

# The big break

Post-pandemic 'New-Normal'

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## Post-pandemic ‘New Normal’

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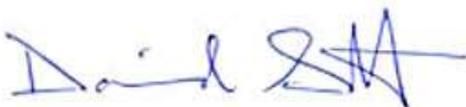
## Foreword

That we are living through a difficult time goes without saying. Following a season of torrential storms and dreadful fires we now face the challenge of surviving the COVID-19 Coronavirus pandemic. Added to this, in the UK, and for the rest of the EU, is the impending change brought about by BREXIT and our desire to counter the impact of man-made climate change. Plus, the likelihood of a severe global recession and the inexorable rise of technology from fulfilling the challenge of fully embracing digital – processes, culture, propositions – to automation in all its guises including artificial intelligence, the internet of things and real-time data on everything and the death of co-location and distance, even a new globalisation.

This paper is written for two audiences:

1. Those involved in commerce, law, education, and government to consider how their operating environment might look after the urgency and dangers of the pandemic have passed. To be informed and motivated to think that their position beforehand might never be regained in the same way. Some will see great opportunities to build on changes that emerged during the lockdown of the world. Others may believe that most things will return to normal. Only time will tell us who is right. However, one thing is certain, slipping into irrelevance is not just possible but has been experienced by many past sector leaders who refused to think that the world and its needs, could ever change.
2. For Agencies and advisers to help their clients, including such organisations mentioned above, not just grasp that times may be changing but that they need to lead the sectors they serve into that change, its consequences and potential responses. This is a time for confident firms/brands to prepare their markets to not just meet these new challenges but renew themselves in the process. A time to share their thought leadership with their target markets.

Every one of the following short illustrations on how sectors may change post pandemic can be expanded to produce comprehensive illustrations of the changes and challenges faced by their participants in the years ahead.



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## Introduction

We are not going back to the 'normal' we had before, however much certain industries or businesses may want to. Beyond the immediate and perhaps long-term health implications of the virus, lie the certainty of a deep recession or depression, shifting industry structures and hugely impacted human behaviours and expectations<sup>1</sup>. The assumptions we were operating on in a pre-COVID-19 world were already straining at the seams, with sustainability, changing consumer wants, uncertain global norms all demanding change, not to mention the friction from advanced technologies with legacy business, political and economic systems. Some of the changes underway will be turbocharged by the pandemic, some possibly reversed and whole new dimensions of risk, change and uncertainty introduced.

Uncertainty is at present our only reliable indicator; for many this is profoundly uncomfortable, but it does allow us – or even compel us – to reexamine how we do things and even what it is that we do. In the post-COVID world, notions of resiliency will change and likely become more systemic. If history teaches us one thing it is that crises – both economic and social – are inflection points from which new ideas, new companies and new industries emerge. This crisis will be no different yet the tools, mindset and opportunities to build new services and industries are now more widely spread than perhaps any time in history. Industries from banking to manufacturing and construction to law are likely to see lasting shifts in how business is conducted as well as more deep-seated to what it means to be a professional in such an industry. Depending on the industry, we could see an acceleration of existing trends, a prolonged pause, or even a full reversal. At times we could see all three concurrently.

As Yogi Berra once said “The future ain’t what it used to be”.



## Economic Outlook

COVID-19 is the biggest shock in economic history. It has impacted with speed and ferocity, but its effects will be enduring however short or long the pandemic lasts.

The sheer scale of the pandemic almost defies belief. Leading investment banks and forecasters have fallen over themselves to revise down forecasts. Projections of 20, 30 or 40 percent declines in GDP in the US and the UK – for the second quarter of 2020 – are now commonplace. To put this in historical context, the total UK GDP fall in the Great Recession was 6 percent and in the Great Depression 8 percent. In the U.S the spike in new jobless claims is literally off the chart. In the U.K there have already been more than 1 million new claims for Universal Benefit.

The speed and scale of the fiscal response has been equally breath-taking. The US Congress passed a \$2.2 trillion relief package which was almost three times the \$830 billion stimulus introduced by President Obama in the wake of the financial crisis. Throw in the leverage provided by the Federal Reserve because of Covid-19 and the total is \$6 trillion. If that were not enough, there are additional trillion-dollar proposals for a permanent expansion of the welfare state and infrastructure projects. Profound change is underway. In the words of University of Michigan professor, Erik Gordon: *“We went to bed as America and woke up next morning looking like Europe”*.

The fiscal largesse has been matched by equally radical monetary policy thinking. The new Governor of the Bank of England refused to rule out the possibility of helicopter money. Helicopter money is a metaphor for when a central bank prints money to finance the Government’s budget deficit. It is a giant stride from existing quantitative easing which involves buying debt in the gilt or bond markets. Existing quantitative easing entails central bank purchases in these secondary

markets. Helicopter money involves purchasing debt directly from the government in the primary market.

Historically economists and central bankers have been very averse to primary purchases and printing money to finance the government budget deficit. They’ve normally worried about the inflationary or hyper-inflationary risks of such a policy. But the depth of the downturn has meant that suddenly all options are on the table. The world has changed a lot in a very short space of time.

The legacy of the financial crisis in the 2010s was near zero interest rates (negative in some countries later in the decade) and quantitative easing in the secondary market. Will the legacy of the corona crisis in the 2020s be widespread negative interest rates and quantitative easing in the primary market? Or would this form of QE lead to a market panic and a spike in bond yields? Corona has opened-up a can of worms.

In terms of what happens next, the epidemiology is clearly paramount and how quickly the lockdowns and social distancing measures can be eased. History teaches that economies can bounce back in a V shaped recovery. The Spanish Flu of 1918-19 was followed within a few years by the economic boom of the ‘Roaring Twenties’. Harold Macmillan’s *“you’ve never had it so good speech”* in July 1957, wasn’t undermined by the Asian Flu pandemic of 1957-58. Also, the SARS outbreak in 2003 failed to prevent strong economic recovery in China and Hong Kong after the outbreak had been brought under control.

However, even with a V shaped bounce back in the second half of 2020, this does not mean that the economic consequences of corona will be quickly forgotten. The economic and geopolitical tectonic plates have shifted. Most obviously, many businesses small and large



will disappear in a wave of bankruptcies and insolvencies, which relief measures couldn't reach. For example, the crisis is crippling the aviation industry. Fleets have been grounded, runways closed, and the skies are eerily quiet. Even solvent companies are burning through cash. There will be a permanent loss of output. Financial markets could undergo fundamental changes as well. The longer the crisis lasts, the larger valuations are likely to be revised downward. This is not the only adjustment. The businessman Luke Johnson has written that: *“No banker or analyst predicted this. In the future the equity risk premium needs to be much higher than it used to be”*.

The bottom line is that even if the economy bounces back relatively quickly, the 2020 contraction will be so deep that even two years from now the economy could be smaller than it was before the crisis struck. Beyond this cyclical influence major structural issues will arise as well.

Throughout the world people have been looking to the government as saviour. So, big government steps in to save the day, but will it step back when the crisis is over? One of the big uncertainties is whether or not the shift is temporary or permanent. Is there a new wave of collectivism? Will the size of the state remain stubbornly high after the pandemic is over? Does the outpouring of affection and support for ‘Our NHS’ mean that much higher levels of tax and spend will now become the norm?

Government may save the day and win the economic battle in the short-term, but will it lose the war in the long term? In the long-term there is a negative relationship between the size of the state and economic growth. Fiscal policy will need to be reversed once the pandemic is over, but this may not be easy for political or epidemiological reasons.

