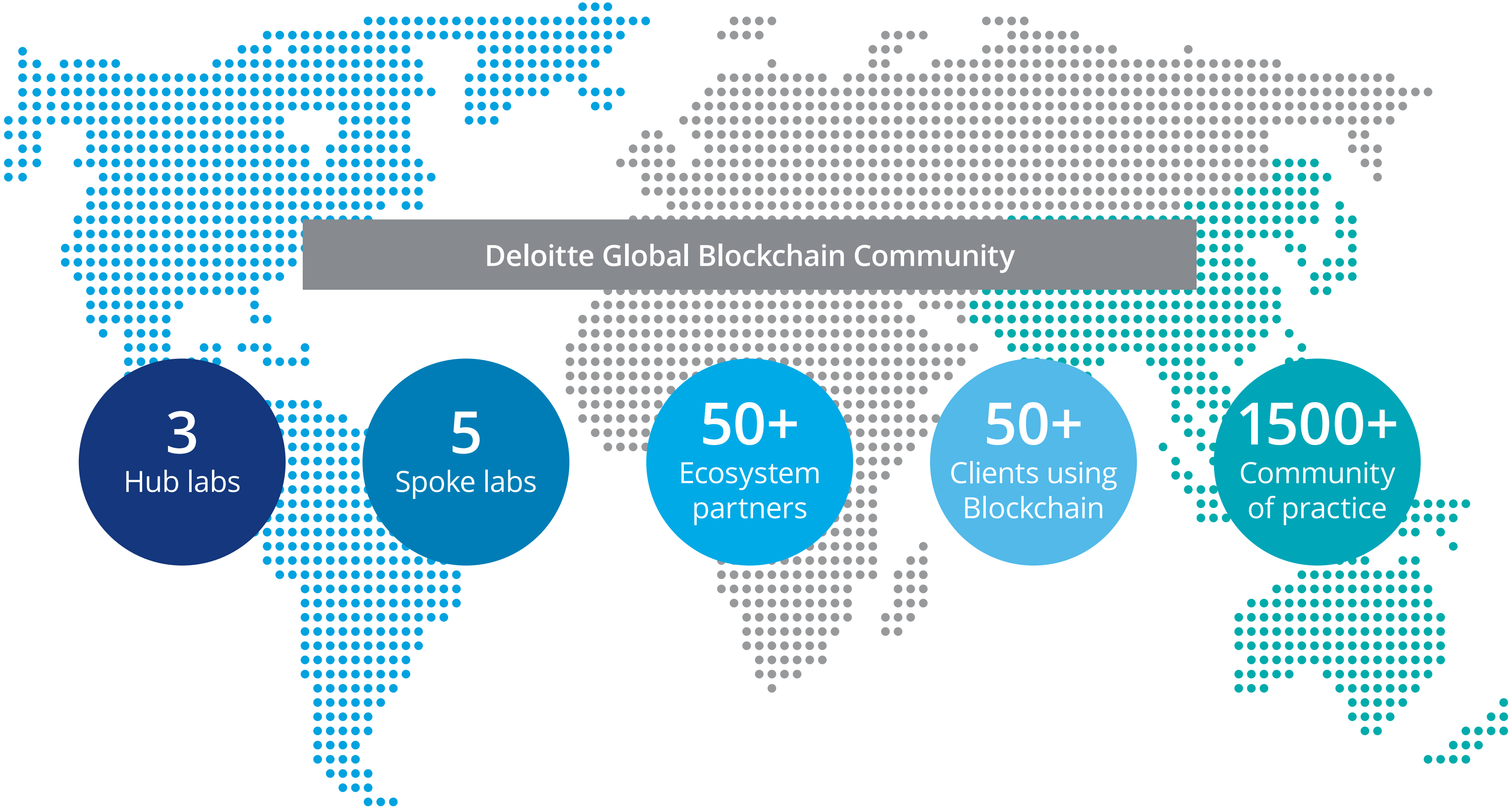
Business model
Where to play is a core question to be answered. The choice may vary from advisor to token exchange broker depending on the institutions business model.

Cybersecurity
Sufficient security measures need to be ensured to secure the entire value chain when interacting with a blockchain platform. SECaaS (Security as a Service) could be an additional revenue stream.

Jurisdiction
Ensuring a token's compliance across jurisdictions will bring new complexities which require consideration.

Compliance
MiFID, AML and KYC regulation still applies to the token economy. Tax considerations should not be left behind either with a move into the digital economy.

Blockchain at Deloitte



Blockchain Labs **Consulting** **Tax** **Legal** **Risk Advisory** **Corporate Finance** **Cyber** **Audit**

Parting words…

In the midst of the pandemic, we are viewing the world around us, our freedoms, our responsibilities and our challenges in an entirely new light. COVID-19 has brought about a global consciousness around the fragility of our daily routines and has highlighted weaknesses in our societies that, in many cases, have proven to be devastating vulnerabilities. The effects of the virus have also brought to our attention new opportunities for improvement as well as deficits which need to be addressed so that we might be more prepared to handle such a crisis in the future.

