



paymentsnz

PAYMENTS DIRECTION

2021 Environmental Scan Report

Developments in the global
payments landscape

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Foreword

Welcome to our 2021 Environmental Scan.

This scan looks at global developments in the world of payments. It builds on earlier work to identify the global trends and influences likely to impact the New Zealand payments ecosystem over the next decade.

In the two years since our 2019 scan, COVID-19 has changed the way we go about our lives. The changes we were seeing in payments in 2019 have largely been accelerated in response to the pandemic and the need for greater digital connectedness across communities, both nationally and internationally.

This year's work continues to reinforce the themes identified in our 2019 scan, with some notable shifts in emphasis:

- The pandemic has reshaped consumer and organisational behaviour. We expect that in most cases, these changes will be enduring. Payments will need to adjust to these behaviours that are now considered the 'new normal'.
- Cybersecurity is now a considerable point of emphasis given the pandemic has exposed cyber vulnerabilities and, in some cases, a lack of preparedness. Cybercriminals are increasingly becoming more sophisticated and capable of launching attacks on a scale that was previously unimaginable.
- Central bank digital currencies have moved into mainstream discussions about the future of money because they are seen to have the potential to improve both financial stability and financial inclusion.

The findings in this scan reinforces that our key pieces of work continue to head in the right direction.

The API Centre continues to be well-positioned to respond to government's latest announcement that a new legislative framework for a Consumer Data Right that closely mirrors Australia's regime will be introduced in New Zealand.

Payments Direction has also received industry feedback on its Payments Modernisation Plan discussion document, which sets out a future view of the payments ecosystem through to 2030, and identifies the capability building blocks required to deliver on that future. A key piece of feedback was the need to better define what real time payments could look like in a New Zealand context, and we are working with the industry to progress this work.

We're continuing to make good progress with our core clearing systems work. Projects like supporting our Participants through the transition to ISO 20022 and SBI365 ensures that our payments system remains interoperable, innovative, safe, open and efficient. We've also worked with our Participants to ensure a smooth transition as they stop accepting and issuing cheques.

I hope you find this report insightful and useful as you contemplate the future and what this could look like for your organisation.



Steve Wiggins
Chief Executive, Payments NZ



Introduction

Executive summary

Our 2021 Environmental Scan follows our 2020 refresh, which looked at the themes from our 2019 report and assessed them against developments the following year.

The 2021 scan is based on a wide-ranging review of research material relevant to the New Zealand economy and its payment systems.

This year, we've reconfirmed that the six themes from 2019 that are material to the payments ecosystem of the future remain accurate and on point. They are that:

1. Payments are continuous and increasingly international in orientation.
2. Payments are faster, more mobile, more informative, less visible, and increasingly better linked across the value chain.
3. Payments infrastructure refreshes and renewals are widespread.
4. Financial services and payments regulation is expanding and aiming to produce more inclusive and resilient systems.
5. Payments security and authentication is a key concern.
6. Payments associations face increased expectations.

Readers of previous scans will note some minor wording changes to some of the themes; these have been made to make those themes more intuitive.

Although this scan supports our previous findings, we're noticing more overlap and convergence between the themes than in our previous scans. In many respects the drivers of change identified in 2019 continue to be relevant today. This is to be expected given that change occurs over time - even considering the rapid acceleration of trends due to the pandemic.

At the time of the 2020 refresh we noted that COVID-19 represented a game changing moment in history which was highly likely to result in a profound and perhaps lengthy recession. We also commented that it had the potential "to accelerate or intensify many economic and metropolitan trends that were already underway, with huge implications of their own".¹

The structural changes we identified as accelerating included:

- The move towards online everything. Nearly all sectors of the economy, from retail to professional services to health and education, were suddenly online to a greater or lesser degree.
- The need for deeply engaging digital experiences. The depth of digital experience is important in a world where in-store browsing is no longer perceived as being without risk, and the widespread availability of broadband internet is commonplace.
- The push towards automation. Automated processes facilitate quick delivery of products to consumers, especially where payments are integrated as part of the purchase process.
- The ability to work remotely. Platforms like Zoom and Microsoft Teams have established it is possible to manage a fully distributed workforce in many sectors, although some business processes have yet to be fully integrated into the remote working environment.
- An emphasis on closing the digital divide. The pandemic has sharpened the focus on access to high-speed broadband, and on the exclusion that occurs when certain members of a community do not have access to either devices or the enabling infrastructure.