If the pandemic rumbles on with only parts of the country or certain groups of individuals able to resume normal activities, the economic troubles will rumble on also, and there could

be a wave of insolvencies and bankruptcies once the relief packages are finally removed. It could prove to be the tipping point for many struggling companies. We simply don't know how many zombie companies are now out there.

The scale of the economic downturn means that extreme downside scenarios have to be considered, although they are not the most likely outcome. Primary among these is the supply-demand doom loop. This foresees the supply-side shutdowns also reducing the demand for goods and services which further undermines weak companies. Expectations of future income for both employers and employees, nosedives, and this then further undermines spending. This process tailspins into a downward vortex. It's not pretty.

Governments and economic policy would not be silent at such a time, but the policy options would likely veer towards extremely unpalatable solutions. Helicopter money could be one, protectionism could be another.

### Challenges

- COVID-19 has changed the short and long-term outlook.
- COVID-19 could be a critical juncture in history which profoundly affects the culture and institutions of the economy. The way people think about the economy in the future could be very different.
- Big government has returned, and it is by no means clear that it will now go away after the pandemic is over.
- Attitudes towards capitalism could change.

### Opportunities

- Possibility of a V shaped bounce-back.
- But, we may encounter more pessimistic scenarios.
- Will supply or demand factors be the biggest influence on us in the coming months
- New markets and supply chains.



## Aviation

The impact of COVID-19 on aviation could be 5 or 6 times worse than the September 11 attacks of 2001<sup>ii</sup>. Without financial aid, around half of the 800 or so airlines around the world could cease to exist by the end of May<sup>iii</sup>. The depth of the crisis and the duration of travel lockdowns and suspensions will prove critical, especially in regions where governments cannot afford, or else refuse, to bailout carriers.

It is almost certain that even allowing for recovery, 'normal' will not be the same as before<sup>iv</sup>. Consumer behaviour will almost certainly shift, while there is an opportunity to revisit some foundations of the industry that remain little changed since the end of the second world war. Were the Chicago Convention to be revisited, cross-border ownership of airlines could be reexamined, truly global airlines could in turn emerge that better match consumer demand, for example.

The degree to which any bailouts mix with nationalist or reactionary politics will be key for the prospects of what remains an international industry and its indirect satellite industries such as tourism and closely related ones such as airports. In mid-March and before a major escalation of COVID-19 in the U.S, it was announced that American airport operators were expecting to lose at least \$3.7bn between them this year<sup>v</sup>.

The crisis will likely, in due course, prompt investment in efficiency and new models. It has been suggested that connected airlines, 'could save \$15 billion a year as well as 21.3 million tonnes of CO2 emissions by 2035<sup>vi</sup>. PwC also suggests new models be explored by airlines and airports '...that could boost revenues, lower costs, improve efficiencies, and enhance the customer experience<sup>vii</sup>.' Not all solutions need to come at high cost; value

could be unlocked at limited incremental cost in terms of sales channels, loyalty programmes, joint digitisation and improved real-estate development. Indeed, '...even after accounting for profit-sharing, these joint sales channels could boost airport commercial sales by 10 to 20 percent, while airlines could increase their commercial sales by more than 50 percent<sup>viii</sup>.'

### Appearing/disappearing

- New mashup models and ownership structures.
- Electric aircraft - Norwegian authorities are aiming for electric aircraft debut by 2030<sup>ix</sup>.
- Digitised aviation ecosystem.
- Numerous regional airports and many airlines.
- Assumptions about certain markets and routes.

### Challenges

- Risk is becoming more systemic and complex. Aviation stakeholders may need to embrace '...a broader strategy of enterprise-risk management across their organisation<sup>x</sup>.'
- Preparing for climate-change, sustainability and business model diversification.
- Building resiliency and flexibility into models run on lean principles.

### Opportunities

- New forms of partnership.
- Chinese aviation recovery offers hope.
- Chance to develop customer-centric propositions that cover the entire travel experience.



## Banking and Finance

The digital footprint of users was already healthily growing pre-crisis, with some 3.6 billion digital banking users expected by 2024<sup>xi</sup>. This could now extend to bank and finance employees. Approaches to talent management, and consideration of workplace dynamics, already evolving in a digital world, ‘...may be durably changed after an extended period of remote working<sup>xii</sup>.’

Nevertheless, it is likely that customers, in response to COVID and its aftermath, will increasingly need and expect ‘...individualised offerings, and leaders will need to use data to fine-tune their customer, product and pricing strategy to deliver on those expectations<sup>xiii</sup>.’ Likewise, the COVID-19 crisis will put to test many of the ESG factors that many banks have acknowledged they need to factor into their future strategies and models. Such strategies, whether officially implemented or not, will probably be judged by the consumer starting now. Long-term damage could be wrought by short-term thinking.

Lastly, banks must be cognisant of changes in their wider operating environment, and of new post-COVID factors that will influence it. PwC notes that ‘...in every recent financial crisis, the number of bank mergers has exceeded the number of bank failures. Banks will not only look intra-industry for attractive combinations given valuation resets, but also outside of financial services given industry convergence<sup>xiv</sup>.’ New models would seem a given.

### Appearing/disappearing

- Data-driven personalisation of services.
- New industry mashups and synergies.
- Ambient banking and finance.
- *Product driven services that fail to treat customers as individuals.*
- *Analogue systems, cultures, processes and people.*

### Challenges

- Developing a culture of collaboration that cuts across industry.
- Long-held assumptions and mental models that have underpinned models may need to change.
- Trust is the future for banking and financial services. Demonstrating reasons for that now, and strategically in the future, is key.

### Opportunities

- Banks and financial organisations can build greater operational and financial resiliency into their structures<sup>xv</sup>.
- Gerd Leonhard believes ‘...we are going to see a new stock market emerge in the next five to seven years- a kind of NASDAQ for sustainable capitalism<sup>xvi</sup>.’
- The banking industry occupies an almost unique position among private sector entities to play a driving role in restoring communities ravaged by COVID-19.



## Construction

Peter Kelly, head of sustainability at ISG suggests that in the future, ‘...using off-site and digital construction techniques means buildings will be cheaper, quicker, higher quality, healthier and more productive<sup>xvii</sup>.’ On a global level, full scale digitalisation over the next decade could yield significant cost savings up to \$1.7 trillion<sup>xviii</sup>, yet will require the type of investment that such a conservative industry is slow to embrace in good times, let alone a crisis. It is possible that the cost/benefit ratio will be changed decisively by the crisis, however.

Increasingly, all that is required is a trigger, since much of the technology is ready. Icon, in the U.S, has 3D printed a home for \$10,000 in 48 hours. At maximum speed, they believe they can build a 600 to 800 square-foot home in just 24 hours for \$4,000 or less<sup>xix</sup>. High-tech 3D printed modular housing units are forecast to account for up to 30 percent of new construction by the mid 2020s<sup>xx</sup>, while Dubai plans for 25 percent of new buildings to be constructed using 3D printing by 2025, reducing labour by 70 percent and cutting costs by 90 percent across different sectors<sup>xxi</sup>.

If COVID-19 does speed up the digitisation of construction, implications will be systemic. Talent should also be sought from new places, with new pipelines established. Future skills central to the construction industry are likely to feature artificial expertise, data analysis, experts on modular design and logistics and even resilience experts and circular economy specialists<sup>xxii</sup>. The World Economic Forum cites the gaming industry as one possible talent pool given digital skills crossover for building information modeling and virtual or augmented realities<sup>xxiii</sup>. Construction companies are already tech companies, their talent strategy and parts of the workflow - need to reflect it.

