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Sofia Baliño considers ISDS arbitration in the COVID aftermath

Next Generation EU. Maarten Verwey, Sven Langedijk and Robert Kuenzel provide an overview

Katarzyna Sidło examines how China and Russia have exploited COVID-19

THE GLOBAL TRADE AND FINANCE PLATFORM

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FOREWORD

The unready

We live in an age of deep uncertainty. We have come to believe that mathematical calculations and computer modelling provide us with an authoritative representation of reality, and policy is based on that rather than wisdom built over centuries. Not learning from past experience has led to disastrous and expensive policy mistakes, the American intervention in the Middle and Near East and the wishful thinking about China's economic and political ambitions are two that come to mind.

However, these policy mistakes pale into insignificance compared to the modern acceptance that computer models are the panacea to all economic ills. Human beings are good at dealing with ambiguity, mysteries and complexity. Modern economics quantifies behaviour in algorithms based on the certainty that people will behave in a certain way. History teaches us that this is bogus.

Experts make reductive assumptions in a world which is much more complicated than can be explained away by this balance-sheet mentality. Decision-making used to be defined by problems; now it is defined by techniques and mathematical methods, which means every problem has to be fitted into the mathematical model.

In this scenario, if this model can't explain what's going on in the world, you have to assume there must be something wrong with the world. This is where so many scientific experts have got things wrong – such as the errors made by some of them over coronavirus, the 2008 financial crisis, not to mention the global hysteria over climate change, where uncertainty is deemed to be an existential threat!

Rather than look at what was true about COVID-19 mathematical modellers fed inadequate abstract information into their computers and got false results. Models are based on major assumptions and often these assumptions are wrong. Modelling and projections are tools that should aid decision-making, not determine policy. Computer models are a gross simplification of reality, and should be treated as such.

Experts assume that their computer models (and indeed, their whole framework of assumptions) constitute unchallengeable reality. So anyone who contradicts the model is a denier who must be suppressed. These policy advisors are now people who have redefined evidence, reality and reason into nothing less than a series of adaptable numbers.

The projections of Earth's imminent demise are based on bad science and even worse economics. In a politicised panic, world leaders have committed to wildly expensive, but largely ineffective policies, that hamper growth and crowd out other pressing investments in a better world, from immunisation to education.

Experts of the past used animal organs, rune sticks and tea leaves to predict the future. Modern experts use models and hand-picked data to do the same, making astrology seem respectable. It is time for world leaders to refuse to be poorly advised, and to remember the lessons from history. ■


Chinese and Russian geopolitical games
Katarzyna Sidło looks at how China and Russia have exploited the COVID-19 pandemic to improve their international standing in the MENA region

As the coronavirus pandemic takes a tragic toll, devastating people's lives and ravaging economies, authoritarian regimes around the world keep on playing their geopolitical games. Two prominent players include a pair of United Nations Security Council permanent members, namely the Russian Federation and the People's Republic of China, both of whom have been exploiting the situation to achieve their geopolitical goals and improve their status internationally.

For China, the overall goal of its 'health (or mask) diplomacy' is to divert attention from the fact that not only did the pandemic start on its own territory, but also that Beijing did initially conceal the outbreak in Wuhan, allowing the epidemic to get out of hand and spread not only throughout China but the entire world.

Thanks to the mismanagement of the situation by the US and multiple European countries, as well as the general tardiness of the EU's reaction, Beijing has, however, been moderately successful in salvaging its international reputation.

It has also increasingly managed to position itself as a responsible and reliable global power – at least in the eyes of some of its partners globally – ostensibly more willing to cooperate with international institutions such as the World Health Organization (WHO) than the US, which has recently cut its funding to the organization.

Russia, which incidentally remains reluctant to acknowledge the scale of infections on its own territory, has seen the pandemic as yet another occasion to sow discord and undermine the EU and the US. As such, purposely or not, it has been helping Beijing to achieve its goals by spreading disinformation about the origins of the coronavirus.

Some analysts have also expressed concerns that Russia may have used medical aid to Western countries for intelligence purposes, particularly in the case of the doctors and equipment sent to Italy and the paid-for shipments to the US.

Other observers pointed out to the serious doubts regarding the usefulness of these supplies. Moscow has also tried to exploit its well-publicized campaign of delivering medical aid and expertise to countries in the West to score political points, pushing for the lifting of the sanctions against it.

More recently, the Kremlin changed its strategy and announced that Russia will not ask the EU for the withdrawal of the sanctions, but should Brussels do so, *"Russia will be ready to reciprocate"* (the European External Action Service [EEAS] confirmed the EU will keep the sanctions in place as they do not *"prevent [Russia] from fighting the virus"*).

Chinese and Russian ostensibly selfless assistance must be put under scrutiny. For one, Moscow's aid is mostly in the sphere of promises, and when it does arrive, it has often been found not suitable for use or non-adequate; as have in fact been thousands of Chinese testing kits delivered to, among others, Turkey

In the MENA region, the coronavirus-related activities of both countries followed their global goals. For the Kremlin, it has been all about disinformation. Indeed, an analysis conducted by the European External Action Service's East StratCom Task Force showed that three of the five most popular Russian disinformation articles (by their number of social media engagements) identified in the study were spread in Arabic, with the most popular messages in the region being that the US is responsible for the pandemic and coronavirus is *"an Anglo-Saxon biological warning."*

The actual help on the ground has been very limited, however, with a number of discussions about the crisis held with Iranian, Saudi, Turkish, Israeli, Palestinian, and Syrian authorities, but few details on any physical shipments available. The only one confirmed was a cargo of 500 coronavirus testing kits to Iran, together with reported talks about further consignments.

On April 8, Russian media also reported that Syria officially requested Russian assistance, but no follow-up information has been published so far (in fact, Russia blocked United Nations-sponsored coronavirus-related humanitarian efforts in parts of Syria that remain under control of the opposition).

China, on the other hand, has been extensively promoting its in-kind assistance efforts. Beijing has very publicly sent medical equipment and experts to a number of countries across the MENA region, from Egypt and Israel, through Turkey and Iran, to Saudi Arabia and Kuwait. Oman received 100,000 surgical face masks.

A large cargo of ventilators, testing kits, and PPE equipment arrived to Algeria, as a courtesy of the state-owned China State Construction Engineering Corporation – a prominent player in the region, responsible, among others, for the construction of the Great Mosque of Algiers and contracted to build Egypt's 'new capital'.

Chinese experts and authorities have been also sharing their experiences and lessons learnt during teleconferences organized by the Arab League as well as individual countries (eg. in Saudi Arabia). All these activities, no matter how trivial or inconsequential, have been extensively covered by both Chinese and local media.

Delivery in Egypt, during which representatives of national authorities of both recipient and benefactor countries were present, was live-streamed. During other transfers, elaborate ceremonies, attended by officials and journalists, were arranged for as well.

China has, moreover, enhanced its use of Twitter, conveying Beijing-approved messages through official accounts of its diplomatic missions and their representatives. Russia has been using this strategy to spread its disinformation for a long time; indeed, most recently the Russian Ministry of Foreign Affairs twitted that certain Western *"cynical Russophobe"* politicians and media cannot comprehend that *"Russia simply… helps"* during the pandemic.

In another move that could have been copied from a Russian playbook, an international arm of China Central Television published videos in Arabic discussing the possibility that the virus may have in fact originated in the US, and accusing the *"Western propaganda machine"* of spreading *"consipiracy theories (…) that China is the source of the virus"* only to distract attention from its own incompetency in fighting the pandemic.

Beijing has also been using the assistance of Arabic-speaking Chinese journalist influencers such as Fayhaa (Xin) Wang. Through her Facebook page, followed by nearly half-million users, and her presence in the media outlets in Egypt – as well as Saudi Arabia, Algeria, and United Arab Emirates – this influencer has been keeping her audiences up-to-date on the common Sino-Arab fight against the coronavirus.

Official Chinese Twitter channels have also been trying to promote hastags such as # معا_ضد_كورون (#Together_Against_Coronavirus) and # ابطال_الصحة (#Health_Heroes) – as well as (rather unsuccessfully) a sentimental Arabic-language song tribute to health workers fighting the coronavirus – in an effort to underline common struggle of the Arab and Chinese peoples.

Notably, while politicians (as many state media journalists) have been going out of their way to express their gratitude to China, the mood on the streets has not always been equally appreciative. People of Asian heritage have been reportedly targeted for 'spreading the coronavirus'.

Most publicized cases include a Chinese man thrown out of a taxi in Cairo and videos accusing a local Chinese restaurant in Morocco of being an epicentre of coronavirus, brought to the country by Chinese tourists. Needless to say, any and all displays of racist behaviour should always be unequivocally condemned.

It is, however, difficult to resist the impression that authorities in the MENA countries in question were more concerned about appeasing Beijing than fighting xenophobia. Indeed, in both the Egyptian and Moroccan incidents the culprits were swiftly arrested and very public displays of apology ensued.

The extent to which China and its policies are exempted from any criticism has been witnessed first-hand by the Iranian Minister of Health, who imprudently called Chinese official coronavirus figures *"a joke"* – and found himself publicly issuing an apology after a rebuke from the Chinese Ambassador to Iran.

Any genuine help, no matter where it comes from, should naturally be always condoned. However, Chinese and Russian ostensibly selfless assistance must be put under scrutiny. For one, Moscow's aid is mostly in the sphere of promises, and when it does arrive, it has often been found not suitable for use or non-adequate; as have in fact been thousands of Chinese testing kits delivered to, among others, Turkey.

Where the Kremlin does have an impact, it is usually an unwelcome one. Indeed, a number of media outlets and journalists throughout the MENA region, consciously or not, reiterated Russian disinformation about the American origin of the virus, accusing the US of using the virus as a biological weapon created specifically to undermine China.

Moreover, both Russian and Chinese assistance has been delivered under circumstances that have not always been exactly transparent. Questions about how many of the shipments have not been aid but purchases are hardly mentioned in media reports and official statements. Equally, if not more worryingly, the price for Chinese assistance seems to be paid in a much more precious currency than renminbi or dollars: compliance.

While the WHO has been dodging questions about Taiwan, governments of multiple countries receiving Chinese aid and investments – both during and previous to the pandemic – conveniently dissemble Beijing's misleading reporting on the spread of the virus, which seriously inhibited preparedness for the crisis in the rest of the world.

Chinese aid receptors also tend to omit the fact that China continues to censor the results of the COVID-19 related research conducted by its scientists (in fact, countries like Turkey and Egypt deployed similar tactics).

As noted by EU HRVP Josep Borrell, *"there is a global battle of narratives going on in which timing is a crucial factor."* Indeed, when Brussels sent 70 tonnes of medical aid to China at the beginning of the year, European leaders reportedly obliged Beijing when it *"explicitly asked for discretion."*

Needless to say, China has had no qualms publicizing its own assistance. As a result, it is Beijing that has being praised throughout the region, especially in the GCC, as a *"role model" and "the only country that rerformed well"* during the crisis. On March 21, the Iraqi Minister of Health, Jaafar Sadiq Allawi, complained that *"America has not provided [Iraq] with a single vile [of medicine] – unlike China."* The EU has not been mentioned at all; its own package of €240 million to support Iraq and other countries hosting Syrian refugees amid the coronavirus crisis has only been announced ten days later.

In another display of effectiveness of Beijing's strategy, Washington's protests were ignored by some of its closest allies the region when a Shenzen-based genomics company BGI was setting up a testing laboratory in the United Arab Emirates and closing a deal on a similar facility in the Gaza Strip. Saudi Arabia paid the company USD265 million for six laboratories staffed by 500 Chinese experts and a bundle of 9 million testing kits.

As explained in a rather ominous manner by an Arabic-speaking anchor in the Chinese state CGTN TV, *"[t]he balance of power in the world is expected to change when the coronavirus crisis is over. A lot has been said about the progress of China, which will take a leading role in the new world order at the expense of America's power and position."*

Whether this prediction become reality or not depends to a large extent both on how the EU and US continue to manage the pandemic and exert their soft power throughout the region and beyond. ■

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Preparing for the COVID aftermath

Sofia Baliño considers the threat of ISDS arbitration against emergency measures, and warns governments to mobilize as they have in the health sphere and apply it to their international investment agreements and policies

In the months since COVID-19 escalated into the international public health crisis that we are now living through, governments around the world have had to take rapid, comprehensive, and costly action. These steps have focused on how to keep the strain on public health systems at manageable levels, facilitate access to essential medicines and technologies, and minimize lost jobs and income, while ensuring that support systems are in place for those jobs and livelihoods affected.

The long-term effects of COVID-19 are too soon to know, and as the virus now takes hold in Latin America and Africa, economies in Europe, Asia, and Oceania are testing out reopening measures and preparing for the likely 'second wave' of infection, which could take place in the last quarter of 2020[1].

Meanwhile, the death toll of COVID continues to rise, with 371,166 lives lost and over six million sickened as of June 1, 2020, according to World Health Organization figures[2]. Along with trying to save lives, governments are also having to strike a delicate and contentious balance between public health and economic health, amid growing concerns that poverty levels and hunger levels will skyrocket in the months and years to come[3].

Governments are therefore enacting stimulus packages aimed at revitalizing their economies, while calibrating their foreign aid initiatives to respond to health and humanitarian needs and much leaner budgets[4]. There is also a growing push from experts, civil society, and many officials to *"build back better"* and use the difficult lessons of COVID to develop more resilient economies[5].

They are also looking to boost trade in goods and services, especially with sectors such as tourism and freight transport overseas hit hard by the lockdowns[6], and taking steps to promote, incentivize, and facilitate investment[7]. Some of the sectors that have seen the largest drops in foreign direct investment flows include energy and aviation, according to UN figures[8].

As these efforts advance, there is another concern that governments may soon face, which could place their economies under even further strain and which would complicate their efforts at undertaking the public interest measures needed to rebuild sustainably and safely. Governments could find themselves grappling with investor-state arbitration claims that challenge their COVID emergency measures, as foreign investors use the dispute settlement mechanism built into many international investment agreements (IIAs) and treaties with investment provisions.

The international economic legal systems and policy frameworks in which we operate have useful flexibilities that have yet to be explored fully, and which can be mobilized to support the COVID recovery

Should this occur, these arbitration cases would exacerbate the challenges that public budgets are already facing due to the need for stimulus measures and the difficulty in collecting government revenue. It could also lead to 'regulatory chill' as governments weigh the need for taking public interest measures against the risk of being brought up in front of an arbitral tribunal to defend them.

Investor-state dispute settlement (ISDS) has long been recognized as a deeply problematic mechanism, spurring calls from multiple quarters for reform over the past several years. The latest figures from the United Nations Conference on Trade and Development (UNCTAD) place the total number of ISDS arbitration cases at over 1,000[9]. Damages awards from these cases are often hefty, with some of the largest awards in the billions of USD. There are also over 3,000 international investment agreements and treaties with investment provisions, many of which have an ISDS mechanism[10].

There are already ongoing processes at the bilateral, regional, and multilateral levels to address ISDS's many procedural and substantive challenges. These include the deliberations at the United Nations Commission on International Trade Law (UNCITRAL) on ISDS reform solutions; the move by some states to renegotiate their older treaties or terminate them; and the efforts some states have taken to develop model treaties that no longer rely on ISDS, as seen in the cases of Brazil's Cooperation and Facilitation Investment Agreements and the country's recent bilateral investment treaty with India[11].

These efforts are important and must continue, but the current COVID landscape requires a more immediate approach. Early data from the International Monetary Fund is already showing that the global economy could shrink by 3 percent this year, which could worsen substantially[12].

The pandemic has severely disrupted global supply chains, hurting workers and consumers, while the World Trade Organization is warning of sharp contractions in trade flows of anywhere between 13 and 32 percent[13]. Concurrently, UNCTAD predicted in late March that flows of foreign direct investment over the 2020-2021 period could drop between 30 to 40 percent[14].

With the global economy heading towards its darkest period in generations, the temptation for investors to take legal action to remedy the losses will be great, even if the costs to governments and their citizens will be far greater.

Learning from past experience, developing a concerted response

This risk may appear hypothetical. Past history has shown, however, that major crises of various forms, ranging from the economic to the humanitarian, have often been followed by ISDS arbitration as foreign investors make the claim that their investments have been unfairly expropriated, or that they have not been subject to *"fair and equitable treatment."*[15]

Moreover, some international law firms have already published guidance on how to approach these cases in the post-COVID landscape, should foreign investors feel that they have been discriminated against relative to their domestic counterparts, or have had their investments expropriated[16].

The prospect of COVID emergency measures being challenged in front of three-person arbitral panels is already expected. The Peruvian government debated whether to move ahead with plans to stop collecting toll fees on its roads during its current state of emergency, with concerns being raised that the move could lead to ISDS claims further down the line[17,18].

Argentina's sovereign debt crisis, which has dominated international headlines in recent weeks, has fuelled concerns from some experts that debt restructuring efforts could end up involving arbitration in front of the World Bank's International Centre for the Settlement of Investment Disputes (ICSID), given similar past experiences[19].

The impact of COVID-19 on the economy, including on foreign investors, is understandably worrisome. In times of crisis, however, there are more productive avenues than resorting to investor-state arbitration. It is also important, in these difficult times, for governments to demonstrate solidarity as they prepare for the long road to COVID recovery, especially during an era that has already seen myriad challenges to multilateralism and international development cooperation.

Indeed, an important example of this solidarity came on Friday May 29, 2020, when the World Health Organization (WHO) and Costa Rica announced the *COVID-19 Technology Access Pool*, bringing together dozens of countries and institutions in an initiative to facilitate technology transfer, share diagnostics and essential medicines, and in other ways take collective action in response to COVID[20].

Their associated 'Solidarity Call to Action' calls for the voluntary pooling of *"knowledge, intellectual property and data necessary for COVID-19"* in order to effectively *"leverage our collective efforts to advance scientific discovery, technology development and broad sharing of the benefits of scientific advancement and its applications based on the right to health."*[21]

This move builds on the important momentum garnered by the World Health Assembly COVID resolution earlier in May, where the WHO's member countries endorsed language on using the intellectual property flexibilities inherent in international trade rules, though with the notable dissociation of the United States from the relevant paragraph on intellectual property rights[22].

These initiatives and pledges are important, both for their practical impact on ensuring health access, but also in reminding us that governments can and should act in concert.

Indeed, there are some efforts underway at the international level among some non-binding forums to agree on steps to address the trade and investment-related difficulties that are arising from COVID-19 and show a united front moving forward.

Trade and investment ministers from the G20, for example, endorsed on May 14, 2020, a document entitled *G20 Actions to Support World Trade and Investment in Response to COVID-19*, which spanned the subjects of trade facilitation and regulation; the need to understand the crisis' impact on micro, small, and medium-sized enterprises; and investment promotion, especially in developing and least developed countries, together with determining where investment is most needed, such as in the health space or 'sustainable agriculture production' and exchanging best practices[23].

While the G20 actions and associated statements are important and outline many promising areas of future cooperation, they also miss an opportunity to address the growing risk of investor-state arbitration targeting COVID-19 emergency measures. There are, understandably, many questions that arise from the idea of suspending the application of ISDS to COVID-related measures. These include the definition of a COVID measure, the length of such a suspension, and the impact of such a move on the perception of a state's business climate, especially in such tenuous economic times.

Another question is how to pursue such an initiative – such as whether negotiating suspensions of ISDS on COVID measures should be conducted bilaterally, or if groups of like-minded states can agree on such an approach together and how[24].

Discussions on these questions, and any others that arise, are important and should be had in order to craft an approach that is appropriate for countries' economic contexts, national development priorities, and legal systems. There is also the risk of ISDS under domestic laws and contracts, which should not be ignored, and which should be considered alongside any suspension of ISDS on COVID measures under investment treaties.

The international economic legal systems and policy frameworks in which we operate have useful flexibilities that have yet to be explored fully, and which can be mobilized to support the COVID recovery, as the health community has already shown.

It is far from perfect, however, and its failings can easily be exploited in times of crisis, unless governments mobilize the same solidarity and goodwill that they have used in the health sphere and apply it to their international investment agreements and policies. ■

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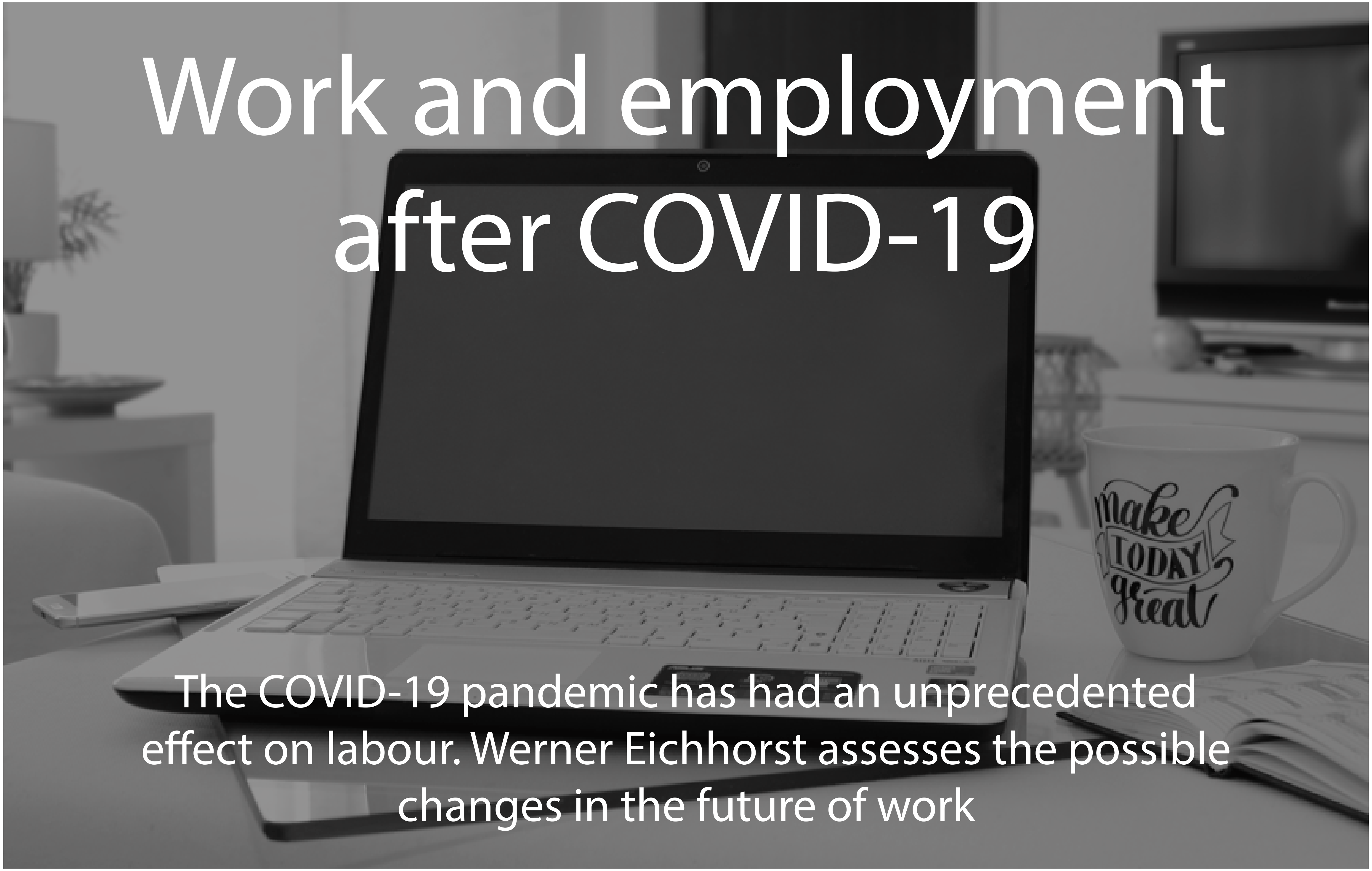
Work and employment after COVID-19

The COVID-19 pandemic has had an unprecedented effect on labour. Werner Eichhorst assesses the possible changes in the future of work



The COVID-19 pandemic is fundamentally altering the functioning of labour markets and individual work environments in an unprecedented and unexpected way, yet some trends of the post COVID-19 world of work might still be familiar to us.

The virus has brought about a temporary disruption of 'business as usual' in many respects, with the phase of acute slowdown during the economic shutdown also triggering speculation about more substantial, structural changes to the world of work.

While some of the early reflections were driven by the exceptional situation and sentiments of spontaneous solidarity, which suggested a fundamentally different world after the crisis, the more medium- and long-term developments will likely look different – not just from the situation in 2019, but also from the speculations during the crisis situation.

To understand these developments, we need to assess to what extent COVID-19 entails an acceleration of the changes that were already occurring before the crisis, and to what extent we can expect a break with some past paths of economic and societal development.

There is reason to assume that not all will stay as it has been during the acute phase of the crisis, nor will we see a return to the pre-COVID-2019 situation. Rather, what we can expect is a mixture of transitory and more permanent changes.

First, in terms of the bigger picture, we are already now starting to observe changes in employment, in particular a sudden and in some cases unprecedented decline in the number of jobs and hours worked in sectors and occupations directly affected by the lockdown and the temporary disruption of global value chains.

But this is not the end of it. We can expect further changes in labour markets in response to economic uncertainty, despite very strong governmental interventions targeted at firm liquidity and job stabilization, and in particular due to changing consumer and firm behaviour.

In some sectors, we observe a massive decline in business and consumer demand, quite in contrast to the spectacular long-term growth in the past. Among the hardest hit sectors is tourism, both long distance and regional, which includes hotels, restaurants, travel agencies, airlines and the like, as well as the leisure sector, events and entertainment, but also conferences and business fairs.

If there is a good thing for the world of work to come out of the crisis, it is the creativity it has unleashed to reconcile flexibility and productivity

Some return to a 'new normal' can be expected for local restaurants and more regional tourism, perhaps also for larger events and fairs at a later stage. However, the recent experiences with digital communication and collaboration technologies in professional environments might imply a more long-term decline of business travel, in particular over long distances, as well as a structural decline in private flights, particularly transcontinental, as this will likely become more expensive and cumbersome.

For these sectors, which have benefited from increasing demand over a long period of time, this comes as an unexpected, structural shock. Less travel also calls for innovative ways to arrange in-person meetings, which may become fewer and smaller, but with a different quality. This may lead to a new appreciation of non-digital interaction and services that are complementary to digital channels of communication.

With respect to leisure travel, regional travel destinations might benefit, as can already be seen in current summer vacation plans after the phasing-out of lockdown measures in many countries.

Digital technologies are also likely to influence commerce, with local retail getting more involved in delivery services in order not to lose out against pure e-commerce. Since physical distancing may continue to be required to some extent in the foreseeable future, digital technologies will also become integrated more systematically in health care and education.

In terms of speed of adoption and intensity of use, digital technology will be on the rise above pre-crisis paths. For example, video-based consultations with general practitioners, or electronic prescriptions, as well as e-learning or blended learning formats at schools, universities and in the adult learning sector will become standard features in the post COVID-19 'new normal'.

Although there has been much debate about a potential reshoring of manufacturing jobs in response to the apparent vulnerability of global value chains due to the pandemic (and persistent trade conflicts), we are not likely to see a significant growth of manufacturing jobs in the OECD countries. The potential revival of manufacturing will rather be characterized by a higher level of automation.

A changing sectoral composition, but also changing job requirements within sectors, means that some skills will become obsolete, potentially faster than without the crisis. People employed in the heavily affected sectors will be most vulnerable to joblessness, especially those with less stable contracts, such as on-call or freelance workers.

Thus, apart from income support, skill updating and skill upgrading with the help of new digital formats must become top priorities not just for policymakers, but also for firms and individuals. Given the often fragmented systems of continued education with unequal access to relevant and suitable learning formats, making them more accessible and universal will be one of the main challenges at different levels of policy design and implementation beyond the acute crisis intervention.

The COVID-19 pandemic does not only affect the external labour market and bring about restructuring of employment, it also affects the way we work in the context of firms. Telework was one major instrument that firms and workers were able to use, and in fact were forced to use, in order to ensure business continuity in jobs that technically allow working from a distance, ie. in jobs that do not require partial or full physical presence to attend machines or customers.