While the recessions around the world have, in general, been less severe than first predicted, there is a growing sentiment that structural changes of the type we identified last year are more likely than not to become entrenched.

Cyber resilience continues to become increasingly important. Large sectors of the economy are now under permanent threat of cyberattack. Central bank digital currencies (CBDCs) have quickly become part of the mainstream discussion about the future of money, and COVID-19 has clearly illustrated the benefits of having a fast payments infrastructure to deliver government assistance, both at scale and in a targeted way. The importance of open financial data is increasingly a feature of policy debates around the world. The advantages of those data sets include "more

¹ <https://www.brookings.edu/research/how-covid-19-will-change-the-nations-long-term-economic-trends-brookings-metro/>

accurate credit risk evaluation and risk-based pricing, improved workforce allocation, better product delivery and customer service, and stronger fraud protection”.² Regulation of the financial services and payments ecosystems continues at pace, as governments attempt to balance inclusive and innovative environments with the needs of consumers and maintaining a robust financial system.

As 2021 unfolds, the rollout of vaccines around the world has begun to offer hope we may be able to return to our pre-pandemic lives, at least in part. But there are many unanswered questions which still need to be addressed, including:

- Will consumers in different regions around the world revert to in-person purchasing after the pandemic?
- Are we moving to a hybrid future of work where employees split their time between the traditional office, working from home and co-working hubs in satellite locations?
- How will global mobility be impacted in a world where borders are not fully open?
- Has COVID-19 changed the role of the state in most economies?
- How will big tech be regulated?
- To what extent will an open data ecosystem for finance be realised?

What is becoming clear, is that organisations involved in and allied to the field of payments will need to respond to a more dynamic and less stable operating environment than has been the norm to date. The Payments Association of South Africa notes that as the country “exits the pandemic and embarks on its economic recovery journey over the next few years, it will require a modernised national payments system that is adaptive to future use cases, resilient against threats and supportive of future innovations”.³

This mirrors the sentiment from the UK’s Financial Conduct Authority (FCA), who in their Business Plan for 2021/22 committed to transform the FCA to become “a forward-looking, proactive regulator” that is more innovative, assertive, adaptive and ready to address new challenges and disruptions whilst balancing the needs of their growing remit.⁴

2 <https://www.mckinsey.com/industries/financial-services/our-insights/financial-data-unbound-the-value-of-open-data-for-individuals-and-institutions>

3 <http://www.pasa.org.za/docs/default-source/default-document-library/pasa-annual-report-2020.pdf>

4 <https://www.fca.org.uk/publication/business-plans/business-plan-2021-22.pdf>

2021 theme summary



Theme 1. Payments are continuous and increasingly international in orientation

As business models shift because of COVID-19, there is a strong sense that innovations which have become mainstream because of the pandemic will reshape consumer and organisational behaviour for many years to come. Payments will need to be made anytime, from anywhere and across borders to support a more diverse and rapidly evolving set of use cases.

In 2021 this theme rests on developments in four areas:

1. Changes in consumer behaviour and lifestyles as economies move out of various stages of lockdown.
2. The rapid scaling of digital innovation and e-commerce as digital adoption rates increase due to the pandemic.
3. The growth in the use of common standards to drive interoperability and inclusion.
4. A drive to resolve the problems associated with cross border payments, especially in emerging markets.

Theme 2. Payments are faster, more mobile, more informative, less visible and increasingly better linked across the value chain

The need for faster, more mobile, more informative payments which are linked across the value chain continues to grow at pace, driven by innovations in technology, connected devices, software, and cellular technology which make it possible for people and businesses to integrate their digital and physical worlds.

In 2021 this theme rests on developments in four areas:

1. New use cases and new product offerings associated with faster payments.
2. The open data economy.
3. Invisible payments.
4. The mobility ecosystem.

Theme 3: Payments infrastructure refreshes and renewals are widespread

The movement toward real time infrastructures and capabilities continues at pace, as does the adoption of ISO 20022 messaging standards as part of legacy system replacements or new system developments. Central bank digital currencies have moved from an interesting but impractical idea to an innovation whose time may have come.