### Appearing/*disappearing*

- New production and work methods.
- New talent strategies and sources.
- KPIs related to sustainability and building function.
- *Old supply chains could be withdrawn rapidly.*
- *Necessary colocation of all labour inputs on-site.*

### Challenges

- ‘At the heart of many pressing challenges in capital projects and infrastructure are problems with culture<sup>xxiv</sup>,’ says McKinsey.
- Initial investment lead times are likely to be long, and the capital required high, but the returns on such investment could be substantial.
- The industry has traditionally been slow to adopt new tech: this must change<sup>xxv</sup>.

### Opportunities

- Maximize the use of data and digital models throughout systems and processes, seek to standardise the data across boundaries and silos where possible.
- Review the existing product portfolio and assess where new business opportunities could arise.
- ‘There could be a number of viable 3D-construction-printing businesses in five to ten years<sup>xxvi</sup>.’



## Education

The World Economic Forum says ‘...the slow pace of change in academic institutions globally is lamentable, with centuries-old, lecture-based approaches to teaching, entrenched institutional biases, and outmoded classrooms<sup>xxvii</sup>. COVID-19 is a one-off shock to the system that compels things to be done differently, and has catalysed a range of educational providers around the world to implement or look for new solutions in a short time period. At the very least institutions will necessarily become more resilient – both organisationally and in terms of tech infrastructure. More deep-seated change could ensue however.

Mass adoption of distance learning in the U.S, China and Japan, all 5G enabled, will allow the concept of learning anywhere, anytime to take hold. This method of learning also has the, probably unintended, effect of redefining the role of the educator. School and university have long been transitioning from places and education towards an activity. This has held interesting implications for the teacher that has hitherto been defined as a knowledge-repository who then dispenses it to the student.

Changes to what we need to learn in terms of practical and theoretical knowledge for future jobs, the ascendance of soft skills and how we access knowledge all render this description close to invalid. COVID-19 may consign it to history. Teachers and educators will still exist, but their focus will almost certainly change. ‘This may mean that the role of educators will need to move towards facilitating young people’s development as contributing members of society<sup>xxviii</sup>.’ Indeed, even before the COVID crisis hit, some 98 percent of educators anticipated the rise of self-paced curriculums<sup>xxix</sup>, something which shifts their role significantly.

### Appearing/*disappearing*

- Learning,’ states WEF, ‘...could become a habit that is integrated into daily routines - a true lifestyle<sup>xxx</sup>.’
- A standardised micro-accreditation system is likely to emerge.
- *School district and educational lotteries could lessen if premium content can be unlocked from anywhere.*
- *The current model of higher education. Value for money, relevance in the future job market and continuous type learning contracts will all be key.*
- *The necessary end of education as a life-stage between childhood and adulthood.*

### Challenges

- Shifting the role of the educator towards that of facilitator/curator, where appropriate.
- Chinese universities – key sources of revenue for many U.S and U.K universities may opt for elsewhere if political or racial tension becomes embedded, threatening many financial models.
- Maintaining standards and some necessary forms of standardisation (grading etc.) in an era of personalisation.

### Opportunities

- Align training and learning to the jobs of the future.
- If a micro-accreditation system does indeed appear imminently, the whole paradigm of tasks, jobs and skills will change.
- Increased personalisation.



## Energy, Oil and Gas

‘If the first phase of COVID-19’s effects on the global energy system is a story of energy consumption, oil demand, and emissions, the second phase will be how emerging supply chains of the energy transition shift,’ says Jennifer Gordon at Atlantic Council<sup>xxxix</sup>

The shock to the system is likely to produce a range of short-term issues, some of which will develop long-term implications that impact the trajectory of other long-term trends. COVID tied economic worries, together with a flooded market has slashed the price of oil. Might Qatar or other LNG heavy nations wish to completely abolish the gas-oil indexation<sup>xxxix</sup>? Might divestment of fossil fuel assets become incumbents’ key strategic future driver?

The COVID impact on the energy transition towards sustainability risks two medium term outcomes. On the one hand, low oil prices for a sustained period could slow decarbonization efforts, but this could also cause a longer-term oil supply contraction. Together with the prolonged interest rate slump that is conducive to long-term financing of cleaner systems, this could, on balance, accelerate the transition<sup>xxxix</sup>.

Many oil majors have already engaged in their pivot. BP has said announced plans to achieve net zero emissions by 2050, while Total has stated that renewable investment is its priority. More specifically, Enerco and Shell are jointly investing in offshore wind, while Repsol and Equinor continue to purchase solar and wind energy capacity. These moves hint at an acknowledgment of the industry’s long-term sustainability or lack thereof<sup>xxxix</sup>. The degree to which the current crisis can catalyse change will likely have differing political footprints with regards to green stimulus money for example, but the opportunity is certainly there to accelerate the shift from the burning platform and onto new models.

### Appearing/*disappearing*

- LNG talent wars and broader skills shortages when the industry rebounds.
- Deloitte suggests that ‘...some of the larger healthier companies may alter or accelerate their plans to diversify into other energy segments, prompting a change in business model<sup>xxxv</sup>.’
- More partnerships with unrelated sectors as new models demand new skills, reach and approach.
- *Inefficient or highly leveraged companies may face a liquidity crisis or the end of operations.*
- *Current structures of oil and gas markets. Possible end of oil-gas indexing.*

### Challenges

- A market replete with depressed oil prices, revenue, and subsequently production declines will prove tricky to navigate for those unable to a) refinance debt<sup>xxxvi</sup>, and/or b) diversify the business model.
- The state of the global economy and geopolitics.
- Sourcing the talent for the future.

### Opportunities

- Low interest rates to fund long-term projects.
- Possible green stimulus in European countries.
- Creating more sustainable business models.



## Food and Farming

In the short-term, many international production and trade channels are likely to be interrupted due to a combination of possible worker scarcity, freight volatility and even the banning of certain food exports from some countries<sup>xxxvii</sup>. Beyond the crisis, notions of food security will sustain importance, which set against several future factors, could have a lasting impact.

The world’s population is set to grow by 2.2 billion between now and 2050<sup>xxxviii</sup>, and given that this is in tandem with rising prosperity, we are forecast to need an extra 70 percent of food than we did in 2009<sup>xxxix</sup>. Despite the serious challenge of climate change it is thought that a range of technologies, from GPS and drones to robotics will help achieve much of the needed gains.

To facilitate a sustainable breakthrough, the future of food is going to have to depart radically from its traditions. This is unavoidable if we are to sustain a growing array of environmental, economic and social needs. Business as usual, plus technology, as in so many other industries, will probably not meet the multiple demands being placed on food producers.

Given the water intensiveness of meat, for example, alternatives are needed. Indeed, the alternative meat industry could become toward a \$140bn market by 2030 and by 2040, AT Kearney believes that 60 percent of all meat will either be grown in vats or come from textured plant proteins<sup>xl</sup>. It is perhaps worth noting that 3D printing could also become a viable production method of proteins, however unappetising that sounds.

Regardless, the shift from industrialised agriculture to scientific agriculture could be one of the most important changes in the last hundred years or so. UBS notes that ‘...the ability to grow food in a lab that replicates meat, fish, eggs, and dairy products — with

lower carbon footprint and without the need to slaughter animals — is likely to become a commercially viable option in the next decade<sup>xli</sup>.’ The World Economic Forum, meanwhile, suggests that food computers could be the future of agriculture<sup>xlii</sup>. Precision fermentation and the ‘food-as-software’ trend are helping dramatically lower manufactured protein cost. One report suggests that by 2030, the U.S market for ground beef could shrink by 70 percent, the steak market by 30 percent and the dairy market by almost 90 percent<sup>xliii</sup>.