The share of teleworkers increased significantly, to one-fourth or even one-third of the workforce in most developed countries during the acute phase of the pandemic, which brought the actual use of telework more in line with the potential extent of telework based on job characteristics.

In some cases this meant more intensive use of telework by those who already had some experience with it, while in other cases work was shifted to private homes without prior experience or negotiations. In the latter case, employers, superiors and workers were forced to gain experience with work from home and management via digital tools.

In fact, the pandemic forced reluctant employers (and employees alike) to adopt a more permissive and pragmatic attitude to telework. This triggered learning processes on both sides, in terms of resolving technical issues and handling the practical side of setting up a workable environment and time schedule with limited disruptions by daily chores or childcare and homeschooling obligations during kindergarten and school closures.

This was a particularly stressful situation for many parents. But with some hindsight, we will see more clearly that telecommuting can really work even when it had to be introduced without much preparation, but that it depends on certain rules.

For the future, this means that the explicit or implicit expectation of being present full-time at the workplace will be eroding further for those working in jobs that allow for locational flexibility. All this will have a more long-lasting effect on the way we work in knowledge-based jobs (or tasks) that can basically be done anywhere.

A full shift to telecommuting, however, does not seem to be the preferred alternative by firms and workers except for specific constellations. For the majority of workers and firms, this does not seem to be attractive and effective due to a lack of informal and personal interaction and visibility and the diverse personal environments that might make it hard to work effectively from home.

In fact, a return to the office might be attractive to workers that had a stressful experience during the lockdown phase as they were lacking a professional work environment. Moreover, the commuting time should not just be perceived as a burden, but also as an opportunity to 'sort and digest' work-related issues or unwind when returning from work.

Combining the advantages of telework with the positive aspects of work at the office by way of part-time commuting and part-time telecommuting will likely lead to a multitude of flexible arrangements, allowing for part-time absence and part-time presence based on agreements between firms and workers or within teams. These can take many different forms, also depending on individual preferences and private circumstances.

In a manner of speaking, voluntary choice will matter more as presence at the office will be required to a lesser extent, or less regularly, and not from everyone at the same time.

This also entails reconsidering and reorganizing jobs in order to identify tasks that can be performed via telecommuting when supported with appropriate investment in digital technologies. At the same time, this will have consequences for office settings on firms' premises as work schedules characterized by physical absence and presence will evolve further.

In the medium and long run, we can expect fewer available office workplaces, a move away from large-scale office spaces towards flexible and reduced capacities at offices, with more emphasis on physical distance, but still allowing for meetings and unplanned, spontaneous interaction.

Management styles are changing as well. Both workers and superiors are learning quickly how best to deal with new ways to communicate using digital technologies. After the return from dominant telecommuting, this may well translate into new ways to have productive face-to-face meetings. During the acute phase it has become clear that trust and consistent personal communication, also addressing the private situation at home, are more important than directly visible work processes and micro-management.

These principles are also highly useful when it comes to a partial return to the office. From the perspective of individuals, irrespective of hierarchical position, it is essential to have, on the one hand, a clear understanding of tasks and time to work with colleagues and engage in informal and unplanned communication.

On the other hand, it is equally important for productive work at home and at the office to be able to concentrate on specific tasks and have arrangements for times during which one does not need to be available.

In this respect, work at home will become more like work at the office and vice versa, leading to some convergence of the two, with options to choose where and when to work. This is certainly more productive and satisfying than strict temporal and locational constraints. If there is a good thing for the world of work to come out of the crisis, it is the creativity it has unleashed to reconcile flexibility and productivity. ■

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Digital connectivity in the Bay of Bengal

BIMSTEC members comprises some of the fastest-growing global economies. Bipul Chatterjee and Sidharth Narayan consider the Indian perspective to the region

India suffers from low levels of connectivity and cooperation with its neighbours. South Asia is amongst the least connected regions[1]. Low intra-regional trade is testament to this. A World Bank report (2014) estimated it to be five per cent of South Asia's total trade, as compared to 50 per cent in East Asia and 22 per cent in Sub-Saharan Africa[2].

From an Indian perspective, in 2018 the country's regional trade stood at US$19.1 billion, which was a mere three per cent of its global trade. There is potential to increase this (India's regional trade in South Asia by another US$43 billion[3].

However, given India's relationship with Pakistan, coupled with the lack of progress of the South Asian Association for Regional Cooperation (SAARC, established in 1985), India is now looking to the Bay of Bengal region for regional cooperation through the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)[4].

India's non-participation in China's Belt and Road Initiative has made BIMSTEC even more important for the country, for strengthening its own economic and strategic ties in South and Southeast Asia[5]. Notably, such cooperation also forms an integral part of its Act East Policy (erstwhile Look East Policy), which seeks to focus on commerce and connectivity in the region[6].

As a trade bloc, BIMSTEC comprises some of the fastest growing economies of the world, with intra-regional trade amongst the members touching six per cent in just about a decade of its formation[7].

Focus on information & communication technology

Formed in 1997, BIMSTEC focuses on technical and economic cooperation, including in the field of technology, which is led by Sri Lanka. Table 1 traces the history of intended cooperation between the member countries in this realm[8].

Such cooperation is also likely to spur a regional digital economy, which holds immense potential for growth in the Asia-Pacific region. Southeast Asia's digital economy alone poised to cross US$200 billion by 2025[9].

Accordingly, BIMSTEC also needs to capitalise on the current and future digital boom, and strive to enhance cooperation in the field of ICT. The importance of digital technology in trade has been mentioned below[10]:

... cooperation is also likely to spur a regional digital economy, which holds immense potential for growth in the Asia-Pacific region

Table 1. History of cooperation

Year	Meetings/Summits	Proposals
2006	Eleventh Senior Officials Meeting, Sri Lanka.	Proposal to establish a BIMSTEC Technology Transfer Exchange in Sri Lanka.
2006	Ninth Ministerial Meeting.	Recognised need to enhance cooperation in advanced areas of fundamental scientific research; exchange of expertise in software and hardware development; joint R&D in this field; technology transfer and exchange of experience on Geographical Information System (GIS)
2008	Second BIMSTEC Summit, New Delhi, India.	Decision to establish a BIMSTEC Technology Transfer Facility in Sri Lanka.
2014	Third BIMSTEC Summit.	Enhance cooperation in expanding skill and technology base of member countries through partnerships targeted towards Micro, Small and Medium scale Enterprises (MSMEs). Decision to accelerate efforts for the finalisation of Memorandum of Association on the Establishment of BIMSTEC Technology Transfer Facility.
2016	BIMSTEC Retreat, Goa, India.	Emphasis on the establishment of BIMSTEC Technology Transfer Facility in Sri Lanka.
2017	The Fourth Meeting of the BIMSTEC Expert Group on the Establishment of BIMSTEC Technology Transfer Facility.	Finalised the draft text of the Memorandum of Association (MoA) of the BIMSTEC Technology Transfer Facility. Also, prepared the proposed budget for the facility for submission to the Nineteenth Session of the BIMSTEC Senior Officials' Meeting.

- Enable participation of businesses across borders to create and participate in Regional Value Chains (RVCs) and Global Value Chains (GVCs) in a digital economy;

- Strengthen and encourage the use of e-commerce platforms or digital marketplaces, for cross-border trade;

- Enhance efficiency, productivity and innovation of businesses in member countries;

- Overcome deficient trade due by overcoming barriers of inaccessible markets, and inefficient logistics[11];

- Complements physical connectivity, thereby enhancing regional integration, ie. it has potential to compliment India's land and maritime connectivity;

- BIMSTEC nations share similar socio-economic and digital connectivity conditions, as elaborated in Annexure - A;

- Technological collaboration will also bolster people-to-people connect in the region.

India's emphasis on digital connectivity

Recognising such potential of regional cooperation on digital technology, India is committed to enhance its digital connectivity with its immediate and distant neighbours, through its *Neighbourhood First* Policy. A few notable initiatives in this regard are mentioned below:

- Indian Space Research Organisation's (ISRO) GSAT-9 communications satellite, (also called South Asia Satellite), was launched in 2017 to provide benefits of resource mapping, distance education, telemedicine, weather forecast and natural disasters warning systems, to Bhutan, Afghanistan, Bangladesh, Maldives, Nepal and Sri Lanka. Thimphu Ground Station in Bhutan has been set up for the same[12].

- Land locked by five neighbouring countries – Bhutan, Nepal, Bangladesh, Myanmar and China, North-East India was dependent on the Guwahati-Kolkata-Chennai optic fibre cable route for its internet.

  However, the region got its own International Internet Gateway (IIG) in Agartala in 2016, which is connected terrestrially with Bangladesh's Cox's Bazar submarine cable station. Bangladesh Submarine Cable Company Ltd (BSCCL) has been exporting 10Gbps of internet bandwidth it.

  One of the recommended solutions to overcome the technical deficiencies and for the optimal utilisation of the Agartala IIG is to set up a Gateway GPRS Support Node (GGSN)[13] at a cost of Rs 300 crore[14]. However, due to technical deficiencies, only 60 percent of the available bandwidth is being utilised, despite there being additional demand[15].

  Notably, Bangladesh is going to be getting its third international submarine cable soon[16], which provides further opportunity for collaboration between the two countries.

- In order to boost its digital connectivity, India is striving for installing a regional high-capacity fibre-optic network, with ASEAN countries. India also aims to strengthen domestic digital connectivity of Myanmar (also a BIMSTEC member) and of other countries in the region, such as Cambodia, Vietnam and Laos[17].

The way forward

It is an imperative for BIMSTEC members to expand their intra-regional digital connectivity and to expand digital economy of the bloc. This can be done through in following manner:

- Ensure effective and timely implementation of the initiatives as discussed above. More such initiatives for strengthening digital connectivity may be identified and implemented. Given in the box story below is an example of the same.

Enhancing mobile connectivity in India-Nepal border
Many villages adjoining the Indo-Nepal border have been relying on expensive satellite phones for mobile connectivity, or on Nepalese telecom companies. Not only civilians, but security forces are also unable to get access to crucial mobile connectivity in the sensitive bordering areas. Signals are either weaker or completely unavailable in select areas[18]. Mobile towers erected in the region suffer from marred effectiveness and utility due to the mountainous terrain. India and Nepal may cooperate with each other for installing technically feasible towers and strengthening digital connectivity in the region.

- Sign a comprehensive Agreement on Digital Connectivity for enabling a framework on relevant aspects of digital economy at a regional level. These may relate to sectors such as: finance, insurance, health care, education, governance, and retail.

  Such an FTA would also act as a template for other areas of cooperation. India is already implementing digital connectivity initiatives in Africa, such as the e-VidyaBharati (pertaining to tele-education) and e-ArogyaBharati (pertaining to tele-medicine). Similar such initiatives are required to be undertaken with

BIMSTEC members as well[19]. A possible such area of cooperation pertains to setting-up data centres in India, which has been captured in the box story below.

Enhancing India's data centre (DC) capabilities for the BIMSTEC members
India is one of the global leaders in the ICT/IT-BPM sector. Industry experts believe that India provides a strategic location in the context of setting up DCs from the point of view of catering to the needs of its smaller neighbours such as Bhutan, Bangladesh, Nepal and Sri Lanka. These other country's data may also be stored in DCs located in India, considering their increasing need for data processing, data storage and co-location services. This would not only reap trade benefits, but also strengthen digital cooperation in the BIMSTEC region, and bring in international diplomatic advantages[20]. Notably, this is also coherent with India's proposal to roll-out a policy for building data centres in the country[21].

- India may leverage its membership with the 'Quad'[22] in the Indian and Pacific oceans, and use the technological expertise of other member countries for technology transfers/imports, building capacity on technical knowhow, enhancing innovation and R&D, and skill development for BIMSTEC countries. A noteworthy area in this regard, would be on cyber security, as given in the box story below.

Cyber security in the BIMSTEC region

In the wake of enhanced cyber security risks, countries have moved to engage with each other on forming a consensus amongst them to enhance their cyber defence to counter both internal, as well as external threats. China has been making technological investments in various Central and Southeast Asian countries, which helps it to enhance its regional power and also shape the region's cyber security policies and practices. Countering the same may be of interest to Quad members, considering today's geo-political scenario.

The ever-increasing uptake of digital technologies by Asian populations, the recent cyber-attacks witnessed by some BIMSTEC countries, and the looming threat of the Beijing Cyber-consensus[23], may prompt enhanced cooperation between Quad and BIMSTEC.

Action may be taken to train cyber security personnel in India, the requirement for which stands at a whopping 30 lacs against a current supply of mere 1 lac[24]. Japan has already expressed its interest in cooperating with India in this regard. The exchange of Information Technology (IT) personnel between the two countries, along with cooperation in incubating start-ups in the field of cyber security needs to be soldered with financial and technical assistance flowing from Japan to India[25], for the larger benefit on BIMSTEC.

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Annexure - A: a snapshot of digital developments of BIMSTEC countries[26]

	Bangladesh	Bhutan	India	Nepal	Myanmar	Thailand	Sri Lanka
GDP per capita (in US$) in 2018	1203.22	3128.00	2100.80	817.45	1571.91	6361.62	3936.45
Mobile cellular subscriptions (per 100 people) in 2018	100.24	93.26	86.94	139.45	113.84	180.18	142.65
Fixed broadband subscriptions (per 100 people) in 2018	6.34	1.43	1.34	2.82	0.24	13.24	7.27
Fixed telephone subscriptions (per 100 people) in 2018	0.90	2.92	1.62	2.85	0.97	4.22	11.65
Internet penetration (% of population) in 2020	58.4	51.5	40.6	55.6	40.8	81.7	33.5

Endnotes

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A new world order?

COVID-19 has exposed global fault lines. Nirupama Soundararajan and Arindam Goswami say it is now the time for India to react economically

The world has changed. The COVID-19 pandemic has unleashed a socio-economic crisis across the globe. Underlying fault lines in economies have been laid bare, and like never before, the robustness and weaknesses of healthcare infrastructure and resources have come to the fore.

Many countries have been forced to re-evaluate their budget spends and their trade strategies. The focus of global trade has shifted from the usual basket of goods and services to pharma and medical products, and counterbalancing the impact of disruptions in global value chains.

The immediate priority of every country has been to brace itself against the impending financial and economic maelstrom that seems to be just around the corner. Countries have been quick to announce economic stimulus and recovery measures as counter measures and provide the much needed relief for affected industries and livelihoods.

Elgin *et al* (2020)[1] have compared the stimulus package developed by different economies on the basis of several parameters, such as, fiscal policy package as a percentage of GDP, interest rate cut as a percentage of pre COVID-19, and monetary stimulus package as a percent of GDP. The United States of America leads the way in monetary terms even though Japan has the largest stimulus package as a percentage of GDP.

While the USA's financial stimulus of USD 2.7 trillion is almost 13.3 per cent of its GDP, Japan's stimulus package worth USD 1.1 trillion is a little above 21 per cent of its GDP. A few of the other major economic stimuli that have been announced are by Sweden (12 per cent of GDP), Australia (10.8 per cent), Germany (10.7 per cent), India (10 per cent), Spain (7.3 per cent), Italy (5.7 per cent), People's Republic of China (PRC) (3.8 per cent), and South Korea (2.2 per cent of its GDP).

However, all these are immediate strategies; any medium to long term strategy would necessarily involve redefining the role of China in their respective domestic economies.

Even before COVID-19, the USA and China trade war had begun. By the time China had locked down Wuhan, global supply chains were already disrupted, causing both scarcity and delays in manufacturing. The current crisis at hand showcased how dependent the world and global supply chains were on China, but the alleged PRC-WHO cover up of COVID-19 and China ostensibly profiteering from the pandemic have not gone down well with many countries, and this has had a direct impact on both trade and geopolitics.

The pressure is on India to react not just politically and militarily to China's role in COVID-19 and to the recent problems at the border, but also to react economically

The USA has delisted Chinese stocks on American bourses and limited flow of their capital into Chinese stocks, initiated action to cut down foreign direct investments (FDI) in PRC, and launched a war against Chinese outward foreign direct investments[2].

Similarly, Japan's Prime Minister Shinzō Abe announced at the 36th *Council on Investments for the Future* at the Prime Minister's Office that Japan will be shifting production bases of high added value products out of the PRC to its home soil[3]. Prime Minister Abe further stated that Japan will also reduce its dependence on China and expand its production bases elsewhere, especially the ASEAN region, for products not falling under the high value product category.

Trade has been affected between China and Australia too, due to Australia's repeated demand for an independent investigation of the source of COVID-19. This has led to China increasing tariff on barley being imported from Australia and banning the import of beef from certain meat plants in Australia. If media reports are to be believed, China is further contemplating targeting other products which are imported from Australia.

Recently, the European Union, known to be one of the largest and long-standing trade partners of China, has initiated several measures to protect local players from possible merger and acquisition by foreign companies[4].

Although, this move is not specifically directed towards China, it came in the light of several businesses overseas being acquired by investments backed by China. The EU has also recently signed the EU-Vietnam Trade Agreement indicating the formers intention of diversifying their supply chain and reducing their dependence on China.

The United Kingdom for its part has reversed its earlier stance of offering a thirty-five per cent stake to Huawei in building their 5G infrastructure and is now contemplating reducing it to zero. Additionally, the UK Government has notified the National Cyber Security Centre to review of *"…the impact of allowing Huawei telecoms equipment to be used in British 5G networks."*[5]

Media reports even suggested that UK has approached the USA with a plan to create a *"D10 club"* of ten democracies which includes South Korea, Australia and India, to lessen its dependence on China for creating an alternative chain of suppliers to deliver equipment for 5G technology[6].

A rather palpable sense of angst against the PRC has led to the exit of foreign investors from Chinese soil. Countries are certainly rethinking their supply chains and their dependence on China. This has also meant that a renewed opportunity arises for countries such as Vietnam, Thailand, Taiwan, and India who have been at the forefront in trying to lure these exiting investors with tailor-made policies and the easing of regulations in their respective countries.

During the US-China trade war India did try to attract many businesses exiting China, but with only limited success. This time, India has acted faster and with a more cogent plan. To begin with, the Minister for Commerce and Industry of India, Piyush Goyal, has called upon the Indian Missions abroad to play a more active role in creating export opportunities for domestic players in their countries and highlight India as an active investment destination among foreign investors[7].

They have been further tasked to reach out to heads of foreign companies to take feedback from them which will enable the government to create customised investment policies to attract these companies to set up shops on Indian soil.

Indian state governments are also doing their bit to make their respective states attractive for new investments. Uttar Pradesh became one of the first states to take the lead by conducting video conferencing with a large number of foreign investors, including Japan and the European Business Group Federation, to pull in investors. They highlighted the construction of the Jewar International Airport, expressway projects focused on developing road connectivity, upcoming Defence Park and its proximity to Delhi[8].

The state has also enacted major labour reforms, which had been pending for a while, to provide a stable business environment. Madhya Pradesh, Maharashtra, Gujarat, Rajasthan, Punjab and Himachal Pradesh followed. States are also proactively working towards easing land acquisition, offering competitive rates on electricity, providing tax breaks, and creating single window clearance and approval systems.

While the immediate impact of these changes may not be staggering, it has managed to attract Von Wellex, a premium German footwear brand, and Apple, who has announced its intention of setting up a manufacturing unit in India.

However, for India rethinking her dependence on China is no longer about just COVID-19 or disruptions in supply chains. The recent escalations at the India-China border have altered the two countries' geopolitical relationship. An escalation of this extent that saw casualties on both sides has not happened for many years.

In fact, until recently India and China have been working towards greater cooperation. In trade terms between India and China, India is a net importer. The only commodity in the top ten that India exports to China is organic chemicals. India exported 23.78 per cent of total export of organic chemicals to China.

However, organic chemicals only form 2.67 per cent of India's total export basket. On the other hand, India imports significantly from China. These are mainly petroleum products, iron ore, organic chemicals, electronic components, telecom instruments, iron and steel, and industrial machinery.

In light of recent tensions, the clarion call to reduce India's dependence on China is loud and clear. India must reduce her dependence on China on imports. Geopolitics today is more about economic warfare than conventional warfare. Crippling a country economically is much easier than through military power.

India's dependence on China does not stem from incapability, but from cost. Low cost imports from China have helped reduce cost of manufacturing for India. China undeniably has the price advantage over India and as a result products that can just as easily be manufactured in India are being imported instead. Some classic examples are fireworks, incense sticks, toys, and needles.

India will also have to consider imports from China that enter indirectly. Even if dumping duties are applied to select products from China, they find their way into India's market through other Asian countries. India has to consider all these factors while reconsidering her trade strategy with China.

The task at hand is not impossible. One of the sectors where Indian manufacturing has outshined China's, not just in terms of quality but also market share and market presence, has been in the two-wheeler segment. India's top three two-wheeler companies, Bajaj, TVS and Hero, have managed to steadily oust Chinese competition from India at one point, but also in Africa.

In a similar manner, the Indian pharma sector has also built both capability, scale, and cost competitiveness, which opens up many markets, especially in a post COVID-19 world. Even as countries scramble to work on a vaccine for

COVID-19, the key element is to be able to manufacture volumes for the world that is affordable, and India is poised to assume this responsibility.

One scenario of the past that India should study is how her economy coped post Pokhran II sanctions, which was one of India's most challenging times. The nuclear tests in Pokhran in 1998 were considered as a defiance to the nuclear proliferation initiatives by the USA. While *"the Buddha smiled"* on India, many countries were simply not amused!

Leading the pack of countries imposing sanctions was the USA, who evoked the Glenn Amendment and imposed a whole series of sanctions on India in the form of withdrawing aid, blocking access to credit, ending all defence deals, and expressing objections to any kind of financial assistance that would be provided by multilateral organisations[9].

Morrow and Carriere (1999)[10], on analysing the impact of the sanctions on the Indian economy, concluded that, *"… sanctions had a marginal—but not negligible—effect on the nation's economy."* An investigation conducted by the US International Trade Commission (1999, Investigation Number – 332-406)[11] came to a similar conclusion.

They computed that the total cost of sanctions on India was USD 1.5 billion, while the cost to the USA was USD 161 million and *"…increasing perception of US companies as unreliable suppliers."*[12] There are two potential learnings for India.

The pressure is on India to react not just politically and militarily to China's role in COVID-19 and to the recent problems at the border, but also to react economically. Domestic demands have been to reduce, if not completely stop, Chinese investments in Indian companies and re-assessing existing investments, to alter the terms of trade including a ban on imports from China, and to re-evaluate various bilateral treaties India has with many countries to review any indirect imports from China.

The hope is that these initiatives will drive up manufacturing in India, a core priority of the incumbent government's *Make in India* initiative. The government's own e-marketplace, GEM, has already made it mandatory for their vendors to state the origins of the product, ostensibly to track the kind and volumes of imports from China in terms of both final products and components. It is expected that this may be extended to all other forms of retail in India.

There is much debate on how India must react economically vis-à-vis China. India's micro, small and medium enterprises are already worried about how any ban on imports will affect their production lines and drive up costs. There is also concern over whether India can build scale in production for certain commodities that have not quite been part of India's production basket. This is where India's two potential learnings from the US sanctions could come in useful.

India imposing any kind of restriction in part or whole on Chinese imports and/or investments almost tantamount to self-imposed sanctions. As harsh as the phrase may sound, the first lesson for India is that this may not be as bad as perceived, if one goes by how easily India was able to do post the US sanctions.

The second lesson, and a far more important one, is to realise why India was only marginally impacted. One of the reasons why India was able to weather the severe sanctions was its strong services sector[13]. The late 90s and early 2000 was the golden age for information technology in India, which saw the rise of the Indian IT industry. Several Indian IT companies such as Wipro, HCL, TCS was were leading suppliers of software and tech support to major international companies, including ones in USA, with a rapid growth in their operation. Even leading tech companies in the US were supported by emigrant engineers from India.

Moreover, cheap labour and a large English-speaking population resulted in India becoming a major hub for the services industry, especially BPOs, KPOs and backend operations of major American and European companies. Most importantly, the USA and its allies had deprived themselves of a large consumer market and therefore lost precious market share to their Asian competitors.

Lesson two for India is that she needs, this time, not one, but a couple of champion sectors in which she can stand her own and contribute more than China to the globe.

Other factors that India has to keep in mind while reconsidering her economic relationship with China is not just the quantum of restrictions, but also for how long these can be imposed. The two aforementioned studies that analysed the impact of American sanctions on India also noted that they probably didn't have a huge impact as expected because they were only implemented for a relatively short duration.

Good foreign policy and geopolitics mandates that India does reduce her dependence on China. However, any move to this effect will have to be carefully calibrated and well executed, while being fully aware and prepared of the consequences for the Indian economy.

Anything short of that will end up being as much as an embarrassment as the Glenn Amendment sanctions were for the USA, since it didn't quite result in the expected outcome, which was for India to feel the heat. India must resist knee-jerk policy reactions and take the time to react wisely rather than brusquely. ■

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Sustainable finance in the COVID-19 era

The current crisis has given a reminder about the need to strengthen our societies. Cosmina Amariei argues that sustainability will remain an enduring policy in the (post) COVID-19 era

Context

The spread of the COVID-19 virus brought the European economy to a standstill and heightened market volatility. This unprecedented shock has been hitting certain sectors hard and exacerbating the vulnerabilities of many governments, businesses and households.

Most exit strategies are gradual and informed by the evolving public health situation in the member states. Fiscal and monetary stimulus packages are being rolled out in an effort to attenuate the negative consequences. Prudential buffers have been lowered in order to allow the financial sector to channel funds to corporates.

Even though markets have witnessed a remarkable rebound, supervisors warn against the potential decoupling from the real economy. There are also concerns that financial insecurity among individuals will become more widespread, with an impact on their saving, consumption and investment decisions.

Market developments

Asset owners and asset managers will continue to face a lower-for-longer yield environment, with positive returns harder to generate especially in the fixed income space.

In the initial phase, repositioning took place through defensive strategies in equities (high quality, low volatility, momentum), with targeted environmental, social and governance (ESG) factors, in addition to investment-grade credit/government bonds and cash/liquid buffers.

The main objective was protecting investment capital from any permanent loss. Many investors also stayed the course and did not make drastic changes.

In the near future it is expected to go beyond traditional asset classes, with an increasing demand for alternatives/real assets, as well as to rethink the mix of alpha-seeking, index- and factor-based strategies. A total portfolio approach organised around risk and return streams could become the norm, in comparison with the classical segmentation of the investment universe by asset classes, regions or sectors.

The corporate landscape is likely to change. While many companies will remain in survival mode, certain sectors/companies deemed strategic could benefit from public assistance. For many small and medium-sized enterprises (SMEs), capital markets are still not an actual option and they will rely on other financing mechanisms.

Sustainability will remain an enduring policy and market theme in the (post) COVID-19 era

This crisis will trigger more downgrades, a possible surge in bankruptcies and a wave of industry consolidation. Hence, a common thread among investors will be the focus on strong fundamentals (P/B rather than P/E ratios[1]), namely companies with sound balance sheets, resilient business models and sectors with high intangible assets intensity.

But opportunities could emerge for otherwise stressed corporates, with upside potential from a resumption in activity combined with policy/financial support.

Despite a rapidly evolving situation, some investors were still able to separate temporary shifts from structural changes in the markets and maintained (or even accelerated) their ESG commitments, namely 'not only talk the talk but walk the walk'.

