



Changing models

How commercial banks are
responding to disruptive fintechs

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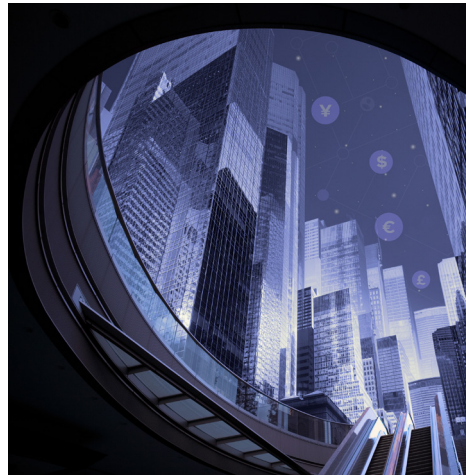
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Hope and expectation

Commercial banks face an uncertain future as CBDCs threaten to disrupt their traditional relationship with monetary policy authorities, writes Clive Horwood, managing editor of OMFIF.

AN OLD FRIEND in the banking industry once gifted me a word that encapsulates the all-too-frequent phenomenon in the financial markets of hope running far in excess of realistic expectation – bullish. It's pretty easy to work out the anagram that reveals its true meaning.

It's also a word that could well describe some of the froth that clouds the crypto landscape and can divert attention from the very real and game-changing developments that are now taking root around digital currencies.

The Digital Monetary Institute's Symposium in April showed the thirst for knowledge and dialogue about central bank digital currencies and their potential impact on the fabric of financial markets. More than 100 central banks attended or spoke at the event, and several hundred central banking officials were among the nearly 3,000 registered attendees across its two-day agenda.

Among the speakers was Mike Novogratz, founder of Galaxy Digital and the epitome of a crypto bull, who caught the attention with his comment that 'bitcoin is a report card on how central banks are doing'.

So, it's perhaps appropriate that he's one of the investors pumping \$10bn into Bullish Global, a crypto exchange which another backer, hedge fund manager Alan Howard, describes as a business that will 'shape the future of the financial sector as we witness greater mainstream adoption of digital currencies'. Plenty of hope and expectation there.

This quarter's DMI Journal's cover story looks at how banks are adapting to the challenges of digitalisation and blockchain, particularly in the payment space. The symbiotic relationship between commercial banks and central banks has been the foundation of financial markets for centuries. CBDCs potentially cast some doubt on that relationship.

The Bank of England's deputy governor, Sir John Cunliffe, said during a public lecture hosted by OMFIF in May, in response to the idea that the public might shift their deposits into CBDC, 'Banks have had to reinvent their business models before.'

Banks are pivoting to meet the challenge fast and it would be foolish to write them off. But it's not lost on these institutions that some parts of the financial markets are questioning their future health. In March, payment company Stripe completed a funding round that valued the business at close to \$100bn. That makes it worth more than any bank headquartered in the European Union. Time will tell if that's a realistic valuation.





A revolution in money

Central banks and digital currencies

The inaugural **DMI Symposium** featured debate and discussion of the impact of new digital currencies on financial institutions, both public and private, write **Bhavin Patel**, editor and head of research of the DMI, and **Katie-Ann Wilson**, head of DMI programming.

WITH MORE than 2,000 attendees from over 100 nations drawn from institutional investors, banks, and technology providers, the DMI Symposium created a global network of digital currency stakeholders, where the public and private sectors came together to shape and transform the future of money.

The Symposium began with a spotlight on retail central bank digital currencies and payments from the consumer's perspective. A panel discussion featuring **John Rolle**, governor of the Central Bank of the Bahamas, **Mu Changchun**, director-general of the People's Bank of China's digital currency institute, and **Hanna Armelius**, senior adviser at Sveriges Riksbank, provided new insights into their implementation strategies and policy objectives.

As the Symposium entered its second day, focus was brought to the wholesale side, interbank settlement and the

tokenised digital asset landscape by **Denis Beau**, deputy governor of the Banque de France, and **Thomas Moser**, alternate member of the Swiss National Bank's governing board.

The Symposium concluded with a look at the regulation and role of cryptocurrencies by **Hester Peirce**, commissioner of the US Securities and Exchange Commission, **Christian Catalini**, chief economist of the Diem Association, and **Mike Novogratz**, chief executive officer of Galaxy Digital.

DAY ONE: Retail CBDCs

Consumer-ready CBDCs have captured global attention, with central banks around the world intensifying their research and exploring public-private partnerships. The opening panel of the DMI Symposium brought together a central banker, technologist, commercial banker and payment service provider to outline how central banks might best introduce retail CBDCs.

Panellists agreed on the importance of addressing policy objectives first and technology solutions second, with ensuring universal access to payments, promoting efficiencies, bringing down costs and creating a 'platform for innovation' as key issues.

From an implementation perspective, Jose Fernandez da Ponte, vice-president for digital currencies at PayPal, shared how payment service providers are beginning to prepare to distribute and even hold CBDC for their customers under a two-tier model.

When asked about the implications for commercial banks of third-party providers holding and offering CBDC, Atul

- 115** Central banks represented
- 59** Speakers from the DMI's global community of policy-makers and industry leaders
- 32** Partners and members
- 103** Countries represented
- 8** Public panels and 2 private roundtables
- 18** Exhibition booths



Butcher, executive director and group payments head at DBS Bank, said that ‘disintermediation needs to be evaluated closely, but competition is good’ and noted this is comparable to markets in Singapore, Hong Kong and the UK, where non-banks already participate in domestic payment systems.

Hanna Armelius, senior adviser at Sveriges Riksbank, said the risk of not acting are substantial, adding that there are ‘new players coming into the market and new currencies that are challenging sovereign money in a way that hasn’t really happened before’. To ensure incumbents work with the Swedish central bank on CBDC implementation, she also revealed that this year it will be working on incentive structures.

Moving onto design features and the approach to technical aspects, Neha Narula, director of the digital currency initiative at the Massachusetts Institute of Technology, noted that while the token versus account debate has been useful so far, it is far too simple and risks conflating certain features and reducing design options to a false dichotomy. Many features can be combined in different ways and even within these choices there is a spectrum, such as adopting an account-based model which preserves a level of privacy.

At a higher level this also applies to distribution. Rather than it being a binary choice between a two-tier model or direct distribution, central banks can consider a ‘blended model’ with different tiers for different levels of access.

DAY TWO: DLT banking applications

The opening panel of day two focused on distributed ledger technology and banking, setting the tone for the rest of the discussions. This panel explored DLT-based payments, clearing and settlement applications, looking at how to identify the best time to innovate, the impact on traditional

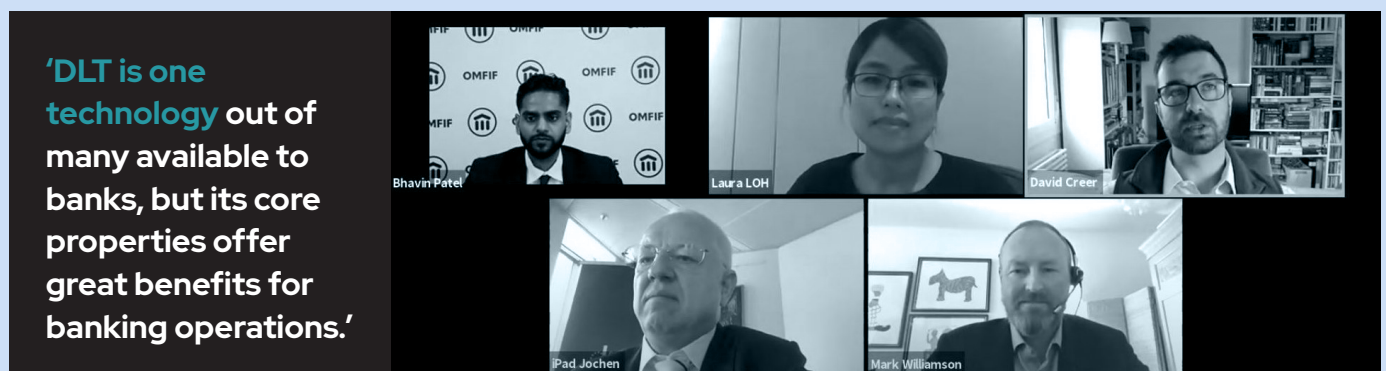
intermediaries and what can be done to bridge conventional and new payment systems.