In 2021 this theme rests on developments in three areas:

1. Real time or faster payment capabilities are now considered mainstream.
2. Central banks changing attitudes towards central bank digital currencies.
3. Infrastructure upgrades to support resilience and innovation.

Theme 4: Financial services and payments regulation is expanding, and aiming to produce more inclusive and resilient systems

Regulation continues to be a pervasive force for change in the financial services and payments arena but for an expanding array of reasons. Some of this regulation is oriented towards soundness, efficiency and competition objectives. Whereas other regulation is in direct response to the pandemic. A desire to have greater control over fintechs and global technology platforms has also increased the regulatory footprint, as has the desire to ensure consumers benefit from greater competition and innovation in the marketplace. As before, regulation continues to have impacts across borders and jurisdictions.

In 2021 this theme rests on developments in four areas:

1. A continued emphasis on the maintenance of a sound and efficient financial system.
2. An increased interest in the regulation of fintechs and global technology platforms.
3. The drive to give consumers greater control over their data as part of building a data ecosystem and a digital economy.
4. A focus on improving consumer and end user outcomes.

Theme 5: Payments security and authentication is a key concern

The pandemic has accelerated a range of technology innovations in areas like work, service delivery, product distribution and how we make and receive payments. This has also opened new possibilities in the areas of cybercrime. Our increased dependency on digital infrastructure raises the cost of failure at a time when cybercriminals are finding increasingly sophisticated ways to penetrate systemic defences, when those defences might be lowered due the focus on the public health crisis. According to the International Monetary Fund, cyber risk is the new threat to financial stability.⁵ Digital identity offers the potential to expand access to digital services and to act as a building block for safer and more secure payments.

In 2021 this theme rests on developments in four areas:

1. The growing impact of cyberthreats partly in response to an acceleration of digital trends already underway.
2. Organised crime leveraging payments innovation to extract value.
3. Compliance and regulatory action in the AML/CFT space.
4. An increased push for digital identity solutions.

Theme 6: Payments associations face increased expectations

Payments associations and allied bodies are faced with an increasingly difficult balancing act; ensuring they can represent and consider a more diverse range of issues from a more complex and disparate range of stakeholders which is likely to also present a growing number of challenges. Additionally, the range of payment system issues and offerings payments associations and allied bodies need to support are ever broadening.

In 2021 this theme rests on developments in three areas:

1. Having to consider a broader range of stakeholders as the payments ecosystem evolves and efforts are made to make the industry more inclusive for new entrants.
2. Increasing the breadth of offerings associations are currently supporting beyond their traditional confines.
3. Delaying some projects as associations move their focus towards ensuring payment systems remain resilient and reliable.

⁵ <https://blogs.imf.org/2020/12/07/cyber-risk-is-the-new-threat-to-financial-stability/>

COVID-19 impact – a pandemic with a long tail

New Zealand's first confirmed case of COVID-19 was reported on 28 February 2020. At that time, the Ministry of Health noted that "the overall situation regarding COVID-19 internationally remains rapidly evolving with a high degree of uncertainty".⁶

In many respects that statement remains accurate today.

Since COVID-19 first started dominating the global news cycle, governments around the world have delivered unparalleled fiscal policy and monetary support to help keep economies afloat. As a result, global economic and financial outcomes have so far turned out more favourable than anticipated in the early days of the pandemic. At an aggregate level, New Zealand's economic recovery "has been spectacular relative to early-pandemic expectations,"⁷ but the recent "stop-start" nature of the trans-Tasman bubble between Australia and New Zealand underscores the difficulties in opening New Zealand's border and aspects of its economy to the rest of the world. Many of New Zealand's monetary and fiscal policy responses to the pandemic were broadly consistent with responses across the globe. However, New Zealand's strong position on the management of public health risks at the border as part of its elimination strategy makes it somewhat unique.⁸

Some industries have thrived during the pandemic; notably those which already had a significant digital presence. Other industries have been adversely impacted, some severely, including international education, tourism, and hospitality. Capacity constraints and supply line disruptions have now become common. Chip shortages have impacted many industries including most recently the manufacturers of smart payment cards.⁹

The pandemic has caused a sharp pivot from physical to digital in nearly every aspect of society. Working from home or remotely has become commonplace, home delivery has replaced in-store pick-up, and online exercising and wellness have become the new norm. It should be no surprise that financial services and payments reflects that pivot as trends already underway speed up. The Payments Association of South Africa has identified that while the pandemic posed unprecedented economic and social upheaval, it also "acted as a catalyst for change in payments".¹⁰