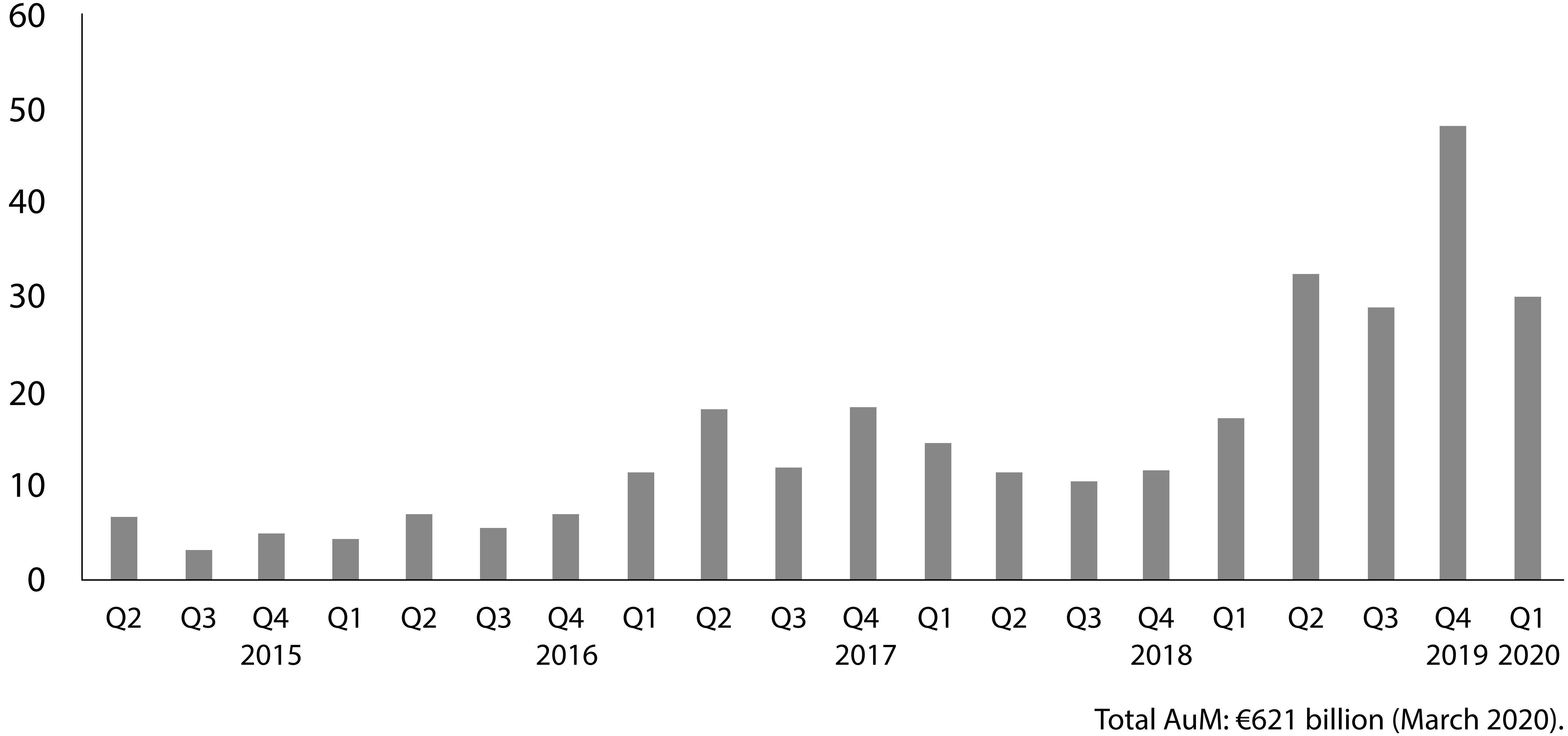
Multiple industry reports highlighted that the majority of sustainable funds and indices outperformed their mainstream counterparts in the first quarter of 2020. The ESG component was the strongest contributor to the performance even after correcting for other variables.

In practice, highly rated ESG companies tend to be less cyclical. In addition, the inflows into sustainable funds remained strong (see Figure 1), compared to outflows from conventional funds. This confirms that certain sustainable strategies could offer better risk-adjusted returns and improve portfolio resilience.

Environmental, Social and Governance

In the midst of the pandemic, an important question emerged: Is there any apparent trade-off between crisis management measures and pursuing the sustainable finance agenda? Many stakeholders argued for the European

Figure 1. Quarterly European sustainable fund flows (€ billion)



Source: Morningstar Direct, Manager Research.

Green Deal to remain central for a robust recovery and growth in the EU, and this was recently reinforced in the Commission's Communication on *Europe's moment: Repair and Prepare for the Next Generation*.

In order to meet the 2030 climate and environmental targets, around €470 billion additional annual investments are needed (see Figure 2). As initially announced, the European Green Deal Investment Plan aims to mobilise at least €1 trillion in public and private funds for achieving climate neutrality by 2050.

At present, many bottlenecks actually lie in the unsatisfactory pipeline of sustainable projects/assets across the EU. Nonetheless, this should actually be seen as an opportunity to build competitive advantage in new industries, taking into account future trajectories and needs.

Figure 2. Overview of investment gaps (€ billion, per year)

Green transition	470
Climate mitigation and energy 2030 targets	340
Wider environmental objectives, beyond climate	130
Digital transformation	125
Strategic investment (for EU autonomy on critical value chains)	20
Social infrastructure	192

Source: European Commission, SWD (2020) 98 final, Brussels.

Beyond that, it has to be acknowledged that the larger challenge is the investment case in relevant sectors. Some companies cannot economically justify 'radical' green investments. The financing of the 'pure' green players is imperative but not sufficient.

Inflows into climate-related investment funds could play a greater role in targeting solutions that are not yet competitive. Climate stewardship by asset managers[2] should be oriented towards clear outcomes, and institutional investors[3] with a long-term outlook, for example insurance companies and pension funds, could use their track record when delegating external mandates.

In the longer run, most corporates will have to demonstrate a clear pathway in terms of capital investments, operational expenditures, revenue generation and low-carbon solutions for end-consumers. If the externalities of their economic activities are not adequately priced in, or in the absence of adequate economic incentives, sustainable investments may not reach the desired levels.

A recovery in the green context could lay the groundwork for more issuance of green bonds, supported by an EU standard and an accreditation/supervision regime for external verifiers. Moreover, equity markets could be the 'perfect' candidate for supporting the transition to carbon neutrality, in particular by stimulating innovation and skills upgrades that lead to the adoption of greener technologies, with shorter payback periods.

More broadly, understanding the impact of ESG factors on corporate performance, and consequently portfolio construction, security selection and risk management, is essential. The Social and Governance dimensions will be brought to the forefront, in particular impact on employees, customers, supply chains and local communities but also scrutiny over dividends, share buybacks, executive remuneration and investors' engagement.

To ensure environmental and social interests are fully embedded into business strategies, a new initiative on sustainable corporate governance was announced by the Commission for 2021; this should also account for the diversity in ownership and control structures across the EU.

This crisis could mark a turning point for social bonds. The current outstanding amounts (with proceeds invested in healthcare, housing, education and entrepreneurship) is small but growing. Still, much like greenwashing, the risk of social/governance washing must be avoided by expanding the EU taxonomy, especially if there are 'strings attached' to public support.

When it comes to ESG ratings/scores, investors report divergence across providers and advocate an overhaul of the practices. In addition, trading venues refer to expanding their capacity in tracking ESG metrics.

Corporates, investors & supervisors

Corporate disclosure is a fundamental bedrock for sustainable finance. Establishing standards for non-financial information at the EU level (mandatory or voluntary) is the way forward in order to achieve greater consistency, comparability and reliability.

The scope of companies to be covered is another central aspect. Once a certain level of maturity has been achieved, the Commission should consider creating a public centralised database at the EU level, with both financial and non-financial information, linked to a unique identifier for the reporting entity.

At present, large companies tend to report more comprehensively on ESG factors and dominate investors' portfolios compared with SMEs, for which such a regime should be adequately calibrated. Failure by SMEs to provide non-financial information may have a negative impact on their business opportunities as suppliers to large companies, or limit their ability to benefit from private capital for certain green or innovative projects.

Nonetheless, raising the bar for disclosure for smaller, non-listed companies – with a focus on double materiality and third-party assurance – may politically be a 'hard sell' under the current economic circumstances.

Transparency, proportionality, aligned incentives between corporates and investors, and ultimately performance will contribute to mainstreaming sustainability. Financial advisers, asset managers and institutional investors have a fiduciary duty to act in the best interest of their clients/end-beneficiaries, and therefore should be equipped to seize the investment opportunities and manage the risks arising from ESG factors.

More specifically on retail investors[4], further analysis on (and detailed guidance on how to cope with) the potential variation in investment preferences will be needed, namely standardisation vs. customisation of products/solutions. This comes on top of already well-known problems, such as unbalanced asset allocation, biased advice and closed distribution channels.

The EU ecolabel criteria for financial products should be ambitious enough but at the time not stifle market adoption. For institutional investors, COVID-19 could accelerate interest in mandates aligned with the Sustainable Development Goals (SDGs). And again, robust data on the universe of investments is key for portfolio-level analysis and double-materiality assessments.

ESG risks are characterised by deep uncertainty, non-linearity and endogeneity. Pricing them requires moving from backward- to forward-looking approaches, for example through scenario analysis. Climate-related stress testing is still at a nascent stage (with a few exceptions) for the industry and supervisors, with many identifying challenges related to firm-specific data availability, methodological difficulties and insufficient mapping of transmission channels.

In addition to adapting/upgrading their sectoral reviews, the European Supervisory Authorities (ESAs) could provide comprehensive technical advice. It is essential to accelerate the efforts on monitoring interconnected exposures to stranded assets and any emerging risk differential.

The use of prudential regulation ('green supporting factor' or 'brown penalising factor') should be exercised with great caution and be evidence-driven. Similarly, other sectoral policies, such as adequate carbon pricing, subsidies and tax incentives linked to taxonomy-eligible activities, should be more carefully re-examined.

Outside of the supervisory dimension, representatives from the ECB alluded to the impact of climate-related risks on monetary policy, and how to potentially integrate these parameters in asset purchase programmes or collateral framework.

Concluding remarks

Sustainability will remain an enduring policy and market theme in the (post) COVID-19 era.

At the EU level, the Action Plan on Sustainable Finance (March 2018) put forward an extensive list of legislative and non-legislative initiatives related to the taxonomy, disclosure, suitability and fiduciary duties, low-carbon benchmarks, non-financial corporate reporting, credit and sustainability ratings, green bond standards and ecolabels for retail financial products.

These will be continued with a Renewed Strategy (December 2020) focusing on the overall ecosystem, implementation of the toolbox and systemic risk implications.

The current crisis has given a brutal reminder about the need to strengthen the preparedness and resilience of our societies as a whole.

The next three to five years will certainly be crucial in terms of the impact on the real economy, ie. translating sustainability in a consistent manner at the operational level, and mobilising significant private capital flows to support recovery and growth in Europe. From a policy perspective, synergies with the capital markets union (CMU) initiative should also be further explored. ■

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Endnotes
1. Price-To-Book Ratio (P/B) and Price-to-Earnings Ratio (P/E).
2. At end 2019, the total net assets of UCITS and AIFs amounted to €17 trillion (EU-28).
3. At end-2019, the total assets of insurance companies and pension funds amounted to €14 trillion (EU-28).
4. At end-2019, the total financial assets of households amounted to €37 trillion (EU-28).

This commentary is part of a dedicated series, as a follow-up to the CEPS–ECMI Task Force Report on "Asset Allocation in Europe: Reality vs Expectations" released in April 2020.

Climate change: from awareness to action

Tao Zhang believes that the COVID-19 pandemic and the climate crisis are interlinked, because some of the economic policy decisions taken today will affect climate outcomes tomorrow

The world is currently focused on one crisis—namely, the COVID-19 pandemic. Greece's response, for example, has been proactive and well-organized. Timely quarantine measures have limited the spread of the disease, while a forceful stimulus package has provided support to vulnerable households and firms. Going forward, given limited fiscal space, every effort should be made to strengthen the targeting of fiscal support.

But lurking *"the day after"* is another crisis—slower moving, perhaps, but equally critical. I'm talking, of course, about climate change. We've known for years that urgent action is needed, but it's perhaps even more apparent now, in the wake of this pandemic, that we shouldn't mess with Mother Nature. Moreover, the two crises are interlinked, because some of the economic policy decisions taken today will affect climate outcomes tomorrow.

Therefore, my remarks here will focus on the importance of keeping climate change in mind as we move from rescue to recovery and on how we can ensure a *"green recovery"* for Greece, Europe, and the planet.

Let me start with some context. Five years ago, at the COP21 meeting in Paris, countries committed themselves to taking actions to curb the rise in global temperatures. We all know that much more ambitious commitments are going to be needed at the global level if we are to succeed, but I'm happy to say that Europe has been at the forefront of the fight against climate change.

The EU has set new, more ambitious targets—including to be carbon neutral by 2050—and has outlined new policy initiatives and investment in the context of the European Green Deal. In addition, the new Economic Recovery Fund along with a revised EU budget now under discussion aim to support a green recovery after the pandemic.

The EU's climate policies, however, also face challenges. First, the carbon price under the Emissions Trading System is currently around €25 a ton. But to achieve carbon neutrality by 2050, more ambitious reductions in emissions are needed, implying a much higher effective carbon price.

Second, the impact of more ambitious climate policies on income distribution must be carefully assessed and addressed to ensure fairness. We need the right policies to ensure a *"just and inclusive transition"* to a green economy.

No institution or individual can stand on the sidelines in the fight against climate change. We must all act to reduce emissions [...] and seize the economic opportunities that a new greener economy can bring

Third, shifting from fossil fuels to clean energy means massive investment in renewables, smart grids, and electric vehicles, and the region will need to better mobilize private finance. At the same time, however, the transition to a carbon-neutral economy also brings new growth opportunities.

Turning to Greece, there is ample solar and wind capacity that can be tapped. Likewise, smarter urban development and social policies can mean new jobs and better housing. And, better air quality will reduce illnesses and deaths related to pollution, while generating savings on health spending and attracting more tourism.

Greece is among the few countries that have already achieved their 2030 greenhouse gas emission targets. However, this mainly reflects reductions in energy demand from the recession, while Greece's energy structure remains more carbon-intensive than that of many other European countries.

In his January meeting with our Managing Director, Prime Minister Mitsotakis described how the new Greek national energy and climate plan will help tackle this issue. It envisions a substantial boost in green investment and full closure of lignite plants over the medium term.

The commitments by the Greek government to climate-friendly policies deserve strong support. To start, I can think of at least two sets of questions:

- First, what will happen to the lignite-producing areas of Western Macedonia as plants close and workers are adversely affected? What policies are needed to help in the transition toward greener economic activity?

- Second, what are the implications for climate change, and climate policies, of Greece's role as a shipping and tourism hub? These two industries account for about a quarter of Greece's GDP.

While there are no easy answers, targeted support to affected groups along with sectoral diversification could be part of the solution to help mitigate the transitional cost to clean energy. And a supportive investment climate will be a key element.

Now, let me turn to where we are at the IMF. In short, we are scaling up our work on both mitigation and adaptation. The IMF has done a lot of analytical and policy work on carbon pricing, helping countries understand: the carbon prices they need; the trade-offs with other policy instruments; and how to design comprehensive policies in a growth-friendly and politically acceptable manner.

The IMF also works on various fronts to help countries price climate risks, provide incentives for climate-resilient investment, and integrate climate risks and adaptation spending into their economic and fiscal plans. For instance, together with the World Bank, we have begun assessing countries' climate strategies—starting with the small countries most vulnerable to climate change.

The IMF also carries out stress testing of financial systems to assess their resilience to natural disasters as well as to climate-motivated policy changes. Looking ahead, we will be working more closely with central banks, which are looking at how climate-change risks could affect financial and price stability. The Central Bank of Greece has been very active in this area as well.

And when natural disasters strike—or a pandemic for that matter—our emergency lending facilities are designed to provide speedy assistance. We have assisted many countries in the wake of hurricanes and other disasters, and in terms of the COVID-19 pandemic, as of June 4, we have provided nearly $24 billion in emergency financing to 67 countries, as well as debt relief of $229 million to 27 of our poorest members.

Looking ahead, the IMF is gearing up its effort to help its membership recover toward a better future. No institution or individual can stand on the sidelines in the fight against climate change. We must all act to reduce emissions, offset what cannot be reduced, address the social and economic consequences, and seize the economic opportunities that a new greener economy can bring.

The *"day after"* can be a greener and more sustainable one if we keep the momentum on this issue—even as we are being challenged by COVID-19. To conclude, the IMF is ready to work with our member countries to help them find the best path, as they address climate change. ■

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This article is based on a speech delivered at the virtual Delphi Economic Forum V: 'The Day After', June 9, 2020

A recovery plan for Europe

Maarten Verwey, Sven Langedijk and Robert Kuenzel provide a brief overview of the economic rationale for collective action and an assessment of the expected impact of the recovery plan proposed by the Commission

As member states start to ease restrictions linked to the COVID-19 pandemic on citizens and businesses, EU leaders and institutions have turned their attention towards the medium-term recovery of their economies. In late May, the Commission presented its proposals for a recovery plan. This column provides a brief overview of the economic rationale for collective action and an assessment of the expected impact of the recovery plan proposed by the Commission.

The ferocity of the COVID-19 pandemic has taken the world by surprise. To date more than six million cases have been confirmed globally and there have been almost 400,000 confirmed deaths. In addition, it has wreaked havoc on health systems and economies in Europe and around the world. Supply-side problems from production and trading restrictions have been compounded by a collapse in economy-wide spending and investment due to physical confinement, concerns about income and job prospects, worsening financial conditions, and pervasive uncertainty about the future course of the crisis (Bénassy-Quéré and Weder di Mauro 2020).

The Commission's Spring 2020 economic forecast suggests that real GDP in 2020 will fall by 7.4% in the EU, with only a partial recovery of 6.1% expected in 2021 (European Commission 2020a). A large majority of member states will still have lower real GDP levels at the end of 2021 than when the COVID-crisis erupted. Risks to the above forecast scenario are strongly tilted to the downside.

In contrast to previous crises, the economic policy response in the EU has been swift and sizeable. The ECB has acted immediately and forcefully through the Pandemic Emergency Purchase Programme. Member states have already extended fiscal support measures of around 3.2% of EU GDP to their economies for the year 2020, and the additional liquidity assistance tops 22% of GDP.

Besides much-needed emergency spending on healthcare, EU governments have activated short-time working arrangements that have supported income streams for employees and eased labour costs for employers. At the EU level, rapid agreements have been reached on a number of important support schemes, including the SURE instrument proposed by the European Commission to support short-time work schemes, the ESM's almost condition-free Pandemic Crisis Support instrument, and the EIB's pan-European guarantee fund.

In the short term, these measures have prevented mass layoffs in Europe. However, as impressive as these measures are, they will not be enough to ensure a rapid recovery and to avoid permanent damage to the EU economy.

For a genuine recovery, a concerted effort will be required. The package proposed by the Commission marks an important step on the path to recovery

Even in the EU, short-time work schemes are time-limited and often do not cover the full wages, nor all employment types. Household incomes are likely to suffer, both due to temporary cuts in earnings and permanent job losses — the latter are expected to drive up the unemployment rate to around 9.5% in the euro area and 9% in the EU in 2020 in the baseline scenario. Low-skilled and temporary workers are likely to be hit the hardest.

For companies, liquidity problems will increase the longer production is stalled, and the use of bridge financing from loans is difficult to sustain over time. Piling debt onto already stretched balance sheets is no durable solution, especially in a context of deep uncertainty and continued negative cash flow for many companies.

A fragile corporate sector means a slow and protracted recovery and fewer jobs. Insolvencies cause a waste of physical, human and financial capital. Business failures also disrupt international value chains; in short, they cause large negative second-round effects on investment, employment, growth and prosperity.

Higher short-term healthcare costs, fiscal support measures and the effects of the recession will take their toll on member states' public finances. The Commission's spring forecast expects the average government deficit in the EU to rise from near-balance in 2019 to around 8.5% of GDP in 2020.

Beyond the short term, countries will unavoidably be left with significantly higher debt to be financed in the future — a particular challenge for countries that already had elevated debt and deficit levels before the pandemic struck. This could act as a drag on growth and investment for years to come.

The case for EU-level intervention

To limit the damage to the economy, to minimise downside risks and to advance the recovery, continued policy support is necessary (eg. Bénassy-Quéré *et al*. 2020). A substantial part of this policy support should be organised at the EU level. Just as the COVID-19 disease effects some people far more than others, its economic impact on countries differs considerably too, depending partly on their sectorial composition.

Economies with large tourism sectors, for example, have been particularly affected. GDP losses in 2020 are expected to be particularly large in Greece, Spain, Italy and Croatia, at around 9.5% each, compared to recessions of between 6% and 7.5% in most other member states. The regional impact is more varied still (Figure 1).

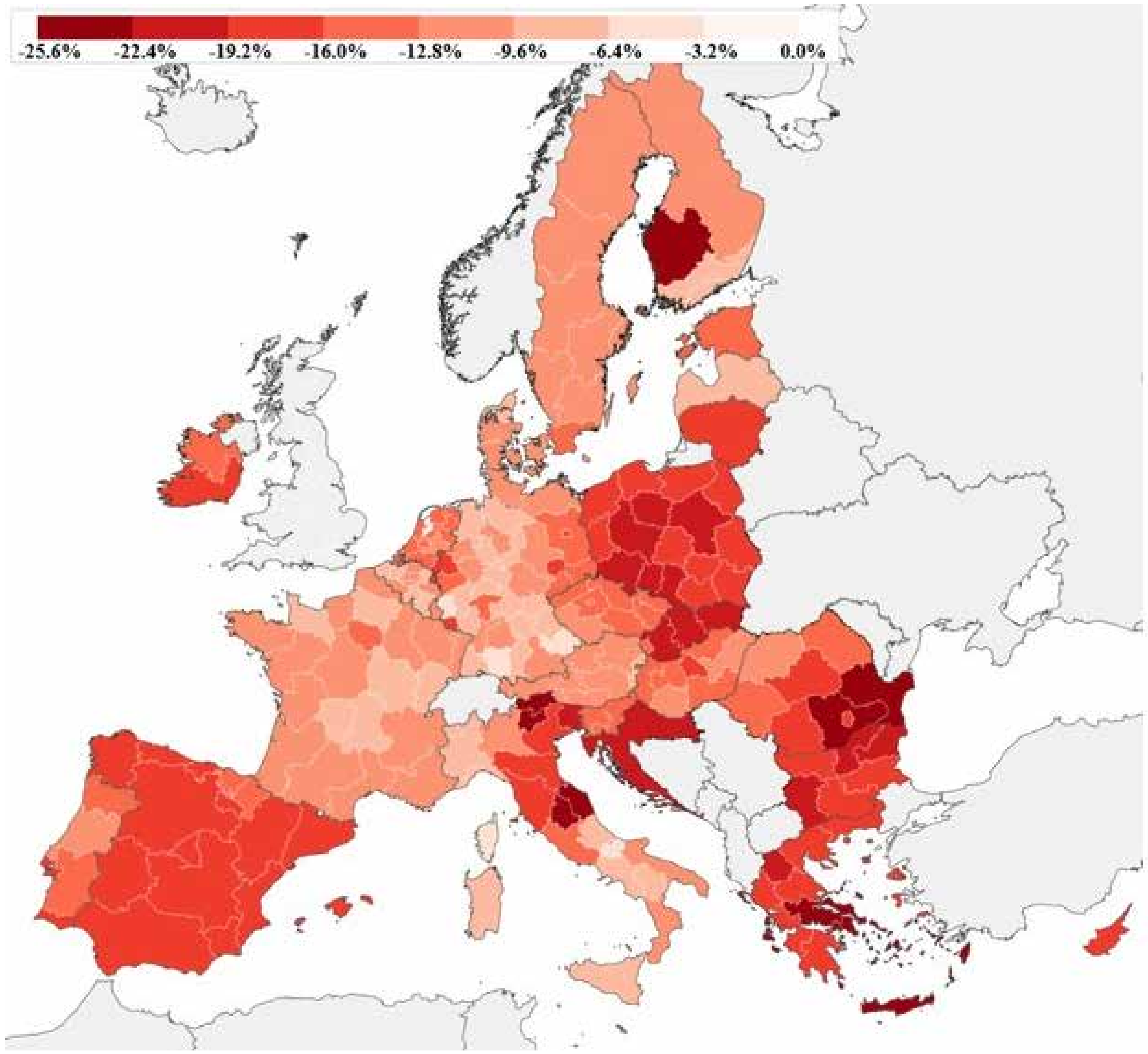
Many of the EU countries hit hardest by the pandemic were already on a relatively weak budgetary footing and had low macroeconomic resilience due to a mix of legacy factors and policy choices. As a result, these countries have been less able extend discretionary support to their economies in the form of additional spending, tax relief and state aid[1].

This combination of factors – a more severe recession and a weaker policy response – entails a real risk of increasing economic divergence in the EU. In the longer term, economically weaker countries may also face lower rates of investment and growth, higher and more persistent unemployment, and less favourable debt dynamics.

Not only would this prevent some countries from adequately supporting their citizens and businesses; it would also jeopardise competition, trade and investment across the Single Market. It would drive living standards further apart, and undermine the social, political, economic and financial stability of our Union.

A coordinated EU-level investment stimulus would counterbalance these centrifugal powers, while giving at the same time a strong boost to the recovery in all member states.

Figure 1. GDP impact at regional NUTS 2 level excluding the impact of policy measures



Note: Shading shows estimated GDP growth in 2020 in %. The analysis is carried out using the RHOMOLO macroeconomic framework, a numerical-spatial general equilibrium model based on regional account data and a set of fully observed bilateral final and intermediate shipments consistent with the national accounts. The economic disturbances implemented in RHOMOLO are consistent with the 2020 Spring Forecast.

Source: JRC

Financing the recovery

To facilitate informed decision making on the size and allocation of the Recovery Instrument, the Commission has analysed in detail the financial needs of the European economy. These include considerable investment, equity repair and sovereign financing needs[2].

Investment needs

The Commission estimates that the EU economy's investment needs for 2021 and 2022 are at least €1.5 trillion. These investment needs are combination of investment losses directly resulting from the COVID-19 crisis and existing urgent investment needs related to the green and digital transition.

Investments in the green and digital transition are particularly valuable as they carry the double benefit of providing much needed support for the recovery and preparing the EU for the future.

Equity repair needs

Using firm-level data from the ORBIS database, the Commission estimates that the accumulated losses of non-financial corporates in Europe could wipe out €720 billion of equity under the spring forecast's baseline scenario and as much as €1.2 trillion under the adverse scenario, in which restrictions on economic activity to control the pandemic last longer.

In the baseline scenario, between 25% and 35% of companies would experience a financing shortfall by the end of the year after exhausting working capital and liquidity buffers, respectively. In the adverse scenario, these shares could rise to 35% and 50%, respectively. This means that around 180,000-260,000 European companies employing around 25-35 million people could experience a financing shortfall should the adverse scenario materialise.

The corresponding liquidity shortfall could range between €350 billion and €500 billion in the baseline scenario, and between €650 billion and €900 billion in the adverse scenario. This is after taking into account the existing schemes for solvency support through short-term work schemes. If left unaddressed, many companies will go bankrupt and those companies that manage to survive will see their capacity to invest severely impaired.

Sovereign financing needs

EU sovereigns, meanwhile, will need to finance an estimated €1.7 trillion extra to cover lost tax receipts and increased social spending in 2020 and 2021. These estimates do not yet cover the financing of the additional investments specified above or the expected losses on the liquidity guarantees provided by member states to their corporate sectors.

