

The Post-COVID-19 Financial System

Global Future Council on Financial and Monetary Systems

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Introduction

In this publication, members of the Global Future Council on Financial and Monetary Systems highlight how the financial system has rapidly adapted to the crisis.



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When the members of the World Economic Forum Global Future Council on Financial and Monetary Systems gathered for the Annual Meeting of the Global Future Councils 2019 in Dubai in November, they explored various drivers of the transformation of financial and monetary systems, including innovations in green finance and the payments and currency space. They also conducted an exercise to identify risks to the global financial system that at the time were not necessarily on the radars of decision-makers. Nobody in the group thought of the risk of a global pandemic that would severely disrupt economies, the way we work and, as a result, the functioning of financial and monetary systems.



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Ten months later, the members have all undergone crash courses in epidemiology, work-from-home technologies and the management of remote teams. We have led our institutions through a rapid transformation process that few of us, if any, were prepared for. And while we focused on keeping our institutions running and our people employed and motivated, we also responded to the rapidly changing needs of our customers and stakeholders. Businesses, small and large, needed almost instant liquidity, individuals embraced digital and contactless offerings at unprecedented rates, and governments were looking to disperse enormous aid packages to businesses and individuals alike.

Physical infrastructures became redundant while digital capacities needed to be quickly expanded or developed. Partnerships between traditional financial services providers and technology firms were deepened or newly built. The traditional modes of interaction between industry and regulators were disrupted and transformed.

In many ways, the pandemic accelerated trends that were already under way before the crisis but that were slower in adoption. This includes

digitization, but also the need for sustainable resilient business models and laying bare the inequities in our societies and the need for the financial sector to further support inclusion. Now there is a sense of urgency to implement reforms in the pursuit of inclusive growth. Meeting this challenge will require smart policy-making, discipline and creativity.

In this publication, members of the Global Future Council on Financial and Monetary Systems highlight how the financial system has rapidly adapted to the crisis, provided support for its various stakeholders and transformed as a result. While the insights the Council members share are to some degree a snapshot in a crisis that continues to unfold – and in which the state of the global financial system might become more dire as a result – the authors also present their predictions of how the system might reshape coming out of the crisis.

This White Paper thus stands in the tradition of past Council publications, including [The Global Financial and Monetary System in 2030](#) and the [Global Future Council on Financial and Monetary Systems Vision 2030: A Stocktake](#). Just like our members in Dubai, past Councils also could not have foreseen the dramatic changes caused by COVID-19 and, while partly building on past insights, this publication provides an important update to previous predictions. Depending on the evolution of the pandemic and the ability of national economies and regional and global financial systems to cushion its impact, our findings and predictions may have to be updated. What will not change is our conviction that financial and monetary systems will play a major role in shaping and supporting [The Great Reset](#), and we look forward to our institutions and us as individuals playing our part in shaping the recovery and building back better. In this spirit, we welcome your reactions to this publication.

1

The growing focus on partnerships

The COVID-19 emergency has highlighted the ever-growing importance of partnerships across the financial ecosystem. Partnerships between financial institutions and technology firms have accelerated access to funding and expanded access to products to previously underserved populations. And while the crisis continues to produce many success stories, more work is needed to fully realize the potential of partnership models across the ecosystem. This includes partnerships between industry and the public sector.

1.1 How partnership, collaboration and access to technology can help speed recovery efforts

By **Jim Magats**,
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USA

For years, we've been witnessing the transformation of commerce due to digitization and globalization, as companies large and small file for bankruptcy, close their doors and lay off workers. The global pandemic and resulting recession, however, have dramatically altered the trajectory of this transformation, impacting businesses of all sizes but especially small businesses, the foundation of our global economy.

Last year, retailers announced plans to close nearly 10,000 stores¹ but, in the face of the global pandemic, these numbers have surged. Some predict that around 285,000 small businesses in North America alone will close² as the pandemic produces one of the greatest shifts in retail history³ from small to large businesses. This comes as policies aimed at curbing the spread of the pandemic have helped larger "essential" businesses at the expense of smaller businesses.

The evolving landscape is leading to a rising unemployment rate. According to the International Labour Organization (ILO), micro and small businesses, along with self-employment, account for 70%⁴ of total global employment. The ILO has also reported that in the second half of 2020, the pandemic may cost the equivalent of more than 300 million full-time jobs.⁵ In the United States alone, where more than 30 million small businesses make up 99.9% of all businesses in the country and employ nearly 48%⁶ of its employees, more than 44 million people have already filed for unemployment⁷ since the global pandemic began.

It is clear that the global pandemic and resulting recession have created a tremendous challenge for small businesses, a rise in unemployment and strains on local communities. But we have an opportunity to collectively reverse these trends. The following three recommendations are essential to help small businesses and workers emerge from the pandemic in a position of strength, building their financial health and the tools they need to manage during the pandemic.

1. Drive partnership across the private sector to build tools and services that best serve evolving customer needs

Businesses operating in their own silos limit their reach and opportunity. Now more than ever, we must embrace a partnership model to leverage the best of our collective assets. Through partnership, especially across the financial and technology ecosystem, we can build payment and commerce infrastructure and services, while also creating interoperability between them to enable ubiquity and mass access. Ultimately,

by combining our strengths, we can solve real customer challenges and reach new audiences. While great progress has been made with partnerships between networks, acquirers, banks and technology companies to enable more secure and faster payment experiences, such as real-time payments and payouts for people and small businesses for example, much more work is still needed.

2. Foster collaboration between the public and private sectors to speed the pace of recovery

Collaboration needs to be driven between these sectors to help speed up recovery efforts for small businesses and individuals whose financial lives have been disrupted by the pandemic.

It is part of the government's role to support individuals and small businesses during a time of crisis. A rapid response is critical as small businesses need instant access to liquidity to be able to survive, meet payrolls, access needed inventory and hire back employees where possible. Quick and flexible payouts to those who need them are critical, yet the payments technology and infrastructure many governments rely on are outdated, slow and inflexible. Through public-private cooperation, we can help speed recovery efforts. For example, cooperation between the US Small Business Administration and PayPal provided access to small business loans through the Paycheck Protection Program and resulted in more than \$2 billion in funds disbursed to 75,000 small businesses, saving more than 300,000 jobs. We need to make public and private cooperation like this the new normal.

3. Democratize access to technology tools and services

It is clear that the global pandemic has sped up the shift towards online commerce. Yet, while consumers have increasingly been moving online, many businesses haven't evolved their business models to serve these new consumer demands.

With access to the right technologies, small businesses operating only in the physical world can establish an online presence, begin selling on various marketplaces and social media sites, enable experiences that blur the online and physical worlds – like buying online and picking up in-store or ordering ahead to skip the line – and access touch-free technologies like QR codes that can ensure in-store employees and customers can safely perform transactions as bricks-and-mortar businesses begin to reopen.

In addition, consumers now demand choices in how and when they pay. The need has been increasing for solutions that separate the act of buying from the act of paying as incomes have constricted. This includes flexible and responsible credit options that enable people whose financial lives have been impacted to be able to buy the things they need now and pay over a period of time. It also includes accepting different funding sources, like paying with reward points for example, to help increase people's choice and capabilities. The technology exists, but we need to get it into the hands of those small businesses in need.

As we work across our respective industries to help speed up recovery efforts, it is important to remember the need for partnership across the private sector to build interoperable services at scale, collaboration between the public and private sectors to quickly deliver value and impact, and access to technology for small businesses and consumers looking for ways to adapt to help ensure they emerge from the pandemic.