In April 2020, shortly after the pandemic hit, mobile banking traffic in the US increased by 85% and online banking registrations by 200%.¹¹ In India, a digital identity system was used to transfer \$1.5 billion into the bank accounts of 30 million people as part of its pandemic relief efforts.¹² In Australia during the pandemic, 325,000 debit cards were issued to customers who previously had never used them to make purchases where paying with cash was not an option.¹³ National Australia Bank essentially moved their entire workforce of 34,000 people to work remotely in a matter of weeks.¹⁴ In other jurisdictions "valuable insights regarding key modernisation imperatives were gained as a result and in some areas, like contactless payments, adoption of new functionality and features were even accelerated".¹⁵

6 <https://www.health.govt.nz/news-media/media-releases/single-case-covid-19-confirmed-new-zealand>

7 <https://www.anz.co.nz/content/dam/anzconz/documents/economics-and-market-research/2021/ANZ-GDP-Review-2021Q1.pdf>

8 <https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-response-planning/covid-19-elimination-strategy-aotearoa-new-zealand>

9 <https://www.zdnet.com/article/the-latest-victim-of-the-global-chip-shortage-your-bank-card>

10 <http://www.pasa.org.za/docs/default-source/default-document-library/pasa-annual-report-2020.pdf>

11 <https://www.economist.com/finance-and-economics/2020/10/08/how-the-digital-surge-will-reshape-finance>

12 <https://www.economist.com/international/2020/12/07/covid-19-spurs-national-plans-to-give-citizens-digital-identities>

13 <https://www.ausbanking.org.au/covid-19-accelerates-debit-card-use-cash-decline/>

14 <https://www.afr.com/companies/financial-services/industry-insight-our-digital-economy-aces-the-crisis-test-20210615-p5811k>

15 <http://www.pasa.org.za/docs/default-source/default-document-library/pasa-annual-report-2020.pdf>

In New Zealand, COVID-19 increased the adoption of contactless payments, accounting for 39% of total card use in 2020, a 62% increase since 2018. We also saw the use of contactless enabled terminals increase from 36% in January 2020, to 52% in December 2020 indicating the upward momentum of contactless transactions will continue.¹⁶ This shift towards contactless is consistent with consumer preferences in other jurisdictions to avoid contact with physical media. The volume of cheque payments also continued to decline in 2020. Due to the rapid decline in cheque usage in New Zealand over a number of years all Participants in our Paper Clearing System will have ceased issuing and accepting cheques by the end of August 2021, in line with announcements from several large retailers and government departments that they will go cheque-free or are reviewing their use of cheques as a payment option. Additionally, in New Zealand, the pandemic saw the first widespread mainstream deployment of QR codes as part the NZ COVID Tracer app. This deployment has the potential to pave the way for other uses of QR codes in New Zealand, including in retail payment settings.

Around the world, there has been a significant reassessment of the future of money and the role cryptocurrencies, stablecoins, and CBDCs might play in that future. Interest in the potential role of CBDCs has increased significantly over the past 12 months; shifting into mainstream discussions about money and payments in a way that was difficult to imagine even just a few years ago.

The recently reported growth in cybercrime reflects the acceleration of the shift towards the online world. Cybercrime has risen at both a retail and an industrial level. The Economist notes this is a symptom of a “world becoming digital faster than individuals and institutions can secure themselves against exploitation”.¹⁷ It is clear the banking and payments sectors will need to continue to respond strongly to cybercriminals that are deploying increased levels of innovation and automation to exploit new attack vectors in order to maintain consumer trust in the safety and security of their payments.

Despite the progress that has occurred since the onset of the pandemic, significant concerns remain about COVID-19 variants, levels of immunisation, the economic road ahead for many impacted industries, and to what extent we can expect the changes brought about by COVID-19 to be permanent. It seems clear COVID-19 may have permanently changed perceptions about the powers given to governments in certain areas, the role of digital identity as a core digital economy enabler, and the free movement of people and goods around the world. But at the moment, it is still far too early to tell what the legacy of the pandemic will be.