Past crises, albeit largely financial, indicate an increased openness toward disruptive technologies during the recovery period when people are willing to challenge the status quo – Airbnb and Uber both gained enormous traction as the world looked for alternatives to traditional business models in the aftermath of the 2008 financial crash. Blockchain has enormous potential to solve problems in a way that wasn't previously possible, to bring competitors to the same table to solve shared problems, to ensure greater transparency and portability of data in the systems of the future and to blossom by harnessing more open mindsets in the period of global recovery after COVID-19. Given current uncertainty, definitive statements are impossible, but the potential remains that 2020 may indeed be the start of the decade of blockchain.

Blockchain at Deloitte

Our people collaborate globally with clients, regulators, and policy makers on how blockchain and digital assets are changing the face of business and government today. New ecosystems are developing blockchain-based infrastructure and solutions to create innovative business models and disrupt traditional ones. This is occurring in every industry and in most jurisdictions globally. Our deep business acumen and global, industry-leading audit and assurance, consulting, tax, and risk and advisory services help organisations across industries achieve their varying blockchain aspirations. *Reach out to our leaders at the EMEA Blockchain Lab in Dublin* to discuss the evolving momentum of blockchain and digital assets, begin prioritising initiatives, and understand how to manage the opportunities and pain points associated with blockchain adoption efforts.

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Resilience to thrive

Leading from the heart and the head, we are supporting financial services organisations across the island of Ireland to respond, recover and thrive in a post-pandemic world. Access our suite of online resources and supporting tools to help you and your company set a new course.

Connect with us at
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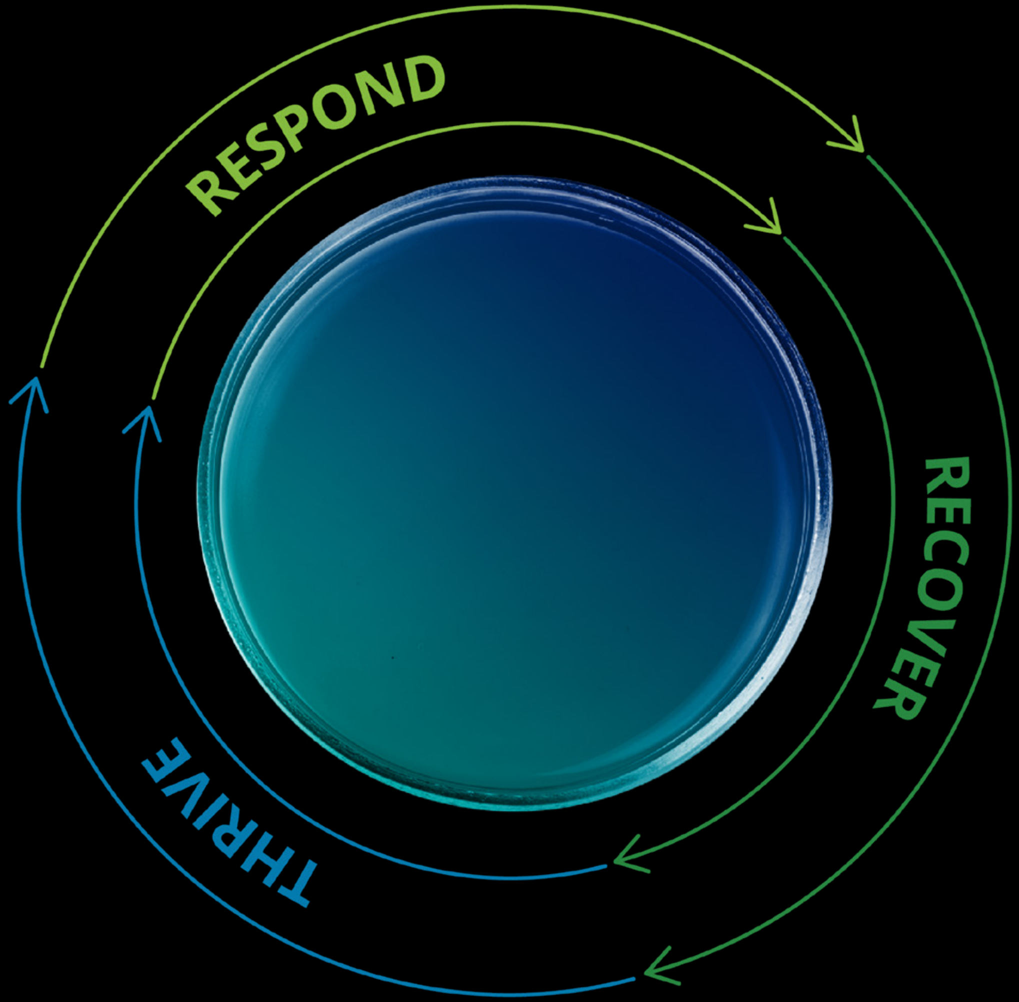

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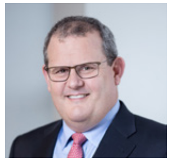

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