2

The evolution of fintech

The fintech ecosystem, which had been flourishing over the past 10 years following the 2008 global financial crisis, has undergone a severe shake-up since first lockdowns were imposed globally. It is too early to assess how the policy measures put in place in response to the pandemic have reshaped the fintech ecosystem but certain trends are emerging: payment companies, for example, seem to be benefiting from the rapid adoption of digital payments while digital banks have come under pressure. The industry overall could witness a trend towards “re-bundling”. Meanwhile, fintech has also advanced into the public-sector arena and is being leveraged to develop public financial infrastructures that enhance, for example, the provision of social services.

2.1 What's next for fintech? Moving forward with lessons learned from this pandemic

By **Laurent Le Moal**, Chief Executive Officer, PayU, Naspers, South Africa

Going from one crisis to the other

Fintech first emerged from the ashes of the 2008 financial crisis to address three broad trends:

First, widespread **distrust in the traditional banking system**: The “too-big-to-fail” credo highlighted the necessity for more competition and transparency in financial services. The industry needed innovation that puts consumers’ interests first.

Second, the **explosion and dissemination of big data**: Cloud computing and data platforms provided deeper insights into consumers and allowed the creation of customized solutions by “unbundling” the classic bank. This led to a reduction in servicing costs, lower fees with greater transparency and, in generally, improved user interfaces.

Third, **regulation became a driving force for competition and innovation**: Regulators were active in welcoming this new wave of innovation by lowering barriers for start-ups. Local regulations supported the growth by providing the necessary e-money licenses and sandboxes to test new concepts. Lately, we have seen more regulations around data and privacy (like the European Union General Data Protection Regulation).

Fintech soon became an everyday term and was seen as the panacea to the challenges the financial services industry faced. Between 2008 and 2015, more than 3,300 fintech companies were founded around the world (Figure 1). During the same period, around \$50 billion of funding flowed into the fintech world (Figure 2).

FIGURE 1 Number of fintech companies founded, 2008-2015

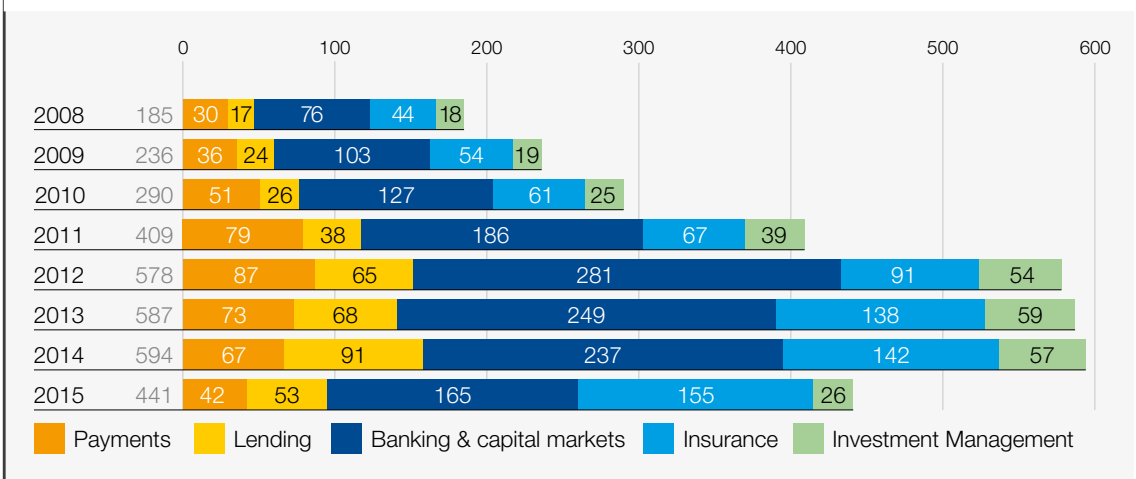
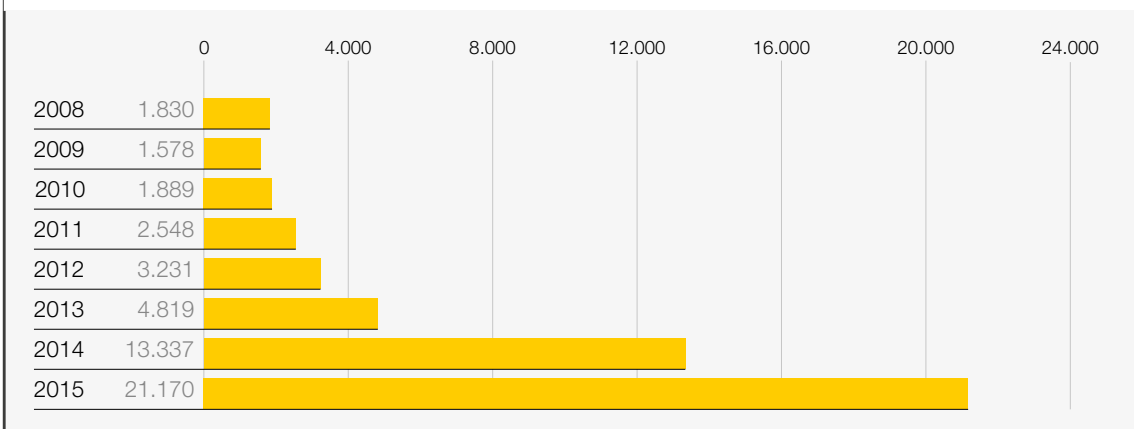


FIGURE 2 Global fintech funding, 2008-2015 (\$ billion)



Figures 1 and 2 source: Data from Deloitte, *Fintech by the numbers: Incumbents, startups, investors adapt to maturing ecosystem*, Deloitte Center for Financial Services, 2017; Accenture research analysis of CB Insights data, “Global Venture Capital Investment in Fintech Industry Set Record in 2017, Driven by Surge in India, US and UK, Accenture Analysis Finds”, Newsroom, 28 February 2018

Then the pandemic rocked the world

“This time, it is different”: what’s the impact of the pandemic?

No two crises are the same and the point is not to draw comparisons between hugely different circumstances. However, one thing common between the financial and health crises is the deep economic impact to the real economy: huge spikes in unemployment and, as the economies went into lockdown, global GDP is forecasted to plunge to a negative growth rate of 4.9%.⁸ Except for China, most of the large economies are expected to shrink in 2020.

At the same time, the pandemic is expected to help accelerated the global adoption of digital payments by 5-10 percentage points, taking the penetration of digital payments to 67%.⁹ As a result, pure online-focused payment players like PayPal or Adyen are benefiting from the changing trend, as reflected in their stock price.

But this is not true of other fintech segments. This economic crisis is also revealing weaknesses in existing systems and business models. As the economy struggles, unproven business models have come under severe strain (see Figure 3). A couple are highlighted:

In digital lending, consumption declines, unemployment increases and repayment moratoriums have pushed up credit risks and offered limited visibility into the time of recovery, putting undercapitalized lending companies at risk and even pushing some to cease operations.

Digital banks, the fintech darlings of investors just a few months ago, have seen their business models and valuations impacted severely. Digital banks operate on wafer-thin margins and their business models highly depend on scale and payment volumes, now under pressure during the recession, which has led many of them to restructure their operations to lower their cash burn rate. But the key insight is that most of the consumers did not use digital banks as their main financial services provider. They were considered a secondary service provider addressing niche requirements, like international payments. In fact, the moment companies paused their marketing spend, the number of new users to a particular digital finance platform decreased and usage went down. Economic pressure has led to reduced spending on non-essential services,¹⁰ therefore reducing the need for a secondary service provider.