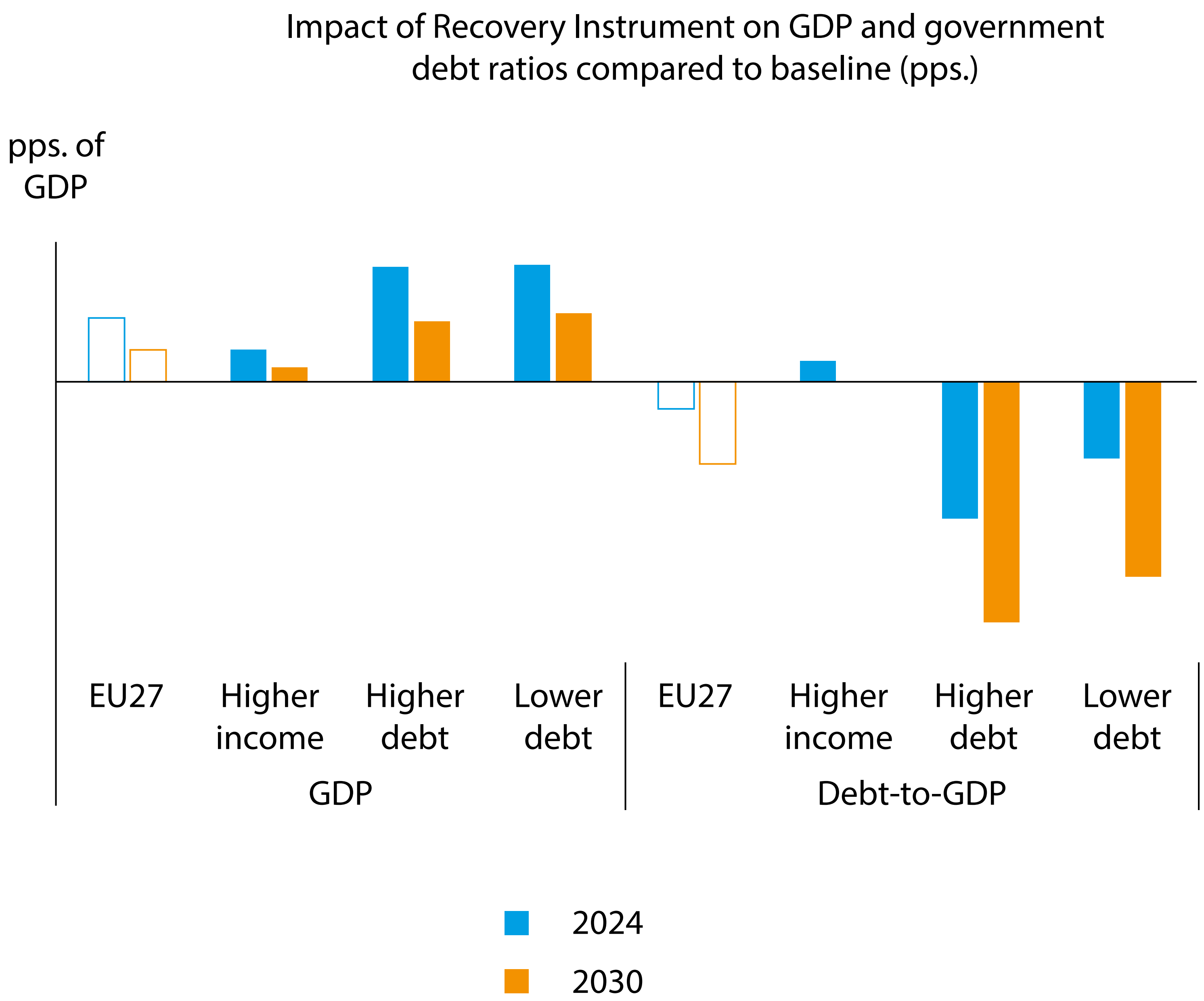
Next Generation EU

On 27 May the Commission unveiled a recovery package containing a reinforced long-term EU budget for 2021-2027, as well as the new Recovery Instrument, 'Next Generation EU'. Next Generation EU will raise money by temporarily lifting the maximum amount that the EU can request from member states to cover its financial obligations to 2.0% of EU Gross National Income.

This will allow the Commission to use its strong credit rating to borrow €750 billion on the financial markets. This additional funding will be repaid over a long period of time through future EU budgets – between 2028 and 2058. When adding Next Generation EU to the proposed size of the 2021-2027 MFF of €1.1 trillion, the total financial firepower of the EU budget reaches €1.85 trillion, equivalent to around 13% of EU GDP at 2019 levels.

From a macroeconomic point of view, this package has a number of desirable features. The size of the package is clearly macro-relevant. By design, the package ensures full coordination of the investment impulse, adding to its

Figure 2. QUEST simulation results of impact of Recovery Instrument



Source: Commission services

effectiveness. The package is heavily biased towards public investment. With interest rates at the zero bound, this is a particularly effective way to stimulate aggregate demand.

Finally, the proposed allocation of the package ensures that the funds will flow to those member states that are most in need. A stylised simulation of Next Generation EU using the Commission's QUEST model shows that it could raise real GDP levels by around 2% by 2024 compared to a baseline scenario. Even ten years later, real GDP levels are estimated to be at least 1 % higher. Up to 2 million additional jobs are estimated to be created by 2022, and thanks to a strong denominator effect it would leave EU government debt-to-GDP levels slightly lower, even in the medium to long term.

The package would contribute significantly to reducing the divergences in the Union and thereby to limiting the downside risks for the entire Union. Interestingly, it would also raise GDP growth in higher-income member states by increasing demand for their exports, increasing GDP by more than 1% compared to baseline by 2024 (Figure 2).

For a genuine recovery, a concerted effort will be required. The package proposed by the Commission marks an important step on the path to recovery. ■

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Endnotes

1. Under its COVID-related temporary state aid framework, the Commission has taken 155 decisions approving 193 national measures notified by 26 member states and the UK. On this basis, the amount of more than €2.19 trillion of total state aid approved so far is a best estimate. Around 45% of state aid approved has been notified by Germany, with measures notified by Italy and France representing around 17% each of the entire amount of state aid approved. Aid notified by Spain represents 4.2% of the total amount.

2. Other financial needs, including for social spending, are also assessed in European Commission (2020b).

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Payments after the COVID crisis

Christina Segal-Knowles considers how payments were changing well before COVID-19, and explores the role of digital currencies and emerging issues and challenges

For many if not all of you, the fact that the way we pay has been changing significantly won't be a surprise. You've experienced this. In London, where I live and work, contactless payments have become ubiquitous – from small coffee shops, to farmer's markets, to stalls at sporting and music events, the need to rush to the cash machine is gone - you can tap your card, phone or watch. We've become accustomed to online baskets and clicks; to summoning and paying for services on our phone.

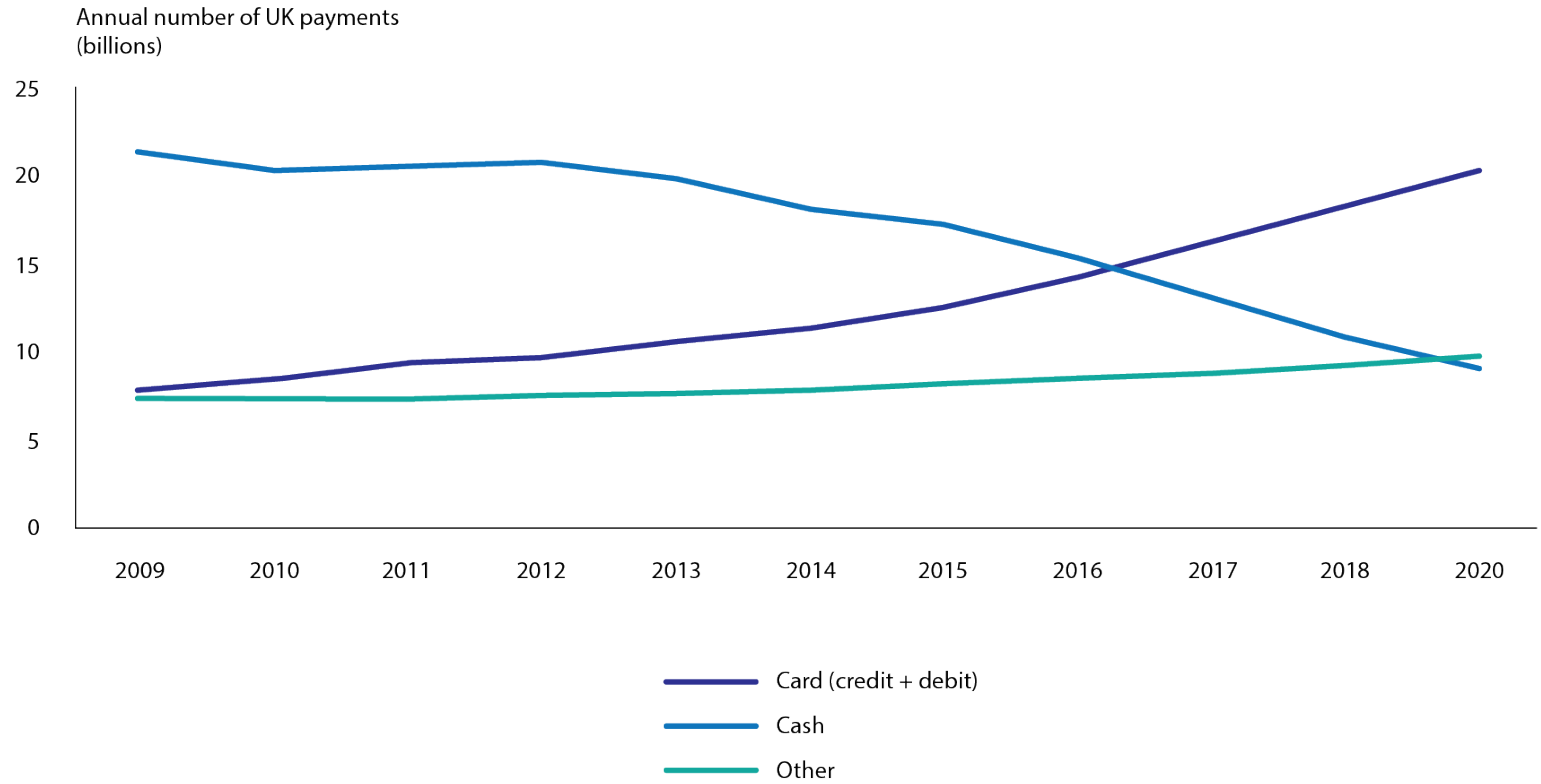
People's behaviour has changed. About a year and a half ago I stopped carrying a wallet with room for cash – all I needed on a daily basis was a debit card and my phone. I am not alone. And is this shift is not exclusive to London – from 2017 to 2019 the number of people using cash just once a month or less in the UK more than doubled to 7.4 million[1].

The result has been a marked increase in digital payments, particularly card payments, and a steady decline in the use of cash for retail transactions. In mid-2016 cards overtook cash for the first time as the most frequently used payment in the UK. And the trend hasn't looked back.

This doesn't mean that cash is not still important for some. There are important inclusion implications that I won't do justice to here but that deserve a mention – while UK Finance estimates that 98 percent of people in the UK had a debit card in 2019, there are still groups that continue to rely on cash, with this reliance relating to factors spanning age, income, disability and geography.

The UK government has said that the UK is committed to ensuring that those who rely on cash will continue to be able to access it, and the Bank of England supports this important agenda.

Figure 1. Even before the current crisis, people were changing the way they pay



Other includes: BACS, faster payments, cheques, standing orders. Consumer payments make up nearly 90% of all payments shown; the rest are payments by businesses.

Source: UK Finance, UK Payment Market Report 2020

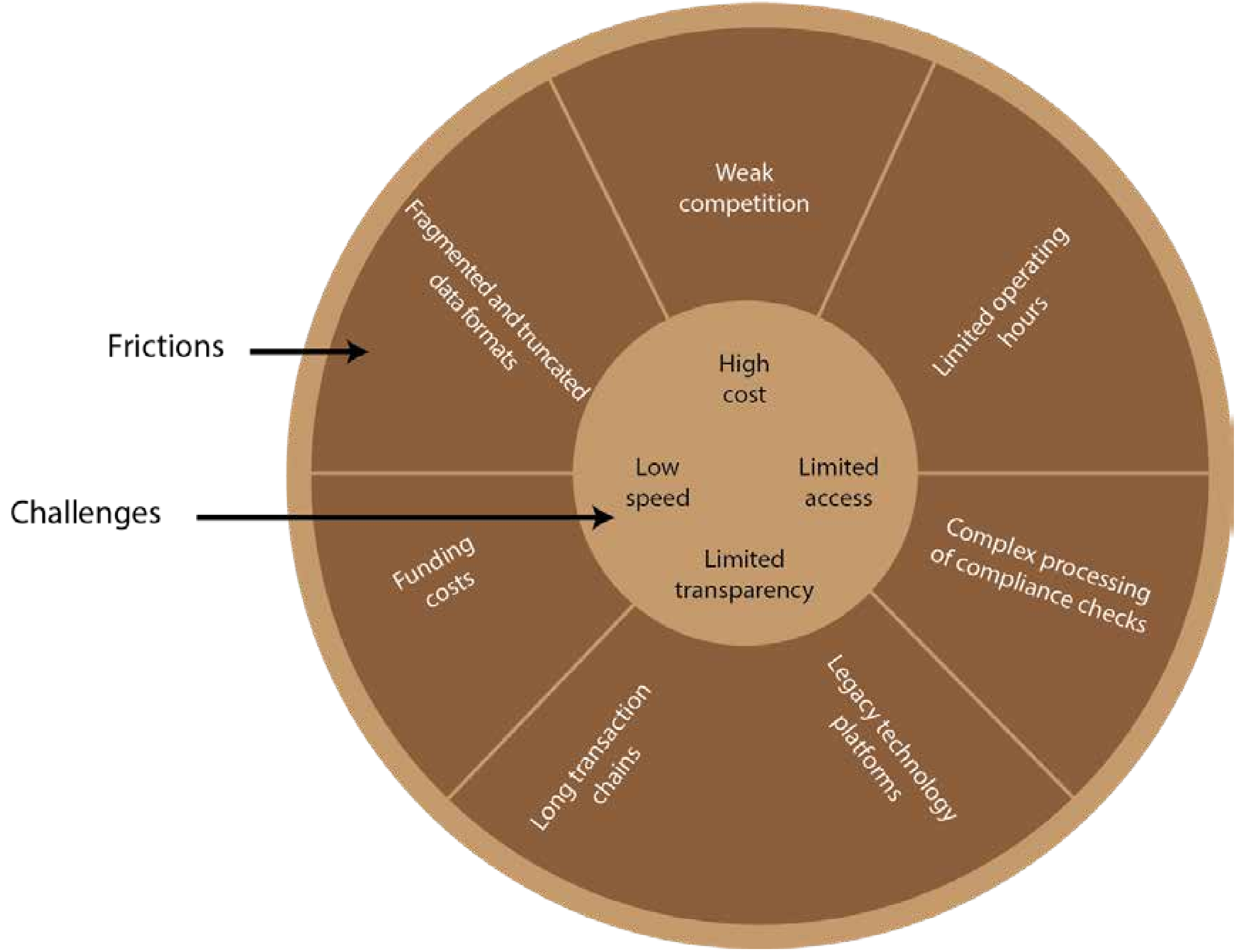
While this story I'm telling about the move to digital payments has been UK-focused – the trend is global. Many emerging market and developing countries have also seen a sharp rise in digital and in particular mobile payments.

As domestic payments are evolving, the importance of international payments is rising. Cross-border e-commerce has risen. And remittances inflows have increased by 64% in the last decade to overtake foreign direct investment as the largest source of external financing for low and middle income countries[2].

But cross-border payments are often more expensive, slower, less transparent and harder to access than domestic ones. The average cost of remittances, for example, stood at around 7% in 2019, well above the UN sustainable development goal of 3% by 2030[3]. And the same frictions exist in other types of wholesale and retail cross-border payments.

It is clear that we need to ensure that new ways to pay and new forms of electronic money are offer equivalent protections to existing ones

Figure 2. Some types of international payments – importantly including remittances – remain expensive and cumbersome



Source: FSB report, April 2020

Work is underway at the international level to tackle these frictions. Enhancing cross-border payments is a G20 priority for 2020. The international Committee on Payments and Market Infrastructure has a task force looking at possible solutions. But there is no magic bullet.

This will require international coordination on several fronts: with solution elements ranging from harmonised processes (AML checks), agreed targets, improvements to existing infrastructures (aligning opening hours) and even new infrastructures (for example to interlink domestic systems).

The COVID-19 crisis has accelerated these trends. Temporary closure of shops and restaurants, or the desire to socially isolate led people to increasingly turn to online shopping. And many shops are encouraging contactless forms of payment over the use of cash.

In the UK, data from LINK, the UK's largest cash machine network, suggests that cash transactions have plummeted. Since the UK lockdown began (24th of March), ATM cash withdrawals in the UK have dropped by around 60%[4]. A recent LINK survey found that 75% of survey respondents are using less cash than before the crisis[5]. And online sales have taken off, jumping to 30% of total retail transactions in the UK in April 2020 from just over 18% a year earlier[6].

To make these stats more real, my parents have for the first time in their lives begun shopping for groceries online. Now, I don't know whether my dad's extreme grumpiness about having someone else pick his produce means he'll return to shopping in-person once it's safe for him to do so or whether the convenience of having someone arrive at his door with his groceries will win him over.

In time, we'll see how enduring the broader shifts are. Indeed, in that same LINK survey, 76% of respondents said that the coronavirus crisis will affect their future cash use. Internationally, COVID-19 has also exacerbated challenges in sending remittances[7]. And many countries, advanced and developing, has necessitated sharp increases in government to person payments – raising new challenges[8].

The private sector is responding. Central banks and other regulators will need to respond too

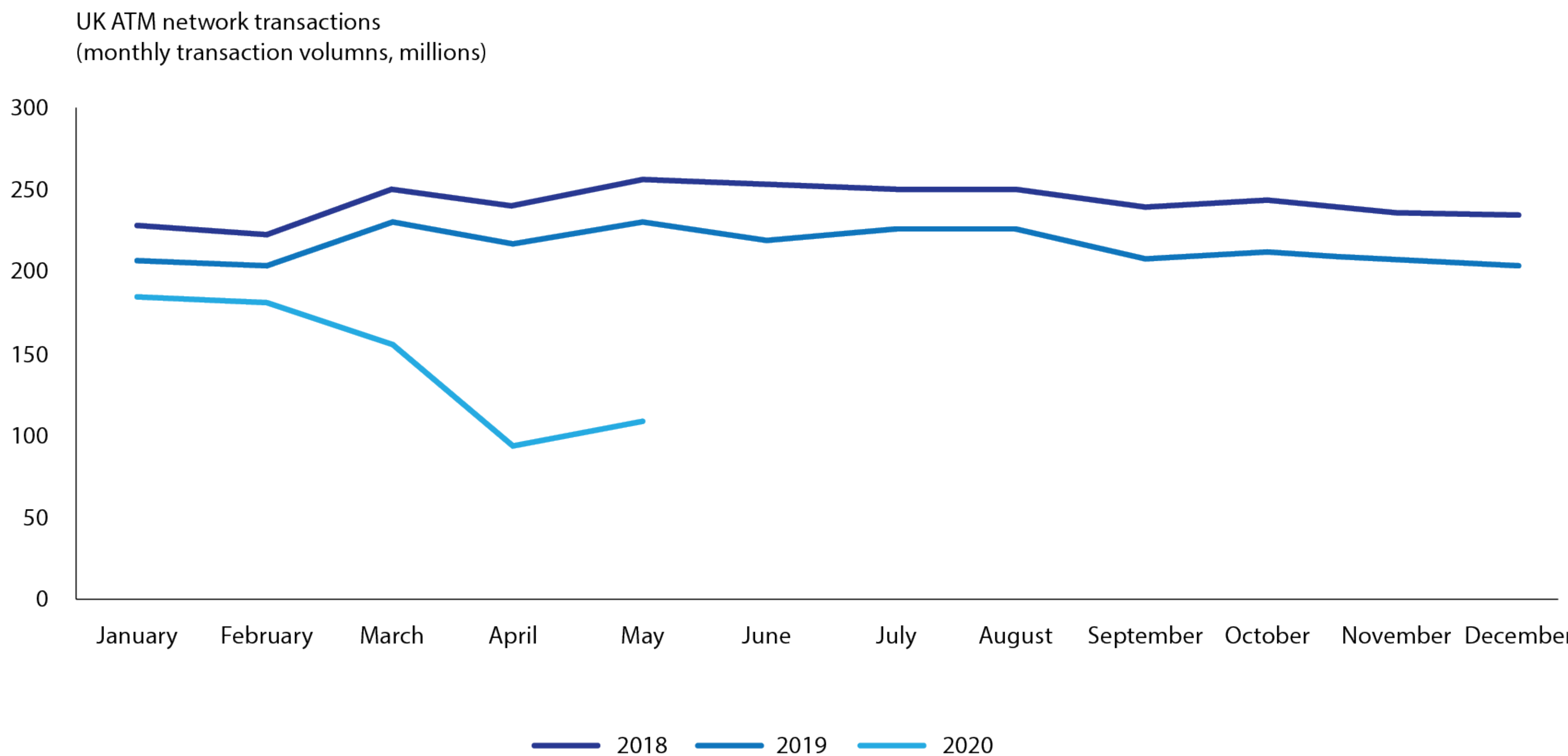
All this – combined with regulatory changes[9] has led to an explosion of innovation in payments. Given these challenges, safe forms of payments innovation are welcome. They could meet unfulfilled customer needs, widen access to financial services, lower costs, and facilitate better payments integration.

Innovation could also support financial stability by increasing diversity in payment methods. And innovation could potentially address the longstanding challenges in international payments by making them less costly and cumbersome. But even though some new technology seems cutting edge, recent innovation has largely been focused on the 'front' or consumer-facing end, sitting on top of existing card or bank-to-bank payment systems.

Since the invention of the credit card in the 1950s, almost all payments by households and businesses in advanced economies have been made through one of four routes: cash, cheque, card or bank-to-bank. Most new innovation to date hasn't changed that.

Even when we tap our phone or watch on an iPad to pay – we're still generally paying by either card or bank-to-bank transfer. But fintechs, and in some cases big technology firms, are now proposing to change this by using cryptoassets known as 'stablecoins' for transactions currently processed by retail or wholesale payments systems.

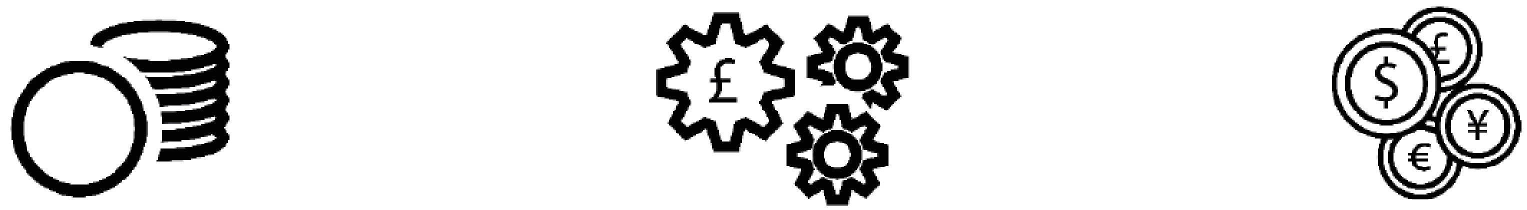
Figure 3. The COVID-19 crisis has accentuated these trends and brought new challenges



Note: these figures include balance enquiries and rejected transactions made through the LINK network, but do not include transactions made by customers at their own banks' or building societies' ATMs.

Source: LINK website, Statistics and Trends

Figure 4. Examples of private sector proposals for new ways to pay



	Unbacked crypto-assets (eg. Bitcoin	Stablecoin (eg. Libra JPM coin)	Reserve-backed stablecoins (known as RBDC or Synthetic CBDC)
Pegged to fiat currency	No	Yes (single currency or basket)	Yes (single currency)
Redemption rights for coin holders?	None	Varies; often none	Promise to exchange for equivalent value in fiat currency
Backing?	None	Varies	Central bank reserves

The basic idea of a stablecoin is not dissimilar from a pegged currency. Early forms of cryptoassets such as Bitcoin have so far proved too volatile for widespread use in payments. 'Stablecoins' aim to address this by pegging themselves to a fiat currency or basket of fiat currencies. Most propose to maintain reserves or backing assets to defend this peg.

While some stablecoins proposals are designed as investment products, most seek stability in pursuit of becoming a new way to pay for goods and services or make peer-to-peer transactions. Many propose to integrate into popular social media or online technology platforms. With this backdrop and an estimated 3 billion social media users worldwide, it's not hard to imagine that some of these proposals could quickly reach significant scale.

But of course innovation won't be sustained if it's unsafe or detrimental for financial stability. Clear, transparent regulatory expectations are critical to ensure that uncertain rules of the game don't hold innovation back. This poses several challenges for regulators – I'm going to focus on the two that are most important for financial stability.

Problem 1 for central banks is that robust and reliable ways to pay are essential to financial stability. Well-functioning and resilient payment chains allow payments to be made on time, with confidence, even in periods of economic uncertainty. Think – receipt of your salary, benefits and pensions, direct debit bill payments ability to tap and ride the tube home or leave the restaurant after a meal.

The reliability and resilience of payments is so important to our economy that the UK Financial Policy Committee, tasked with identifying, monitoring and reducing systemic risks, lists avoiding serious interruptions in the provision of payment and settlement services as one of the very purposes of preserving financial stability.

If a stablecoin were to significantly replace current systemic payments chains as a way to pay – logic follows that they would pose the same risks to the economy as current payments chains and should be regulated to the same standards.

This is relatively straightforward: regulation should be technology neutral: based on the activity conducted and the risks posed, not the technology used or the entity's legal form. In other words, same risks same regulation.

In the UK, recognising the importance of payments for financial stability, the Bank of England supervises systemic payments systems such as Bacs, the Faster Payments Service, CHAPS, and Visa. And internationally, there are principles – the Principles for Financial Market Infrastructure that govern how payments systems should be regulated and the standards they should meet.

These standards form the basis of the BoE's regulation. While same risk, same regulation may seem obvious, in many countries it will require changes to the regulatory framework.

Problem 2 is how do you ensure the stability of the 'thing' being transferred in the payments chain. Existing systemic payment arrangements transfer money that is stable and reliable – in bad times and in good.

This generally takes two forms: public central bank money - either reserves held at the central bank or cash; or private commercial bank money – bank deposits.

Prudential regulation, access to central bank liquidity, and deposit insurance give holders confidence that underpins their willingness to receive commercial bank money as payment. This gives payment recipients – shops and businesses - confidence that when someone taps their card or phone to pay, the amount promised will arrive in their account.

International standards explicitly call on payment systems to settle in central bank money when possible and where that's not possible, to settle in commercial bank money and to strictly limit any credit and liquidity risk of the instrument being transferred and settled.

However, stablecoin arrangements propose to transfer new instruments that they will create themselves – and to settle most of their transactions across their own books. With the right regulation, stablecoins may be safe for use in systemic payments chains. But the protections these stablecoins would offer are currently big question marks.

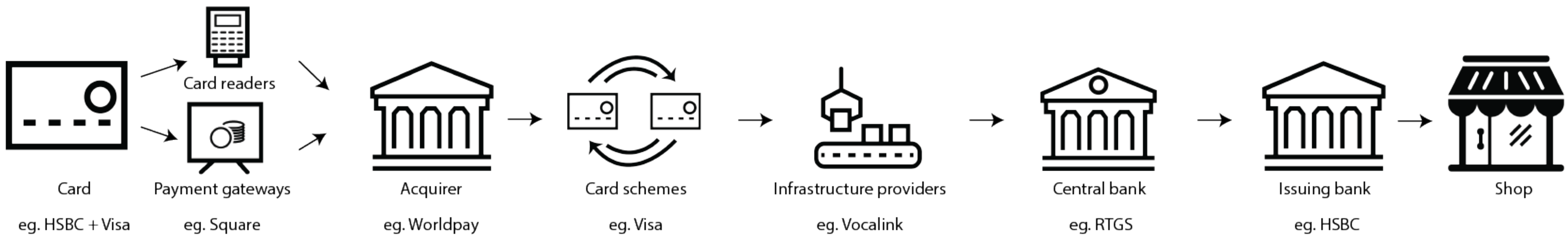
Some major stablecoin proposals offer no legal claim for holders. None. This is significantly different from how we currently pay: When my parents pay for their groceries using their debit card, the shop ultimately receives an electronic deposit in the shop's bank account - a promise from the shop's bank to redeem the amount deposited in local currency on demand.

When – pre-COVID – my parents paid in cash, the shop got banknotes with a central bank promise to *"pay the bearer."* Were they to pay in the future with some proposed stablecoins, the shop would just get a bunch of stablecoins. If the shop can't sell the stablecoin to get local currency or other goods in an amount equivalent to the price of the grocery order, tough luck.