While central banks continue to consider risks and do the necessary due diligence, they have become less sceptical about wholesale CBDCs, as outlined by Jochen Metzger, director general of payments and settlement systems at the Bundesbank and one of four experts on the panel. He further added that DLT is part of a multitude of technology offerings and that programmable money and smart contracts have great promise.

Laura Loh, director of blockchain at Temasek International, highlighted that the banking industry’s pain points often arise from sluggish payments, slowed by going through multiple intermediaries and restrictive working hours. Additional frictions come from the lack of transparent transaction fees and disparities in ledger systems.

Mark Williamson, global head of FX Everywhere and partnerships and propositions at HSBC, highlighted the challenge commercial banks face in connecting to central banks operating under different design paradigms. DLT will play a key role here. Additionally, as systems grow across borders and network sizes increase, a financial market infrastructure operator will be necessary to help coordinate payments between different participants by providing common standards and rules.

The benefits of DLT were explained by David Creer, global distributed ledger technology and crypto lead at GFT Group, building on Metzger’s points about programmability and smart contracts. Creer emphasised the importance of tokenisation, which could lead to completely new business models, such as the SIX digital exchange bond system. DLT applications, he added, can go even further when they are integrated with technologies such as artificial intelligence and big data. •



Finality targets cross-border opportunities

A new omnibus account model from the Bank of England is a leap forward for distributed ledger technology and one Finality CEO Rhomaios Ram wants to take advantage of, writes Philip Moore, OMFIF contributing editor.

RHOMAIOS RAM, chief executive officer of Finality, was in good spirits when he spoke at OMFIF's DMI Symposium. It is easy to see why. A few days earlier, the Bank of England announced the launch of its new omnibus account model, paving the way for wholesale settlement to be carried out between banks using tokenised assets on next-generation payment systems.

The announcement was described by Ram as a 'huge event' for Finality, which began life in 2016 as the Utility Settlement Coin Project, supported by five banks. It has since expanded into a consortium of 14 banks and one financial market infrastructure company. It has developed a fully-functional global payment system allowing for near-instant peer-to-peer settlement. Ram explained that the Finality payment system essentially uses distributed ledger technology to act as a form of accounting system for co-mingled funds held in the omnibus account. In other words, it generates a single pool of liquidity for participants.

As well as being an important announcement for Finality, which has already made an application to open an omnibus account, Ram said that the Bank of England's initiative

represents a notable landmark for DLT. The imprimatur from the central bank, he said, is the first time a 'pre-eminent authority' has endorsed the decisive role that blockchain technology will play in wholesale payments.

This, said Ram, will have far-reaching implications for the financial services industry and broader economy. The use of DLT enables the Finality payment system to operate a true tokenised peer-to-peer market, interoperate across business platforms and jurisdictions, and allows for instant settlement.

The disintermediation generated by the payment system underpinned by DLT, said Ram, creates a number of notable benefits. 'Our view is that the two main benefits of using distributed infrastructure are technological resilience and cost control', he said.

More specifically, Ram said that because participants continue to be the beneficial owners of funds in the co-mingled account, they are not exposed to any credit or counterparty risk. Operational risk is reduced because risk is concentrated within a single intermediary. Additionally, efficiencies in liquidity management are enhanced and resources can

be released from risk mitigation to support business growth.

Ram said that these benefits come into their own in cross-border activity. 'Frankly if we were only talking about settling in a single currency, the proposition might not be that interesting because the existing real-time gross settlement system can handle this efficiently', he said.

'Where the global payment system becomes very interesting is when you start expanding into different currencies', he added. This will be the next key stage in the Finality project. 'Today, we are focused on five currencies – the euro, US and Canadian dollars, sterling and yen – and we are considering adding a sixth, the Swiss franc. In due course, we are intending to set up independent payment systems in each of these jurisdictions', said Ram.

'The idea is to have an interlinking system between all of them', he explained, adding that he is confident that the system has the necessary capacity to synchronise settlement finality.

An example of how this might work in practice, said Ram, would be a UK bank settling in the US market. 'In order to do this at the moment', he said, 'it would have to hold money at a US correspondent bank and ensure it has sufficient funds to buy the securities in the US. If not, it would have to do a foreign exchange trade which would take two days to settle. This would then need to be coordinated on the asset side via several intermediaries involved in the settlement.'

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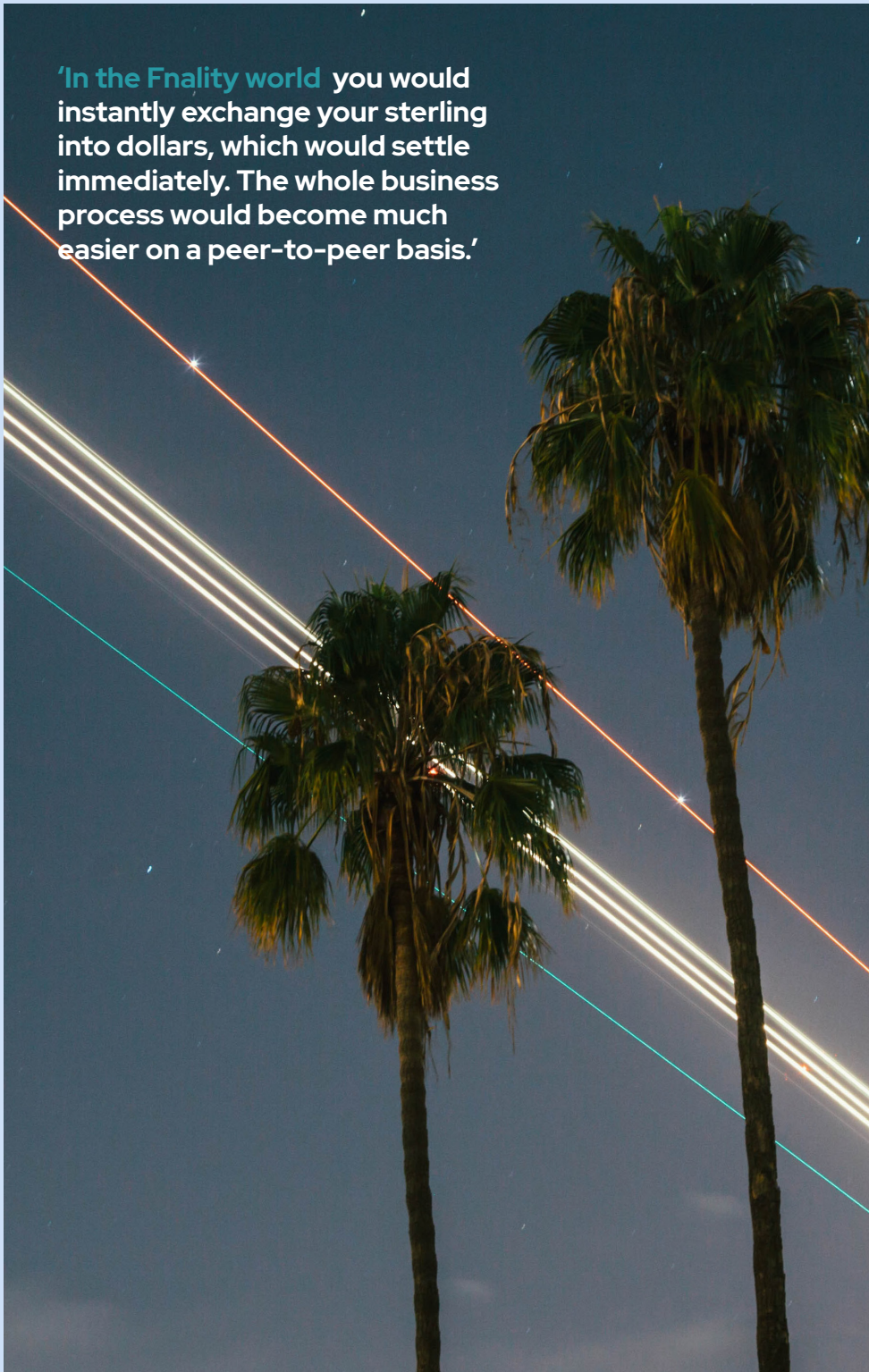
'In the Finality world,' said Ram, 'you would instantly exchange your sterling into dollars, which would settle immediately. The whole business process would become much easier on a peer-to-peer basis.'