### Appearing/*disappearing*

- Farming is already, in places, a highly digital industry. It will become more so.
- Fully autonomous farm equipment is already becoming commercially available, meaning machines will be able to completely take over a multitude of tasks<sup>xliv</sup>.
- More locally grown foods.
- Alternative meat and protein products.
- *Farm employment numbers.*

### Challenges

- If farmers and others in the value chain are to remain relevant, they need to build bridges between what they today and what food production could look like tomorrow.
- Forming partnerships with competitor industries.
- New skills and talent needs.

### Opportunities

- Sourcing strategies and supply chains can be reimaged.
- Diversifying business models.
- Sustainable production.



## Government/Public sector

A range of companies will need to explore ‘...public-private partnerships wherever applicable. Companies’ best partner in recovery may be a local municipality, mayor, governor, a regional committee, or a country’s governing body<sup>xiv</sup>.’ With these new relationships blurring the lines between private and public sectors, public services may be able to tap new sources of innovation, new skillsets and new ideas.

In the UK, the Economist reports that the ‘NHS struck a deal at cost price with private hospitals for beds, ventilators and clinicians. It has enlisted Palantir, a firm founded by Peter Thiel, an American venture capitalist, among others, to improve its data analysis<sup>xvi</sup>.’ Many of these innovations – especially those relating to the immediate needs of the NHS - are simply about surviving the imminent crisis. Longer-term however, the links formed not to mention the growth of GovTech to \$1 trillion by 2025, . from \$400bn now<sup>xvii</sup>, suggest deep-seated change in how public services operate, and indeed even what they do.

Putting aside the future role, scope and structure of the state, the day to day workings of government will shift. For one, the barriers that have traditionally halted government in the widespread adoption of flexible working are being overcome<sup>xviii</sup>, albeit imperfectly with culture and cybersecurity sometimes lagging technology.

The nature of many public-sector jobs is also likely to change, with some 42 percent of core job skills set to change as soon as 2022<sup>xlix</sup>. The skills needed to utilise data analytics and the suite of A.I technologies differ quite substantially from what most public sectors can provide. For those able to attract, train or access such talent through partnerships, these technologies could change the scope of public services as well as boost existing efficiency. Natural language processing, for example, is cited by Deloitte as able to ‘...provide the tools

needed to identify patterns and glean insights from data, allowing government agencies to improve operations, identify potential risks, solve crimes and improve public services!’

Together with predictive analytics and machine learning, such systems could become more anticipatory, connected and thus able to scale to meet various demand. Various public sector bodies could also benefit from augmenting their workforce, with A.I and automation cited in the U.S, as able to free up to 1.2 billion federal working hours and induce annual savings of \$41.1 billion<sup>li</sup>.

### Appearing/*disappearing*

- A greater discussion about the role of government and how to fund public services.
- Digital and A.I driven services.
- Predictive services
- More public-private partnerships and other enhanced forms of collaboration.
- *Significant uncertainty around future government finances and funding.*

### Challenges

- Technology doesn’t work in a vacuum. Already scarce talent and skills will be needed.
- Coordinating the energy, leadership and will to further transform after the COVID-19 catastrophe abates.

### Opportunities

- Create citizen-centric services.
- Provide better service at lower cost.



## Health

Commentators suggest that ‘...very few things could rival COVID-19 for catalyzing and accelerating the long-anticipated transformation of healthcare<sup>iii</sup>.’ During the initial outbreak, China moved at pace to shift half of all medical care online<sup>iiii</sup>, adding impetus to the increasing technological capability to redesign healthcare models. For example, technologies such as the Medwand, a diagnostic tool not much bigger than a computer mouse, can ‘...listen to your heart and lungs, measure respiratory rates and blood oxygen levels, take your temperature, scan your skin and even peer at your tonsils<sup>liv</sup>.’

Such tools are likely to raise the efficacy, utility and attractiveness of digital home health, with Peter Diamandis suggesting that ‘...we’re going to see Apple and Amazon and Google and all the data-driven companies that are in our homes right now become our healthcare providers<sup>lv</sup>.’ The foundations for this model are already in place: Alexa has partnered with the NHS to field routine health questions, and with numerous healthcare insurers in the U.S, while Apple’s HealthKit connects Apple’s products and electronic medical records with healthcare providers.

Healthcare will be moving toward patient-centric models that seek to prevent disease as much as cure it. Although new regulatory, organisational and business models would be needed, 96 percent agree that the future of healthcare will be people-driven<sup>lvi</sup>, while 68 percent expect this scenario to be the norm in major healthcare markets by 2030.

China’s COVID-19 response has seen numerous technologies prove their utility, with 5G thermal imaging now supporting contagion monitoring and accurately detecting a person’s temperature in real-time as they move around a city<sup>lvii</sup>. Physicians, meanwhile, expect almost a third of their current duties to be automated in 20 years<sup>lviii</sup>. The future of healthcare would appear increasingly decentralised, networked,

automated. and likely features our home at the heart of our own personalised health ecosystems. The acceleration of this in the presence of COVID-19 ravaged healthcare systems could be sudden, far-reaching, and dramatic.

### Appearing/disappearing

- Our own personal health advisor.
- Our health data at our fingertips.
- DIY diagnostics and treatments.
- *Waiting for appointments.*
- *Hospitals as centres of the healthcare system.*

### Challenges

- Regulatory barriers.
- Big Tech and privacy.
- Ecosystem formation and inclusion of current system.

### Opportunities

- Healthcare becomes personalised and preventative.
- Reducing healthcare as a percentage of GDP while boosting outcomes.
- New advisor-type health roles.



## Insurance

McKinsey believes that the US and Eurozone’s economies could take until 2023 to fully recover from the impact of the COVID-19 crisis<sup>lx</sup>, while the World Economic Forum suggests that ‘...the industries hardest hit by COVID-19, including commercial aerospace, travel and insurance, may see a slower recovery<sup>lx</sup>,’ than others.

Insurers not dependent on paper-based applications and processes will almost certainly stand a better chance than analogue insurers in surviving what is almost certainly set to be a period in which insurers – possibly many of them – fail<sup>lxi</sup>. This may prove especially true in areas of the industry with unscaled and untried comms technologies, or else those lacking digital workflow tools or possessing only limited virtual or mobile work capabilities<sup>lxii</sup>.

Earlier in 2020 it had been reported that insurtech funding over the next five years was forecast to be greater than the prior 10 years combined<sup>lxiii</sup>. The depth and length of the crisis may well impact the viability of many insurtechs, perhaps lending insurers the upper hand in acquiring new ideas and innovation on the cheap.

Indeed, the longer-term impact of the crisis may be to drive a wave of digitalisation and innovation in the industry as market conditions prohibit the continuation of incremental change or else business as usual. Some 89 percent of insurers expect that, within five years, personalised insurance will be expected as a standard practice<sup>lxiv</sup>. Closer engagement with customers will demand insurers develop greater levels of trust, real-time data analytics ability and the organisation structure able to respond in real-time. This goal will take a new commitment to digital transformation, with omnichannel service capabilities and other capabilities rising in importance not just for the acute phase of the crisis, but the period afterwards<sup>lxv</sup>.

### Appearing/*disappearing*

- Digitally transformed insurers.
- Personalised services and products.
- Insurtech boom.
- *Product driven policies.*
- *Legacy culture and technologies.*

### Challenges

- Diversifying sources of income.
- Developing leadership and mid-management cadre capable of transitioning to digital.
- Ensuring digital does not just become a veneer.

### Opportunities

- Use the crisis to pivot towards necessary investment in digital capabilities and people.
- Developing new ways of working, communicating and transacting business.
- Becoming more relevant and trusted by consumers starting with actions taken today.