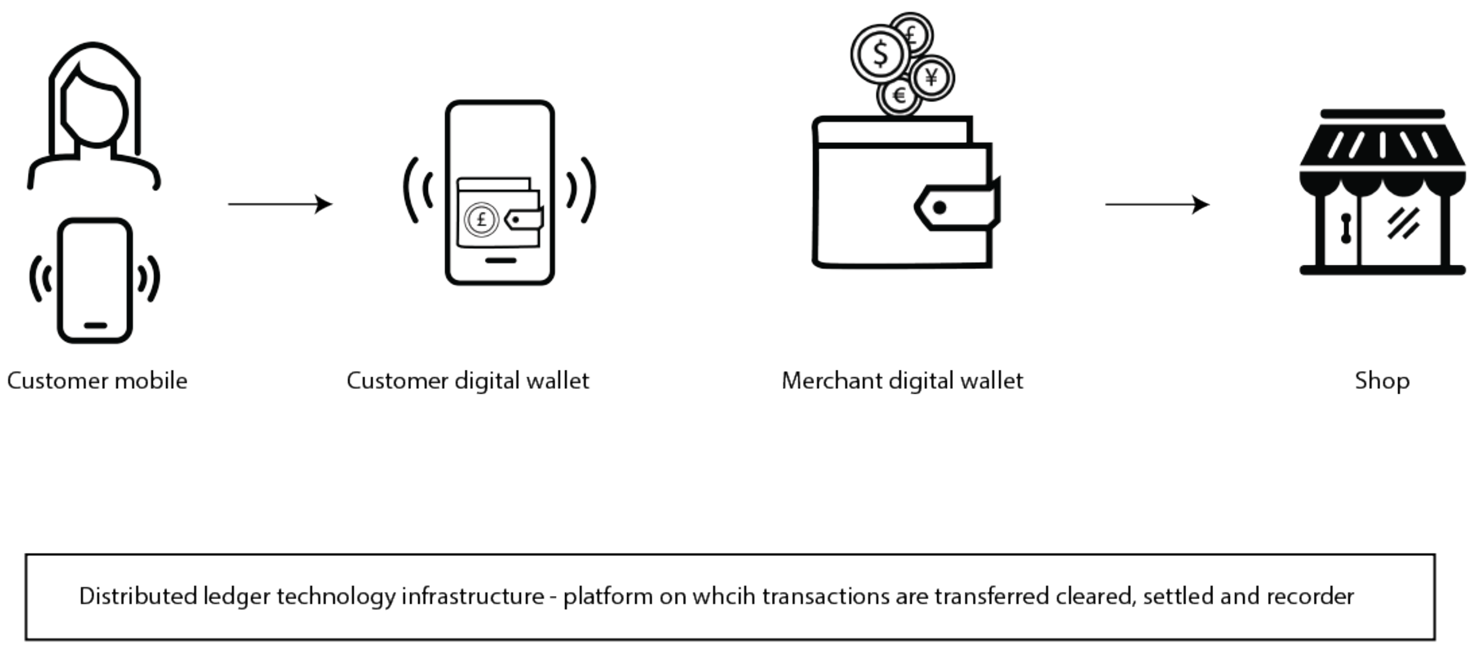
Additionally many stablecoins propose backing in instruments that may have market and liquidity risk. While these risks might be acceptable for speculative investment purposes, payments are different. This is why the UK Financial Policy Committee has said that where stablecoins are used in systemic payment chains as money-like instruments,

Figure 5. We need payments to be secure and reliable

Illustrative card payment chain



Illustrative stablecoin payment chain



they must meet standards equivalent to commercial bank money in terms of stability of value, robustness of legal claim and the ability to redeem at par in fiat.

Stablecoins' borderless nature of course also means that international regulators' coordination is necessary and work is indeed underway. A Financial Stability Board consultation is ongoing with supervisory recommendations for global stablecoins, aligned with the Bank's view on same risk – same regulation.

Is there a role for central banks (public money strikes back)?

The changes in how we pay I described at the beginning of this presentation have not just involved a switch from physical cash to electronic payment.

It has also necessarily involved a switch from public, central-bank- issued money to private money. This is because central bank money is currently only available in physical banknotes or in reserves, which certain regulated financial institutions hold in accounts at the central bank.

For the public and most businesses, the only current option to hold money backed by the central bank is in the form of physical banknotes.

I've assumed in the story so far that the cash decline and the rise of online continues the march towards the dominance of private money in our transactions. But is this right?

An alternative would be for central banks to issue a new electronic form of central bank money that can be used by households and businesses for payments, also known as a central bank digital currency or CBDC. CBDC presents a number of potential opportunities.

Figure 6. Where stablecoins are used in place of money, they need to offer the same protections as money

Protections offered by current and proposed money-like instruments designed for wide scale use in the UK

Central bank money (notes & reserves)	Scottish and Northern Ireland banknotes	Commercial bank money	Private stablecoins
✓ Claim on central bank	✓ Claim on issuing bank with recourse to banking assets	✓ Claim on issuing bank	?
✓ Monetary stability mandate	✓ 1-for-1 backing in central bank money held at central bank or authorised location	✓ Access to central bank liquidity	?
✓ Inflation targeting regime	✓ Regulation by Bank of England	✓ Deposit insurance	?
		✓ Prudential regime including capital and liquidity requirements	?

It could help respond to some of the changes and challenges I described in the beginning – including helping to meet the future payments needs of the digital economy, addressing the consequences of a decline in access to cash, and providing a building block for better cross-border payments. It also may be a safer alternative to new proposed forms of private electronic money like stablecoins.

But a CBDC may also have significant implications for how our financial system works – in particular if households and businesses were to move their deposit balances from commercial banks to CBDC. This could in turn affect how we implement monetary policy and support financial stability. The Bank has launched a dialogue on the appropriate design of CBDC and an evaluation of whether the benefits of CBDC outweigh the risks.

To conclude – changes in the way we pay and the challenges we've seen over the past several months pose two important and interrelated questions for central banks and regulators. First, how do we ensure that we have legislative and supervisory frameworks in place to support development of safe private sector innovation that could respond to these challenges?

Here, it is clear that we need to ensure that new ways to pay and new forms of electronic money are offer equivalent protections to existing ones. And second, what is the right role for central banks in provision of the money we use to transact? I'm looking forward to the discussion. ■

Christina Segal-Knowles is Executive Director of the Financial Market Infrastructure Directorate at the Bank of England

Endnotes

1. See UK Finance Press Release: Cards used for half of payments for first time last year. https://www.ukfinance.org.uk/press/press-releases/cards-used-half-payments-first-time-last-year

2. World Bank Press Release: Predicts Sharpest Decline of Remittances in Recent History https://www.worldbank.org/en/news/press-release/2020/04/22/world-bank-predicts-sharpest-decline-of-remittances-in-recent-history

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4. LINK: Coronavirus Crisis means cash use down but UK still withdrawing £1billion from ATMs each week: https://www.link.co.uk/about/news/coronavirus-cash-usage-data/

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6. ONS: Internet Sales as a percentage of total retail sales: https://www.ons.gov.uk/businessindustryandtrade/itandinternetindustry

7. BBC News: Coronavirus: Migrants struggle to send money home: https://www.bbc.co.uk/news/business-52506797

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9. Including open banking reforms in the EU and the introduction of a payments competition regulator in the UK.

This article is based in a speech delivered at the Webinar: London School of Economics and Centre for Economic Policy Research 11 June 2020. I would like to thank Natalia Dobrovolschi, Rachel James, Cordelia Kafetz, Hardeep Rai, Josh Sadler, Jonathan Wakefield, and Ellen Caswell for their assistance with preparing this speech and Laura Wallis and Stephanie Haffner for their comments and input.

An ECB digital currency – a flight of fancy?

Most central banks are working on CBDCs. Yves Mersch outlines the preparations the ECB is making should the European people embrace digital currencies

A recent survey among 66 central banks by the Bank for International Settlements shows that more than 80% are working on central bank digital currencies (CBDCs)[1]. The European Central Bank is one of them. Not because we want to keep up with fashionable trends, but because we have to be ready. Ready to embrace financial technological innovation which has the potential to transform payments and money faster, and in more disruptive ways, than ever before.

We are technology neutral. But if our customers, the people of Europe signalled a change in payments behaviour, we would want to preserve their direct link to the ultimate owner of our currency by maintaining their access to central bank liabilities in euro. Although cash often gets a bad press, demand is not receding. We currently see no indication that the public at large is willing to abandon the valued and trusted advantages of cash. But we are preparing to be ready should things change.

Part of ECB mandate to be ready for change

One implication of financial technological innovation could be an increasingly cashless economy in which people may no longer be able to hold risk-free central bank money. Reliable access to money would then hinge on the stability and efficiency of private retail infrastructures. And trust in money itself would rely on trust in the intermediaries that issue private money[2].

This is one reason why central banks keep fully up to speed on financial technological developments. After all, providing safe money and a reliable means of payment have been an integral part of the mandate and core business of central banks since their very inception. The ECB is no exception.

So we should be looking ahead and consider whether, in the future, central banks will need to provide the public with some form of digital currency. While electronic payments are already crowding out the use of cash in some countries, whose currencies seem less attractive than the euro, there is no such trend away from cash in the euro area. Some 76% of all transactions in the euro area are carried out in cash, amounting to more than half of the total value of all payments[3].

The demand for cash in the euro area currently outstrips the rate of nominal GDP growth. In crisis times, the demand for cash surges even higher. At mid-March this year, the weekly increase in the value of banknotes in circulation almost reached the historical peak of €19 billion[4].

In monitoring the evolution and uses of technology, the ECB respects technological neutrality. We do not serve technology – technology serves us

The ECB's debate on CBDCs is therefore mainly analytical. Whether and when it becomes more of a policy debate will largely depend on the preferences of households. We are always willing to innovate in the form of money and payment services that we provide.

If, for instance, people voiced a preference tomorrow for plastic or polymer banknotes rather than the traditional paper ones, we would happily accommodate them. In the same vein, we closely follow technological developments and reflect on the type of money and payments that are best suited to the needs of an increasingly digital economy.

The lack of a concrete 'business case' for a CBDC at present should and does not stop us from seriously exploring the optimal design of a CBDC so that we will be well prepared should we ever take a policy decision to issue a digital currency. To this end, we have set up a task force on a CBDC within the Eurosystem.

Let me give you a preview of our deliberations, starting with different design options. Legally solid despite fancy design?

Most of the money issued by central banks is in fact already digital, albeit not called CBDC. This is true for the bulk of the money issued through our wholesale credit operations with our counterparties. At present, access to the central bank balance sheet offers the possibility to access digital central bank money.

What could change in the future is the scope of the parties eligible to access our central bank balance sheets. Indeed, this lies at the heart of the discussion on CBDCs.

A wholesale CBDC, restricted to a limited group of financial counterparties, would be largely business as usual. However, a retail CBDC, accessible to all, would be a game changer. So a retail CBDC is now our main focus.

Setting up a CBDC would require a solid legal basis, in line with the principle of conferral under EU law. One key consideration here is whether a retail CBDC could and should have the same legal tender status as banknotes and coins. In practice, legal tender status implies that a CBDC would have to be usable at any location and under any condition, possibly even offline.

Without legal tender status, the legal basis would need to be clarified, as would the relationship between a CBDC and euro banknotes and coins, along with the process by which one could be exchanged for the other. Should it not be acknowledged that the ECB's exclusive right to authorise issuance in euro would also be applicable to a digital issuance?

A retail CBDC could be based on digital tokens, which would circulate in a decentralised manner – that is without a central ledger – and allow for anonymity towards the central bank, similar to cash. Some argue that a token-based digital currency might not guarantee complete anonymity.

If that proved to be the case, it would inevitably raise social, political and legal issues. We are currently looking into the legal questions raised by the potential use of intermediaries to facilitate the circulation of a CBDC and also the processing of transactions in a CBDC. To what extent are we permitted to outsource public law tasks to private entities? And what would be the appropriate extent of supervision over such entities?

Alternatively, a retail CBDC could be based on deposit accounts with the central bank. Though involving vast numbers of accounts, it would not be a particularly innovative option from a technological viewpoint. For the euro area, it would basically mean increasing the number of current deposit accounts offered from around ten thousand to between 300 and 500 million.

A CBDC of this nature would enable the central bank to register transfers between users, thereby providing protection against money laundering and other illicit uses (or those considered illicit by the rulers of the day), depending on the degree of privacy granted to users.

These are just two of the many ways to design a CBDC. We are currently scrutinising the various options to assess their potential impact – both positive and negative – on the financial system and on our ability to honour our mandate.

Disintermediation – economically inefficient and legally untenable

You may wonder why central banks have not chosen to provide retail access to central bank money, despite the technology for an account-based CBDC already being largely available. The main reason is that introducing a retail CBDC could have major consequences for the financial system.

If households were able to convert commercial bank deposits into a CBDC at a rate of 1 to 1, they may find it far more attractive to hold a risk-free CBDC rather than bank deposits. During a systemic banking crisis, this could trigger digital bank runs of unprecedented speed and scale, magnifying the effects of such a crisis.

Banks might manage to render their deposits more attractive than central bank ones. They could, for instance, provide additional services to those offered by central banks. Such services could include paying bills, or cross-selling financial insurance products.

Otherwise – even in the absence of a crisis – a readily convertible CBDC could crowd out bank deposits, leading to the disintermediation of the banking sector. This could have far-reaching implications for the structure of the financial system and for the ability of central banks to perform their core tasks and ensure that their monetary policy is transmitted to the real economy.

If the central bank were to take retail deposits, it might also have to provide loans, with all the ensuing consequences. The central bank would need to launch customer-facing business lines. Deposit and lending facilities would also require the central bank to take on the burden of regulatory compliance in areas such as anti-money laundering, consumer protection and confidentiality.

Some argue that this may reinforce monetary sovereignty, as disintermediation would make the financial system safer and reduce the moral hazard of banks by diminishing their role in money creation[5]. But disintermediation would be economically inefficient and legally untenable. The EU Treaty provides for the ECB to operate in an open market economy, essentially reflecting a policy choice in favour of decentralised market decisions on the optimal allocation of resources.

Historical cases of economy-wide resource allocation by central banks are hardly models of efficiency or good service. Furthermore, a retail CBDC would create a disproportionate concentration of power in the central bank. These potentially highly adverse effects on the financial system would appear to outweigh the benefits envisaged by the introduction of a retail CBDC. What, then, could be done to mitigate the impact of a CBDC on the financial system?

One option could be to remunerate CBDC at below-market rates in order to create incentives for non-banks to rely more on market-based alternatives rather than on central bank deposits. The drawback would be that, in times of crisis, it may become necessary to apply highly negative rates, which could generate criticism from the public and substantially undermine public confidence in the central bank as well as in the basic values of saving which underlie our societies.

Another option is a tiered remuneration system[6]. In line with the functions of money, the first tier could serve as a means of payment. The central bank would have to refrain from setting a lower or a negative interest rate in order to keep a CBDC attractive to the public as a means of payment. While the second tier could serve as a store of value, the central banks could discourage people from using it as such by setting unattractive interest rates.

However, such schemes should draw from the experience of multiple exchange rate regimes. And the repercussions of the intentional use of such schemes need to be subjected to an additional comprehensive investigation.

Conclusion

In monitoring the evolution and uses of technology, the ECB respects technological neutrality. We do not serve technology – technology serves us. We will only introduce a digital currency if we become firmly convinced that it is both necessary and proportionate to fulfil our tasks in ensuring the stability of our currency.

In the meantime, we take a keen interest in digital innovation and in the changing expectations of money users, and we are refining our thinking on CBDC – both within the ECB, the Eurosystem and in the international central banking community. CBDC design choices are not merely technical questions. They have policy and legal implications. This is why we are devoting so much attention to every detail. If and when the time comes, we want to be ready – and we will be ready. ■

Yves Mersch is a Member of the Executive Board of the European Central Bank and Vice-Chair of the Supervisory Board of the ECB

Endnotes

1. See Boar, C, Holden, H and Wadsworth, A (2020), "Impending arrival – a sequel to the survey on central bank digital currency", BIS Paper, No 107.

2. Including payment solutions denominated in currencies other than the euro, which could affect monetary sovereignty.

3. Survey data from 2017; see Esselink, H and Hernández, L (2017), "The use of cash by households in the euro area", Occasional Paper Series, No 201, ECB.

4. Blog post by Fabio Panetta, Member of the Executive Board of the ECB, (28 April 2020): "Beyond monetary policy – protecting the continuity and safety of payments during the coronavirus crisis".

5. Dyson, B and Hodgson, G (2016), "Digital cash: why central banks should start issuing electronic money", Positive Money.

6. See Bindseil, U (2020), "Tiered CBDC and the financial system", Working Paper Series, No 2351, ECB.

This article is based on a speech delivered at the Consensus 2020 virtual conference, 11 May 2020

Global Ripple Supplier of Choice and Best Ripple Partner

Graham Bright explains how Ripple ensures and guarantees delivery directly into the recipient account, without the cost and time overheads of bank correspondent relationships

Whilst the short-term economic prospects for growth across the world are bleak, countries are devising longer term strategies to return to efficient trade and a form of normality. International trade and the ecosystem supporting it is still active, still delivering, still moving funds and still satisfying demand, albeit severely hampered in the short term.

And it is precisely this continuity that requires funds, trust, real-time payments and participation across multiple jurisdictions, that has prompted us, Euro Exim Bank Ltd, to examine and implement innovative technologies to not only meet the demands of todays' fragile flows, but position efficient payments, promote competition and guaranteed transaction settlement for the future.

Demand for faster processing of payments has grown exponentially. And we have no doubt the advent of COVID-19 will prompt an even faster move away from handling cash to electronic transfers, ultimately signaling the death-knell for cheques and other inefficient payment mechanisms. We see greater use of credit and debit cards, mobile and on-line payment channels, as people buy services remotely, electronically, efficiently and rapidly.

This digitalization of the payments process is also becoming common in trade. The traditional use of wet-ink and witnessed signatures on crucial paperwork such as Bills of Lading, and the tedious physical movements of multiple copies of trade documents by courier are coming under intense scrutiny. It is now much more common for staff handling these import presentation documents to be working remotely, and where trust, identity and compliance are even more pertinent than ever.

Some time ago our organisation saw the benefit of a more elegant way to ensure payments could be directed in a frictionless way directly into a recipient account.

Rather than merely sending a debit or credit advice that required intervention, acceptance and activity from multiple intermediary correspondents as our instruction hopped across many countries (each with their own regulatory and legal conditions), we looked for a mechanism that did not rely on the time-honoured convoluted payments process.

... we came to understand how cryptocurrency (specifically the XRP digital asset) could form the underpinning mechanism for payments in and out of local currencies, without the need for fiat currency such as US dollars, which are inordinately expensive and in short supply for developing and emerging countries

We needed to find a service that would allow disadvantaged buyers to compete in often difficult trading areas, where we could negate the problems of excessive fiat currency exchange rates, issues of lack of liquidity, disinterest of local banks to support international trade, and above all the perception that players in some areas were too just too risky to support international business.

For us, the answer came in the shape of Ripple, the technology company known for its XRP cryptocurrency, and more specifically for us, its real-time payments network.

Communications through other banking networks has always relied on sending messages into the network (where it is safe-stored) for onward sending to counterparties with whom you have established a correspondent link, then allowing exchange of authenticated messages.

Successful transmission was based on service level agreements between parties, and as the responsibility for all messaging resides with the sender, in many cases, the recipient has no obligation to pass on messages, or action them when messages they do not deem to be within their business remit are addressed directly to them.

This means that like a postal service, there is record of signed delivery, but sometimes dependent on the whim of the recipient, no further obligation to action the message. Crucial payment instructions may be effectively left on the carpet with no recourse for the sender.

We saw value in providing a service where the sender could not only ensure and guarantee delivery directly into the recipient account, but have a full, immutable, traceable and auditable view of the transaction, without the cost and time overheads of bank correspondent relationships.

We turned to Ripple. What attracted us was their provision of two unique services which allow us to look at the efficiency of payments and liquidity for trade settlement. More interestingly, we came to understand how cryptocurrency (specifically the XRP digital asset) could form the underpinning mechanism for payments in and out of local currencies, without the need for fiat currency such as US dollars, which are inordinately expensive and in short supply for developing and emerging countries.

Firstly, the xCurrent service, providing real-time account to account payments, where using the web-based light touch system gave immediacy, trust and guarantee of delivery instantly settling cross-border payments with end-to-end tracking.

The immediate benefit of using this technology was in messaging counterparts in real-time to confirm payment details prior to initiating the transaction and then to confirm delivery once it settles. And this process was backed by the solid foundation and application of a Rulebook developed in partnership with the RippleNet Committee, that ensures operational consistency and legal clarity for every transaction.

Secondly, ODL – On Demand Liquidity Service. As payments into emerging markets often require pre-funded local currency accounts around the world, liquidity costs are high. ODL dramatically lowers the capital requirements for liquidity using the digital asset, XRP, to offer on-demand liquidity, without currency fluctuation, with efficient, scalable, reliable liquidity options to service cross-border payments in often disadvantaged jurisdictions.

Apart from being one of the fastest implementers of the Ripple system, our technology team worked closely with Ripple and correspondents offering payment corridors through an original hard coded API version, and recently upgrading to the latest web-based version.

Euro Exim Bank and Ripple are intrinsically linked, and whilst there are other payment services available, our partnership, collaboration and usage has assisted our clients globally in ensuring they can transact business as economically, efficiently, rapidly and safely as possible, and we look forward to further volumes increasing as we return to better, where we expect higher volumes with growing consumer expectation and demand.

We are delighted and honoured to be recognised for the awards. ■

Graham Bright is the Head of Compliance and Operations at Euro Exim Bank

Doing more with less

The COVID-19 pandemic has sparked fears of a next wave of emerging market debt crises. Tobias Krahnke considers how the IMF should respond to an emerging markets crisis

Fears of a next wave of emerging market debt crises recently sparked a renewed debate about the adequacy of IMF resources and its toolkit. This column argues that the issue is not whether the IMF has sufficient resources for large-scale financial assistance to all of its members in need, but that such assistance would ultimately be counterproductive and could, in fact, exacerbate the risk of liquidity crises morphing into solvency crises.

One of the reasons is that large-scale IMF financial assistance coupled with the IMF's preferred creditor status can lead to a crowding-out of private investors by increasing their expected loss in the event of default. This underlines the need for all elements of the international monetary and financial system to assume their full responsibility, including the private sector.

The COVID-19 pandemic and a sharp deterioration of the economic outlook have triggered an unprecedented pullback of non-resident portfolio flows from emerging markets (Levy Yeyati 2020). Given that the room for fiscal and monetary manoeuvring is constrained, it is likely that many countries will have to look for outside assistance (Dabrowski and Domínguez-Jiménez 2020).

Against this background, a lively debate has emerged on which role the IMF can and should play in this regard. Commentators' proposals range from increasing the Fund's overall resource envelope, over allocating Special Drawing Rights (SDRs) to all its members, to backing central bank swap lines with large-scale precautionary Fund arrangements.

While many of the merits and drawbacks of these options have been discussed, one important aspect has so far received little attention, namely, a possible crowding-out of private capital inflows caused by excessive amounts of IMF financial assistance that are provided through its lending facilities. This aspect might be of growing importance as calls for higher access limits to IMF resources (Berglöf *et al*. 2020) and greater reliance on large-scale IMF facilities are already starting to emerge.

The catalytic function of IMF lending and the role of programme size

The success of any IMF programme hinges to a large extent on its catalytic effect – that is, increasing the propensity of private investors to hold financial assets in the country concerned by providing a signal that a country's economic policies are on the right track (Giannini and Cottarelli 2002).

... large IMF financial assistance coupled with the IMF's preferred creditor status can lead to a crowding-out of private investors by increasing their expected loss in the event of default

The Fund usually sees itself as meeting only a small portion of a country's external financing requirements and works on the assumption that its involvement will encourage others to lend. However, over the last decades – and in particular following the Global Financial Crisis – the average size of IMF arrangements has increased and larger arrangements have been agreed more frequently (see Figure 1).

At the same time, the IMF's effectiveness in helping countries to overcome balance of payments problems has frequently fallen short of expectations (IMF 2019).

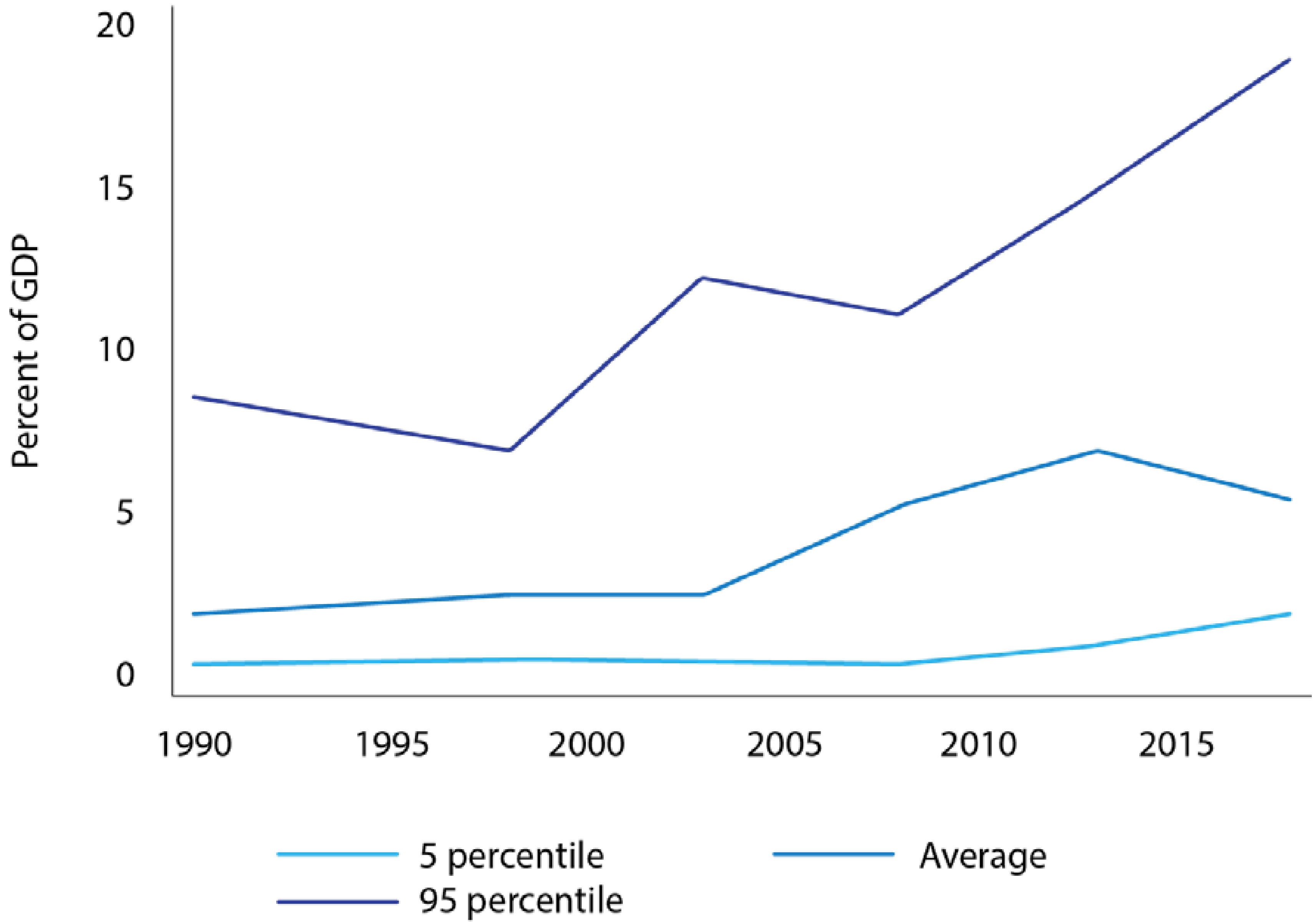
In a recent paper, I argue that there are several mechanisms through which large programmes can potentially weaken the catalytic function of IMF lending, thereby also decreasing the chance that member countries durably solve their balance of payments crises over the course of the program (Krahnke 2020).