This means that the next step in the Finality journey will be achieving interoperability with securities settlement systems overseas. 'We expect that we will be able to enable delivery versus payment on a bilateral basis as soon as other settlement systems with characteristics similar to ours come on line', said Ram.

None of this will be achieved overnight. Ram is cautious about making a prediction of when the system will be ready to go. 'While applying for and authorising payment systems has been done before, undertaking a careful regulatory review of the risks that we or other systems may or may not pose will take time', he said.

As to demand among end-users for the efficiencies generated by the Finality system, Ram is confident that this will be robust and sustainable. 'Market participants definitely want cheaper and more efficient settlement and to optimise the efficiency of their balance sheets', he said. 'I don't think they really care about how this is achieved, but they are receptive to any suggestions that can deliver these efficiencies. We're not claiming we're the only solution, but we are confident that we provide one way to help lower overall risk in the financial system.'

Ram is also confident that Finality's compelling business proposition will attract more adherents from the banking and financial market infrastructure communities. 'The eventual goal is to attract many more participant owners', he said. 'The drive and energy of the 15 members of the consortium will make others comfortable with the project and we believe that more will come on board as we add more currencies.' •



'In the Finality world you would instantly exchange your sterling into dollars, which would settle immediately. The whole business process would become much easier on a peer-to-peer basis.'

Five trends shaping digital currencies

Discussion and debate at the DMI Symposium reveal competition, a transforming world, private currencies and more will sit at the heart of the digital money revolution, writes Philip Middleton, chairman of OMFIF's Digital Monetary Institute.

In times of crisis, topics and people who had lurked unrecognised suddenly become the centre of attention and the subject of debate. In the 2008 financial crisis, it was central bankers who emerged, blinking, into the spotlight of unaccustomed publicity. In the current pandemic, alongside the indispensable health professionals and epidemiologists, we have seen digital payment and central bank digital currency specialists take centre stage.

Last month's OMFIF Digital Monetary Institute Symposium convened over 1,700 participants from 103 countries, including senior central bankers and public officials on the one hand, chief executive officers of bleeding edge digital economy companies on the other and pretty much every other profession with an interest in financial services in between. Two years ago, we could just about have held the colloquium in a phone box. In two days of discussion, debate and often heated argument, five trends shaping the future of digital money emerged. •

1 Global transformation

Against the tragedy of the pandemic, we have seen a rapid acceleration of the move from a physical economy towards a digital one. Nowhere has this been more apparent than in financial services, and in particular in payment methods, with a marked decline in the use of cash. Both financial markets and the real economy will pursue increased digitalisation, driven by a combination of new technologies, public policy and entrepreneurial zeal. Not all incumbents will survive. Not all innovators will succeed. Managing the balance between stability and innovation will be tricky.

2 CBDC not if but when

A digital economy requires digital payment instruments. Entrepreneurs are willing and able to provide them. We are already seeing the birth of retail central bank digital currencies in the Bahamas and China, with more to follow. Experiments with stablecoins and tokens are taking place in capital markets and will become more widespread. There are many valid policy reasons for central banks and governments to introduce a CBDC, but none more compelling than the risk of losing financial and political sovereignty to either the private sector or to other sovereign actors. Major economies will be wary of the potential threats to financial stability and fractional reserve banking posed by some varieties of CBDC, but will be persuaded, sooner rather than later, to work seriously towards one.

'Not all incumbents will survive. Not all innovators will succeed. Managing the balance between stability and innovation will be tricky.'



'Money will be dumb, smart, local, international, private, public and all things in between.'

3 Cross-border currency competition

Just as there will be intensifying competition within national boundaries between public and private payment instruments, brands and media, so too will there be growing competition between nation states and currency areas. Whether this will be waged by private sector proxies or by central banks as an extension of national policy remains to be seen. This competitive arena will extend to regulation, governance and technology with universal agreement about the benefits of co-operation and interoperability and fierce disagreement about who should have the whip hand.

4 Abundant private currencies

A tapestry of currencies will soon cover the world. These will be both quasi-fiat (such as stablecoin) and private, with many in the space between these two. Money will be dumb, smart, local, international, private, public and all things in between. It will be principally digital in format, although there will also be physical representations, particularly of sovereign currencies. Cryptocurrencies will continue to bloom and perish with equal rapidity. Some will become institutionalised investment assets, though probably not widely accepted payment instruments. Physical cash will continue to exist for the foreseeable future, even if usage declines.

5 Arm's length public-private partnerships

The private sector is realising that, whatever utopian dreams some have, it is not going to be allowed an unopposed takeover of a fiat financial infrastructure, which sovereign states have spent several centuries building. Central banks appreciate that, whatever their manifold capabilities, they have neither the appetite nor the capacity to launch and run accounts for millions of citizens. In designing, piloting, launching and running CBDCs, there will have to be a degree of partnership and co-operation between private and public sectors. The balance of power, activities and functions between the two will vary widely between countries. Partnerships will range from the enthusiastic to the wary, but going it alone is unlikely to be seen as a viable long term option, except in a narrow range of circumstances.

'I never make predictions, especially about the future' has been attributed to a number of seers. I am confident that of my five predictions, not all will be correct. I am just not sure about which ones. I am certain that we shall be hotly debating the subject at the next annual DMI Symposium. •



Adapting to a new landscape

Banks are updating payment systems around the world under pressure from both fintechs and central banks. But incumbents can work with their new rivals, writes Bhavin Patel, editor and head of research of the DMI and senior economist at OMFIF.

Commercial banks are revamping their payment infrastructure, either in collaboration with or under pressure from central banks, leading to greater innovation and vibrancy especially in retail payments.

Jurisdictions that already had well-developed retail payment services have had little incentive to innovate in the past. Central banks and supervisors had focused on mitigating systemic risks from the wholesale payment sector, which executes high-value, high-priority payments between major financial institutions. In contrast, retail transactions are characterised by much higher transaction volumes,

but are of lower value and less risky. Unlike interbank transactions, driving real-time settlement in the retail space has traditionally been too costly or inefficient to justify direct central bank maintenance or management. But the barriers to retail payment innovation are coming down.

Retail payment innovation is being built on the existing clearing, settlement and payment infrastructures of commercial banks, which provide several advantages. First, these institutions have large networks of customers and intermediaries. Iterative improvements to proven payment rails can achieve scale and be adopted

rapidly. Second, in many cases, when interbank transactions are cleared by fast payment systems, different banks undertake settlement of sovereign-backed currency within reserve accounts held at central banks. This provides a high level of confidence in the system, allowing transactions to be settled between account holders across different payment service providers and banks.

Innovation will also bring with it a broader range of services. These could be provided through digital channels that support new, fast payment infrastructure. Developing an open banking system, in which third-party fintech services can work

with financial institutions' data and software, can help. Francisco Maroto, blockchain discipline leader at BBVA, said, 'As a result of new entrants, systems are improving and adapting. We are seeing real-time systems, like Bizum in Spain and faster payments in the UK, create competition and innovation that can compete with new fintechs at the service level and in cost.'

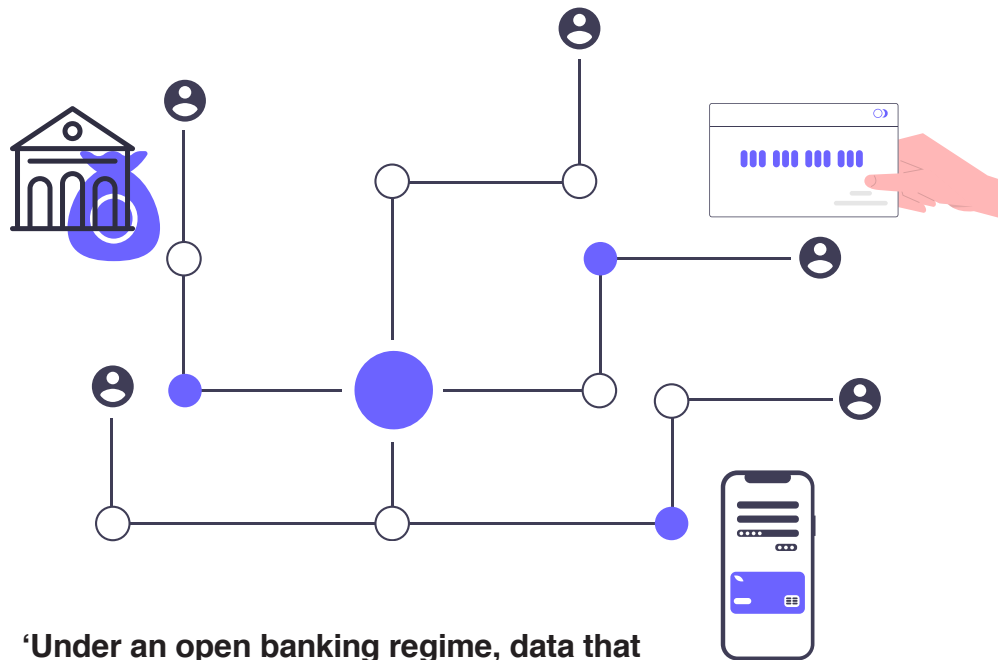
Commercial banks are providing point-of-sale financing and lending options and escrow services that help instil trust and mitigate security issues as part of improving payments. Fintech advances will allow more convenient, safe and cost-effective services. For smaller banks, payments as a service could allow them to quickly upgrade legacy infrastructure and offer third-party services on their core platforms.