## Law

Analogue organisations and traditional structures simply will not suffice in an era compounded by pandemic where agility and flexibility are fast becoming core competencies. Stuart Fuller, the global head of the legal services arm of KPMG, expects the COVID-19 crisis to ultimately change the way law around the world is practiced<sup>lxvi</sup>. This is likely to feature more than just turbocharging the need for law to digitise and even automate existing processes, workflows and culture. Even prior to the COVID-19 crisis, Dani McCormick of LexisNexis had suggested that ‘...lawyers will become more and more niche and specialist, creating their own more individual brand,’ as digital transformation and automation account for a wide range of general tasks<sup>lxvii</sup>.

Indeed, KPMG believes it will ‘...drive this eco-legal system of business and legal to being seen as more intertwined, and legal in a business context will come a lot more to the fore<sup>lxviii</sup>.’ Ramifications could perhaps be even broader, with legal sector opportunities further enticing big tech into the space.

Mark Cohen believes that in the long-term, ‘...tech-enabled companies will create legal training and learning centres that offer competencies including, but not limited to, legal expertise<sup>lxix</sup>.’ The erosion of industry and silo boundaries, already underway before the crisis, could accelerate as a result of shifting customer demand and tech possibilities. The legal industry in some ways typifies the type of fragmented market that platforms, whether big-tech driven or not, thrive in. It is plausible that ‘...the legal function will no longer be divided into law firms, corporate departments, and other supply chain providers. It will operate as a seamless, integrated team drawn from multiple sources.<sup>lxx</sup>’

### Appearing/*disappearing*

- Law as an embedded service.
- New forms, and sources of competition.
- Legal industry ecosystems.
- *Traditional law training as the only route into the industry.*
- *The billable hour.*

### Challenges

- Need for professionals to engage in continuous learning to find, establish and reinvent their own niches.
- Digital transformation of a conservative industry that has done well in the past adhering to its rules and assumptions.
- The courage and culture to self-disrupt.

### Opportunities

- Shifting the role of legal services into a more continuous, advisory state for customers.
- Widen the reach and affordability of legal services.
- Create new ecosystems, delivery-systems and points at which to provide value adding services.



## Manufacturing

An analysis of global supply chains in early March 2020 calculated that the world’s 1,000 largest companies and their suppliers had over 12,000 facilities in then-quarantined areas of China, Korea, and Italy<sup>lxxi</sup>. For organisations with risky, opaque or else vulnerable supply chains, de-risking and even reshoring capacity to home markets will likely form an immediate priority. Political pressure could exacerbate this trend while automation could in part counter the impact, but either way the nature of jobs, skills and tasks in a post COVID-19 world are unlikely to resemble those of today, to say nothing of changing purpose, perceived societal value and attractiveness to potential employees.

Take enabling technologies such as additive manufacturing, for example. Pre-pandemic studies from 2019 estimate the impact of additive manufacturing on global trade range anywhere from lowering it by 10 percent to 40 percent by 2030<sup>lxxii</sup>. Large scale importers of cars, such as the U.S, could see increases in local production<sup>lxxiii</sup>, since 3D printing could reduce the cost of developing an entirely new vehicle from \$600 million to just \$60 million<sup>lxxiv</sup>. However, the reshoring of manufacturing can unlikely be achieved solely by 3D printing, as some 500,000 unfilled jobs exist in the U.S alone thanks to a manufacturing skills deficit<sup>lxxv</sup>. Sweeping automation stands out as one quasi-plausible solution but perhaps a more sustainable one from a societal perspective can be found in how we acquire skills and education.

The range of skills required will change. Digital already prompts a greater number of multidisciplinary and cross-sector partnerships – a situation likely to accelerate as manufacturers switch markets overnight, services tap external expertise and government becomes enmeshed in everything. Smash-up businesses and sectors will ensue<sup>lxxvi</sup>, with new capabilities and skills resulting.

### Appearing/disappearing

- 'By the end of this decade, additive manufacturing will not only have matured into a technology that integrates into existing manufacturing workflows. We'll also witness the technology revolutionise the way we develop, create and source goods<sup>lxxvii</sup>.'
- Regionalised production<sup>lxxviii</sup>.
- Digital supply chains.
- *Global supply chains that optimise for centralisation and reduced costs have serious potential weaknesses<sup>lxxix</sup>.*
- *Lean as the default choice. MIT suggests that '...businesses should value resiliency and risk reduction in their plans and investment calculations, not just whatever gets them the lowest cost today<sup>lxxx</sup>.'*

### Challenges

- Skills and talent acquisition.
- New competitors from different markets.
- Changing mindsets.

### Opportunities

- Building resilience to future shocks.
- A.I based modelling.
- Digital twin usage will gain prominence; they can be used to compare the long-term impact of different action plans, making it easier for companies to make good decisions<sup>lxxxi</sup>.



## Meetings and Events

The meetings and events industry was one of the first to succumb to the impact of COVID. In March 2020, 99 percent of business -related travel was cancelled in China, 96 percent in Europe and 85 percent in the United States. Thanks not only to its reliance on other industries such as airlines but the nature of logistics planning for events, it could be one of the slower industries to recover.

Pre COVID, virtual events were already starting to change the way we meet. When comparing the 2019 survey results to the 2020 results ‘of the percentage of planners who use hybrid/ virtual meetings in more than 10 percent of meetings, North America has seen an uptick in that number, going from 43 percent to 58 percent. Europe has seen an even larger increase, jumping from 49 percent up to 66 percent<sup>lxxxii</sup>.’ With corporate budgets for travel likely impacted in the post COVID environment, the lower cost of attendance coupled with the increased content flexibility that online allows, could all see many previously face-to-face events remain virtual<sup>lxxxiii</sup>.

This shift, however, is unlikely to ‘...be universal, and it won’t be evenly distributed among types of events, industry sectors, local vs. distant, or other factors<sup>lxxxiv</sup>.’ For some, hybrid events will likely act as a useful and necessary stop-gap but not one that is ultimately viable as a replacement for face-to-face meetings<sup>lxxxv</sup>.

For those pioneering a new virtual model, but perhaps especially those not planning on it, the need to embrace innovation, new formats and new technology is heightened by COVID-19. Virtual events may well indeed require a different blueprint<sup>lxxxvi</sup>, but face-to-face events will need more than ever to justify the ROI of participants. Personalising content, enhancing the professional gain, a better personal experience and more will all be necessary against a backdrop of heightened

sustainability awareness and shifting customer behaviour.

### Appearing/*disappearing*

- New business models.
- New forms of collaboration and partnerships – perhaps even with only tangentially associated industries.
- *The number of in-person events, conferences and meetings will be lower than any projections made pre COVID.*
- *The rationale for many low-level meetings or events that can be done virtually.*
- *Many providers and parts of the ecosystem today will likely disappear.*

### Challenges

- Those in the meetings and events industry will need to explore diversifying revenue streams.
- Events will need to coalesce tightly around individuals’ needs – meaning more customisation, personalisation and technology to make this happen.
- New talent and skills needs.

### Opportunities

- The human need for connection will remain.
- Technology from 5G, augmented reality, virtual reality and holograms can improve the online (and in-person) experience.
- Reinvent the industry.



## Pharma

McKinsey estimates that ‘...big data and machine learning in pharma and medicine could generate a value of up to \$100bn annually, based on better decision-making, optimised innovation, improved efficiency of research/clinical trials, and new tool creation for physicians, consumers, insurers, and regulators<sup>lxxxvii</sup>.’ New models are likely to emerge; indeed, investments in digital-therapeutics companies in the United States have grown by an average of 40 percent a year over the past seven years to reach more than \$1 billion in 2018<sup>lxxxviii</sup>.