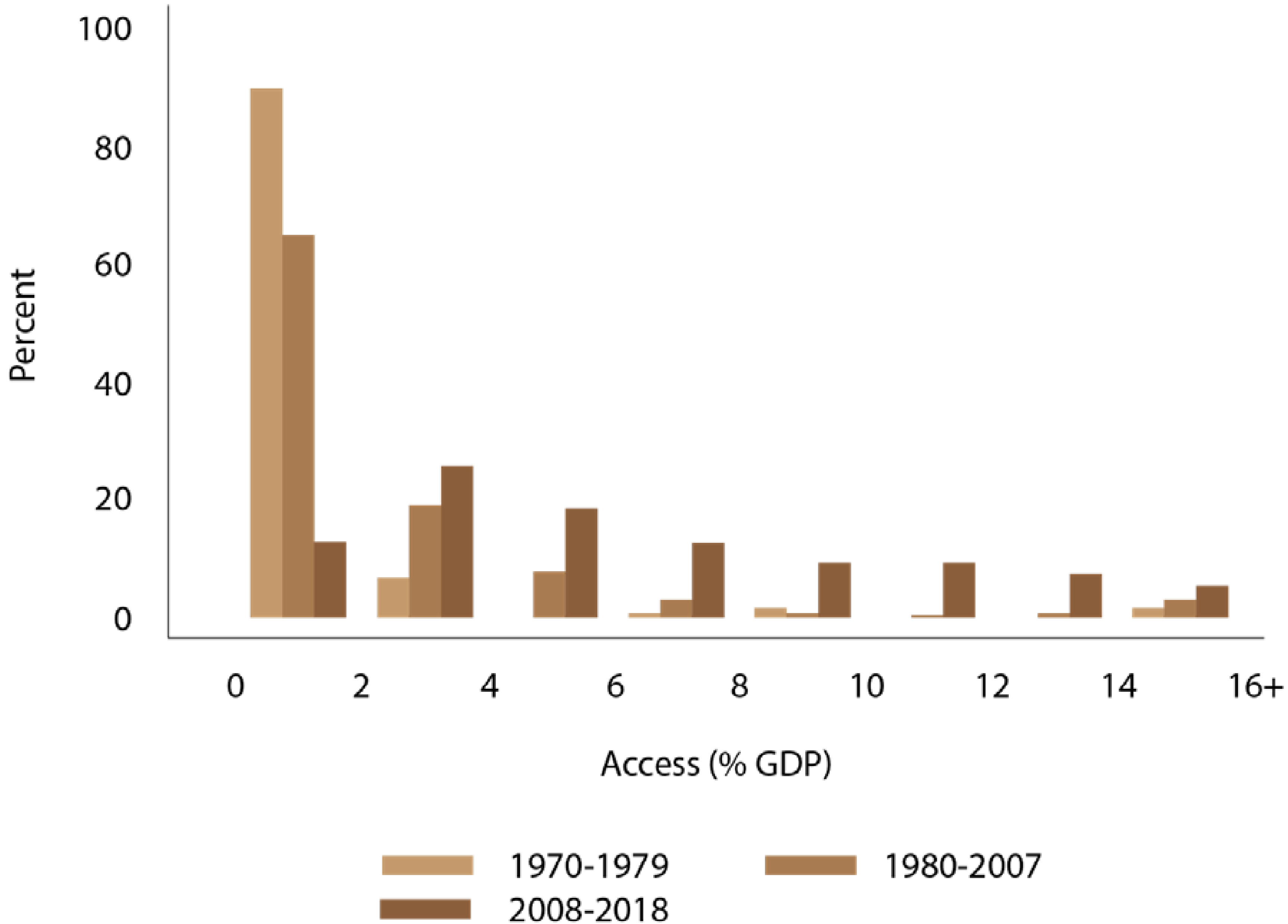
First, while IMF-supported economic adjustment and favourable terms of financing reduce the probability of default by strengthening the country's balance of payments position and its future capacity to repay external liabilities, the IMF's preferred creditor status can cause it to crowd out the claims of other creditors by increasing the loss given default of these claims, since they are considered junior to those of the Fund.

Second, in the presence of fiscal sustainability concerns large financing packages from the IMF, even paid out relatively up-front, offer a welcome opportunity for private creditors to exit. In this case, official debt replaces private debt with the result that it is much harder to restructure.

Third, IMF staff projections at programme approval often turned out too optimistic, in particular for very large Fund-supported arrangements that involve 'exceptional access' (Committeri *et al*. 2019). Against this background, private investors might be more likely to adopt a wait and see attitude in these cases.

Figure 1. Distribution of IMF arrangement sizes





Notes: Average size of IMF arrangements (left) and the distribution of IMF arrangement sizes (right). Program size is measured in percentage of recipient countries' GDP. Data on IMF arrangements (including their respective size) is taken from the IMF website and program documents. The nominal GDP data is taken from the World Bank's World Development Indicators (WDI).

In the current circumstances, most of these effects will tend to be even more pronounced given that the IMF would have to design a Fund-supported adjustment programme in the midst of enormous uncertainty. Therefore, a positive catalytic effect is more likely to be observed for smaller programmes where the IMF's share in the overall external financing envelope is more limited.

In my paper, I study the catalytic effect in the context of gross capital inflows using a comprehensive data set spanning the years 1990-2018. I provide empirical evidence that the catalytic effect of IMF financial assistance is indeed weakened – and potentially reversed – if the size of an IMF programme exceeds a certain level.

According to the estimates, a generally positive catalytic effect on private capital flows would be reversed once the amount of IMF financing is above 5% of GDP. This figure broadly corresponds to the upper quartile of the actual distribution of programs approved over the last decades.

I show that the negative effect of programme size is mostly driven by a reduction of debt-type capital inflows of foreign residents. This finding suggests that large IMF financial assistance coupled with the IMF's preferred creditor status can lead to a crowding-out of private investors by increasing their expected loss in the event of default[1].

Policy implications

Hence, the issue is not whether the IMF has sufficient resources to provide very large-scale financial assistance to all of its members in need, but that the latter would ultimately be counterproductive, also from the borrowing countries' point of view. It would rather create the risk of letting liquidity crises morph into solvency crises further down the road.

By contrast, providing international liquidity through a major allocation of SDRs (as also done during the 2008 financial crisis) would not suffer from the aforementioned negative side effects. However, such a liquidity injection would not be well targeted to the countries most in need and might also face resistance from some of the IMF's major shareholders (Sobel 2020).

Against this background, it will be of the essence for all elements of the international monetary and financial system to assume their full responsibility. This might also include the private financial sector, for instance by means of a framework (potentially steered by the IMF) that follows the example of the Vienna Initiative.

Should the private sector choose to disengage in defiance of such an appeal, countries might have to resort to some kind of temporary capital controls. In any case, ample IMF resources alone would not be able to compensate for destabilising capital outflows.

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Author's note: The views expressed here are those of the author and do not necessarily represent those of the institutions with which he is affiliated.

Endnotes

1. Note that the de facto preferred creditor status is a crucial (and non-negotiable) feature for the institutional design of *the IMF, as it allows its members to treat the resources provided to the Fund as reserves on their central bank's balance sheet.*

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Managing the winds of change

Technological innovations are transforming the financial sector. Johannes Ehrentraud and Denise Garcia take stock of the policy responses to fintech developments

Technological innovations in financial services are affecting every sector of the financial industry and generating a surge of new applications. This column takes stock of the policy responses to fintech developments in approximately 30 jurisdictions worldwide and proposes a novel conceptual framework – the 'fintech tree' – that distinguishes three categories: fintech activities, enabling technologies, and policy enablers. Designing a policy framework for fintech will require finding a balance that maximises its benefits while minimising potential risks to the financial system.

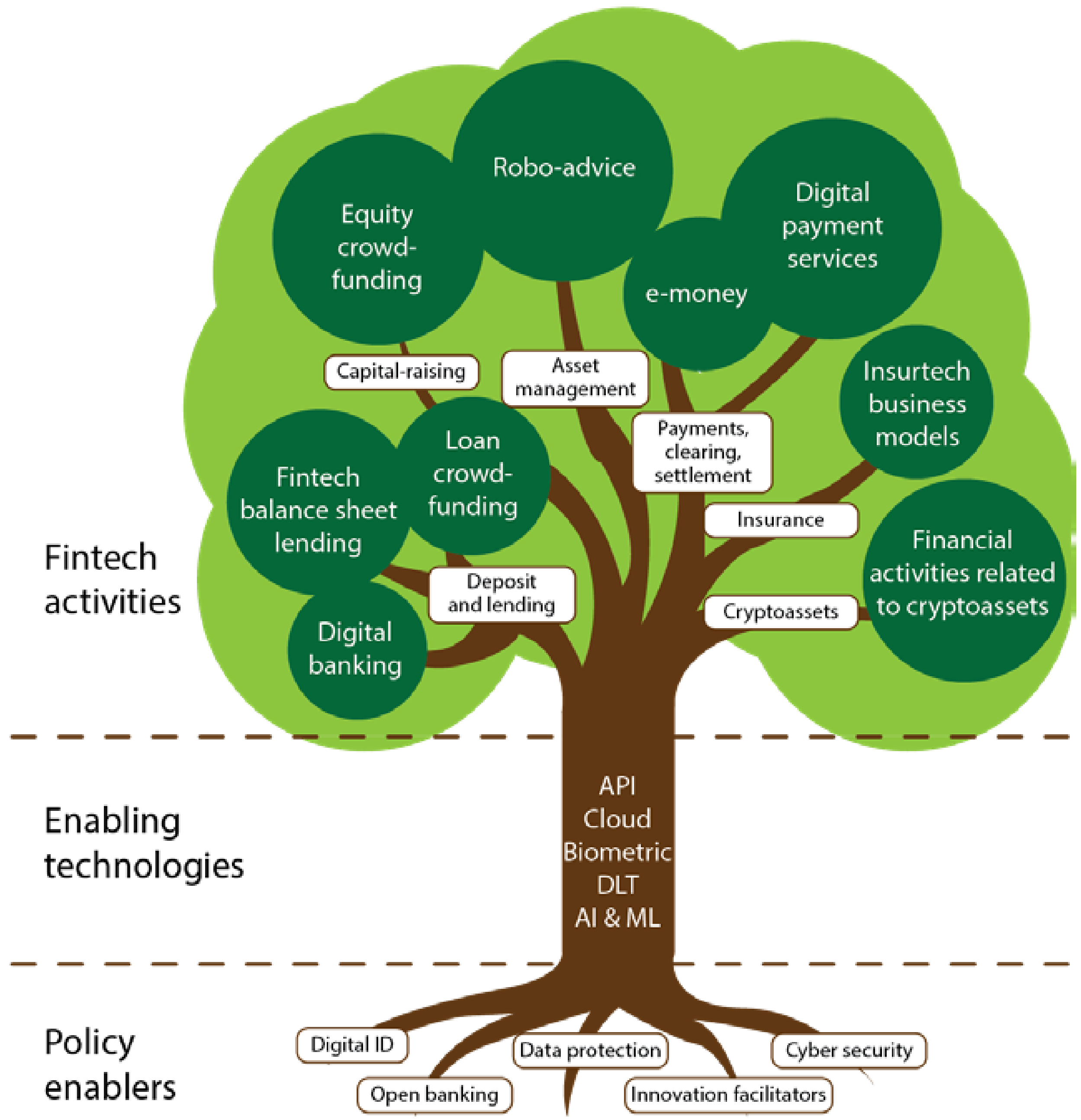
According to a Chinese proverb, when the winds of change blow, some people build walls and others build windmills. Winds of change do blow in the financial system – technological innovations in financial services (fintech) are affecting all parts of the financial industry and giving rise to a steady stream of new applications.

These include new approaches to how loans are granted, payments are made, investment advice is provided, insurance is priced, and funds are channelled from those who want to invest to those in need of funding. While fintech may increase efficiency in delivering financial services, widen their range, increase competition and promote financial inclusion, it may also bring challenges – posing risks to consumers, investors, and more broadly, to financial stability and integrity.

When designing an adequate policy framework for fintech, financial authorities will need to find a balance that maximises its benefits while minimising potential risks to the financial system – to choose the right combination of walls and windmills.

In a recent paper, we take stock of the policy responses to fintech developments in approximately 30 jurisdictions around the globe (Ehrentraud *et al*. 2020). Our goal is to give a sense of the different approaches pursued by regulators, and of the challenges and policy trade-offs they face. Building on the work done by global standard-

Figure 1. Fintech tree: a taxonomy of the fintech environment



Source: FSI staff.

setting bodies and other international organisations, we propose a novel conceptual framework, referred to as the 'fintech tree'.

It distinguishes three categories: fintech activities, enabling technologies, and policy enablers. Fintech activities (eg. digital banking or robo-advice) can take various forms and be performed in different sectors of the financial industry.

When designing an adequate policy framework for fintech, financial authorities will need to find a balance that maximises its benefits while minimising potential risks to the financial system

Enabling technologies (eg. artificial intelligence or cloud computing) make innovation possible in the provision of financial services and, as such, form the backbone of fintech activities. Policy enablers refer to public policy measures and initiatives (eg. open banking or regulatory sandboxes) that support the development of fintech activities and the use of enabling technologies.

Fintech activities

Our study finds that authorities pursue a range of approaches when regulating fintech activities. They may put in place fintech-specific licensing regimes that require entities to obtain a dedicated licence before offering their services.

Alternatively or complementarily, they may issue requirements that are fintech-specific, modify existing ones, or even forbid certain activities; or, they may clarify their supervisory expectations when applying the existing regulatory framework to fintech business models.

For digital banking[1] specific licensing regimes were put in place in only a limited number of surveyed jurisdictions (Hong Kong SAR and Singapore). In other surveyed jurisdictions, deposit-taking institutions have to comply with existing banking laws and regulations, regardless of the technology they deploy.

This means that applicants for a banking licence with a fintech business model need to pass through the same licensing process and face the same regulatory requirements as applicants with a traditional business model. Some jurisdictions have launched initiatives to facilitate the establishment of new banks, including digital banks (Australia and United Kingdom).

In others, regulators have clarified their supervisory expectations when considering licence applications from fintech companies. For example, in 2018 the ECB issued guidance on how authorisation requirements for credit institutions would apply to applicants with new fintech business models.

For fintech balance-sheet lending[2] most surveyed jurisdictions do not have a dedicated regulatory regime, and are subject to a variety of regulatory approaches that in most cases centre on the extension of credit as a regulated activity. The exception is Brazil, which introduced direct credit companies (sociedades de crédito direto, or SCD) as a new type of financial institution whose operation requires a licence from the Central Bank of Brazil.

For loan and equity crowdfunding, many surveyed jurisdictions have issued fintech-specific regulations that apply to both activities (Table 1). Often, crowdfunding platforms need to be licensed or registered and satisfy certain conditions before they can provide their services.

Although there may be only one type of licence for both activities, the regulatory framework typically includes requirements that apply to both activities, and requirements that apply to either loan or equity crowdfunding.

Robo-advice is typically classified as financial advice under securities regulation; ie. robo-advisers typically need to be authorised by the securities regulator, irrespective of whether the advice is provided digitally, face to face, or through a mix of both methods. Consequently, the majority of surveyed jurisdictions do not have fintech-specific regulations for providers of robo-advice.

Nevertheless, around a third of surveyed jurisdictions published guidance on issues that are unique to robo-advice, such as how the obligation to act in the best interest of clients can be met in the face of limited or no human interaction (Table 2).

Table 1. Fintech-specific regulations for crowdfunding

Equity crowdfunding		Equity and loan crowdfunding		Loan crowdfunding
Argentina	Columbia	Belgium	Peru*	Australia
Australia	Italy	Canada	Philippines	Brazil
Austria	Japan	Chile*	Singapore	China
Brazil	Turkey	European Union**	Spain	Italy
China	United States	France	Sweden*	United Arab Emirates***
		Mexico	UAE***	
		Netherlands	United Kingdom	

(*) Work in progress. In Peru, crowdfunding through issuance of securities (debt or equity) is currently not being authorised, but work is under way to introduce a new framework for different types of crowdfunding.
(**) Proposal by European Commission. Once adopted at the EU level, the new regulation will allow platforms to apply for an EU passport based on a single set of rules (see EC 2018).
(***) Dubai and Abu Dhabi have the same regulatory framework for both ECF and LCF. At the UAE level, the central bank issued a draft regulation on LCF.
ECF = equity crowdfunding; LCF = loan crowdfunding. The Swiss fintech licence (and, once implemented, the OCC fintech charter) may also enable fintech platform financing activities.

Sources: FSI survey, desktop research

Table 2. Robo-advice: elements of regulatory guidance

	Licensing/ authorisation requirements (types of licences, licensing process	Best interests duty/provision of suitable advice/collection of customer information	Use of algorithms	Provision of scaled/ streamlined advice vs comprehensive advice	Required or expected disclosures to clients
AU	✓	✓	✓	✓	✓
CA	✓	✓			
CN	✓	✓	✓		✓
CO*	✓	✓			✓
GB	✓	✓	✓	✓	✓
HK	✓	✓	✓		✓
NL	✓	✓	✓		✓
SE	✓	✓	✓		✓
SG	✓	✓	✓	✓	✓
US		✓			✓
ZA		✓			
Total	9	11	7	3	9

*Introduced under Decree 661 of 2018; secondary regulation is under consideration.

Sources: National regulations, FSI survey

For digital payment and e-money services, most surveyed jurisdictions have specific regulations. For digital payment services, initiatives put in place often aim at strengthening regulatory requirements for non-banks or facilitating their access to the payments market.

For e-money services, most surveyed jurisdictions have a dedicated regulatory framework that requires non-bank e-money providers to obtain a dedicated licence from the authority. In a few jurisdictions, e-money services are considered a banking business and are subject to bank-like prudential regulation.

For insurtech, we have not seen any licensing regimes or other requirements that are specific to technology-enabled business models in the area of insurance distribution and underwriting[3]. Existing licensing regimes and regulatory requirements are generally considered sufficient to address the features and risks of these new business models.

For cryptoassets and related activities[4] regulatory responses in surveyed jurisdictions vary considerably. Regulators have mostly focused on cryptoassets issued by non-regulated entities, issuing warnings and clarifying regulatory treatment. Several jurisdictions have introduced specific licensing regimes for entities providing services related to cryptoassets, and very few have established registration regimes (ie. exchanges, wallet providers). Only a minority of jurisdictions have prohibited certain crypto-related activities (Table 3).

Enabling technologies

Multiple technologies are enabling innovation in the financial sector. These include but are not limited to: application programming interfaces (APIs), artificial intelligence (AI) and machine learning (ML), biometric-based identification and authentication (biometrics), cloud computing (cloud) and distributed ledger technology (DLT).

Table 3. Regulatory and policy responses to cryptoassets and related activities

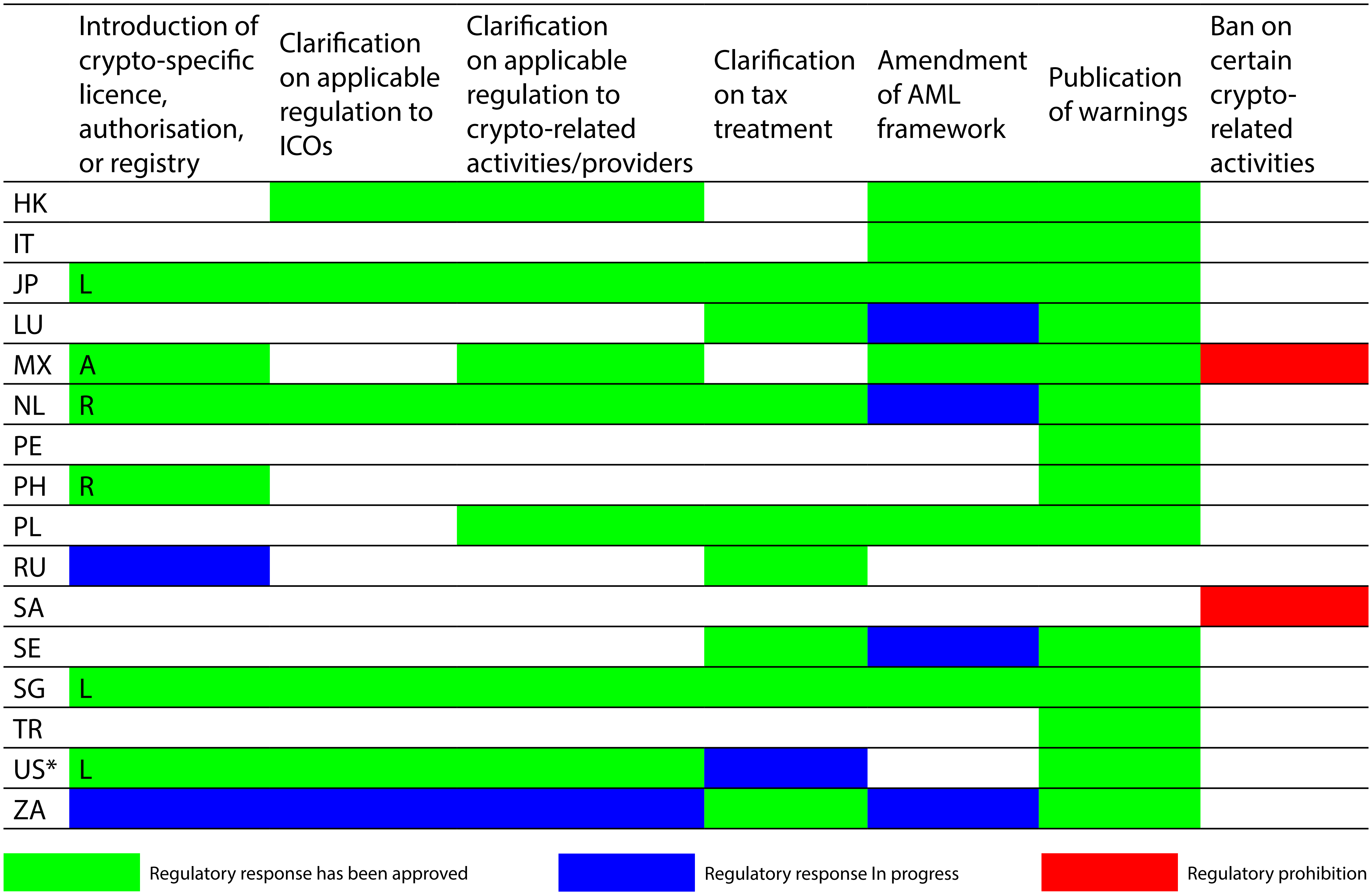
	Introduction of crypto-specific licence, authorisation, or registry	Clarification on applicable regulation to ICOs	Clarification on applicable regulation to crypto-related activities/providers	Clarification on tax treatment	Amendment of AML framework	Publication of warnings	Ban on certain crypto-related activities
AE	L						
AR							
AU							
AT							
BE							
BR							
CA							
CH							
CL							
CN							
CO							
DE	L						
ES							
FR	L + R						
GB							

Regulatory response has been approved

Regulatory response In progress

Regulatory prohibition

A = authorisation; L = licence; R = registration; * = state level.



A = authorisation; L = licence; R = registration; * = state level.

Sources: National regulations, FSI survey

For enabling technologies, our study finds that regulators have adjusted their existing regulations to add technology-specific elements to existing laws, regulations, or guidelines. As a result of the level of market adoption, some technologies have received more attention than others. Regulators have been particularly active on cloud, APIs, and biometrics. In contrast, for AI, ML, and to some extent, DLT, authorities have not gone beyond conducting risk assessments and issuing general guidance.

Policy enablers

Our study finds that public policies enabling the provision of digital services have received considerable attention (Table 5). In order to take advantage of the economic and social opportunities that a digital economy might bring, multiple authorities (eg. financial supervisors and competition, consumer protection and data privacy authorities) are implementing various public policies that enable digital services, such as:

- Digital identification (digital ID): financial authorities in almost all surveyed jurisdictions have included regulatory provisions in their frameworks that allow institutions to use digital ID systems for customer verification and authentication for certain government, commercial, and/or financial digital services. Only a few jurisdictions are implementing national digital ID systems as part of a broader innovation and digital strategy in their jurisdictions.

- Data protection: public authorities in most jurisdictions have issued new data protection regulations or enhanced existing regulations concerning the collection, use, and protection of customer information.

- Cyber security strategies: almost all jurisdictions have put in place cyber security regulations and guidance specific to the financial sector, while a lesser number have implemented a national cyber security framework.

Table 4. Policy responses to enabling technologies

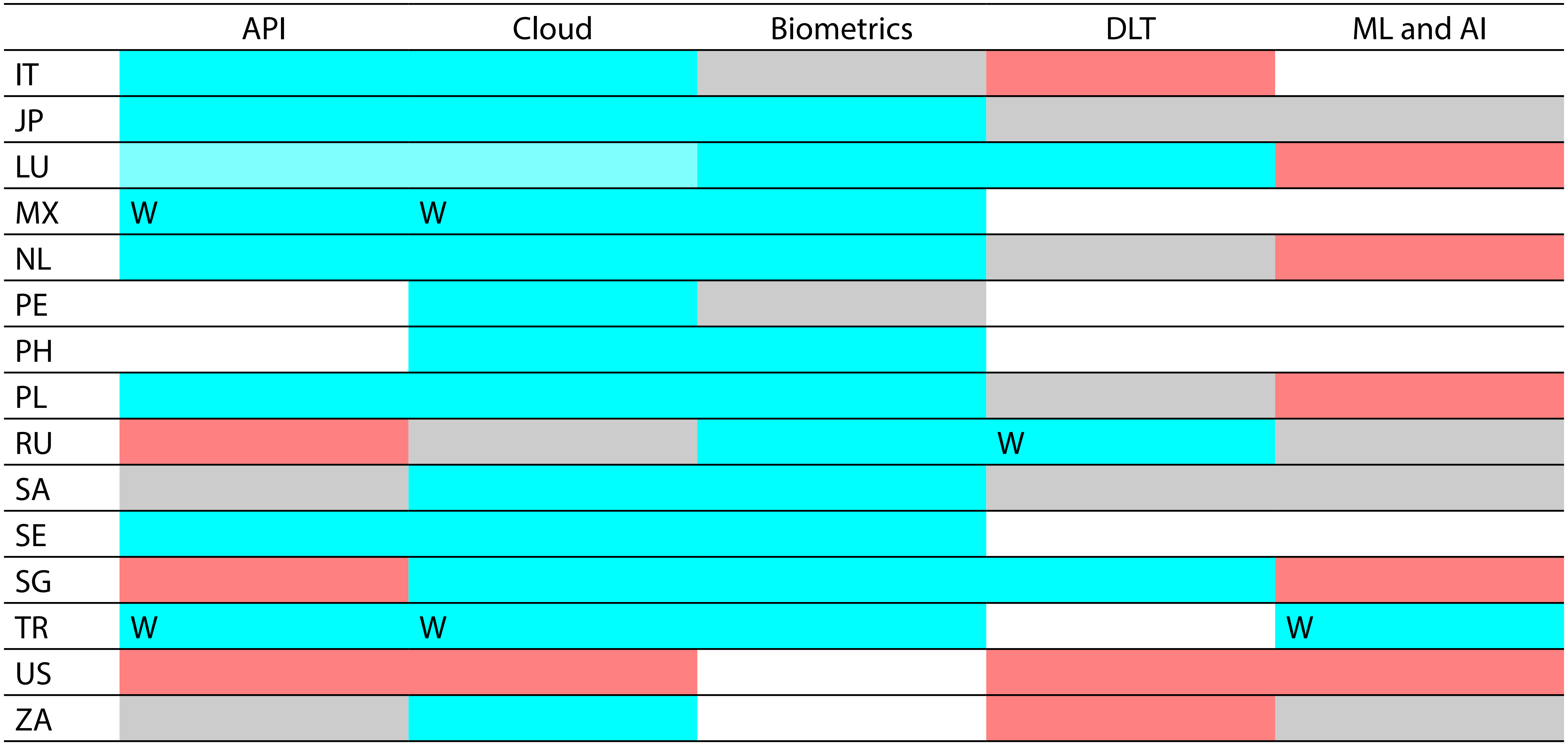
	API	Cloud	Biometrics	DLT	ML and AI
AE					
AR					
AU					
AT					
BE					
BR	W				
CA					
CH				W	
CL					
CN					
CO					
DE					
ES					
FR					
GB					
HK	W				W

Adjusting existing regulation to add technology-specific elements in laws, regulations, or guidelines

Exploratory analysis and formulation of general principles related to the use of the technology

In consideration

W = work in progress



Adjusting existing regulation to add technology-specific elements in laws, regulations, or guidelines

Exploratory analysis and formulation of general principles related to the use of the technology

In consideration

W = work in progress

As EU directives and/or regulations are counted for each jurisdiction that applies such directive/regulation (either directly or via transposition mechanism) and EU jurisdictions are highly represented in our sample, this might lead to conclusions that are not necessarily representative of world tendencies.
Source: FSI survey

- Open banking initiatives: implemented in several jurisdictions, they cover the requirements that apply for accessing and sharing customer information between banks and third-party firms.