Regulators have encouraged competition by opening payments to a wider range of providers. Recent regulations, such as the European Union's revised payment service directive and the UK's open banking initiative, promote the concept of PaaS by allowing third-party fintechs greater access to data.

Under an open banking regime, data that was traditionally controlled by banks can be leveraged by different providers. It allows insurance companies, mortgage providers and others to offer more tailored services to customers. Although this could cause disintermediation, the

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unbundling of integrated financial offerings could also allow incumbents to leverage complementary fintech services.

Banks can take advantage of the opening of their data. BBVA's Maroto provided the example of account aggregation services in Spain. Customers can connect accounts from different banks and view them in one app, allowing them to see their true position and instruct payments more easily. 'BBVA's open application programme interface platform was developed in order to be able to take advantage of new regulation and consumer data from our competitors, in order to offer this service to our customers both in the retail and corporate space.'

Open banking also increases security. Sara Castelhana, managing director and head of payments for Europe, the Middle East and Africa at JP Morgan, said, 'Leveraging data to figure out if a bank account belongs to the correct person really helps with preventing fraud in the system. Leveraging APIs to connect technology is more secure than screen scraping and is the way we

should be doing communication for financial data.'

However, there are calls for to level the data sharing playing field for banks. Maroto said 'Fintechs, payment service providers and big technology firms, like Google, can access bank's customer data through APIs. We should also be allowed to do the same.'

Co-opetition not competition

Banks are in a race to innovate fully before fintechs reach a critical mass of customers and replace them. Meanwhile, the future of banking depends on its ability to leverage the power of customer insight, advanced analytics and digital technology. Fintechs span all of these areas, meaning banks must engage and collaborate with them.

Greater competition from and collaboration with fintechs will drive further incentives and opportunities for commercial banks to improve. Banks as incumbent financial service providers are competing with emerging fintechs, which can rival banks in the services they offer. Competition is only one side of the coin though. Banks can engage with

fintechs and profit from increased co-operation.

Traditional financial institutions still have several advantages. They have large customer bases and deep pockets, but legacy systems hold them back. Matthew Davies, head of global transaction services, EMEA and global co-head of corporate sales GTS at Bank of America, said, 'The relationship between banks and fintechs has changed over the last 10 years. It has moved from direct competition to how fintechs could be leveraged by banks. Even in areas of competition, fintechs are supported by banks who provide funding, access to settlement systems and other solutions that enable them to grow.'

Fintechs are iterating on the services traditionally offered by banks. Yet there is a tendency for new entrants to be more radical and ambitious when it comes to cross-border payments. While some blockchain technology providers do not expect an overhaul of the financial market infrastructure, most take a 'neoliberal approach', intending to supplant existing infrastructure. These efforts, however, have fallen short.

In comparison, banks prefer to play it safe by talking to regulators, rather than seek an advantage by staying ahead of the technology curve through engaging in risky bets on new blockchain applications.

Traditional cross-border payment methods are also improving. The Society for Worldwide Interbank Financial Telecommunication's global payments initiative has been a major development pointed to by commercial banks. Building on existing correspondent banking networks, it has improved speed, increased transparency and lowered costs. More important for major global banks is the savings in prefunded liquidity that is tied to correspondent banking. BBVA's Maroto explained how end-users are benefiting from the upgrades. '[SWIFT gpi] is now attacking low-value retail payments

to make them faster, transparent and cheaper. BBVA was one of the first movers in SWIFT gpi and in bringing these features to our customers.'

However, major global banks face some disadvantages in the battle to innovate. New challenger banks and fintechs enjoy lighter regulatory burdens and more manoeuvrability in testing new solutions, thus potentially establishing first-mover advantages.

This may not always be the case, though, as BoA's Davies explained. 'Many fintechs choose not to go direct [in accessing the central bank's clearing system] often driven by the additional regulatory burdens and the cost of being a direct participant.' In most cases, fintechs opt for a partnership or sponsored model so that they are shielded from the costs of rule changes. As such, these fintechs remain dependent on banks.

New fintechs seeking to overhaul financial market infrastructures face another constraint. To compete with banks, they must build up from nothing. Small firms acting independently may lack sufficient institutional commitment and regulatory alignment to drive more disruptive changes.

Banks do not have the same appetite as smaller companies for disruptive innovation. However, collaborative activities may introduce more extensive cross-border payment changes. Systematically revamping processes to remove the opaqueness of fees would entail a combination of technological innovation and commitment from banks. They must pledge generous financial resources

'Leveraging data to figure out if a bank account belongs to a person really helps with preventing fraud in the system.'

Sara Castelhana, managing director and head of payments for Europe, the Middle East and Africa at JP Morgan



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to a blockchain project if it is to be successful. For this reason, banks have sought out methods of capitalising on their scale and incumbent positions by collectively pooling resources to best position themselves within this volatile space.

Culture shifts and new approaches
The shifting business models of banks' more consumer-focused corporate clients are driving them to find new solutions, typically while partnering with a fintech. 'We are seeing pressure from their customers asking for more digital services and immediacy. There is greater competitive pressure from different fintechs and big technology companies entering the payment space,' said Maroto.

An example of demand driven innovation is Bank of America's beneficiary portal, called Recipient Select. It allows users to select how they want to be paid using email or a mobile phone. 'On the back end, this [beneficiary portal] is linked to providers, often fintechs, that have a digital wallet, almost becoming a clearing mechanism in the middle of these wallets,' said Davies.

Similarly, BBVA is focused on its retail customers' user experience, particularly on their mobile application, and is updating the payment capabilities offered to customers as it moves from batched to real-time payments.

Banks can innovate in several

'Current cyber criminals aren't just after individuals but also corporates and financial institutions, especially now as technology is blurring the lines between the two'

Sara Castelhana, managing director and head of payments for Europe, the Middle East and Africa at JP Morgan



practical ways. These boil down to developing internal capacity, partnering with a fintech, investing in a fintech and acquiring a fintech. Castelhana outlined different methods in which JP Morgan approaches innovation. 'Can we build it ourselves? Do we want to buy the service or do we want a partner for the service?' BBVA emphasises partnerships and venture capital investments, bolstered by research partnerships with universities and academics. In addition, Maroto explained how BBVA is launching new initiatives that foster novel ideas. In addition, Maroto explained how BBVA is launching new initiatives that foster novel ideas. The open innovation website allows BBVA to connect to different innovators by letting start-ups and entrepreneurs register with them, creating a catalogue of innovators in variety of business areas. This portal is combined with a series of Fast Tracks meetings, where start-ups can pitch to business leaders, and conferences open to all participants in the payment ecosystem, establishing a community where ideas can be shared.

Apart from being able to identify innovative start-ups to work with, due diligence is crucial when approaching fintechs. Castelhana explained how JP Morgan looks at cybersecurity, stability and resiliency. 'Current cyber criminals aren't just after individuals but also corporates and financial institutions, especially now as technology is blurring the lines between the two, such as with corporates leveraging wallet-based solutions to enable their customers to make financial transactions, pay for goods and hold balances.'

Davies explained that at Bank of America fintechs undergo a strenuous due diligence process and many fail to meet the bank's standards. He said, 'We need them to operate to standards, as the bank itself has that set from regulators.'