However, several of these new companies thrive in areas that pharma traditionally does not, such as advanced analytics, human-centric product design, appetite for risk and flexible business models. In a digital future, such features are likely requisite for pharma companies unless they choose to partner widely and deeply. ‘The payers, providers, and pharmaceutical companies that gain experience and build partnerships now will be in the best position to grow with the industry and benefit from the coming waves of innovation<sup>lxxxix</sup>.’ In some cases, these partnerships may appear counter-intuitive; witness the emergence of cigarette makers as possible sources of a COVID-19 vaccine<sup>xc</sup>.

The COVID crisis and its response will likely hasten the advent of a post-digital world and usher in the emergence of the biotech era<sup>xcii</sup>. Steve Jobs once remarked that ‘...the biggest innovations of the 21<sup>st</sup> century will be at the intersection of biology and technology<sup>xcii</sup>.’ Biology, in part thanks to COVID-19, is fast becoming the new ‘digital’ and biotechnology (broadly speaking the combination of the two) a key driver of the future economy. Using living organisms to make products or manipulate existing processes could fuel innovation across healthcare, industry and the food sector and beyond. If DNA does indeed emerge as the new silicon as is suggested, Wired proclaims that ‘...biology will be the next great computing platform<sup>xciii</sup>.’ Pharma straddles

many of these changing areas, but absent change is not guaranteed to thrive in them. Benefits in the biotech and pharma environment could have far reaching implications in other parts of the consumer economy.

### Appearing/*disappearing*

- New and non-traditional competitors.
- New overlapping health/pharma/biotech ecosystems.
- 3D printed pharmaceuticals.
- Shorter value chains.
- Holistic cost of illness model
- *Analogue supply chains.*
- *Purely manipulating atoms*

### Challenges

- Developing a risk-tolerant culture.
- Developing the ability to collaborate and partner effectively.
- Using strengths to pivot models at the appropriate time.

### Opportunities

- Biotech.
- Machine learning and A.I in drug discovery and development.
- New business models.



## Real Estate

Deloitte correctly suggests that ‘...real estate companies are being impacted in different ways, largely dependent on region and asset class<sup>xciiv</sup>.’ The long-term outlook is likely to depend on these very factors too.

That said, the long-term impact on specific sectors can be outlined. The long march of the death of the high street has continued for more than a decade. What might be different now is the speed of acceleration in the wake of COVID-19 fall-out. There’s an old saying that it only takes a month to change a habit, and we may be about to experience the phenomenon that when forced to get used to something, it has residual effects. Those who have hitherto avoided home delivery or only engaged in limited on-line retail activity may wade in whole heartedly, and this short-term change could then become permanent.

Longer term, subsectors such as office and industrial could be impacted by changes in where people work and changes in supply chain. Could COVID-19 lead to a lot more, empty retail and office space? Could it then be re-developed as residential accommodation, financed by zero or negative interest rates continuing much longer than previously thought? And could this be eagerly bought up in a negative interest rate induced housing boom?

What we expect from real estate is also likely to evolve. Buildings that automatically adapt to the preferences of occupants, that engage outside help where need be – for example relating to the security or health of occupants, and are capable of balancing preferences<sup>xciv</sup> may strike some as fanciful. However, the technology to do many of these individual things is already proven through IoT, wearables and smart buildings use cases. However, a 2018 PwC survey found that just 10 percent of real estate chief execs thought technology posed a significant challenge to their business<sup>xcvi</sup>.

Indeed, without a clear sense of how to engage and with the distraction of a multitude of short-term problems to deal with, the danger is that the evolving ecosystem will be defined by others. Building management, data management and performance measurement<sup>xcvii</sup> will become critical levels of future real estate success.

### Appearing/*disappearing*

- Need for flexible buildings and flexible terms.
- Value-adding smart buildings.
- More empty space.
- *Real-estate agents?*
- *Analogue real estate players.*

### Challenges

- Players will need to offer new value propositions for distressed occupants.
- The need to digitise at pace.
- The need for new skills, competencies and ideas.

### Opportunities

- Accept that all real estate players are in the data business and are inherently digital businesses and orient talent, skills, practices and management to reflect this.
- Adopt advanced technologies at scale. The industry has traditionally been slow to adopt new tech and to adopt a customer-centric view: this must change. Some sort of tech-radar and awareness of global trends is essential.
- Build ecosystems that can help players realise their long-term strategies.



## Retail

In 2003, the SARS outbreak helped provide not just a boost, but lasting growth for China's nascent ecommerce sector<sup>xcviii</sup>. Although the parameters of what ecommerce entails are changing as tech advances, it is broadly likely that the COVID-19 crisis will have the same impact in other countries.

Since workers globally stand to lose between \$860 billion and \$3.4 trillion of income in 2020 due to the crisis<sup>xcix</sup>, retailers everywhere will need to revisit strategy, messaging and value propositions. Consumer habits will be lost.

The interplay with existing trends will be interesting – the American economy for example is already in the midst of ‘broad and often deep absolute dematerialization<sup>c</sup>.’ While ‘sharing’ is out for the moment, it is likely to resume given the convenience and economy it offers. Rent the Runway has partnered with the retailer Nordstrom which sees the former incorporate Nordstrom's inventory into the platform. Future plans include agreements to design clothes and apparel together, using data about the kinds of products customers want and what items work best within the rental model<sup>ci</sup>.

COVID-19 will likely accelerate this type of convergence and other forms of hybridisation of conventional retail business models<sup>cii</sup>. On-demand services could surge. McKinsey, citing numbers from China in March 2020 suggests that there is room for cautious optimism with regards to the consumer rebound<sup>ciii</sup>.

Globally, those that are prepared for it with appropriate offers, partnerships, strategies and engagement will rebound quicker than those who assume a resumption of normal.

### Appearing/*disappearing*

- Shoppable video could form the future of retail<sup>civ</sup>.
- More hybridisation, collaboration and partnerships with a range of sectors any competing models.
- Digital platforms and remote retail.
- *Physical commercial footprints of the pre COVID era.*
- *Complex supply chains.*

### Challenges

- Consumer tolerance of crowds may require rethinking of plans to build physical experiential retail.
- Adapting messaging, relationship and purpose to rapidly and drastically changing consumer circumstances.
- Adapting organisational skill base to a different future of connection and experience.

### Opportunities

- 52 percent of UK shoppers are happy to share their consumer data with retailers if they can save money, suggesting closer relationships<sup>cv</sup>.
- Digital platform use will become a part of our lives during the crisis and persist afterwards.
- Tech offers room to personalise and experientialise in-home retail too.



## Shipping

Despite the changing face of globalisation and the ascendancy of China, the nature of the global supply chain has remained reasonably static since the 1950s. The COVID-19 crisis not only impacts the face of globalisation and prompts greater regionalisation, but could catalyse required changes in its nature too.

Navin Kumar, director of Maritime Research at Drewry suggests that an early lesson of COVID-19 is that ‘...the world has been too dependent on China for everything<sup>cvii</sup>.’ Long term it seems almost certain that supply chains will diversify and in some cases shrink as companies look to re-shore capacity with the assistance of additive manufacturing and other technologies.

Paul Cuatrecasas, CEO of investment banking firm Aquaa Partners says that ‘Covid-19 has just slapped everybody in the face so get ready because what’s coming is going to be even greater disruption in different forms<sup>cvii</sup>.’ The digitalisation of the sector, extending even unto autonomous shipping will necessarily embed resilience and flexibility into supply chains and logistics more generally.