- Innovation facilitator initiatives: almost all surveyed countries have established an innovation hub. Regulatory sandboxes are also a common innovation facilitator, while accelerators have been established in only a few jurisdictions.

Concluding remarks

Our study finds that policymakers are actively managing the winds of change brought by fintech. When regulating fintech activities, they are pursuing a wide array of approaches – ranging from establishing fintech-specific licencing regimes or other regulations to providing guidance to the industry.

For enabling technologies, regulators have mostly adjusted their existing regulations to add technology-specific elements to existing laws, regulations, or guidelines. On a broader level, public policies that enable the provision of digital services have also received considerable attention.

That said, to date, technological developments have not yet resulted in any major upheaval in the structure of financial regulation. Instead, authorities have so far taken a more targeted approach to policy.

When managing the winds of change brought by fintech, authorities need to decide on the adequate combination between windmills and walls. The former, to take advantage of fintech's benefits; the latter, to minimise potential risks it poses to the financial system.

Table 5. Public policies that enable the provision of digital services

	Digital ID (eID)		Data protection	Cyber security		Open banking	Innovation facilitator
	Framework for eID systems' use in financial services	National eID system	National framework	Financial sector framework	National strategy	Type of approach	Type of facilitator
AE	✓		✓	✓	✓		
AR	✓	✓	✓	✓			IH
AU	✓	✓	✓	✓	✓	P	IH, RS
AT	✓	✓	✓	✓	✓	P	IH
BE	✓	✓	✓	✓	✓	P	IH
BR	✓		✓	✓	✓	P*	IH, RS*, A
CA	✓		✓	✓	✓		IH, RS, A
CH	✓		✓	✓	✓	P	RS
CL			✓	*	*		
CN	✓	✓	✓	✓	✓		RS
CO			✓	✓			IH, RS
DE			✓	✓	✓	P	IH
ES	✓		✓	✓	✓	P	IH
FR	✓	✓*	✓	✓	✓	P	IH, A
GB	✓		✓	✓	✓	P	IH, RS
HK	✓	✓	✓	✓	✓	F	IH, RS, A

A = accelerator; F + facilitative; IH = innovation hub; P = prescriptive; RS = regulatory sandbox; * = in progress; s = state level

	Digital ID (eID)		Data protection	Cyber security		Open banking	Innovation facilitator
	Framework for eID systems' use in financial services	National eID system	National framework	Financial sector framework	National strategy	Type of approach	Type of facilitator
IT		✓	✓	✓	✓	P	IH
JP	✓		✓	✓	✓	P, F	IH, RS
LU	✓	✓	✓	✓	✓	P	IH
MX	✓		✓	✓	✓	P	RS
NL	✓	✓	✓	✓	✓	P	IH, RS
PE	✓		✓	*	*		
PH			✓	✓	✓		RS
PL	✓		✓	✓	✓	P	IH
RU			✓	✓	✓		RS
SA	✓			✓	✓		IH8, RS, A*
SE		✓	✓	✓	✓	P	IH
SG		✓	✓	✓	✓	F	IH, RS, A
TR	✓		✓	✓	✓	P	
US	✓s			✓	✓		IHs, RSs
ZA	✓		✓	✓	✓		

A = accelerator; F + facilitative; IH = innovation hub; P = prescriptive; RS = regulatory sandbox; * = in progress; s = state level

Sources: BCBS (2019), FATF (2019), FSB (2017), WB-GPFI (2018), FSI survey

Getting that mix right is easier said than done. Fintech developments present issues that are beyond the traditional scope of financial authorities, and the speed of innovation makes it difficult for regulators to respond in a timely manner.

In addition, important trade-offs may arise between different policy objectives. Achieving an orderly application of new technologies in the financial system will probably remain a desirable outcome of regulatory actions. At the same time, policy actions need to be consistent with the preservation of financial stability, market and financial integrity, competition and consumer protection.

Only with sufficient resources and access to timely and reliable information will authorities be able to steer innovation in a desirable direction, and agilely adjust their regulatory responses. In this context, cooperation and coordination at the local and international levels remain essential. ■

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Authors' note: The views expressed in this column are those of the authors and do not necessarily represent the views of the Bank for International Settlements or the Basel-based standard setters.

Endnotes

1. We define digital banks as deposit-taking institutions that are members of a deposit insurance scheme and deliver

banking services primarily through electronic channels instead of physical branches.
2. Fintech balance sheet lending refers to credit activity facilitated by internet-based platforms (not operated by commercial banks) that use their own balance sheet in the ordinary course of business to intermediate borrowers and lenders.
3. These refer to insurtech business models like mobile, on-demand, usage-based, or technology-enabled peer-to-peer and parametric insurance.
4. These activities may include creating, distributing, storing, or exchanging cryptoassets, or using them for investment or payment purposes or as reference in financial products.

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Digital transformation: what can banks learn from other sectors?

Established banks see digital transformation as a top priority to help them counter disruption. Paul Jones considers how banks can succeed

The banking sector sets a benchmark for other industries in many areas. When businesses need to process large volumes of transactions reliably, maintain 24/7 availability, meet complex regulatory requirements, analyse risks or make financial plans, they often aim to follow the same practices and adopt the same technologies that banks have established as a gold standard.

However, there are other areas where banks aren't necessarily ahead of the field – and where they can learn from the successes and failures of other sectors. Digital transformation is a prime example. According to McKinsey: *"Years of research on transformations has shown that the success rate for these efforts is consistently low: less than 30 percent succeed."* And as almost all established banks see digital transformation as a top priority to help them counter disruption from challenger banks and fintech startups, this is a major concern.

Technology as the catalyst for transformation

In their struggles to get digital transformation initiatives over the line, banks typically take one of two approaches. The first is to create a separate internal organisation with a remit to develop new digital products and services, unencumbered by the bank's existing legacy processes and technology. In some cases, banks have even acquired one of their former fintech rivals to take advantage of its digital skills and provide this internal innovation capability.

The second approach is to focus on incremental digitisation by enhancing existing processes with digital technologies. For example, a bank might seek to enhance contact centre operations by embedding intelligent decisioning capabilities that use artificial intelligence and machine learning to help operatives make more personalised offers to customers. This strategy has the advantage of building on the strengths of existing ways of working, instead of starting from scratch. But it may also be more difficult to implement and require significant investment from senior leaders to drive the required cultural change.

It’s difficult to say which of these approaches is best. And in practice, banks will probably require both, depending on the type of transformation they are trying to achieve. But one interesting insight, again from McKinsey, is that whichever approach they follow, organisations whose transformation initiatives are successful tend to deploy or try more technologies than those who fail, particularly in areas such as cloud, mobile, IoT and artificial intelligence. And this links strongly to the fail-fast mantra in introducing digitalisation.

The importance of first principles engineering

There’s a connection here. Banks are buying fintechs to take advantage of their digital expertise, and fintechs have earned that expertise through their willingness to adopt and experiment with new technologies. But that experimental approach isn’t something that the fintechs invented on their own. It’s a lesson they learned from the big technology companies.

... whichever approach they follow, organisations whose transformation initiatives are successful tend to deploy or try more technologies than those who fail

For example, while Facebook's famous mantra of *"move fast and break things"* sounds like a frightening idea in the highly regulated world of the financial sector, it's basically the same idea that Tesla calls *"first principles engineering."* You take a new idea, try to implement it using whatever technologies seem most promising and expect your first attempts to fail. But because you expected some form of failure, you learn from the experience and do better on the next iteration.

Perhaps some of the new technologies you try end up in the final product, and perhaps they don't. The point is, you make the cost of the experiment and the price of failure as low as possible so that you have space to explore the problem and come up with the right design for your business.

Learning from the tech giants

Take Monzo, for example, which is one of the UK's biggest success stories in the new wave of challenger banks. In its mission to build a banking system from the ground up, Monzo's engineering team decided to build a loosely coupled microservices architecture, specifically because *"large internet companies like Amazon, Netflix and Twitter have shown that single monolithic codebases do not scale to large numbers of users."*

In its willingness to learn from the tech giants, Monzo experimented with different technologies before settling on Kubernetes – the same technology that Google uses to manage containerised workloads at a massive scale. (Incidentally, at SAS, we've been through a similar journey in developing our own cloud analytics platform and came to a similar conclusion. We're now running our new services on Kubernetes too.)

The same principle applies to the adoption of analytics tools for artificial intelligence and machine learning. Even more so than classical statistical modelling, AI inherently requires an experimental, iterative approach where you learn as much from your failures as you do from your successes.

In many cases, the wisest path is to try a wide range of different approaches and technologies, including all the latest open source frameworks, to discover what works best. Once you have found the right approach, you can then industrialise it using a production-grade analytics platform such as SAS Viya, and even provide it to your clients as a service.

The human element

We've established that banks can profit by following the example of the big tech companies when it comes to designing the technical architecture and processes around digital transformation. But technology isn't everything. Successful digital transformation also has a strong human element.

To see why this is important, let's look at a counterexample. Another fintech company that has enjoyed rapid growth is Robinhood Markets, whose mobile app has made it easy for a new generation of investors to start trading stocks, ETFs, options and cryptocurrencies. However, in early March 2020, the Robinhood app suffered a series of systemwide outages that prevented users from opening or closing their positions.

The cause of the problems was a technology failure. In a subsequent blog post, the company's founders noted that their infrastructure couldn't handle the combination of *"highly volatile and historic market conditions; record volume; and record account sign-ups."* But the impact was human. When the app failed, there was no contact centre to act as a backup for booking trades.

The risks of failed tech

The result? Many of Robinhood's small investors were helpless as the markets turned against their positions, or unable to make trades to take advantage of opportunities they spotted during a week when the coronavirus pandemic sparked a mass selloff.

While it's not yet clear how Robinhood will weather the storm, it's reasonable to expect that there will be compensation claims, potential lawsuits and, worst of all, a catastrophic loss of customer confidence in the business. As one customer quoted in *The New York Times* put it: *"For me, the moment they get [back online]I am going to try to get out and switch out to someone else."*

Without a human element that can take over when technology fails, businesses expose themselves to significant risk. And even if the technology is completely bulletproof, it's a bad idea for banks to use it to replace human contact entirely.

When customers apply for a mortgage or a loan, they're often going through a high-stress situation, such as moving house or expanding a small business. While the loan approval decision can and should be handled by sophisticated modelling techniques, the customer wants to hear more than just *"computer says yes"* (or *"no"*).

The best customer experience comes when the model is able to explain its decision to a customer service agent, who can then act as an intermediary to break the good or bad news to the customer. This is assistive AI in action.

Learning from the public sector

This is a lesson that the public sector has been faster to learn than the private sector. Health care organisations, for example, are investing significantly in the use of AI to assist with diagnoses – for example, using image recognition models to identify potential tumours in X-rays and other medical images.

But the principle from the beginning has been that AI can only play an advisory role; the final decision is always made by the physician. At SAS, we've seen the success of this approach in other areas of the public sector too. We've recently worked with a large government department to embed intelligent decisioning into its contact centre to give staff the insight they need to provide a better service to each caller.

We've helped translate the same principles over to the private sector, as well. One of our clients is a car insurance company that uses AI to assess whether a damaged vehicle needs to be written off, and the model now explains its decisions to the customer service team so that it can advise policyholders. ■

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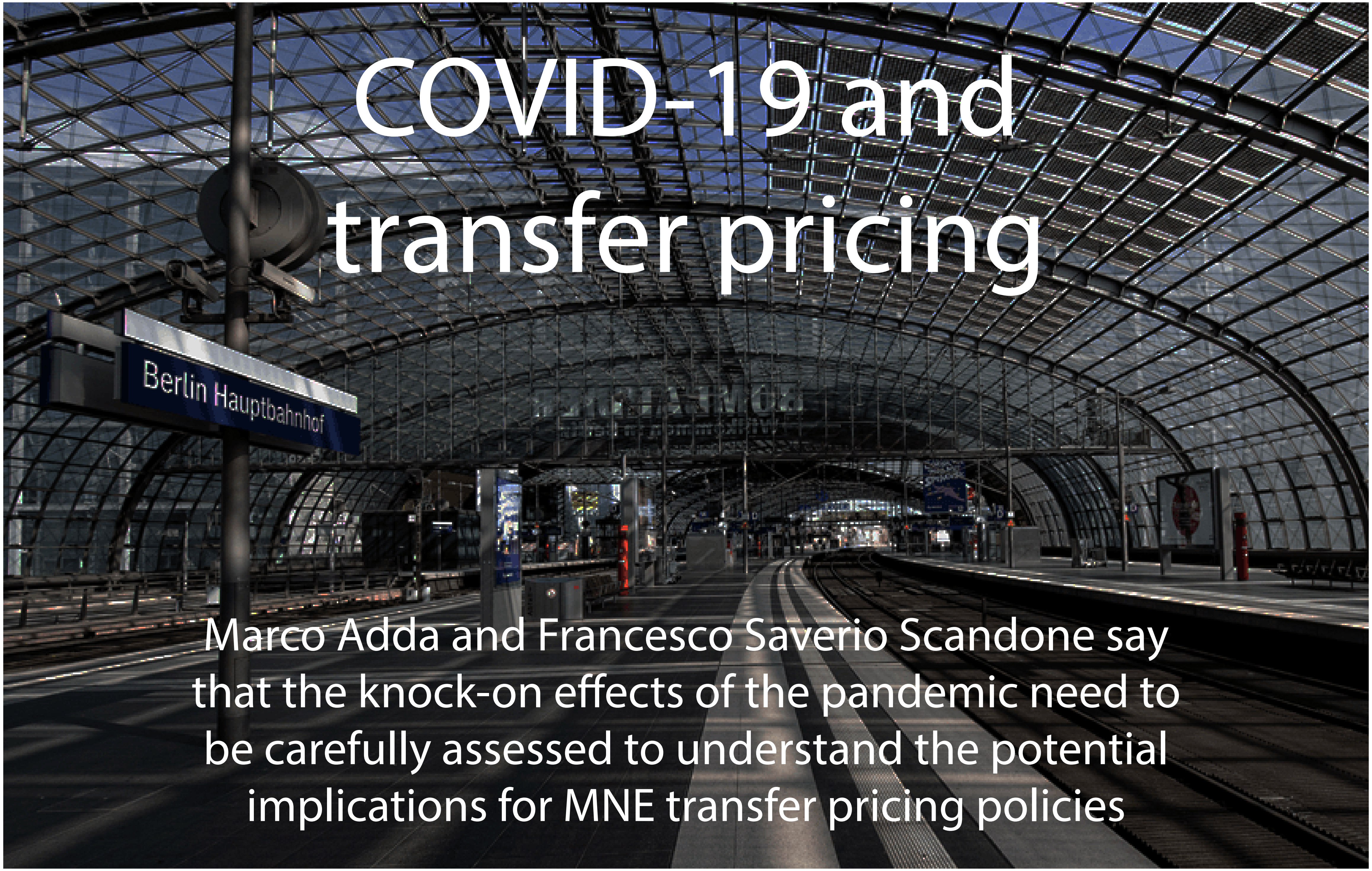
COVID-19 and transfer pricing

Marco Adda and Francesco Saverio Scandone say that the knock-on effects of the pandemic need to be carefully assessed to understand the potential implications for MNE transfer pricing policies



Introduction

The COVID-19 pandemic has clearly put tremendous pressure on almost all the world's health systems and economies, with the OECD warning that the pandemic poses the greatest threat to the global economy since the 2007–2008 financial crisis[1], and the IMF's projections for GDP growth paint a similarly grim picture[2].

Except for South Asia (with GDP growth expected to fall to +1.5), all regions around the world are expected to record negative growth rates (with western Europe plummeting to -7.3 and north America to -6), and even when one looks at the figures for individual countries, the figures are far from encouraging[3].

The impossibility to predict how long the crisis will last has inevitably brought much uncertainty about what the future holds; however how well businesses, industries and countries manage to overcome the challenges ahead greatly depends on what actions governments take – and many are taking quite different approaches.

Given the varying effects on different sector, different approaches will be needed for each. Indeed:

- some sectors will be hit harder than others, with traditional fashion retail and automotive being some of the hardest hit sectors. In fact, colossus groups Kering Group[4] and Volkswagen[5] have already issued profit warnings due to the COVID-19 crisis; and

- consumer behaviour has taken a U-turn (although FMCG are, and will continue to in the short-term at least, seeing a spike in performance).

The countless knock-on effects of the global turmoil need to be carefully assessed to understand the potential implications for MNE transfer pricing policies for both 2020 and 2021. Indeed, the OECD is planning to issue guidelines covering the effects of the COVID-19 crisis on transfer pricing specifically[6].

The widespread consensus[7] is that, be we in the midst of a recession or a booming economy, the cornerstone for allocating income throughout MNE value chains should remain the same throughout the business cycle, ie. the

MNEs will need to act fast to avoid significant year-end adjustments [...] and to prepare robust documentation ready for future tax audits (and to avoid double taxation) arm's length principle enshrined in the OECD Transfer Pricing Guidelines for Multinationals Enterprises and Tax Administrations ('OECD TPG')[8].

Businesses thus need to consider what aspects of the transfer pricing analysis need to be more carefully taken into account in the current economic cycle.

The economic circumstances

The economic circumstances are one of the key comparability factors mentioned in the OECD TPG[9], but no explicit reference is made to economic conditions in the face of a pandemic and the potential effects on comparability. The only reference that can be considered close to a pandemic is the mention of 'natural disasters' in Chapter VI with reference too hard to value intangible, to identify a category of events that may be considered unforeseeable at the time of a given transaction[10].

In the absence of specific provisions that deal with pandemics, the general principles in the OECD TPG should be applied to formulate a possible approach that reconciles the extraordinary nature of the pandemic and compliance with the arm's length principle.

The OECD TPG states that the prices for products and services may significantly vary depending on:

- the markets, especially the nature and extent of government regulation of them[11]; and
- the existence of a cycle[12].

These elements should thus be considered in order to appropriately apply the arm's length principle even during the COVID-19 crisis and making amendments to the transfer pricing policy (if needed) by performing the following steps:

1. Industry: the first step is to understand whether the existing transfer pricing policy does in fact need to be amended, based on the industry the given MNE operates in. MNEs in industries not affected by the COVID-19 crisis will clearly not need to make changes. Changes to the transfer pricing policies may well be needed not only to MNEs in industries negatively affected by the COVID-19 crisis (eg. automotive and fashion) but also to those in industries positively affected, at least in the short term (eg. home care and media and entertainment) to understand where to allocate in the first case the extra losses and in the second the extra profits[13].

2. Market: the second step is to look at how the markets the MNE operates in have been affected. For example, associated entities operating in China, where the GDP growth prediction is still positive and where the lockdown measures were starting to be lifted as other countries were introducing them, should be treated differently to associated entities operating in Italy (despite the similarities in the lockdown measures).

The latter should also be treated differently to associated entities operating in Sweden (because, despite both countries having negative GDP growth predictions, the governments have adopted different measures).

3. Third-party behaviour: given the obvious difficulties in performing obligations under contracts entered into before the crisis, it is worth trying to renegotiate the payment terms of contracts with independent parties.

One must also bear in mind that, for the large majority of contracts, performance will be suspended on the grounds of force majeure. This should be reflected also into intragroup dealings in order to comply with the arm's length principle.

Should transfer pricing policies be affected by COVID-19?

A significant number of transfer pricing policies apply a principal model whereby the group entities classified as limited risk takers (eg. contract manufacturers and limited risk distributors) are granted a routine return.

The potential impact of the crisis on this model are evident: should the principal grant the same return despite a drastic fall in sales? The answer depends on how the pandemic risk is characterized, ie. whether this category of risk may be considered one of the risks from which the low risk entities should be relieved.

The OECD TPG provides a wide definition of risk as *"the effect of uncertainty on the objectives of the business."*[14] One could thus conclude that the concept of risks should be linked to something predictable, which is confirmed by the OECD TPG with the following statement: *"companies choose which risks they wish to assume in order to have an opportunity to generate profits."*[15]

It could be argued that the pandemic risk does not fit the definition of a predictable uncertainty, since companies had no choice but to assume the risk.

This interpretation is supported by the concept of force majeure as applied in international commercial law: one of the essential features of this concept[16] is foreseeability ultimately linked to a risk that a reasonable person would take based on the information and knowledge that existed when the contract was entered into[17].

The COVID-19 risk could thus be considered a risk that goes beyond the foreseeable and controllable risks assumed by stakeholders[18]. And as they are individually powerless to take decisions on or mitigate the risk, it could be argued that, in principle, the entire group should sustain the risk, including limited risk entities. This conclusion is consistent also with the assumption that, as pointed out by scholars,[19] low risk does not mean no risk.

A further analysis to consider is the options realistically available ('ORA') analysis: The outcome could well confirm that the best option is to renegotiate contracts to introduce clauses whereby the repercussions of the COVID-19 crisis are shared between the parties[20].

Reliability of data for comparability analysis

A further implication of the economic downturn relates to the use and reliability of data for comparability analysis, with the main issues being linked to the fact that benchmarking analyses are generally performed on:

- historical data, whereas the 2020 financial data of the comparable will not be available before autumn next year, and
- multiple year data.

One might think that a possible shortcut to resolve this issue is to use financial data of periods of previous crises, such as the 2007–08 financial crisis. But this solution does not appear to be feasible due to the structural differences of crises, including the 2007–2008 one and to the fact that no guidance from the OECD was forthcoming after the 2007–2008 crisis on how to treat the negative economic cycle. Whereas it has announced, as mentioned, that it will be issuing guidance on the impact of the COVID-19 crisis on transfer pricing[21].

We thus believe that the above issues should be addressed by:

- performing comparability adjustments that take account of the effects of the crisis. The adjustments could take multiple forms (eg. reflect the reduction in the revenues of the tested parties in the turnover of the comparables or allocate extra costs deriving from the crisis and sustained by the principal to the other entities in the group). And this could be performed both on the independent entities or on the tested party; and

- performing a qualitative analysis, rather than a merely mechanical benchmarking one, that considers all the variables of the crisis (eg. geography, regulation and industry).

Conclusion

After just a couple of months into COVID-19 health crisis, it is clear that all world economies are being hit and will continue to be hit hard. But the extent of the damage will differ based on industry and geography.

Multinationals will have a harder time determining arm's length prices and have to carefully assess existing transfer pricing policies, documentation and advanced pricing agreements. MNEs will need to act fast to avoid significant year-end adjustments, for example, and to prepare robust documentation ready for future tax audits (and to avoid double taxation).

We believe the solution is to carry out qualitative analyses that take account of all the variables of the crisis. Significant importance should be given to economic circumstances and market characteristics in order to determine the correct remuneration of MNE group entities.

Furthermore, the inevitable uncertainty suggests that, at least for major transactions, it would be wise to open an official channel with the tax authorities involved through BAPA requests. ■

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1. https://www.oecd.org/newsroom/global-economy-faces-gravest-threat-since-the-crisis-as-coronavirus-spreads.htm

2. https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/OEMDC/ADVEC/WEOWORLD

3. Europe will face the peaks of Greece (-10) and Italy (-9.1) – but also the negative results of strong economies such as Germany and UK (-7 and -6.5, respectively). The US is predicted to record -5.9, Canada -6.2, and Russia -5.5. On the positive side, India and China are expected to record +1.9 and +1.2, respectively.

4. https://www.kering.com/it/news/initial-estimate-of-covid-19-epidemic-impact

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6. OECD Tax Talks, 4 May.

7. R Schatan, Transfer Pricing Practice in Times of Recession, International Transfer Pricing Journal, January–February 2010, pp. 63–64.

8. OECD (2017), OECD Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations 2017, OECD Publishing, Paris.

9. See para. 1.110.

10. See para. 6.194.

11. See para. 1.110.

12. See para. 1.111.
13. Another aspect to potentially consider in performing a transfer pricing analysis is the financial aid countries grant stakeholders.
14. Para. 1.71.
15. Para. 1.71.
16. The essential features were ultimately incorporated in the 2020 version of the International Chamber of Commerce (ICC) Model Force Majeure Clause. See https://iccwbo.org/publication/icc-force-majeure-and-hardship-clauses/
17. See M Winkler, Practical Remarks on the Assessment of Covid-19 as Force Majeure in International Contracts, available here: http://www.sidiblog.org/2020/05/06/practical-remarks-on-the-assessment-of-covid-19-as-force-majeure-in-international-contracts/?fbclid=IwAR0Eyt-hPBrD4YLRmvNiUcYUAbvLVXP7kWI_S9QWD8uCd7CWlRxV_Lpaiok
18. The OECD TPG specifies that natural disasters could fall within the category of hazard risks, which can often be mitigated through insurance.
19. See V Horrocks, United Kingdom - Transfer Pricing Practice in an Era of Recession, International Transfer Pricing Journal, 2009 (Vol.e 16), No. 6.
20. The possibility to share the extra losses/profits appears to be at least invokable against the tax authorities of countries (Germany and France) that are foreseeing temporary regulations to reform contractual obligations to tackle the Covid-19 crisis.
21. OECD Tax Talks, 4 May.

Optimise your customer experience and remote workforce

The COVID-19 pandemic has created a challenging business climate. Jonathan Sharp argues that this demonstrates the need for a critical business continuity strategy

The COVID-19 pandemic has demonstrated that many companies had not implemented an adequate business continuity strategy. Resulting in a frantic rush to roll out technology that enables staff to work from home. However, business continuity planning spans much wider than using the correct technology and should encompass the entire business; not just the IT department.

Lockdown looks set to continue for a while providing you with time to optimise your remote workforce, customer engagement, and streamline operations. Discover new business opportunities and models to be able to respond better if a situation like this occurs again, and reduce costs with hard times yet to come without impacting on the customer experience.

From the top

The pandemic has resulted in a large percentage of the UK working from home under lockdown and many businesses have struggled with the new conditions. The responsibility of a business continuity strategy lies with the senior management team to devise the strategy, set the culture and advocate it throughout the business. It needs to cover processes, people including staff, customers, suppliers and partners, and of course premises.

Businesses that have had an all-encompassing business continuity strategy in place already have been able to seamlessly transition all staff from offices to home in just a few days without impacting the business processes at all.

Integration for seamless service

Businesses who don't have remote working technology in place, have either had to call in solution providers to quickly implement a remote working solution, or use conferencing and collaboration tools such as Zoom etc. The issue here is that it doesn't integrate with your front and back office systems. Plus, the concerns about the security, particularly when it comes to Zoom is a problem.

If your staff are working at home so long as your business still operates, and you are still providing a good customer service it is irrelevant where they are based.

It is key that your unified communications conferencing and collaboration solutions enable people to work from home and integrate with your front and back office systems so all operations, processes and customer service continues to run smoothly.

Cloud based conferencing and collaboration solutions such as Mitel's MiTeam Meetings or MiCollab and Avaya's Spaces empowers employees to hold audio and video conference calls together over their desktop or via a mobile.

COVID-19 has demonstrated the need for a critical business continuity strategy and who knows maybe going forward the norm will be to work at home or other flexible working options

Send instant messages, collaborate on documents and presentations together. It is important to use intuitive technology that is easy to use, set up and to keep your documents secure to protect data and privacy.