There are spill over benefits for fintechs that pass due diligence. Davies provided the example of

banks giving a 'seal of approval' to lightly capitalised and regulated companies who have passed their due diligence criteria, increasing their attractiveness to other potential partners.

CBDC opportunities

Central bank digital currencies are coming and will further revolutionise the payment landscape. Central banks have outlined different ways to implement their digital currencies. One of the least disruptive is the two-tier model. The currency's issuer remains the central bank but disseminators and customer-facing services come from the private sector. However, the level of involvement and innovation that commercial banks can foster as facilitators depends on the central bank's design decisions.

Ensuring that retail CBDC allows for competition requires the central bank to operate an infrastructure that fosters innovation. Payment service providers must be able to access the CBDC through multiple channels, including back end interfaces and APIs. A level playing field and adaptability will foster private sector innovation. This was emphasised by Sir Jon Cunliffe, deputy governor of the Bank of England, in an OMFIF meeting (see p. 16).

Commercial banks agree that CBDCs will complement their operations. However, some banks are more ready than others for the coming wave of CBDCs. Some have taken lessons from experiments with stablecoins, while others are in dialogue and collaborating with central banks, providing input on how these payment rails will run.

Collaboration and the almost symbiotic relationship commercial banks have with central banks will continue. Partnerships and collaborations between private sector operators will also be necessary. As the demand for services, business models and internal cultures change, both fintechs and banks will continue to need each other. •

Revolutionising the future of payments

John Jackson, policy and product lead of the Real-Time Gross Settlement Renewal Programme at the Bank of England, talks to Katie-Ann Wilson, head of DMI programming at OMFIF, about the programme's vision for the future and the transformative services that the renewed system will bring to the payments industry.

Katie-Ann Wilson: Can you give us some background on the programme?

John Jackson: It started with a strategic review, which I joined in 2015 as business lead. The purpose of the review was to work out what the Bank's strategy should be in operating this critical piece of national infrastructure, where settlement in all major sterling payment systems takes place. Eighteen months of industry outreach and consultation culminated in the RTGS renewal blueprint, which set out the Bank's objectives.

We had a concept for what we wanted to achieve and how that would drive change in sterling payments. To implement that, we had to bring in expertise to deliver technological change, including a technology delivery partner, project managers, business analysts, architects and all the assets needed for a major delivery programme.

While we are building to a blueprint agreed with the industry, the precise vision is not set in stone. As such we are constantly reassessing how to meet our objectives.

KAW: What are the main policy objectives of the renewal programme?

JJ: Our vision is to develop a

renewed RTGS service which is fit for the future, increasing resilience and access, and offering wider interoperability, improved user functionality and strengthened end-to-end risk management of the UK's high value payment system.

We are renewing a system that recently celebrated its 25th anniversary and that has changed dramatically over its life. It already has a strong customer base and

'Industry involvement is vital so that we can ensure we're meeting the needs of our participants and the wider economy.'

we need to continue to meet its needs, while at the same widening participation to include emerging banks, non-bank payment providers and new market infrastructures. We're trying to innovate while also pursuing the Bank's central objectives of maintaining stability and promoting competition.

The renewal will have been successful if it helps drive beneficial change in electronic payments. Our customers are modernising rapidly. They want us to help them achieve greater automation, access richer

payments data, offer 24/7 services, take advantage of technologies, such as cloud and software as a service, and be more resilient to a wide range of shocks. Industry involvement is vital so that we can ensure we're meeting the needs of our participants and the wider economy.

KAW: What are the key design features of the upgrade and how do these address the challenges of the current environment?

JJ: We are delivering the renewal programme in four distinct stages. This is intended to minimise delivery risk and give participants the time they need to make changes to their own systems.

We've come to the end of stage one. This encompassed all that could be achieved without technological changes to the existing infrastructure, such as expanding access to non-bank payment service providers and bringing in-house the governance of the Clearing House Automated Payment System.

The key design feature of stage two, due in June 2022, is the migration to the ISO 20022 messaging standard. We will also start to build out our application programme interface capability. It's about creating more advanced information channels to address the current challenges of fragmented

and truncated data in payments.

Creating harmonisation with ISO 20022, the global standard for electronic payments, will align our RTGS system with others, such as Target2 and Fedwire, and will enable participants to offer richer data services. We'll achieve this by building a modern integration layer on top of the legacy RTGS platform.

The key deliverable of stage three, due in October 2023, is replacing the core RTGS architecture with a modular one that is more flexible and easier to update. This will deliver advanced features, such as improvements to our liquidity savings mechanism, modern tools for analysing RTGS data and a streamlined on-boarding process.

Stage four is all about forward looking change that provides greater added value, 24/7 operation, a fully API enabled user interface, additional resilience tools and a network-agnostic design that will enable sending and receiving payment messages from multiple sources. Using the greater flexibility of the new platform, we'll be able to deliver these improvements in a series of upgrades starting in 2024.

KAW: What is the potential for allowing interoperability with other systems?

JJ: The RTGS system is already used by several different sterling payment systems, including CHAPS, CREST, the faster payments service and Bacs. The Bank's omnibus account policy, introduced in April 2021, seeks to broaden access to innovative payment infrastructures. During stage four, we will introduce payment synchronisation, an interface through which payment systems can access central bank settlement for their participants that will be specifically designed to enable atomic settlement across multiple ledgers.

KAW: Why has the bank decided to maintain an account based ledger over adopting a distributed ledger technology solution? Will there be potential to integrate tokenised assets?

JJ: Distributed ledger technology has yet to be proven and tested in terms of security, scalability and performance. In 2016 we carried out a proof of concept that illustrated the limitations of the technology, at this early stage in its development, to deliver an RTGS system that could meet our needs. However, we did

specifically acknowledge the need for the RTGS system to be able to interface with DLT infrastructures in future.

To support this, in 2018 we did a further proof of concept to understand how the renewed RTGS service could support settlement for systems operating on innovative payment technologies, such as those built on DLT. This proved that the renewed RTGS system would be able to interface with new technologies as and when they are developed to provide innovative sterling payment services. •

'We are renewing a system that recently celebrated its 25th anniversary and that has changed dramatically over its life.'



Commercial banks might not dodge CBDC disruption

Sir John Cunliffe, the Bank of England's deputy governor, seems relaxed about possible impact of CBDC on banks, writes John Orchard, chief executive officer of OMFIF.

While he avoided pre-empting the findings of his new task force on central bank digital currency, Sir Jon Cunliffe, deputy governor at the Bank of England, refused to become anxious about the potential disruption to UK commercial banks from introducing central bank digital currency.

'They have had to reinvent their business models before', he said during a lecture for OMFIF, in response to the idea that the public might shift their deposits into CBDC. He pointed out that commercial banks 'could fund themselves from capital markets instead'.

Banks have more than incumbency on their side and can afford to be a little complacent. The People's Bank of China designed its digital renminbi around the existing banking and payments infrastructure. While leaving options open, the digital renminbi carries no interest and is limited to Rmb3,000 per person. However,

the PBoC may reduce this during market turbulence that might cause a run on the banks.

The existing infrastructure also has ready answers to regular CBDC conundrums. There are plenty of banks that can easily, though expensively, move money from one jurisdiction to another, while central banks' CBDC teams scratch their heads about cross-border interoperability and automated foreign exchange processes.

The issue of privacy also seems insoluble. But commercial banks don't have to answer this from first principles. People seem to trust them with their data, perhaps because their use of it is not core to their business model.

Citigroup pointed out during an OMFIF discussion on the future of payments that banks are also embedded in the regulatory infrastructure relating to anti-money laundering and know your customer processes. Distributed ledger technology and blockchain

proponents have not provided good answers to this, while citizens seem wary of handing their privacy to new counterparties.

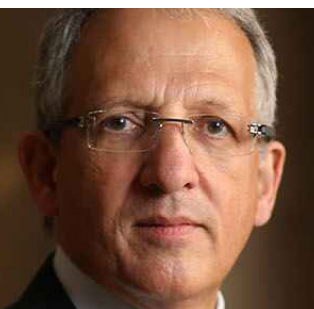
Nevertheless, central banks think commercial banks overcharge for transaction services and could do with being disrupted. As Cunliffe seemed to indicate, central banks are reluctant to surrender to private money, as M1 replaces M0 through the contactless payment revolution.