In 2019, it was forecast that shipping-related emissions - accounting for 3 percent of the total global carbon emissions – could climb between 150 percent and 250 percent over the next 40 years<sup>cviii</sup>. Decarbonisation of the shipping sector could cost anywhere between \$1 trillion and \$1.4 trillion<sup>cix</sup> yet coalitions have already been established that seek to produce zero carbon vessels and fuel by 2030<sup>cx</sup>. Beyond COVID-19, industry and environmental sustainability would appear intertwined. The current crisis may prompt more rapid digitisation as resiliency and flexibility become core competencies and thus accelerate the journey towards a more sustainable future.

### Appearing/*disappearing*

- Green technologies.
- Digitally enabled models.
- Platforms and ecosystems that include non-traditional competitors/partners.
- *Old assumptions about global trade, in both its nature and geographical footprint.*
- *The regulatory environment will likely require extensive change.*

### Challenges

- The COVID-19 crisis represents a long-term issue of disruption for the industry, not a one-off.
- Multiple vectors of change, some only tangentially connected to COVID-19.
- Regionalisation replacing globalisation.

### Opportunities

- Accelerating digital diffusion and building smart shipping options.
- Autonomous shipping.
- Building the resiliency to cope with the looming sustainability issue.



## Technology

The new normal of the COVID crisis – of remote work, online education and social distancing – will continue to create demand for products and services delivered by the tech industry<sup>cxix</sup> that could become long term in nature. Demand for cybersecurity solutions will also boom since at present organisations only protect 60 percent of their business ecosystem<sup>cxii</sup>. The 73 percent of executives citing the rising importance of cybersecurity over the next three years<sup>cxiii</sup> will almost certainly have grown thanks to the COVID crisis and the cybersecurity mess it could turn out to be.

Big tech is almost certain to emerge from the crisis in a stronger position than it entered it. Various forms of technology receiving public scrutiny before the crisis are now central in fighting it, including the gamut of surveillance-based options. However, given the expansion of the state, governments may also feel emboldened. The Economist suggests that tech companies ‘...best defence is to propose a new deal to the citizens of the world. That means clear and verifiable rules on how they publish and moderate content, helping users own, control and profit from their own data<sup>cxiv</sup>.’

Outlined by the World Economic Forum, it was suggested back in 2017 that a ‘...person’s data should reside in an account where it would be controlled, managed, exchanged and accounted for<sup>cxv</sup>,’ by around 2028.

In addition, ‘the pattern of ‘life data’ could emerge as a new way to de-commoditize consumer financial products. Consequently, new businesses may emerge to meet the market need for access to these data flows<sup>cxvi</sup>.’ Consensual data access could knock down the remaining barrier to entries if not to existing industries themselves, then the ability to offers customers new ways of doing things and meeting their demands and wishes in non-traditional ways – such as providing ‘banking’ but not being a bank.

### Appearing/*disappearing*

- Ambient technology.
- A new big-tech/public compact.
- IT and tech companies with new revenue streams/ability to enter new industries.
- *Me-too products and services that do not satisfy shifting consumer demand.*
- *Free to use consumer data.*

### Challenges

- Avoiding big-tech vs. big government issues.
- International patchwork of regulations.
- Ensuring cybersecurity as an in-built, default style setting.

### Opportunities

- Creating new sticky markets - virtual events for example – that endure past the crisis.
- Regaining broad public trust.
- Create value for users when using their data.



## Transportation and Automotive

Transport, logistics and the automotive sectors are significantly impacted by the crisis. Some 80 percent of automotive and related companies report that it will have a direct impact on their 2020 revenues, while more than 80 percent of the world’s auto supply chain is also connected to China<sup>cxvii</sup>. The crisis also provides an opportunity – or perhaps compels incumbents - to experiment with new ways of doing things, trialling new technology such as autonomous vehicles (AVs) and accelerating strategic plans<sup>cxviii</sup>.

The obvious example lies with autonomous vehicles. During lockdown in China, food delivery service ‘Meituan began piloting AVs for delivery throughout Beijing. The delivery vehicle from Meituan can travel up to 100km carrying load of 100kg at the speed up to 20km/h. It mainly delivers fresh vegetables and food. China Unicom worked together with Meituan to ensure the support of 5G network for its autonomous delivery vehicle<sup>cxix</sup>.’

It is noted that young markets plus those with dense geographic concentration of key parts, such as electric vehicles (EVs), are especially vulnerable to the nature of the COVID-19 crisis. The longer term looks more promising. For example, previous forecasts were for green transport set to overtake cars in world’s major cities by 2030<sup>cxx</sup>. It should also be acknowledged that interest in autonomous vehicles has risen in direct response to the crisis ‘...as manufacturers look for driverless delivery systems that would be useful in pandemic situations. If those systems take hold, EVs could benefit<sup>cxxi</sup>.’ If they do, and in a timely manner, this could even speed up development and investment for electric air taxis, which were forecast earlier in 2020 to reach a \$1.5 trillion market globally by 2040<sup>cxvii</sup>.

### Appearing/disappearing

- More autonomous vehicles, logistics and transport.
- More person to person logistics to cope with the growth of ecommerce.
- New mass transport concepts that reduce physical contact.
- *Less business-related transport than many otherwise have occurred thanks to proliferation of virtual options.*
- *Could spatial economics start to be lessened by AVs to the extent that commuting patterns etc. begin to be inexorably altered.*

### Challenges

- Long term investment plans will likely need revisiting and re-prioritised, in light of decreased short to mid-term revenue<sup>cxviii</sup>.
- Travel patterns, as well as commuting ones, may not recover to their pre COVID-19 state<sup>cxvii</sup>, regardless of AV uptake.
- New models for premium transport – will we still need business class as previously configured if we are traveling less for business?

### Opportunities

- Mobility-as-a-Service
- Ecosystem approach to aviation; e.g. profit sharing for airlines and airports.
- New public-private ownership models may begin to address sustainability?



## Travel and Tourism

COVID-19 is likely to cause \$1 trillion in direct losses for the global tourism industry, up to \$5 trillion indirectly, as well as lead to around 50 million job cuts in 2020 alone<sup>cxxv</sup>. These numbers alone will damage the tourism infrastructure in some places to the extent that there cannot be a quick return to ‘normal.’ The previous normal may never be fully replicated, with trust in safe travelling, disposable income and consumer behaviour all potentially impacted in key ways, not to mention the status of airlines, hotels and other key infrastructure. If COVID becomes endemic, seasonal and without a vaccine, our notions of freedom of movement will be severely altered, with certain destinations perhaps only open to travellers from certain countries, at certain times. Medical passports, digitally stored and automatically updated from ambient data, could feature in such a scenario.

In some instances, the old normal may not be desirable in any case. Many destinations have quickly progressed from over-tourism being their primary problem to complete loss of livelihood. Neither are sustainable. The COVID pause will enable new strategies to be crafted for those with the foresight to create more economically, culturally and environmentally tenable propositions. The environmental costs associated with industrial tourism were being questioned pre COVID. For example, a 2020 study of EU consumers found 62 percent advocated banning short-haul flights for the sake of the environment<sup>cxxvi</sup>.

A lot of commentary has suggested virtual travel as a possible substitute, both short and long term. Whether this satisfies the needs and desires that drove the wish for travel in the first place remains unresolved, but technology will clearly have a part to play in the recovery, or redesign, of the industry. Extended reality tools 'could boost event sales for hotels by 8 percent<sup>cxxvii</sup>, for example.