Call in the experts

The benefit of working with a solutions provider is that they will work closely with you to plan and implement a business continuity strategy.

During the COVID-19 pandemic enabling remote working is not the end goal; business must continue, and extra effort needs to be applied to withstand the hard economic times that will come after the lockdown period. A solutions provider can assist you with how to optimise your remote workforce, step up customer engagement and identify new business opportunities and models to save costs.

Connect with your remote workforce

The challenge now is how to improve the management and effectiveness of your remote workforce. Employees require clear direction of what needs to be done and key performance indicators can be put in place to ensure that employees are achieving. Software such as workforce management tools and collaboration software ensure you can access project progress and knowledge bases.

Optimise customer experience with automation

Utilise this time to discover new business models, streamline operations, processes and increase the effectiveness of customer engagement with disruptive technologies such as automation and artificial intelligence.

During COVID-19 A lot of organisations including government, housing associations, charities, finance, insurance companies, suppliers, distributors and pharmacies are experiencing high levels of customer enquiries that are proving difficult to manage and respond. Especially with distributed and reduced workforces. Automation can be used to manage digital interactions and streamline operations to reduce costs, increase efficiencies without impacting on the business's performance or customer experience.

An automation solution can reside outside the contact centre acting as a triage, processing large volumes of digital interactions such as email, web chat, social messaging or WhatsApp messages, presenting the agent with a single screen of all digital communications.

Enabling businesses to only allocate human agents to deal with real time urgent enquiries, handing over the other requests to the automation solution where it automatically reads content, context and sentiment and can respond automatically using set bespoke answers from templates. It can also prioritise, categorise and create queues and tickets for fulfilment.

"In the most challenging business climate we have ever seen, the biggest gain for us implementing the INBOX is efficiency. We have automated the organisation of our workload during this hectic time and now have the ability to implement self-service for our customers which will lead to improved efficiencies and vast cost-savings," Neil Whitaker, Head of IT, Sunspot Tours & Mercury Holidays.

Businesses also need to address how they will cope once we all come out of lockdown. There will be a surge of interest for many organisations, travel of course high amongst them. Being prepared and ready to cope with the upturn will be the secret of success for many organisations.

An organic approach

Business continuity must be viewed as a business strategy and not a technology strategy. It is essential that everyone in the business is briefed and knows what to do, and what their role is should a disaster occur. It is a circular process that constantly evolves and needs to be regularly fine-tuned and improved; the process never stops.

COVID-19 has demonstrated the need for a critical business continuity strategy and who knows maybe going forward the norm will be to work at home or other flexible working options. More opportunities and agile business models will be discovered in these surreal times we find ourselves in.

Stay safe. Stay connected. ■

Jonathan Sharp is a Director at Britannic Technologies

Motivations. Balancing the differing needs of students

Diversity is not just about gender and nationality, it is also about the reasons that students study an MBA. Stuart Robinson explains

The drive for diversity is a key issue for many business schools. Most business school professionals would agree that it is important to have a diversity of gender, nationality and socioeconomic background in students as well as staff.

Looking out at the faces of my current MBA class, the other diversity aspect that is striking is the range of motivations for embarking on a course of study like the MBA. While colleagues and I are teaching a class, the individual students within it can be interpreting the content and how it will serve their hopes, ambitions and plans in very different ways.

It is very rewarding for an MBA teacher to have diversity in a classroom as this serves up the alternative opinions, views and arguments that encourage breadth and depth of learning. However, it also brings with it the challenge of addressing the different motivations of students and meeting their diverse objectives.

How do you ensure that programme design caters for different motivations? You certainly can't design sessions on one-by-one student needs.

I argue that we can identify five broad categories of student motivations, each calling for different approaches to be combined in teaching. These are the Entrepreneur, Career Changer, Corporate Climber, Badge Acquirer and Lifelong Learner.

The entrepreneur

Over the last decade, entrepreneurship has become a fundamental subject area at many schools and help with developing entrepreneurial skills is a key need for students. In recent editions of the Tomorrows MBA study by CarringtonCrisp and EFMD, entrepreneurship has consistently been in the top 10 of most-demanded subjects.

At Exeter we have a dedicated entrepreneurship research centre and, like many schools, we find increasing numbers of students using their MBA as a springboard for launching new ventures.

So what do these entrepreneurially inclined students need from an MBA programme?

To best serve the diverse needs of students, the MBA should be an integral part of the wider business school and university, partnering with other areas on research, teaching and opportunities for students. I think the best business education is one that reflects the full breadth and depth of business activity that students will encounter in the real world

First is space and encouragement to experiment and put ideas into practice. For many, an MBA programme is seen as a safe environment in which to try to new business concepts and develop skills through initiatives such as start-up competitions and Dragons' Den-style panels.

Second is access to mentors for support, whether that is faculty, alumni or corporate partners.

Finally, is the help to turn ideas into reality and advice on how to access early-stage funding opportunities.

The career changer

An MBA is seen by many as the springboard to a significant career change. According to GMAC's 2018 Alumni Perspectives Survey, approximately one in three prospective MBAs plan to use their management education to pursue opportunities in new industries (27%) or job functions they have not worked in before (36%).

In addition to industry or career, it sometimes means just doing something utterly different. For example, Exeter MBA alumna Sandra Norval trained as an accountant and her career had taken her into a senior environmental role in a rail operator.

But for Sandra, the MBA at Exeter supported a significant change in direction. Since graduation in 2014, she has set up her own professional coaching and business change consultancy, leading her into several senior advisories and non-executive board roles.

The fundamental nature of an MBA gives people like Sandra exposure to a host of different management disciplines. For many Career Changers, some of the softer leadership skills such as influencing and working with others are particularly important.

These students place an emphasis on networking and CV-building, and career support needs to be clearly linked to the content of the programme. Ultimately this group of students are focused on taking up opportunities to learn what it is like to work in different organisations and contexts. Activities such as individual consulting projects, which many business schools run, are particularly valued and can act as a catalyst for a career change.

The corporate climber

The third group of students are those concerned with using an MBA as a means of promotion and increasing salary within their current organisation. This is especially true with part-time or executive MBA students and with full-time students fortunate enough to have an employer that is supporting their MBA.

For Corporate Climbers, the focus is on acquiring knowledge, skills and behaviours that can add to their personal reputation and build up their confidence to tackle new roles.

For example, Nick Beilby, supported through his MBA by his employer, Centrax, found that he was able to use the knowledge, skills and vision he gained from his MBA at Exeter in the workplace. This, along with the opportunity to engage with other students to share ideas from their industries and perspectives, was key to accelerating his career progression in his organisation.

Measurement and accredited learning are something that this group values, which means that business schools need learning assessment systems that create impact back in the workplace. With the advent of Degree Apprenticeships in the UK, where business schools have the dual customer of individual and organisation, the Corporate Climber type of student is becoming more common.

The badge acquirer

For this group, a masters degree is the pinnacle of academic achievement. Having the letters 'MBA' after their name is a major motivation for many students. Their thinking is that an MBA represents a 'finishing school' from which they are ready to go on and pursue a variety of career goals.

Similarly to the Career Changer, Badge Acquirers may not have well-formed career goals beyond that of completing the MBA programme successfully. As with Career Changers, they will, however, place a great focus on career support and coaching that can help them prepare for life post-graduation.

This group will also attach significant importance to a business school's performance in rankings, accreditations and awards as these add credibility and perceived value to their MBA qualification.

The lifelong learner

Finally, there are a group of students that can be labelled Lifelong Learners, for whom an MBA is one step of many they take in continuing their professional education. In the 2019 Tomorrow's MBA study by CarringtonCrisp and EFMD, when asked about study motivations, prospective students placed *"I had always planned to do an MBA as part of my personal development"* second only to *"improving earning potential."*

For these students, the focus is on how they can use an MBA to expand on previous education and learning to build for the future. They may be attracted by the intellectual avenues that MBA study can open and may value connections with the wider university beyond the business school itself. Within this group will be some that consider a PhD and an academic career as possible routes forward.

The variety of motivations that students bring to the MBA calls for careful responses from programme designers.

First, it underlines the importance of the functions and learning opportunities that sit around a core MBA curriculum. This can include entrepreneurial and new business incubation support, career services, project opportunities with external organisations and executive coaching.

To best serve the diverse needs of students, the MBA should be an integral part of the wider business school and university, partnering with other areas on research, teaching and opportunities for students. I think the best business education is one that reflects the full breadth and depth of business activity that students will encounter in the real world.

Second, it supports yet another argument about why a business school must have an engaged alumni community. The relationship with an MBA student needs to be treated as a lifetime commitment not just the one or two years of study, with alumni relations needing to be an integral part of programme design and development.

Third, corporate connections with organisations ranging from large corporates to small start-ups as well as from the public sector to the third sector are vital. All can be valid and valuable partners in business school programmes.

MBA students want the holistic experience of learning and engaging with organisations and individuals outside the classroom. In this regard, the MBA programme design needs to look at how an external network of different partners can be built and maintained.

Finally, it points to the value of efforts that recognise, guide and value students as individuals. This is work that, given the limited time available in many contemporary programmes, must begin on day one and be maintained throughout the programme and after graduation. ■

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Digital transformation and corporate learning

The COVID-19 experience will accelerate digital transformation even further says Martin Moehrle

Digital transformation challenges traditional ways of organising work, of defining careers and work identity, of understanding competition within clearly defined boundaries, and of experiencing products and services. It requires organisations to somehow reinvent themselves and, thereby, to recognise that transformation is more about people than technology.

Corporate learning has a dual role to play here: on the one hand, to transform itself and digitise the learning experience and, on the other, to enable the transformation of the enterprise. This article would like to shed light on the second aspect: corporate learning as an accelerator of digital transformation.

To perform this role effectively, learning and development (L&D) has to evolve from the identity of a service provider (we deliver flawlessly what the business asks us to) and being a strategy enabler (together with the business we agree the best way to build the capabilities required to execute strategy and deliver accordingly) to become a transformation agent, challenging the business and the status quo. At this stage, corporate learning must lead, not lag. This is not a small request (see Figure 1).

As a transformation agent, corporate learning must seek answers to questions such as (see Figure 2):

- How to activate leadership and mobilise the entire workforce for a different future?
- How to allow everyone to recognise their digital skills gap and how to close it?
- How to take innovation outside R&D and make it everyone's job?
- How to promote agile ways of working?

Figure 1. Three stages of value creation for corporate learning

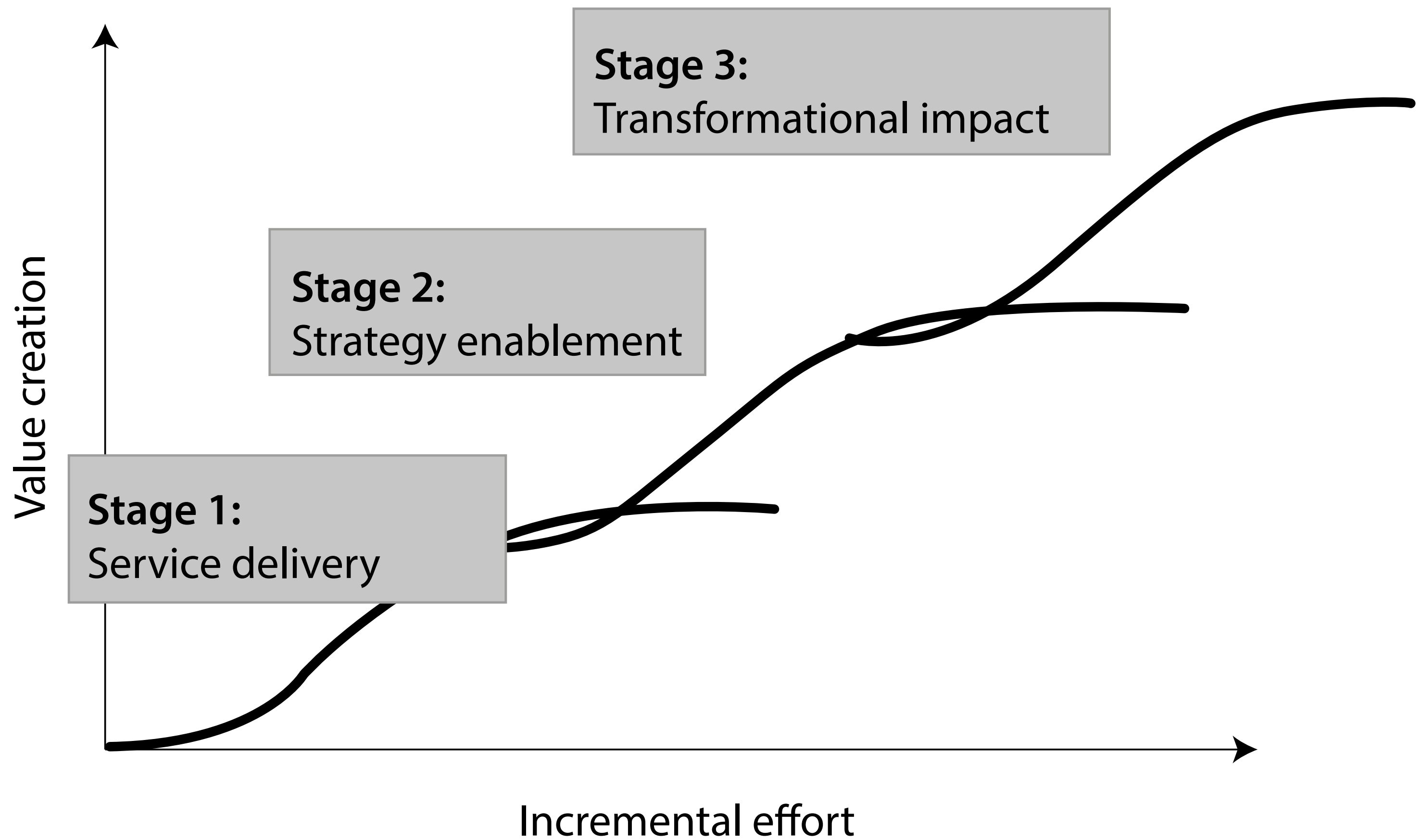
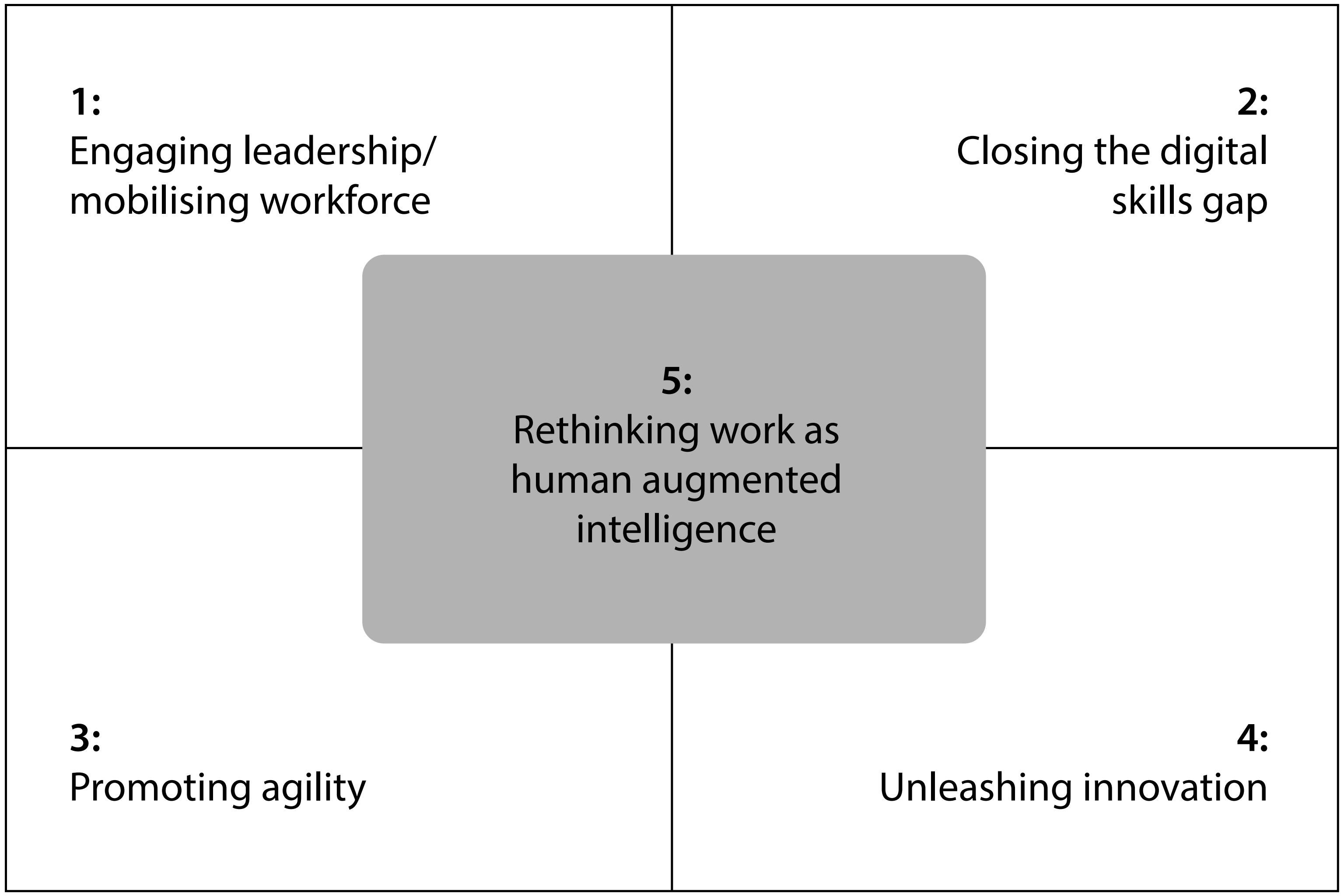


Figure 2. The five action areas for L&D to accelerate digital transformation



- How to rethink work as human augmented intelligence?

Engaging leadership and mobilising the workforce

Digital transformation asks for a different way to lead. Today's leaders increasingly recognise that in order to credibly transform their organisations, they must transform themselves and their teams. This time, leadership development must start at the very top and not one or two levels down. And it must entail a process of deep reflection about the changes ahead and the capabilities required for continued success. This might include a review of the current leadership model.

In a comprehensive study, MIT – in collaboration with Cognizant – found an emergence of new and an erosion of traditional leadership competencies in addition to a set of enduring competencies that stand the test of times of digital transformation (see Figure 3).

Digital transformation requires an organisation to experiment and innovate at scale across businesses and functions

Figure 3. The new leadership playbook for the digital age

ERODING	ENDURING	EMERGING
Asks for permission	Creates a clear vision	Is purpose-driven
Has no-exception protocols	Focuses on performance	Nurtures passion
Reinforces command and control	Maintains a profit orientation	Makes data-driven decisions
Manages top-down	Is customer-centric	Demonstrates authenticity
Avoids transparency	Leads by example	Demonstrates empathy
Micromanages	Demonstrates ethics and integrity	Employs an inclusive approach
Creates rigid long-term plans	Takes risks	Shows humilty
Takes one-size-fits-all approach	Leads change	Works across boundaries

Empowerment and inspiration will replace command and control as leadership imperatives. It takes courage and insight to imagine a leadership model that pulls toward a digital future yet is simple and memorable and to then embed it in relevant people processes and engage leaders at all levels to embrace it and overcome cultural inertia. The engagement must be at scale and both top down as well as bottom up.

In addition to engaging an organisation's leadership, the entire workforce must be mobilised and prepared for a decade of reskilling and upskilling. All jobs, clearly some more than others, will be impacted by automation and artificial intelligence (AI). For some, it will be a matter of incremental learning. For others, it will mean changing professional identity and starting another career.

It will be a major effort to motivate associates to take stock and ownership of their future employability. Concepts such as life-long learning and adaptive personalised learning have to be turned from idea into reality. Corporate learning must orchestrate an ecosystem of internal and external learning partners and resources to cope with such a singular challenge and it requires top management commitment and sponsorship.

Increasingly, companies set aside a dedicated fund of significant size to finance the forthcoming reskilling wave, as this would surpass the means of normal learning budgets that get allocated at business unit level.

These funds are held at enterprise level and facilitate internal mobility in line with the shifting demand for new skills. For example, Shell just announced a large-scale deal with the online learning provider Udacity to provide online education on AI for 2,000 employees.

Novartis offers its employees a free online masters degree programme in data science via Coursera, another provider of online education. And Siemens launched a Fund for the Future that facilitates a bottom-up approach to creating new qualification projects.

Closing the digital skills gap

In the past few years, companies have been defining skills required in the context of their digital transformation. Based on this digital skills model, many provide a self-assessment tool for experts and for everyone else. This can happen in the form of an app to understand the level of digital literacy or mastery and to identify respective gaps and how to fill them. Competency models are updated and amended accordingly.

Digital academies are launched to bundle learning offerings for digital skills. The academy scope can be broad to include communities of practice for areas of expertise such as data analytics and data science. Reverse mentoring programmes allow, for example, digital natives to teach senior management how to develop a social media footprint.

Unleashing innovation

Digital transformation requires an organisation to experiment and innovate at scale across businesses and functions. Along with the business model canvas, design thinking has become the method of choice for the development of products and solutions in the digital age.

Corporate learning supports the penetration of design thinking through tutorials and workshops and embeds the underlying principles in its learning architecture through customer journey mapping; frictions in the customer experience are eliminated and the overall experience improved; customer segments are described by personas and there is a continuous interaction between the design team and targeted user groups; solutions aim at combining technical feasibility, economic viability and human desirability; and new ideas are evaluated differently, to enable experimentation and learning from failure.

L&D is often the co-owner of innovation labs and incubators that allow for the promotion and testing of internal and external ideas, collaboration with start-ups and for the engagement with critical stakeholder groups. Some organisations launch digital accelerators to develop a digital customer experience next to their existing business and task corporate learning with developing appropriate capabilities.

Promoting agility

The agile movement has brought about new ways of working that rely on the principles of trust and empowerment, self-organisation, cross-functional collaboration, user experience and customer value, experimentation and speed. A wealth of new work hacks and agile methods are spreading through organisations, to provide transparency about work priorities and about what everyone is working on, and that define work as a team effort, such as daily stand-ups, Kanban boards, objectives, and key results or retrospectives.

Corporate learning provides plenty of assets to learn about and experiment with new methods. It might even consider the launch of an agile academy to develop agile coaches and accelerate the diffusion of new work practices and to facilitate the sharing of experience and best practice.

Rethinking work as human augmented intelligence

Advances in AI and automation will reduce the demand, first for isolated and repetitive then for more advanced physical and cognitive skills. Therefore, machines have often been regarded as a threat to employment. However, organisations must cultivate those capabilities that will enable humans to add value where machines fall short:

in problem solving and critical thinking; in managing ambiguity; in creativity and imagination; in empathy, communication and collaboration.

Only a positive attitude toward smart machines and AI and its use to augment human intelligence will allow companies to unearth new and formidable sources of productivity and competitive advantage. It is not a question of either machine or human, but of a symbiotic integration of both.

This integration will become a new and seminal arena for corporate learning. It means nothing less than proving those wrong who predict the fourth industrial revolution to lead to mass unemployment, and instead of unlocking new opportunities for humans to learn, grow and excel. ■

ABOUT THE AUTHOR

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New resources and industry resolve drive NBAA's response to COVID-19 crisis

The impact of the COVID-19 has been profound. Ed Bolen is proud of the remarkable response from the global aviation community

Our lives and our industry have unquestionably been profoundly impacted by the COVID-19 crisis. While we don't yet know all the lasting effects the crisis will have on business aviation, our nation and our world, I also believe the global business aviation community's response to the situation has been nothing short of remarkable.

Even as many companies have grappled with steep declines to their business and flight activity, they nevertheless have offered their support and solutions in response to the pandemic.

Manufacturers have retooled to produce ventilators; employees have assembled face shields and sewed facemasks; and pilots have flown urgently-needed supplies to people and communities most in need, often at their own personal expense. These efforts, and innumerable others, truly demonstrate the heart of our industry, and our willingness to lend a critical helping hand in times of crisis.

In the US support from our industry has also been vital to ensuring the voice of NBAA and other aviation groups has been heard by lawmakers over these difficult months. Our members' response to the association's mobilization alerts has been key to the support aviation businesses and others have received through government programs such as the CARES Act and the Paycheck Protection Program.

This engagement also helped NBAA secure much-needed accommodations for extensions or exemptions on pilot medical certifications, training proficiency and a host of other pressing requirements for business aviation.

Our combined advocacy efforts continue, as NBAA has joined with other general aviation groups to request temporary relief from federal excise taxes on fuel for non-commercial aviation operators through the end of the year.

NBAA deploys new resources to assist industry stakeholders
Along with NBAA's advocacy on behalf of our industry, we also committed to become the definitive source for reliable information related to business aviation and the pandemic.

From the earliest days of the crisis, NBAA introduced an entire roster of new offerings that specifically recognize the severity and urgency of this moment and the need to convey the very latest news to our members.

These new distribution channels include NBAA's Insider Daily news service, our interactive NBAA News Hour webinars – produced three times each week – and our dedicated web operational considerations resource, nbaa.org/coronavirus, with a variety of tools to help members think through the legal, medical, operational, technical and

...the global business aviation community's response to the situation has been nothing short of remarkable

other aspects of flight department operations. All these resources have been met with tremendous appreciation from the business aviation community.

Another new offering is our NBAA GO series of event-driven online programming. NBAA GO - for 'Going Online' - combines pre-recorded and interactive live content about the latest advancements, best practices and progress in the business aviation industry.

Each session includes a live question-and-answer portion allowing attendees to engage virtually with session presenters and other industry professionals. Live sessions and Q&A are also be recorded for on-demand consumption.

This new resource has already exceeded our most optimistic projections, as business aviation stakeholders have utilized NBAA GO to remain informed and engaged on a variety of topics that we'd typically discuss at NBAA events such as our annual International Operators Conference (IOC).

While the IOC planned in Charlotte, NC was cancelled this year due to the COVID-19 pandemic, our Virtual IOC2020 has enabled attendees from around the globe to stay up to date on the most critical information needed to do their jobs as safely and securely as possible.

Participants in the Virtual IOC and other online NBAA events have told us these new offerings have served a crucial role in providing the latest information not only for global stakeholders unable to travel during this current crisis, but also for those who may not have been able to schedule time away from their companies to attend the in-person conference in more 'normal' times.

Even as our industry looks ahead to the return of the IOC and other in-person NBAA events returning for 2021, this enthusiastic feedback has also offered new insights on ways our association can foster increased engagement going forward.

NBAA-BACE to herald industry's resilience and strength

Although the COVID-19 pandemic also led to the cancellation of two key NBAA-supported international events – the Asian Business Aviation Conference & Exhibition (ABACE) and the European Business Aviation Convention & Exhibition (EBACE) – NBAA remains committed to producing our annual Business Aviation Convention & Exhibition (NBAA-BACE) as scheduled in Orlando, Florida from October 6-8.

Widely regarded as the most important three days in business aviation, NBAA-BACE will once again bring together current and prospective aircraft owners, manufacturers and customers into one meeting place to get critical work accomplished, all while once again showcasing the size, strength, and diversity of this vital global industry.

The 2020 edition of NBAA-BACE will take on even greater importance by demonstrating our industry's continued resilience in the face of this crisis. We look forward to welcoming the global business aviation community to Orlando and safely bringing people together at NBAA-BACE in an important showcase for our industry throughout the world.

We also remain engaged with leading health professionals to ensure attendees' experiences at NBAA-BACE remain safe and that all necessary and prudent precautions are taken.

As we all contend with the highly challenging circumstances surrounding the COVID-19 pandemic, the NBAA team continues to work at all levels to support your daily operations, to represent the broader business aviation community and to emphasize the importance of business aviation to the nation's economy and transportation system.

I also thank *World Commerce Review* readers for your continued support for our industry and for NBAA, and I look forward to welcoming you to NBAA-BACE later this year. ■

Ed Bolen is President and CEO the National Business Aviation Association (NBAA)