The most intriguing area containing both risks and benefits for commercial and central banks is the creation of stablecoins, issued by non-banks but pegged to national currencies. Cunliffe suggested that the replacement of sterling by a digital dollar or euro was unlikely, though would not be drawn on how regulation might prevent this.

Stablecoin issuers will probably have to be regulated, with deposits held at the central bank as a guarantee against retail users losing their digital savings. This will be a relief to some commercial banks.

Cunliffe is clearly open to potential wide-ranging disruption to existing structures, though suggested regulators would carefully watch for the creation of 'walled gardens' that 'lock consumers in'. He is not wading in to protect commercial banks from state competition or from a profoundly radical private sector incursion into the design of money. •

'It is clear that central banks think commercial banks overcharge for transaction services and could do with being disrupted.'



Financial services to prosper from increased collaboration

Partnerships between central banks and fintechs will take advantage of new opportunities, writes Richard Douglas, chief executive officer of Island Pay.

RAPIDLY EVOLVING expectations and digitalisation are creating enormous challenges for the financial services industry. But they also represent tremendous opportunities for collaboration between central banks and fintech companies.

Increasingly, traditional banks and fintechs have come to appreciate that collaboration wins out over competition when it comes to driving innovation, growing revenue and delivering better banking services.

Collaboration is what allowed Island Pay and the Central Bank of the Bahamas to launch the world's first central bank digital currency, the sand dollar. The first step in our collaboration was agreeing a shared strategic goal – to democratise access to currency across the Bahamas, especially for underserved communities that lacked financial services infrastructure.

The next step was to leverage one another's strengths. The central bank brought the CBDC while Island Pay contributed its leading technology and track record of digital security and consumer safety to create usability and promote market-wide acceptance.

Together, we created a platform that allows individuals, merchants and governments to easily and securely pay for goods and services, as well as to transfer and receive funds electronically with a digital wallet. Recently, Island Pay and the central bank expanded on this by partnering with Mastercard to launch the world's first CBDC credit

card, letting consumers spend their sand dollars anywhere Mastercard is accepted around the world.

These are major steps in the global advancement of CBDC. We are currently in conversation with other central banks about replicating this initiative. This is just one example of how financial institutions can expand product capabilities, forging partnerships focused on new payment methods and basic banking products. These are the kinds of win-win collaborations that we must begin to see more regularly so that companies and consumers the world over can reap the full benefits of innovation in the long-term.

Similarly, partnerships between established banks and fintechs can yield immediate advantages to both. Banks gain the agility and innovation of a fintech, while offering customer loyalty, scale and established networks in return. At the same time, banks can build their visibility and customer base without competing with new platforms or having to invest in their own technological expertise.

In short, collaboration is the biggest source of opportunity in the financial services industry. When banks and fintechs come to the table with shared, consumer-centric goals, and each contributes what it does best, results will follow. •



'Collaboration is what allowed Island Pay and the Central Bank of the Bahamas to launch the world's first central bank digital currency, the sand dollar.'

Interoperability will create an inclusive global economy

Legacy institutions must keep pace with progress if they want to solve their shortcomings, write Richard Budel, chief commercial officer digital, Kalin Nicolov, head of digital currency, and Frances Rice, digital and content marketing manager at SICPA.

TODAY'S FRAGMENTED financial system results in inefficiency, expensive transactions and financial exclusion. Interoperable systems, based on disruptive technologies, can change this.

The Monetary Authority of Singapore agrees. According to its April 2021 report, public digital infrastructures are critical for inclusivity. They will allow interoperable services to reach more people and businesses, at lower costs and with greater convenience.

Interoperable technologies already play an influential role in the exchange of money, assets, goods and services. Just as the internet enabled cheap, easy information exchange, the development of technological, legal and regulatory standards will forge the smooth interchange of currencies within and across borders. Emerging exchange technologies will empower the internet of value and enable routine transactions to be as cheap and easy as sending an email.

Commendable efforts by central banks and others have paved the way for global standards and open payment protocols that will enable full-scale interoperability. Success hinges on the implementation of new financial transaction models that include all citizens. These will stimulate economic development and individual prosperity, contributing to the World Bank's goal of ending poverty by 2030.

Current circumstances offer a once-in-a-lifetime opportunity to create a more inclusive financial system, not only for the 1.7bn people underbanked, but also for the hundreds of millions affected by the pandemic. Although physical cash focuses on domestic uses, the future of sovereign digital cash in global trade, work and migration underlines interactions across borders. Full

'A fully interconnected, inclusive global payment system not only increases financial access, it also holds the potential to increase confidence in the financial system.'

interoperability between networks might not only fix the cross-border exchange of fiat currencies, it can also increase competition, enhance innovation and promote financial inclusion.

Changes in financial infrastructure must keep pace with technology that enables institutions to overcome legacy issues. Among these is the difficulty financial players have connecting to one another due to a lack of common

infrastructure standards. Digital payments are also inaccessible for many due to cost and a lack of equipment and knowledge. Complex onboarding processes and restrictions on merchant acceptability limit usability and adoption. Insufficient data protection and authentication requirements create security concerns.

Legacy systems face questions over equal access, privacy, security and the shift towards real-time instant settlement for account-based payments. Aligning different requirements and technical specifications is a challenge. Seamless interoperability will depend on factors including governance and regulatory structures between different parties, as well as new infrastructure.

At SICPA, we see value in the stability and efficiency of public monetary systems and in innovation and product diversity provided by the private sector. We support shared foundational technology built on open standards. But we also explore tailored functionality, such as our prototype which shows there is no tradeoff between compliance and privacy and that digital cash can be transferred in varied situations, including in low connectivity settings. This will allow innovation in transaction flows and enable the unbundling of traditional functions of money (such as being a store of

value, unit of account and medium of exchange).

As a private sector player in the security space, our role is to drive standards in accessibility and security, so that new technology works for existing infrastructures. But it is also to support less developed countries to leap forward with minimal investment.

Interoperability will let companies build on common standards. Trustless technologies prove the fundamentals of cryptography. This lets automation handle the mechanical aspects of security, freeing individuals to focus on human interactions. When implemented wisely, the result will be that anyone, even without a computer or smartphone, can participate safely in the system, no matter the counterparty or where they are located.

A fully interconnected, inclusive

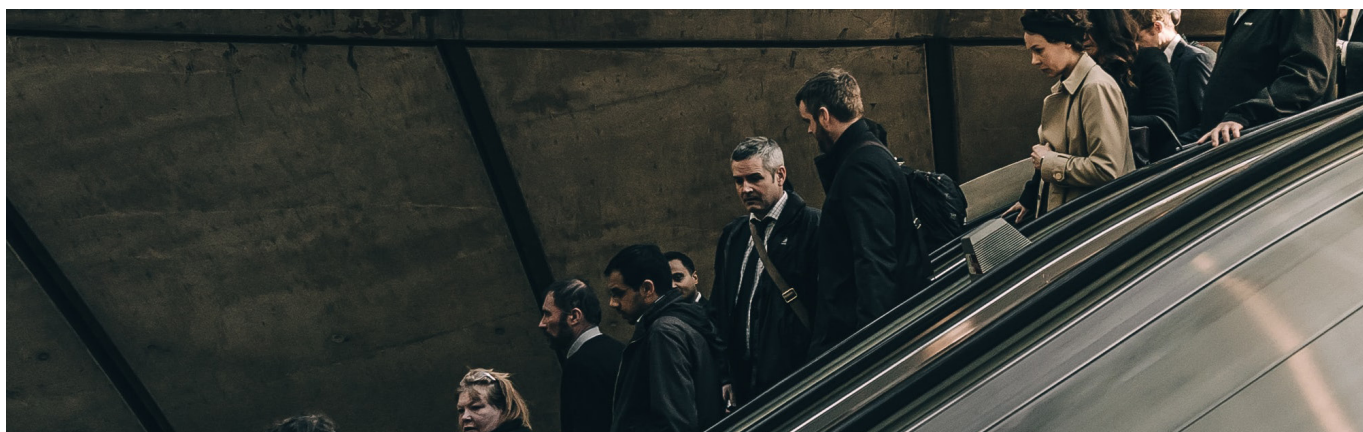
‘Current circumstances offer a once-in-a-lifetime opportunity to create a more inclusive financial system, not only for the 1.7bn people underbanked, but also for the hundreds of millions affected by the pandemic.’

global payment system not only increases financial access, it also holds the potential to increase confidence in the financial system. New financial infrastructures, built by a global community, will facilitate cheaper, faster payments and cross-border settlement, as well as a safe store of value.