FIGURE 3 Impact on different fintech segments

		Short - term impact	Long - term impact
Challenger banks	N26 monzo	↓ Flight to security – traditional banks enjoying higher trust ↓ Pressure to significantly cut costs	↑ Acceleration of move to branchless, digital banking → Increased consolidation
Payment	checkout.com PayPal PayU	↑ Increased online commerce - US eCommerce penetration increased to 27% in Apr-20 vs 16% in 2019 ↓ Offline, travel and restaurant focused payment companies impacted due to lockdown	↑ Change in consumer behavior with shift to contactless payments and online eCommerce ↓ Pricing pressure on payment rails
Remittances	Remitly TransferWise	↑ Volatility and depreciation of currency have increased flow ↓ Recession and supply-chain disruptions	↑ Overall change in consumer behavior to shift towards digital products
Trading	FLOW TRADERS robinhood BUX	↑ Uncertainty breeds volatility, which drives trading – winners at least in near term	→ Long term will depend on ability to expand the customer base
Wealth management	moneyfarm LIQID	↓ Economic slowdown will put pressure on personal finance	↑ Diversified offering to tap into new customers
Lending	OakNorth Funding Circle ZOPA Lendify	↓ With default risk increasing, lending activity has slowed down. LendingClub estimates 90% reduction in loan volume in Q2'20 ↑ Demand for SMB loans increases	↑ Increased demand as economy recovers ↓ Online lenders may see insolvency for some and consolidation for others
InsureTech	ZEGO alan	→ Mixed impact depending on line of insurance ↓ As unemployment rises, pressure on premiums	↑ Increased demand for insurance – such as parametric insurance and usage-based insurance

Source: Figure adapted from CB Insights, “Covid-19 Has Scrambled Fintech’s Winners & Losers. Here’s The Short- & Long-Term Outlook”, Research Portal, 3 June 2020

Funding is down, putting even more pressure on companies not yet at scale

With the prospects of a recession haunting the world economy, investors are being cautious with the deployment of funds, especially in early-stage rounds.¹¹ In the first quarter of 2020, venture capital-backed fintech activity dropped to \$6.1 billion, with only 404 deals, a year-over-year decline of 15% and 25%, respectively. In particular, early-stage

investing hit a 13-quarter low with only 228 deals, in comparison to 295 in the last quarter. And for the first time in five quarters, India exceeded China in venture capital-backed fintech funding, receiving \$421 million in comparison to China receiving \$175 million.¹²

Looking forward, the fintech sector needs to evolve

More innovation in the financial services sector is needed, even if the fintech sector will come out of this crisis shaken but reinforced. But companies, founders and investors will need to take all the lessons onboard to change and adapt their business models to counter the challenges the industry currently faces. The three main opportunities ahead in the coming years are:

First, fintechs can embrace the open-sourcing trend even further, which has been a common theme during the rise of all major technological innovations: internet, cloud, mobility. “Embedding” fintech services at the core of other apps is one of the big opportunities of the coming years, with the witnessed rise of companies that are primarily software service providers, like Plaid or Stripe, a sign of it. And with regulations such as the EU Payment Services Directive 2 (PSD2) and open banking, new models can scale rapidly across multiple countries.

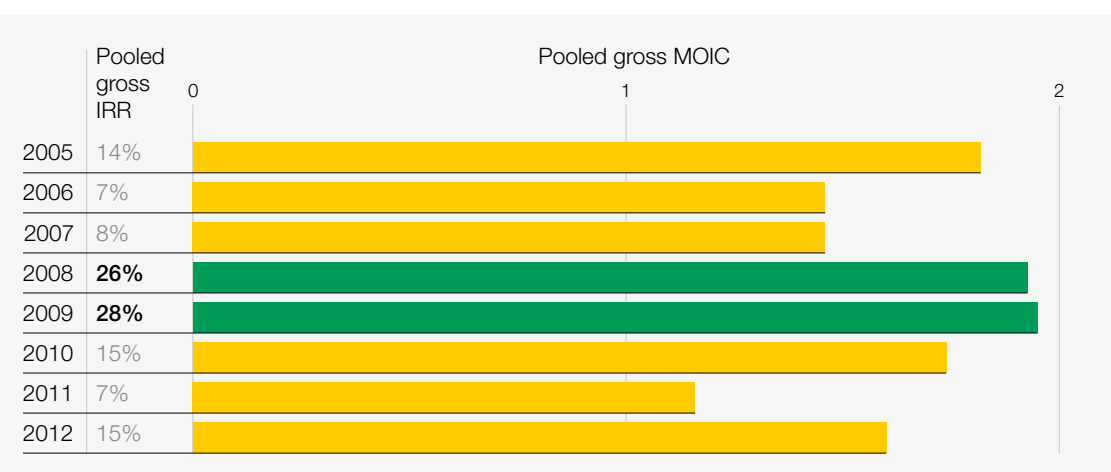
Second, for fintech companies focusing on serving consumers directly, such as digital banks, the necessity is to evolve from being a secondary provider with nice features to a primary provider with a core engaged and paying customer base. Marketing gimmicks like metal cards are no longer sufficient, and attention should be placed on value-for-money and essential, no-frills offerings.

Third, in times of crisis, there is always an opportunity for new investments and consolidation. The current liquidity tensions have put pressure on valuations, which makes some good assets available at a reasonable value. Historically, the amount of investments reduces during a crisis, but they can yield better returns, as evidenced by the gross internal rate of return on deals concluded during the 2008 crisis (Figure 4).

FIGURE 4 Gross MOIC and IRR earned by investments, 2005-2012

Note: MOIC - multiple on invested capital, which allows investors to measure how much a private equity company has made on the realization of a gain, relative to how much it paid for it; IRR - internal rate of return, which estimates the profitability of potential investments.

Source: Figure adapted from MacArthur, Olsen, Miller and Cochrane, “Implications for Fintech and Payments Private Equity Investors”, Bain & Company Webinar, 19 May 2020



Fintech is a wide ecosystem of regulators, investors, incumbent firms and start-ups who all need to come together to safeguard the progress of the last decade and nurture future innovation.

2.2 The development of fintech for a wider public: Why, how, risks and challenges

By **Alice Law Shing-Mui**, Deputy Chairman and Managing Director, Hong Kong Mandatory Provident Fund Schemes Authority, Hong Kong SAR; and **Arif Ismail**, Head, Financial Technology (FinTech), South African Reserve Bank (SARB), South Africa

The benefits of fintech are increasingly felt in our daily lives, which reinvigorate not only the financial services industry, but also the wider public. Fintech, among other things, enhances financial inclusion, improves efficiency and breaks down physical barriers in the real world. The emergence of digital technology opens up new opportunities for many of the 1.7 billion adults that make up the unbanked population around the globe to gain access to vital financial services.¹³

According to an IMF study,¹⁴ the level of digital financial inclusion has improved considerably over the years due to the emergence of powerful platforms, such as M-Pesa in Kenya, Alipay and WeChat Pay in China and Paytm in India. The

efficiency of banking and finance operations has also improved, driven by fintech, from which many have benefited.

The recent outbreak of COVID-19 has reaffirmed the importance of fintech in keeping our world running. As many countries are in lockdown, remote access to financial services allows the wider public to receive adequate financial resources despite physical restrictions. Fintech has gained prominence not just in businesses but also in the public arena with some countries using it to develop public financial infrastructures to provide quick and secure financial support and social services to the wider community.

Using fintech to serve the public interest: The cases of Hong Kong SAR and South Africa

To mitigate repercussions of the COVID-19 pandemic, the Government of Hong Kong SAR has launched a HK\$81 billion Employment Support Scheme to provide financial support to employers to retain employees who would otherwise be made redundant. For this purpose, the Government leveraged the Mandatory Provident Fund (MPF) system, the compulsory private pension system, which requires contributions by employers, employees and self-employed persons, to validate eligibility and expedite the application and vetting processes.