### Appearing/disappearing

- More local, time-limited tourism.
- Increased use of technology throughout the experience.
- Attempts to provide virtual and personalised forms of travel.
- *Freedom of movement is likely to be reduced, whether periodically, or should politics take inward turns in key countries, perhaps permanently with regards to some international routes.*
- *The middle market, should recovery follow an L or U shape, could see reduced growth outside of emerging economies.*

### Challenges

- We are still forecast for four billion part-time tourists, globally, by 2040<sup>cxxviii</sup>. Environmental limits are finite; services, products and incentives for greener and more sustainable travel still exist – now compounded by significant economic disruption.
- Create more resilient tourism models and reduce risk of overly concentrated industries.
- Adapt to the new consumer norms that will likely emerge in the post COVID world. Tourism related interests need to plan for a range of scenarios.

### Opportunities

- Align tourism with sustainability, health and the needs of the local community.
- Reorient products and services.
- Pioneer alternative ways of experiencing and consuming.



## Future of Work

In August 2019, some 54 percent of executives predicted that ‘digital’ would have a significant impact on their industry over the next five years<sup>cxix</sup>. We would assume that a similar survey today would reveal a significantly higher percentage. Work from home, a consumer-centric proposition, collaboration, digital supply chains and other facets of digital transformation have fast become necessary to transact business.

As a direct result of COVID-19, the ILO estimated on March 18th that up to 24.9 million jobs could be lost<sup>cxix</sup>, with underemployment many magnitudes higher. It is likely that swathes of these jobs will not be restored in their original capacity once the acute first phase of the COVID-19 crisis passes. Especially interesting will be the evolution of the platformed business model, which is now posing new and immediate ‘challenges for regulators, workers and established businesses in the formal economy<sup>cxix</sup>.’

Businesses everywhere now should accelerate their plans for creating, staffing and sustaining the jobs that will drive their planned-for future success. Likewise, those that have managed to partner widely, collaborate and enter new markets generally have a greater opportunity to climb out of the depression that COVID-19 could leave behind – whether through access to talent or by using technology to switch business models<sup>cxix</sup>.

Indeed, the issues of collaboration and colliding markets are likely to rise in importance the longer the COVID-19 pandemic and aftermath last. Bain, for example, suggests that to survive many CEOs will need to explore ‘...public-private partnerships wherever applicable. Companies’

best partner in recovery may be a local municipality, mayor, governor, a regional committee, or a country’s governing body<sup>cxix</sup>.’

### Appearing/*disappearing*

- The extraordinary impositions of the pandemic could lead to more automation.
- Innovation acceleration: The solutions implemented during crises often endure, recession-launched services and products often become market leaders while behaviour shifts can be permanent<sup>cxix</sup>.
- Economic resilience in the face of COVID-19 and other wildcards requires companies to do things differently<sup>cxix</sup> and to do different things.
- New partnership and collaboration sources.
- *The assumptions that we have based many of our models and practices on.*
- *Colocation as the default.*

### Challenges

- The benefits of digital workplaces are fast becoming realised but are increasingly unable to provide competitive advantage. It’s table stakes now.
- Build, source and manage the talent for the future.
- Build the ecosystem and partnerships to deal with the evolving environment.

### Opportunities

- Orient processes and practices around consumers and employees.
- Use talent, expertise and data capability to open new revenue streams or business models.



## Conclusion

Rules governing politics, economics, social norms, work and more are being rewritten at pace, leaving yesterdays’ assumptions increasingly invalid. Digitalism is fast becoming a bare minimum for survival, while redesign, adaptation, restructuring and rebuilding will become critical pillars of future business.

Tactics need to be devised to survive the acute phase of the crisis, but the longer view demands a strategic view of change that goes beyond most planning horizons. Forces larger and more complex than many standard industry-level trends that are interrogated by tools such as Porters Five Forces are a part of our operating environment, as COVID-19 has demonstrated. COVID-19 may or may not be the only pandemic to impact our lifetime, but it will not be the only ‘black swan.’

The long-term view, although imperfect and beyond many leaders’ likely job tenure, is a key facet of organisational sustainability. Foresight seeks to redress the dangerous, short-term weighted imbalance evident in planning by providing a systemic framework for thinking about, imagining, and planning for the future. At its core, foresight allows stakeholders to have structured conversations about uncertainty, which is perhaps the only certainty right now. Done correctly, it can reveal challenges and opportunities that are easily dismissed in a business-as-usual environment.

The brands, industries and ideas that will come to dominate their sectors and beyond are still being created. This crisis, for all of its human and economic suffering, will compel us to do things better, to do different things and establish a new set of rules. For those that dislike change this is set to be extremely uncomfortable as we enter an era of unprecedented disruption and challenge. For those that embrace change, the post COVID environment will provide a range of opportunities, ideas and innovation that help rebuild our communities, businesses and world, maybe even for the better..

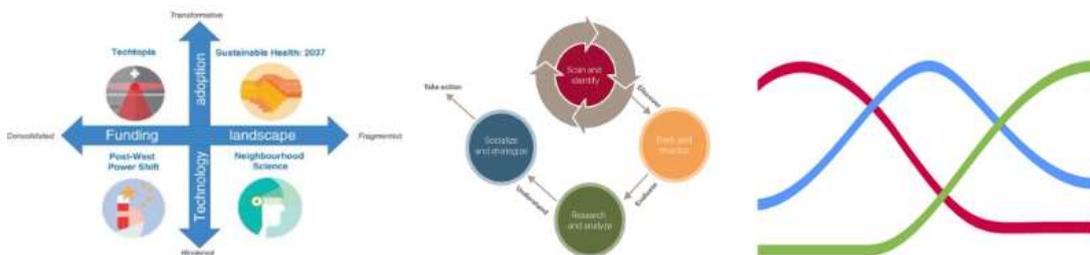


## Call to Action

After we’ve learned to survive the economic and social disruption of the pandemic, we would be well advised to plan for the changed future our organisations will need to operate in afterwards and test our current assumptions, offerings and goals. Apart from the pandemic, we are at the start of the greatest impact of technology on our lives and organisations that we have ever experienced, and the rate of impact is accelerating.

Traditional strategy and planning tools have been barely adequate to-date but we now need to look deeper at the drivers of change, determine their possible impact on us and prepare strategies for adapting to them or even better, grasp the opportunities they present.

Several tools are excellent at this. Horizon Scanning, scenario planning, Three Horizon mapping, Impact Wheels, to name but a few. These are neither difficult or time consuming to use and they produce instant feedback to participants and subsequent reviewers.



I’ve long said that ‘if you want to get ahead you need to look ahead’ and there isn’t a better time to do this than right now. Consider:

"The root causes of decline in public companies are;  
strategic risks (60%) rather than operational risks (30%) or financial risks (10%)."  
*The Society of Actuaries*

“The assumptions on which the organisation has been built  
and is being run no longer fits reality.”  
*Peter Drucker*

We are expert in leading such processes and have skilled marketing, strategy, technology and economic capabilities, amongst others, which we bring to bear. Alongside you we can create a compelling view of your potential future and help you remain relevant.

Just give me a call on 07932 408901 or email me [david.smith@thegff.com](mailto:david.smith@thegff.com)



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## About Global Futures and Foresight

Global Futures and Foresight is a research and consulting firm that helps organisations be better prepared to embrace change, innovate and develop new strategies and solutions and helps clients to avoid the risk of being blindsided by external disruptive change.

The GFF has been engaged by some of the most prestigious firms from around the world including: The European Commission, NATO, BBC and financial services firms including HSBC, Lloyds/TSB, Atom Bank, RBS, Lloyds, More than, e-sure, Travelers, Allianz, QBE and Lloyds syndicates, CSC, Unisys, Cisco, Microsoft, Siemens, Deloitte, Ernst & Young, PWC, Linpac, Kraft, Heinz, John Lewis, Roche, Philips, Ogilvy etc.

The GFF is a Futures Framework supplier of futures methods and insights to the UK government via the Department for Business, Energy and Industrial Strategy.

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