In a DMI Symposium poll, respondents tipped ‘broad use’ and ‘ease of use’ as the driving factors for the widespread adoption of central bank digital currency. While the

practicalities of interoperability remain a major hurdle for CBDC, central banks that take the necessary steps will reap the benefits and produce positive effects across the financial system.

A future of easy travel, freedom to do business and seamlessly exchanging forms of sovereign digital cash is well within reach. Interoperability is what enables such online and offline capabilities, ensuring resilience and inclusive access to the economy for everyone. •



Digital payments must be able to operate offline

Cash can either be digitalised as a new currency or as a new format, requiring large banking sector investments, writes Joachim Samuelsson, chief executive officer of Crunchfish.

MONEY comes in four formats - two physical and two digital. Central banks issue physical money in the familiar forms of coins and notes. Digital money exists in bank accounts and constitutes a claim on the bank rather than the central bank. Cryptocurrency is a new digital format, not guaranteed by any bank. Instead, authenticity is proven by a blockchain. One of the key reasons why central banks want to digitalise cash is that cryptocurrencies could undermine

a country's currency and monetary policy.

Digital cash is neither digital money nor a cryptocurrency. The goal is to translate the properties of cash into a digital form of payment. Such a payment method must be able to be accepted without an internet connection and privacy must be ensured. Just because payments are digital does not mean that the bank needs to see every transaction. Digital cash must also be extremely flexible, scalable and

work with current payment solutions. Crunchfish has developed a solution that meets all these criteria.

Crunchfish complements the world's payment services with its digital cash wallet, xoxo.cash, whether on smartphone or payment card. It processes an offline balance that is reflected in a corresponding and blocked digital cash account online.

As the payment is carried out, a digitally signed payment is created and verified offline by the specified recipient. Crunchfish's digital cash payments can be compared to paying by credit card, the difference is that the debited account is blocked to guarantee that there is no overdraft when the offline payment is settled.

Central banks have a choice to make. They can choose to issue their digital cash as a new currency, to be handled on existing payment systems, or as a new format requiring upgraded infrastructure. However, according to a staff memo from Sweden's central bank, a new format will not solve the issue of offline payments. At the same time, Visa explains that offline payments can be offered by using two-step payments.

Crunchfish's entry, with Sweden's dominant real-time payment service Swish, in the national telecom agency's innovation contest shows that it is possible to implement offline payments on account-based rails. Crunchfish's digital cash wallet can also handle central banks' digital cash, as there is no technical difference in whether the digital cash is guaranteed by central or commercial banks. •



'Central banks have a choice to make. They can choose to issue their digital cash as a new currency, to be handled on existing payment systems, or as a new format requiring upgraded infrastructure.'

Wall Street must be aware of crypto threats

The race to offer new asset classes to customers opens legacy players up to potential security risks, writes Asen Kostadinov, head of strategy at Copper.

INSTITUTIONAL interest in digital assets is driving extraordinary change across the global banking industry. To better serve their clients, Wall Street's old guard is beginning to cave to the rising demand for digital assets.

Recently, Morgan Stanley became the first top tier bank to offer bitcoin funds to its wealth management clients. Goldman Sachs quickly followed with an announcement of its own and now JPMorgan is reportedly joining its rivals in making bitcoin funds available to wealthy clients.

Some banks continue to take a clandestine approach to cryptoassets, researching and experimenting out of sight. Others, after having been granted some regulatory clarity from the Office of the Comptroller of the Currency last July, are now proactively exploring building out their own custody solutions.

Rising to the challenge of disruptive technology and embracing cryptoassets will undoubtedly be a lucrative business for banks. But when offering products and services in this high-speed sector – characterised by sharp and novel technologies – the established players on Wall Street need to protect themselves and their clients from the inherent risks of the industry.

Secure storage of cryptoassets is notoriously and painfully complex. From social engineering to traditional cyberattack methods, there are many ways to breach security measures in this new

environment.

The quickest way to the crypto market for most legacy financial institutions is through the use of existing technology providers.

This is where third-party custodians and technology companies such as Copper deliver the necessary focus to ensure a robust gateway into the digital asset ecosystem.

Copper's offering draws on new processes and technologies, such as multiparty computation key-shard cryptography, which gives wallet holders the utmost protection from potential security breaches. With zero-trust architecture baked in,

Copper's multiparty computation offering is widely recognised as the most practical means of securing confidential information and financial assets.

Security breaches have long been a thorn in the side of crypto and the threat landscape faced by industry participants is only expected to become more hazardous as institutional investors continue to amass cryptoassets.

At Copper, we stand ready to collaborate with the industry's giants to offer a secure entry point into this exciting, emerging asset class. •



‘Secure storage of cryptoassets is notoriously and painfully complex. From social engineering to traditional cyberattack methods, there are many ways to breach security measures in this new frontier.’

Disjointed digitalisation drags on banking innovation

Disorganised implementation of new technologies hinders regulators from doing their jobs, writes Gero Decker, co-lead of SAP Business Process Intelligence and co-founder of Signavio.

EVERY SECTOR has scrambled to digitalise in the wake of Covid-19. Banking is no different. During the crisis, many banks saw a 50% increase in the use of digital services with 71% of consumers globally now using such services weekly.

The pandemic is just the latest in a line of challenges that have forced legacy institutions to innovate. Now, a new breed of fintechns is disrupting the industry.

This pressure has produced another problem: disjointed digitalisation. As banks introduced more technology, their information technology landscapes became more complex, more automated and, crucially, disconnected from the operational business processes that are supposed to underpin them.

Silos exacerbate the problem

further. If a financial institution introduces technology to automate a process in its front office, how does that impact the back office? Does it integrate into the end-to-end business process that the rest of the bank is running on? Too often, the mining, mapping and design work to answer these questions has not even been attempted, let alone completed.

This disconnect has a fundamental and negative impact on the characteristic that organisations need to thrive in today's market: agility. If a bank cannot introduce new technology, operationalise it and integrate it into their business process at scale and speed, it creates a cocktail of inefficiency that slows down future innovation.

However, this problem is not isolated to banks. It extends to the

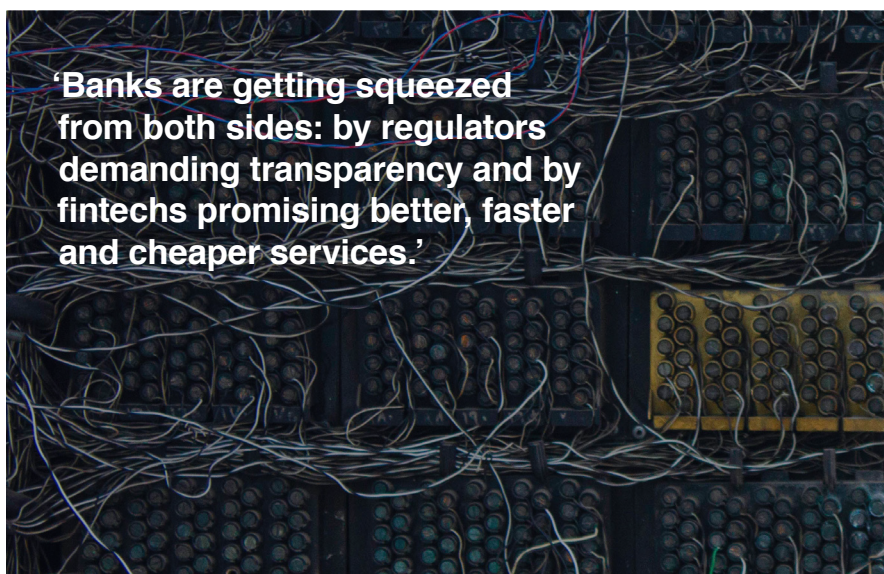
entire financial system. Introducing new technologies in a disjointed way means that central banks and regulators cannot monitor compliance and manage risk.

This lack of visibility is a fundamental struggle and one that the manufacturing industry understood in the 60s. In mapping out its process, it was able to monitor compliance both internally to senior management and externally to regulators.

Although banks are charged with organising abstract concepts and data rather than physical goods, they must apply the same rigour. Part of the solution is investing in capabilities to map, model and simulate the processes that banks run on, identify problems, optimise inefficiencies and create a single source of truth for internal teams and external regulators.