The Employment Support Scheme's implementation has underscored the importance of digital financial infrastructure connecting the wider public, especially in light of the severe disruptions caused by the COVID-19 pandemic. In this regard, the Government of Hong Kong SAR entrusted the Mandatory Provident Fund Schemes Authority in December 2018 to develop a smart digital eMPF platform, aiming to standardize, streamline and automate the MPF administration process, currently operated by MPF trustees in a decentralized mode. This one-stop common platform would allow the over 4 million-strong working population, 290,000 employers and 215,000 self-employed persons to manage their MPF accounts across different schemes anytime and anywhere via online and mobile applications. Apart from enhancing

user experience, the automated system would also increase efficiency, flexibility, reliability and accuracy. The platform could also facilitate further policy improvements, including fee reductions and future reform initiatives.

South Africa is experiencing a similar situation as Hong Kong SAR. The country introduced a Social Relief of Distress grant of about \$20 per month between May and October 2020. Out of a total of 7.5 million applicants, 4.4 million were approved, with 3 million receiving payments totalling approximately \$69 million. And although the payments are electronic, the payout scheme ran into a number of challenges, including attempted fraud, insufficient information to conduct verification, system-caused payout delays and long queues at cash-out points. While the South African Government has worked to tackle these challenges, technological innovation provides further opportunities to address them. For example, digital identity – potentially using blockchain technology – can make it easier to onboard beneficiaries and for beneficiaries to share their data. At payout, fintech can unlock a number of barriers with mobile and contactless payment tools that can diversify the disbursement channels and reduce queuing and cash dependence.

Risks and challenges of developing a public financial infrastructure

Successful public financial infrastructure should be able to connect individuals to payment systems, and government payment facilities should direct precise financial support to those most in need in a timely and cost-effective manner. It can also benefit the business sector as individual spending can be kept from spiralling downward in the face of a rapid economic downturn as in the case of COVID-19.

Yet building such infrastructure will need a common basis and social contract with the wider public who will be using it. The government or its agencies would have to demonstrate the reliability of the structure and a commitment to using technology solutions in the best possible way to safeguard privacy. “Trust” is the key concept underpinning the receptiveness of the broad adoption of a public financial infrastructure.

Staunch efforts are also required to achieve the inclusiveness of the infrastructure. Challenges remain for the participation of the poorest in society, as well as those without formal jobs, e.g. homemakers, children, the elderly. For instance, the lack of such accessibility tools as Wi-Fi, internet availability, smart phones or computer devices may be barriers for the less affluent or tech-savvy in society to access the infrastructure.

In the end, developing a public financial infrastructure involves the entire process of digital transformation. To steer this development, leadership must come from the government and those in charge of building the infrastructure.



3

The need for a global digital ID

The previous essay on the role of fintech in the delivery of public services alluded to the importance of building strong digital ID frameworks. Current systems of data and identity are disconnected, incoherent and opaque. What is required is a system that is interoperable, apolitical, distributed and explainable, and that grants individuals greater control over their information.

3.1 A global digital identity system must deliver on trust and transparency

By **Mohit Joshi**,
President; Head,
Financial Services,
Insurance,
Healthcare and Life
Sciences, Infosys,
United Kingdom

According to the World Bank, more than 1 billion people lack official proof of identity.¹⁵ Without it, these people cannot access many vital services. A person with no legal identity faces obstacles to participating in the mainline economy and is more vulnerable to exploitation.

The United Nations Sustainable Development Goals include the target of providing legal identity to all people, including a birth registration, by 2030. Universal legal identity has benefits for individuals, society, government and private enterprise. Individual benefits start with the fundamental right to be recognized as a person before the law. Identity further allows access to social services, support and opportunities for advancement through education, quality healthcare and aid. For governments and communities, accurate data enables smart public policy and planning, as well as the swift and fair provision of basic human services. Businesses benefit in the form of smoother transactions, easier compliance with know-your-customer rules and more data about customers and potential customers.

Frequently, the data is wrong. The US Federal Trade Commission in 2013 found that credit reports on one in 20 Americans contained errors so significant as to alter how much they would be charged for a loan.¹⁶ Further, most consumers who reported an error said their reports still contained the error two years later.¹⁷ Companies in particular have shown to perform poorly at data protection. The 15 largest data breaches of this century combined compromised hundreds of millions of users or accounts.¹⁸

India's Aadhaar identity card system turns 10 in September and represents one of the most successful efforts of granting an identity to all people. As of February 2020, more than 90% of India's population had received an Aadhaar number.¹⁹ In addition to a random 12-digit ID number, Aadhaar is tied to biometric data, including fingerprints, iris scans and a facial photograph. Government and businesses regularly use the number and biometric identifications for public and private transactions. And still, Aadhaar has had its own challenges. Hackers breached the Aadhaar system in 2018.²⁰ And in some instances, the biometric and security systems have not always functioned smoothly.²¹

As essential as they are, our current systems of data and identity are disconnected, incoherent and opaque. In a modern system, people should have greater control over their identity and information. That includes clear methods for correcting data and controlling what information about the person is shared and with whom. Laws including Europe's General Data Protection Regulation (which took effect in May 2018) and the California Consumer Privacy Act (which came into force in July 2020) articulate rules requiring that businesses give individuals more control over their personally identifiable data.²²

The goal of universal legal identity will be realized only when governments and enterprises take steps to regain the trust of individuals by demonstrating renewed commitments to data stewardship and giving individuals greater control over their personal data.



Centralized data, decentralized authority

How can institutions and businesses uniformly grant individuals more control over their identity information? And can that be done without destroying the value of the data and information they have compiled?

No single solution is ideal, but a system featuring centralized data that is only accessible via a decentralized system using blockchain principles can deliver on the promise of centralized integration and distributed controls and permissions around that data.

The European system of central banks has taken this approach in developing a proof of concept centred on digital cash. The system proves that a digital cash system is possible that allows anonymity for small digital transactions while it flags high-value transactions for anti-money laundering and terrorism financing reviews via an independent and separate review authority.²³ Local currency, like a legal identity, is fundamental to participate in society. And currency comes with some expectation of anonymity as it is exchanged, just as people still hope to have some control over their identity.

A system of global identities would need to rely on technology and automation to manage the records generated but, in devising a digital identity system, architects must keep a tight rein on the use of artificial intelligence (AI) and machine learning (ML). Reviews of AI currently employed in criminal justice systems show evidence of bias and racism so severe that technologists are calling for them to be dismantled.²⁴

Centralized data, blockchain systems that are trackable yet can be anonymized, and explainable AI can advance the world towards a digital identity system that is:

- Interoperable and apolitical
- Distributed and immutable
- Explainable

The good news is that these tools and platforms exist (such as cloud computing, application programming interfaces (APIs)/microservices to deliver a digitally connected ecosystem, AI/ML for deep analytics, blockchain, etc.) and technologists can begin to architect a universal digital identity system. But the system will achieve its goals *only* if it earns the trust of individuals and remains explainable to its users.

4

Accelerated trends and altered directions in digital payments

The pandemic has caused an unprecedented shift in digital payments. The shock has accelerated trends but also appears to have altered their direction. Shifts like the massive acceptance of contactless payments in such countries as the United States, the United Kingdom or Australia are more than a temporary trend – they are here to stay. And the digitization of payments is not only providing benefits to consumers, it also presents immense opportunities for micro, small and medium enterprises, many of which are being hit particularly hard during the crisis.

4.1 Digital payments and the pandemic: Three perspectives

By **Huw van Steenis**, Senior Adviser to the CEO, UBS, Switzerland; **Claire Sunderland Hay**, Chief of Staff to the Chief Executive Officer, Europe, Visa, United Kingdom; and **Arif Ismail**, Head, Financial Technology (FinTech), South African Reserve Bank (SARB), South Africa

Three Global Future Council payment experts share their views on three important questions that will shape the future evolution of the payments space.

How is the pandemic changing digital payments?

Huw van Steenis

Early data would suggest that the pandemic has accelerated digital payment adoption by 2 to 4 years. The proportion of practically cashless firms (those taking payments by card in 95% of cases or more) has increased 4 to 6 times in Australia, Canada, the United Kingdom and the United States (Figure 5), according to a pulse survey

conducted by Square.²⁵ One striking feature has been the dramatic shift in older generations using digital payments for the first time as they stay at home. PayPal has stated that people over the age of 50 were its fastest growing segment in the second quarter of 2020 and they have remained active (Figure 6). This is likely to be a permanent change in customer and merchant behaviour.

FIGURE 5

A global look at cashless businesses

Country	Before	After
Australia	6%	36%
Canada	9%	48%
Great Britain	10%	60%
Japan*	0.6%	0.75%
United States	8%	31%

Source: Figure adapted from Square, "Making Change: Chapter 2, Payments and the Pandemic", Installment of "Making Change" an ongoing series of reports based on Square data, June 2020

*Metrics adjusted to control for differences in Square's local product availability and local payment nuances.

The worldwide impact of COVID-19 is reflected in global payments trends, well beyond the US and in each of Square's markets. We compared the share of businesses that are taking 95% or more card payments from Japan to the UK, to see how each country compares before and after peak pandemic.

Claire Sunderland Hay

COVID-19 has resulted in a shift in consumer payment behaviour – accelerating the already rapid adoption of digital payments. When lockdowns were imposed, consumers increasingly shopped online. In the United Kingdom, for example, the number of payment cards actively used online increased by 16%. Digital payments have also played a key role in facilitating the social distancing that has become part of our lives. For those purchasing goods in person, tap-to-pay provides a safer way to pay by reducing contact with payment

terminals. Visa helped implement increases in the tap-to-pay limits in more than 50 countries worldwide, reducing the share of transactions requiring consumer contact by more than 40% in several of them. Contactless payments are also playing an important role in enabling citizens across Europe to safely and easily access public transport. Through work with transit operators, Visa facilitated the opening of its networks to make it easier for people to pay by reducing touchpoints. Across Europe, more than 70% of Visa transactions are now contactless.

Arif Ismail




Lockdown measures and consumer concerns around safety and hygiene have propelled customers to adopt digital payments. South Africa is no exception to this trend, with 75% of consumers now using contactless cards, with nearly half of them exchanging their main

payment card for one that offers the contactless option. However, only those who have access to contactless payment methods or mobile apps that enable QR payments are using these technologies. Many consumers in South Africa still use cash, owing to the limited infrastructure in informal settlements or towns that are less urbanized.

FIGURE 6 Growing preference for contactless payments

Source: Figure adapted from MasterCard, "Mastercard Study Shows Consumers Globally Make the Move to Contactless Payments for Everyday Purchases, Seeking Touch-Free Payment Experiences" 29 April 2020

*Data from other sources shows that there has also been a shift in older generations trying digital payments for the first time as they stay at home. PayPal said the over-50s were its fastest growing segment in April and May.

	Preference for contactless cards Nearly half of respondents (46%) have swapped out their top-of-wallet ("go-to") card for one that offers contactless – this proportion climbs to 52 percent among those under 35 years old.*
	Confidence in contactless Majority (82%) view contactless as the cleaner way to pay, and contactless payments are up to 10 times faster than other in-person payment methods, enabling customers to get in and out of stores faster.
	Contactless is here to stay Three quarters (74%) state they will continue to use contactless post-pandemic.

How can payment innovation drive the accelerated shift to online commerce – particularly for small businesses?

Huw van Steenis

To drive a digital-led recovery from the pandemic, every small business needs to have an online presence. Companies will need to invest more in a data-driven model. That said, the pandemic and the associated emergency loan schemes also exposed problems with small business finance in the United Kingdom, and elsewhere.

The pandemic and reductions in the use of cash will also put calls for central bank digital currency

into sharper focus. I suspect we will see a three-horse race²⁶ between new private tokens, central bank digital currencies and efforts to improve the current system by accommodating new payment platforms. But central banks' desire for radical change is likely to be low. So expect more focus on narrower experiments (such as the Chinese) and increased upgrading, such as better protocols and messaging standards, enhancing cybersecurity and enabling better digital identification.

Claire Sunderland Hay

With more consumers shopping online, businesses have had to adapt to meet these changing consumer needs. For example, in the United States, the number of Visa payment cards used to spend on e-commerce channels – excluding

travel – were over 12% higher in June than in January. For small businesses, often reliant on cash payments and customers coming into stores, this has been especially hard. Visa research has found that fewer than one in two small businesses are enabled to accept payments online.²⁷

Arif Ismail

The incredible surge in digital payments and merchants, particularly in the food industry, creating an online presence shows how retailers in South Africa are gearing their businesses towards an e-commerce future. However, challenges to adopting online payment methods for small businesses remain and may include upstream

digitization issues (such as digital uploading and marketing of goods and services) and downstream issues (such as the physical delivery of services where required). New fintech or big tech firms that introduce super apps and help SMEs connect online are likely something to look out for in developing economies.

What does this all mean for the digital money race and the broader policy agenda?

Huw van Steenis

Digital payments bring many benefits. But the Swedish experience shows that without a coordinated plan, the pace of change risks

excluding some groups, in particular the elderly and vulnerable. It underscores the need for a joined-up plan for payments, as well as broadband and mobile networks, that leaves no one behind.

Claire Sunderland Hay

Consumer behaviours regarding digital payments have changed, probably permanently. The admirable efforts of European governments to lift contactless limits have already reduced touchpoints significantly. As touchpoints become increasingly digitized, trust and reliability in payments are critical. Despite these changes, contactless fraud rates in Europe remained extremely low during the lockdown period.

As payments continue to evolve, we must continue to ensure that all are able to join the digitization journey, sharing common standards and approaches to widen access. The backbone of our local economies – small businesses – will need our help to respond to consumers' behavioural changes. This is why Visa has committed to providing financial and other support to help small businesses recover and thrive, alongside a wide range of partners and the Visa Foundation.

Arif Ismail

The renewed global emphasis on digitizing payments has also highlighted the potential of central bank digital currencies (CBDC) as an alternative to cash. Although CBDC does not exist anywhere in the world, at scale, South Africa has joined the list of countries looking at its efficacy in digitizing payments and trialling potential

technologies to understand their respective potential.

Whether CBDC will be fast-tracked as a result of COVID-19 is not clear, and will likely depend on the policy imperatives in each country and the potential to address gaps that current solutions find difficult to tackle.

5

Quantitative easing and inflating asset prices

Despite economic fundamentals deteriorating rapidly over the spring and summer of 2020, asset prices powered ahead and the US NASDAQ stock index set a series of new records well into August. As policy-makers could not afford a financial crisis on top of a health crisis, there seemed to be an almost implicit guarantee of support should asset prices fall. And while quantitative easing has come a long way and an increasing number of central banks are purchasing assets on an unprecedented scale, asset values have become distorted. Market-derived pricing signals of the underlying health of the economy are being diluted and policy-makers must focus on redesigning tools that are again fit for purpose.