Banks must also change the conversation around business processes and empower the individuals charged with driving them. Process teams must be elevated and given the authority to work across silos and enable realignment. Regulators must work with banks to find a common language and establish best practices for institutions to follow.

Banks are getting squeezed from both sides: by regulators demanding transparency and by fintechns promising better, faster and cheaper services. Effective process management will help accelerate innovation, allowing these institutions to simultaneously stay competitive and satisfy regulators. •



Fintech disruption challenges big banks

Internet shopping killed off many traditional retailers. Others thrived. Traditional banks must learn from that experience, writes Ken Joseph, managing director and head of US compliance and regulatory consulting at Kroll and Kroll Institute fellow.

TECHNOLOGICAL advancement has disrupted every industry. It has also placed traditional banking at a crossroads. Advancing technology coupled with customer frustrations over low interest rates, high fees, slow transaction times and allegedly discriminatory banking practices have eroded confidence and profit margins.

Now, several innovative fintech banking solutions are chipping away at the advantages that traditional banks have long enjoyed. Despite security risks, this market dynamic creates opportunities for forward-looking banks to embrace solutions that enhance the customer experience while also reducing inefficiencies. Internet shopping caused the death of some traditional retailers, but it also allowed others to excel. Similarly, traditional banks must adapt or die.

Millions of US citizens now do all their banking online and many only use smartphones. In several cases, banks adapted and made digital banking options available, seeing them as natural extensions of their conventional offerings.

But in other areas, big tech companies and fintechs have been able to disrupt the market by offering convenience, innovative products and low transaction costs, putting pressure on incumbents. Some fintechs have 'gamified' the banking experience to attract and retain customers.

Fintechs have some inherent advantages over banks, including a relative lack of regulation and bureaucracy, allowing them to

be more nimble. Recent surveys also indicate that consumers trust fintechs as much as traditional banks, which undermines the banking industry's two big advantages of name recognition and security.

So, what are banks to do? They can start by adopting their own fintech solutions to lower costs, improve consumer banking experiences and offer new products. By adopting elements of blockchain technology, banks could streamline payments, make accounts more accessible and improve security. Banks can use their vast amount of data to power artificial intelligence-driven applications that can

automate customer interactions and streamline processes like risk management and underwriting.

Such changes will spawn governance challenges. New technology creates new risks. Fintechs have had to deal with security challenges ranging from online hacking to money laundering. Banks using these technologies will inherit those risks.

If banks are to compete in this evolving marketplace, they cannot sit on the fence when it comes to developing or utilising fintech solutions. They must be willing to embrace change and accept disruption to continue meeting consumers' expectations. •



Future of finance bridges centralised and decentralised models

Success in the emerging system will be realised by those who place themselves at the intersection of converging models, writes Pietro Grassano, business solutions director, Europe at Algorand.

BLOCKCHAIN HAS created a new economic reality that is increasingly efficient and frictionless. Some decentralised finance (DeFi) enthusiasts believe it will replace the more traditional centralised finance (CeFi) systems, which are mostly controlled by governments, banks or corporations. This group sees a world where the established financial system is obsolete and smart contracts take over. However, the reality is that legacy financial systems form the basis of our global economy.

At Algorand, we envision a path forward that is marked by the convergence of the two models, DeFi and CeFi coming together to form a new one, future finance (FutureFi). This will involve

traditional economies, digital economies, centralised finance and payments, decentralised finance and infrastructure, governments and central banks being drawn together in a complementary and unified reality.

FutureFi connects central banks and DeFi. Rather than excluding traditional finance, it embraces and evolves the existing system into a brand new one. FutureFi is not the creation of a separate system but rather a unified structure that is decentralised, inclusive, frictionless and secure. Some of the benefits of this new approach will include expanded asset variety, liquidity creation, removal of friction from legacy processes, increased individual participation in economic

growth and secure peer-to-peer transactions.


Two key economic trends are emerging.

First, substantive economies (in terms of total participants and capital deployed) have organically and rapidly appeared in industries that were not historically associated with traditional financial exchange.

Second, convergence is accelerating across DeFi, traditional financial institutions and government institutions, such as can be seen with central bank digital currency. Instead of three separate ecosystems, all are being drawn into a complementary and unified world supported by blockchain.

As FutureFi becomes a reality, the winners will be those who place themselves at the intersection of DeFi infrastructure and traditional financial systems. Success will be determined by adaptability, interoperability and creating simple end user experiences powered by public and open infrastructure systems, designed for the next generation of finance.

Algorand has purposefully designed technology to serve as a bridge between DeFi and CeFi, capable of handling the volume of transactions needed for banks and financial institutions to smoothly transition into FutureFi, while also providing inclusive and decentralised tech for developers. This is the path to mass adoption of a more frictionless system and what is needed to catapult us into the future of finance. •



‘Success will be determined by adaptability, interoperability and creating simple end user experiences powered by public and open infrastructure systems, designed for the next generation of finance.’

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Meetings highlights

JUNE

Stablecoins and the international monetary system

10 June, 14:00-15:00

Brent McIntosh, adjunct senior fellow for international economics and finance at the Council on Foreign Relations and, between 2019-2021, under secretary of the US Treasury for international affairs, discusses the response of national authorities and multilateral institutions to the rise of stablecoins, their involvement in promoting or hampering innovative payment systems and the potential threat to the dollar's monetary hegemony.

Banque de France cryptoasset seminar

15 June, 14:30 - 16:30

The Banque de France and Autorité de contrôle prudentiel et de résolution, the French banking and insurance supervisory authority, host a virtual seminar on cryptoassets. It explores cryptoassets, risks and regulation as well the potential institutionalisation of cryptoassets. Speakers include Olivier Fliche, director of fintech and innovation at the ACPR, and Matthew Homer, executive deputy superintendent for research and innovation at New York's department of financial services.

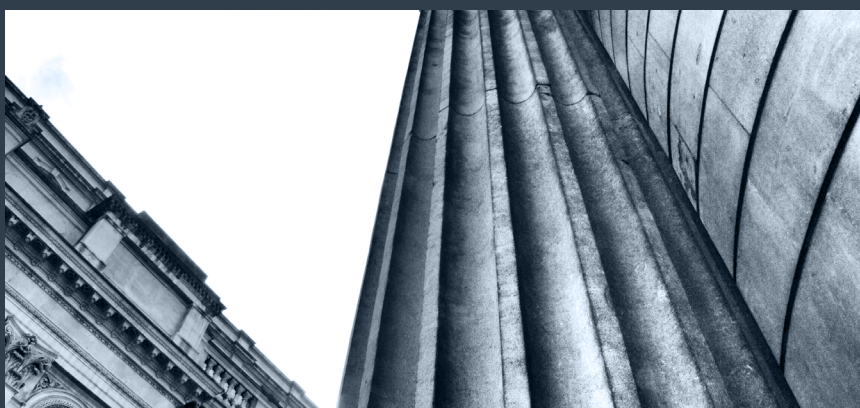


To view past meetings
visit: [omfif.org/
ondemand](https://omfif.org/ondemand)

Meetings spotlight

The Bank of England's approach to digital currencies and cross-border payments

13 May 14:00-14:45



The pandemic has accelerated the transformation of payments, with many countries looking into central bank digital currencies, upgrading real-time gross settlement systems or discussing next steps for cross-border payments. Sir Jon Cunliffe, deputy governor of the Bank of England, discussed how the Bank is engaging with British and international payment landscapes. He explored the outlook for CBDCs and expanded on the innovation timeframe as well as what is needed to improve national and cross-border payments and settlements.

Innovation and evolution in payments and the role of central banks

20 May, 16:00-17:00

The payment landscape is changing rapidly, driven by new and evolving technology, non-traditional players and new payment instruments. At the same time, central banks' core objectives and functions – financial stability, monetary policy, banking supervision and financial services access – haven't changed. This discussion explored these key topics, focusing on the role of the private sector, central banks and the importance of competition and innovation.

Speakers:

Charlotte Hogg, CEO, Visa Europe

Judith Obholzer, Managing Executive Public Policy, Vodacom

Peter Conti-Brown, Assistant Professor, The Wharton School of the University of Pennsylvania

Thomas Lammer, Deputy Head of Secretariat, CPMI, Bank for International Settlements

Oded Salomy, Director Payments and Settlement Systems, Bank of Israel