5.1 The very visible hand now driving markets

By **Guy Miller**,
Managing Director;
Chief Market
Strategist; Head,
Macroeconomics,
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Switzerland

In the midst of a global pandemic and with economic activity at depressionary levels, it is somewhat surprising that financial assets are powering ahead with the US NASDAQ stock index, for example, setting new records. Investors are forward-looking and, while hopes of recovery may well be justified, the current surge in markets appears to have more to do with monetary policy than expectations of economic normalization. With around \$6 trillion in asset purchases by global central banks since the start of the year, investors are surfing a wave of liquidity. Asset prices and fundamentals have bifurcated as the scale of the risk premia demanded for equity and credit markets is reassessed. After all, if policy-makers cannot afford a financial crisis on top of health and economic crises, it would seem that there is almost an implicit guarantee of support should asset prices fall. While the profound actions by global central banks are much needed, subduing the “invisible hand” of market pricing is a dangerous game.

Quantitative easing (QE) has become one of the few tools left in central banks’ armouries. This is a function of policy errors over the past 12 years that have choked off economic growth prematurely. Activity in developed economies was never allowed to reach a self-sustaining velocity. Inflation never gained any real traction and inflation targets proved fanciful as policy was tightened before targets were ever met. Whether in Japan, Europe or the United States, policy has been timid, with inflationary fears ultimately usurping stimulus. With hindsight, this appears irrational. After all, what was the worst that could have happened? Too much stimulus resulting in excessive growth and ultimately inflation? Surely this would have been a high-class problem and one that central banks were well prepared to tackle. Too little stimulus, however, and the growth and deflationary consequences are much harder to tackle, as Japan can surely testify to over the past 30 years.

As it is, interest rate cuts have largely run their course, hitting the lower bound in many places. Thus, the once unconventional policy of QE has become all too conventional and is now being undertaken globally – and on a massive scale. The US Fed first unleashed it effectively after the financial crisis, with the intent of inflating asset prices. The implosion of the housing market and resulting surge in negative equity needed a mechanism to reinvigorate it. QE proved successful. House prices rose, negative equity was eroded and the rise in asset prices more generally helped to overcome a balance-sheet recession that was hard for conventional policy to address. Having demonstrated the powers of this new tool to good effect, it wasn’t long before the European Central Bank applied it to its own crisis in 2012, albeit with a different intent. The eurozone was under

threat from indebtedness and unmanageable interest costs for some member countries, risking a break-up. Using QE to suppress bond yields and make the debt burden more bearable for periphery economies was the start of what now appears to have become a permanent state and the dominant feature of the eurozone bond markets. Indeed, QE has come a long way, with asset purchases now embraced by an increasing number of the world’s central banks and on a scale that is becoming overwhelming.

In many ways, this deserves credit. After all, the 35% decline in global equities as the pandemic took hold pales in comparison with the greater than 50% declines in prior recessions, let alone a potential depression. The sharpest decline on record was arrested and the sharpest 50% rally from those lows is proof that unbridled liquidity can work, despite earnings expectations plunging and dividends being slashed. In the United States, the forward price-to-earnings ratio of the S&P 500 stands at 25 times, while five stocks account for 22% of the index’s market capitalization. Of course, valuations are always high at the bottom of an earnings cycle – but not this high. There is also clear evidence of many other distortions and one does not have to look much further than the German Bund market, where two-year Bund yields have been in negative territory for over six years.

Investors have been squeezed along the curve in the hunt for yield, given the potent combination of the lower bound at the front end being hit and the asset purchase programmes flattening the curve. With the Fed eschewing negative rates, and with the dot-plot by committee members implying that rates themselves are unlikely to be raised, or lowered, before 2023, asset purchases will remain the primary stimulus mechanism. The Fed also expanded its purchases, taking on credit risk for the first time and even buying junk in the form of fallen angels, while investors have taken heart from remarks by Fed Chair Powell noting he was not overly concerned about rising asset prices or potential bubbles. The policy is having a profound impact, particularly on the credit markets. By participating in the primary and secondary markets and buying selectively in high yield, the Fed has substantially reduced refinancing risk. Liquidity is typically the Achilles’ heel of companies in downturns and reducing this risk should allow spreads to compress. Ratings downgrades and defaults will remain, but the Fed’s commitment to keep companies functioning and the productive capacity of the economy in place suggests a reappraisal of asset prices is required while the central bank provides a backstop. However, as asset values are being distorted, market-derived pricing signals of the underlying health of the economy are being diluted.

Unfortunately, central banks appear to have a tiger by the tail. Will they ever be able to step back, never mind allow creative destruction to purge the system? The commitment to providing further stimulus suggests that investors will remain in a distorted world. Even when things start to normalize, the exit strategy of QE looks fraught. Given that debt levels will be even greater than they were going into the current crisis, yield management seems necessary so that the carry cost of the debt does not squash recovery. The taper-tantrum of 2013 is a reminder that even the mention of reducing stimulus can be hugely disruptive for markets. One tool that has perhaps been underplayed by central banks is forward guidance. While the Fed's dot-plot does give some visibility to future policy, explicitly linking stimulus to

an inflation objective, such as rates remaining on hold until inflation reaches target, could help. Having such a linkage would also give investors time and guidance on how asset purchase programmes will evolve as recovery takes hold. It is encouraging that the Fed has moved in this direction by adopting an average inflation target, but credibility will be tested only when that target is breached. Clearly, a more structured approach on the fiscal front is required to improve the growth trajectory, rather than just plugging the holes of lost output, if we are ever to move back towards rebuilding a world where monetary policy tools are again fit for purpose. As it stands, financial repression is likely to increase further and thus asset prices seem destined to be inflated by the very visible hand of monetary policy.



6

The transformation of regulatory capabilities and approaches

Following the global financial crisis, the COVID-19 pandemic marks the profound challenge to stakeholders across the financial system in just over a decade. The pandemic has hit markets and the economy as a black-swan event, originating from outside the financial system. The potential long-term implications for the industry and for regulators are only now emerging. What is clear already is that regulators must deepen cooperation and continue to focus on technology as both a tool to facilitate regulatory compliance and as a challenge that requires the strengthening of cyber- and data-security standards. The COVID-19 situation also highlighted once more the importance of limiting procyclicality in the financial system, and presents an opportunity to review remaining sources of cyclicality in regulation.

6.1 Cooperation and technology: Key priorities for financial market regulators after COVID-19

By **Waleed Saeed Al Awadhi**, Chief Operating Officer, Dubai Financial Services Authority (DFSA), United Arab Emirates; and **Steffen Kern**, Chief Economist and Head, Risk Analysis, European Securities and Markets Authority, Paris

COVID-19 hit financial markets at a time when the global market environment was fragile already, given buoyant market valuations, heterogeneous growth prospects in many economies, trade disputes, and a plethora of political and geostrategic challenges. The forecasting and assessment of such event risks, as well as the crisis management needed to handle them, are not new disciplines in financial markets, but the pandemic certainly presented a fresh impetus.

The initial COVID-19 wave put financial markets under massive strain, steering risk managers and policy-makers towards a variety of additional vulnerabilities to consider, including liquidity and cyclical risks. The onset of the pandemic caused equity markets to lose over a third in value, and created liquidity constraints in a variety of investment-grade and high-yield bond markets, leading to massive contractions in issuance activities and drastic hits in the portfolios of investors around the world.

To draw conclusions, a number of issues need to be investigated, and market and portfolio liquidity and their interplay need to be better understood. Today, asset managers play an increasingly important role in global markets, with investment funds alone managing around \$55 trillion across the globe. How open-ended funds, money market funds or unit-linked insurance structures exposed to assets with fragile liquidity can prevent such stress is a question of growing interest. Similarly, sharp drops in asset prices can put clients and clearing members in derivatives markets under stress, particularly banks and other financial institutions. Through its effect on collateral values and subsequent margin calls, volatility can be amplified in these markets and liquidity reduced.

Since this initial impact, markets have largely recovered – and in some countries exceeded – these losses, up to the point that from a systemic perspective, concerns have been rising that financial markets are in the process of decoupling from economic realities. The IMF is expecting the sharpest

global recession since the Great Depression, with a massive contraction of global GDP and double-digit dips in key economies, a slower-than-expected recovery, and a higher-than-usual degree of uncertainty over future economic performance.

This uncertain economic outlook points to the longer-term implications the pandemic is set to bring, and these may be more far-reaching than the initial market reaction. Public health restrictions, changes in consumer behaviour and the economic contraction are weakening companies across various sectors, bearing the risk of a widespread deterioration of corporate credit quality. Knock-on effects on the banking system and debt markets could follow suit. With more than \$4 trillion in fiscal support to counter the crisis impact committed by governments around the world, public debt levels are rising at a record pace. And against the background of persistent ultra-low interest rates, corporate debt funding is set to remain easy, bearing the risk of growing corporate indebtedness over time.

Against the risks, markets and policy-makers alike look into the long-term effects of the pandemic. The impact of a potential large wave of “fallen angels”, the resilience of bank balance sheets and the effects of a possible rise in non-performing loans, as well as the level and sustainability of public and corporate debt levels are central questions currently under close scrutiny by analysts and risk managers. Last but not least, the evolving role of central banks is of growing interest: with the pandemic, many monetary authorities have added “market buyers of last resort” to their portfolio of roles of “lender of last resort” and guardians of their currencies.

Going forward, strong cooperation on the resulting policy issues will be beneficial. For information sharing, risk assessment and policy alike, the case for collaboration in the COVID-19 age is more compelling than ever. In light of the unprecedented nature of the root cause of the crisis, the learning curve is equally steep for governments, central banks and regulators alike.

Progressive disruption in regulation – at a global scale

The COVID-19 pandemic has had a devastating de-globalizing impact on economic and social infrastructures around the world, disrupting supply chains and derailing demand. However, for sectors such as financial and regulatory technology, it has opened up a wide range of opportunities fuelled by digitization and Industry 4.0 acceleration, through the adoption of new technologies, including internet of things, blockchain and artificial intelligence.

The financial technology industry is proving to be particularly resilient, as people turn to digital services fuelling progressive disruption. This has required regulators to be increasingly agile in their adoption of technologies to reduce the regulatory burden on companies and economies alike. As governments around the world mandated social distancing guidelines, this disruption was significantly accelerated. The dynamics of some

of these advancements, specifically, remote work, moved from optional to necessary, as required quarantines globally demanded that companies facilitate ways for their employees to work remotely. VPN (virtual private network) capabilities, cloud-based infrastructures and videoconferencing capabilities have been essential to business continuity.

As institutions pivot their operating models, cloud-based solutions have enabled IT departments to rapidly deploy required services, ensuring data confidentiality and continued operations. Automation in repeatable tasks and pattern recognition in large data sets have allowed companies to reassign their limited resources towards creating higher value. Regulators do this by creating and hosting platforms to identify pattern or trigger-based threats for the companies that they are regulating. These initiatives foster information-sharing communities, mitigate risk and limit impact.

With such a sudden shift in resource allocation, regulatory bodies have focused on more oversight and limiting additional regulatory requirements. One of the key principles to success has been “same risk, same regulation”. Simply put, money laundering, fraud, embezzlement, etc., continue to be crimes, regardless of the way that they are conducted. Therefore, the rules in the market must be technology-neutral and the real focus is how these regulations are policed.

Enhanced control and supervision of the financial ecosystem are only possible with the support of innovative solutions and regulatory cooperation from bodies across the world. The Financial Stability Board (FSB), the International Organization of Securities Commissions (IOSCO), etc., have all been effectively cooperating from day one of the pandemic, which has contributed to market stability and strength. The environment for regulators has become more complex, and authorities now have the opportunity to bring their effectiveness to the next level.

6.2 Procyclical financial regulation: What can be done?

By **Santiago Fernández de Lis**,
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The COVID crisis brought about impressive activism on the part of financial regulators. Measures taken to offset the impact of the pandemic included: 1) encouraging forbearance and avoiding automaticity in non-performing loan (NPL) accounting and provisions; 2) allowing the use of capital and liquidity buffers; 3) reducing the supervisory, operational and reporting burden; 4) delaying the entry into force of more stringent requirements; while 5) bringing forward more lenient ones; and 6) ensuring the continuity in the provision of critical functions. Governments provided guarantees to loans to companies and individuals affected by the pandemic, which enjoyed better regulatory treatment.

These measures allowed maintaining credit lines in most countries and were very much in line with demands from the banking industry. The wave of stimulus measures was in contrast to the tone of the regulatory reform carried out since the 2008 crisis, aimed at safeguarding financial stability and strengthening solvency.

Why did financial regulation require such a radical reversal? The short answer is that it is so sensitive to the deterioration of the economy that a sudden downturn, in the absence of compensating measures, would entail a huge credit crunch that would in its turn further aggravate the crisis, thus generating a vicious contractionary spiral. The procyclicality of financial regulation, which was identified as a key weakness at the time of the 2008 global financial crisis, not only has not been solved but apparently has even been reinforced as a result of the reforms.

It is important to clarify upfront that risk is cyclical and therefore some of this procyclicality is inherent to the financial sector. This has been analysed in the literature for a long time (for instance in Hyman Minsky's financial instability hypothesis). The key question here is to what extent financial regulation can attenuate this procyclicality or at least be neutral. In this regard, it is important to consider which constraint is binding in each cyclical situation: financial regulation or market discipline. In the boom phase, markets tend to relax to the point of being even myopic, which requires the authorities to be particularly vigilant. This has not always been the case: there is some evidence that, in particular, monetary policy has reacted to falls in asset prices in the bad times but not to increases in them in the good times (the so-called Greenspan put).

In the bust, however, markets are more demanding, which means that, even though regulators would tend to be more lenient, the binding constraint is elsewhere, and regulatory action may be like “pushing on a string”. There are situations in which the authorities are powerless in stimulating credit even though they use all their monetary policy firepower (including negative interest rates, quantitative easing and ample liquidity), on top of micro and macroprudential policies.

If policies tend to be too lenient in the boom and markets tend to be too harsh in the bust, what we need is tighter policies in the good times and more forward-looking markets in the bad times. Macroprudential policies and expected loss

accounting (to the extent that financial statements are a key input to market valuations) have been introduced to address both objectives, the former mostly for the boom and the latter mostly for the bust. But their results have been uneven:

- Many countries have adopted different modalities of macroprudential policies in recent years, in line with recommendations from international bodies and standard-setters like the Financial Stability Board or the Basel Committee on Banking Supervision. The experience so far is limited but points to higher effectiveness in emerging markets, where they have often been accompanied by capital controls, than in developed markets, where macroprudential policies are far from a panacea.
- Expected loss accounting is based on the correct idea that most lending mistakes are made in the good times, but only transpire in the bad times. The International Financial Reporting Standard IFRS-9 implied a move from realized losses to expected losses in NPLs that was intended to smooth procyclicality. The idea was that, if NPLs were based on a longer horizon, they would be less dependent on contemporary cyclical conditions, and would rather reflect structural macroeconomic conditions not affected by the cycle. Paradoxically, the way IFRS-9 was designed implied an increase of procyclicality, due to the move of significantly deteriorating loans from a one-year horizon to a lifetime horizon, which implies that provisions are multiplied exponentially. Since this move tends to happen in the downturn, the pattern of provisions is more procyclical than under the old accounting approach.

A related discussion is which instrument is preferable to deal with the cycle: anticyclical capital buffers or dynamic provisions. In theory, it basically

depends on our ability to calibrate the cycle ex ante. If the models had perfect foresight, the anticyclical policies would rely on expected losses, and provisions would be preferable to capital. If, on the contrary, our ability to forecast the cycle is low, unexpected losses would dominate, and capital would be preferable to provisions. The regulatory reform adopted by global standard-setters seemed to adopt the latter view, which was reflected on a preference for countercyclical capital buffers instead of dynamic provisions. The sudden nature of the COVID crisis, impossible to forecast with any model, certainly reaffirms a healthy scepticism on our capacity to calibrate the cycle, but does not exclude that prudential tools can be based on rules.

Indeed, all the previous discussion is related to the “rules vs discretion” debate. To the extent that policies face time consistency problems, react asymmetrically along the cycle and are constrained by markets that are procyclical, a rules-based mechanism seems preferable to a purely discretionary one. In this regard, dynamic provisions may be superior to countercyclical buffers since it is easier for provisions to be rules-based. The choice between dynamic provisions and capital buffers depends, however, on a number of other features, and in any case they are not mutually exclusive.

To sum up, the objective of making financial regulation less procyclical is proving elusive. Some measures have been taken, but their effectiveness is so far unclear. The authorities often face a time consistency problem, and the pressure of the markets complicates the implementation of policies. A more rules-based approach, in which the procyclicality of market discipline is inbuilt, together with a recognition of our very limited capacity to calibrate the cycle ex ante, seems advisable. And the relation between countercyclical capital buffers and dynamic provisions under expected loss accounting is an area that deserves further research.

7 Implications for the financial services workforce

Technology solutions have played a crucial role in facilitating business continuity throughout the crisis and have contributed to minimizing potential disruptions. Employees across the financial sector have leveraged remote-work technologies and institutions have accelerated the roll-out of digital projects to deliver services with minimal human intervention. At the same time, the reliance on technology also raises challenges, particularly with regard to cybersecurity. These challenges must be addressed urgently as remote-work arrangements will likely only partially reverse after the crisis.

7.1 Opportunities and challenges of remote-work technologies

By **Noora Hassan Abdulghani**,
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The COVID-19 pandemic, while creating challenges on many fronts, has also created an opportunity to test remote-work technologies on a large scale, radically reshaping the way businesses are being conducted worldwide and propelling structural change. Although the adoption of remote-work technologies was triggered by an emergency state and was not underpinned by extensive prior planning, such technologies have played a crucial role in facilitating business continuity in the financial sector and contributed to mitigating worldwide economic activity disruption caused by the coronavirus outbreak. With prominent benefits and growing popularity, these technologies are anticipated to become an integral part of the financial and monetary system after the COVID-19 crisis. This presents tremendous opportunities but also raises challenges that stakeholders need to urgently address.

Early this year, the financial sector underwent a rapid shift to remote-work models introduced as part of the precautionary measures taken to curb the spread of the virus. In certain jurisdictions, formal directives were imposed on banks, financial institutions, money transfer and exchange houses, etc., by central banks and ministries whose authority they fall under, in order to limit the number of employees allowed to work in office premises. For example, in the Kingdom of Bahrain, all financial entities licensed by the Central Bank of Bahrain (CBB) were required to adopt a work-from-home model as extensively as possible, effective on 8 April 2020. The CBB and licensees under its supervision have generally operated at a 30% in-house capacity since then.

The rapid shift towards remote work brought about important benefits for the financial sector. For example, it accelerated the adoption of various digital tools enabling millions around the globe to work remotely. For instance, users of Zoom Cloud Meetings increased over three months during the coronavirus pandemic from 10 million to 200 million according to Zoom's CEO, Eric S. Yuan.

In retail banking specifically, the reduction in customer-facing employees served as a driver for many firms to accelerate the roll-out and implementation of digital projects intended to facilitate financial services electronically without human intervention. For example, Bahrain saw unprecedented growth of 110% and 122% in February and March 2020, respectively, in the use of the National eKYC (Know Your Customer) platform mandated by CBB and operated by the Benefit Company. It is a cloud-based/blockchain hybrid platform that allows financial institutions to retrieve and process client KYC and other data from the related official bodies without the need

for customer and employee presence or for any physical document verification or authentication. In the United Arab Emirates (UAE), First Bank Abu Dhabi (FAB) recently introduced eSign, a new service for global transaction banking clients, offering a quick, safe and secure method for authorized signatories to digitally sign documents on the go using state-of-the-art public key infrastructure (PKI) technology.

On the same front, banks and financial institutions with digitalization readiness gained a huge competitive edge during the pandemic. Ila Bank and Meem Digital Bank, Bahrain's fully digitalized banks, are prime examples; customers can open new banking accounts, get a virtual card instantly and start transacting within minutes. Several other examples can be drawn from banks in the Middle East and North Africa that set measures and instilled creative methodologies to reduce human interaction to the extent possible in the financial services sector, which digitally facilitated customers' banking experience in preparation for the realities of a post-COVID-19 era. For example, Bahrain Islamic Bank (BisB) activated its first virtual employee of 2019, a technology that is driven by artificial intelligence and serves to address customers' needs as though it were interacting with a real employee. Bank ABC also put to use its one-of-a-kind virtual employee developed in 2019, recognized as the world's first digital DNA human, which was invented using tech company Soul Machines' digital DNA technology.

Beyond productivity and retention, working remotely can result in potential cost savings by substituting business trips and cross-border training programmes with alternative telecommunication arrangements. In fact, this approach has been prevalent in 2020, with organizations across regions deciding to conduct their meetings online via digital training platforms such as edX or other external/internal e-channels, resulting in substantial budgetary savings.

Although remote-work technologies provide several worthwhile benefits, these technologies are not risk-free, and do come with challenges. To elaborate, working remotely inevitably results in greater vulnerability and exposure to malicious cyberattacks and fraud, faced by both remote workers and customers. Not surprisingly, hacking and fraud events have reportedly increased across the board during the pandemic. To combat this risk, regulators and large banks/financial institutions mostly rely on virtual private network (VPN) technology to secure web connections, encrypt data and prevent cyberattacks, such as CBB, Citibank N.A. and many others. Reflecting its popularity, the global VPN market, which was valued at \$15 billion in

2016, is set to grow from an estimated \$20.6 billion in 2018 to nearly \$36 billion in 2022, according to Orbis Research and Statista forecasts.

Aside from security threats faced by employees, customers, too, have been facing increased fraud attempts and cyberattacks while making online transactions during the business disruption resulting from remote work. In response, some institutions have opted to produce innovative tools to provide their customers with enhanced security. For example, FAB in the UAE has introduced voice biometrics, a new security tool that uses each customer's unique voice as a password to authenticate over-the-phone banking transactions.

Another important challenge to note is the lack of technology skill sets which, if not addressed, may hinder reaping the significant potential of remote work and digital technologies. Finally, the growing popularity and proven economic benefits of working remotely, as well as the digitalization direction in which banks and financial institutions are evidently headed, are all indicators that work strategies will certainly be revisited in the financial sector and that the financial system anticipates an era of digital transformation wherein reliance on location and personal interactions to conduct work will no longer be as in the past. That said, digital readiness will be a distinguishing factor and turning challenges into competitive advantages will entail early preparation and continuous investments by financial institutions.



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Endnotes

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