Against this evolving backdrop, which promises more uncertainty for some time to come, the payments industry in New Zealand is having to deliver on a series of significant industry projects. This includes the implementation of SBI365 which will extend the processing of electronic payments to 365 days a year and supporting Participants in our High Value Clearing System as they migrate to the ISO 20022 messaging standard, which will allow richer information to be attached to a transaction. At the same time, the industry is also having to assess how best to deliver on its payments modernisation ambitions for 2030.

¹⁶ <https://www.paymentsnz.co.nz/resources/articles/new-zealand-payments-stats-2020-in-review>

¹⁷ <https://www.economist.com/international/2020/08/17/during-the-pandemic-a-digital-crimewave-has-flooded-the-internet>



2021 Themes

Theme 1



Payments are continuous and increasingly international in orientation

2021 theme conclusion

As business models shift because of COVID-19, there is a strong sense that innovations which have become mainstream because of the pandemic will reshape consumer and organisational behaviour for many years to come. Payments will need to be made anytime, from anywhere and across borders to support a more diverse and rapidly evolving set of use cases.

Scan of global activity and change trends

Introduction

A scan of global activity reveals developments in four areas:

1. Changes in consumer behaviour and lifestyles as economies move out of various stages of lockdown.
2. The rapid scaling of digital innovation and e-commerce as digital adoption rates increase due to the pandemic.
3. The growth in the use of common standards to drive interoperability and inclusion.
4. A drive to resolve the problems associated with cross border payments, especially in emerging markets.

Changes in behaviour and lifestyles

- The pandemic has profoundly changed attitudes to work and to labour force participation. Boston Consulting Group commented that “social distancing applied to the workforce means that the human structure of businesses will be transformed by

remote work”.¹⁸ This thinking aligns with views shared by the Chair of NatWest, who has said “many of NatWest’s office-based employees would probably continue to work from home part-time after pandemic restrictions eased, in the latest sign of big business reassessing working practices”.¹⁹

- There has been a rapid shift toward the online world that is most likely here to stay. Importantly, there has been a switch in defaults from “early adopters do this, but most people do not” to “we all do this now” and only a small (but important) percentage do not.²⁰
- Organisations have actively responded to consumer preferences for contactless operations and services, and the need to assure the safety of both employees and customers.²¹
- Research from Barclaycard Payments found nearly 30% of small and medium-sized enterprises are intending to invest in technology in 2021 to reduce friction in their payments processes, reinforcing the belief that pandemic-influenced consumer behaviour changes are here to stay.²²

Rapid scaling

- McKinsey suggests ten years of digital innovation occurred in approximately three months and that internationally, e-commerce increased by two to five times pre-pandemic levels.²³
- The Economist notes that the US and Britain may experience a permanent shift towards online shopping. These are nations with a strong digital infrastructure, but underdeveloped e-commerce sector when compared with China.²⁴
- The pandemic was akin to a forced experiment in digital innovation and a switch towards low-touch operations and supply chains, digital technologies, and e-commerce.²⁵

18 <https://events.bcgdv.com/reimagininginnovation/BCGDV-ReimaginingInnovation.pdf>

19 <https://www.theguardian.com/business/2021/jul/21/london-office-life-not-likely-to-return-to-pre-covid-practices-natwest-chair-says>

20 <https://events.bcgdv.com/reimagininginnovation/BCGDV-ReimaginingInnovation.pdf>

21 <https://www.mckinsey.com/business-functions/operations/our-insights/beyond-contactless-operations-human-centered-customer-experience>

22 <https://www.finextra.com/pressarticle/86734/lockdown-legacies-the-10-shifts-in-consumer-behaviour-for-retailers-to-be-aware-of>

23 <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/the-eight-trends-that-will-define-2021-and-beyond>

24 <https://www.economist.com/the-world-ahead/2020/11/16/covid-19-forced-businesses-to-experiment>

25 <https://events.bcgdv.com/reimagininginnovation/BCGDV-ReimaginingInnovation.pdf>

- In Australia and Asia, Xero reports an acceleration in digital adoption by SMEs throughout COVID-19; “it affected everything from people’s ability to work at home and for businesses to connect with customers, to how most businesses started only accepting card and online payments”.²⁶
- QR codes are experiencing significant momentum thanks to their ability to connect the digital world to physical purchases, which are helping to create a more seamless experience. Stockholm-based Ombori has deployed a system “which allows retailers to have a digital screen displaying QR codes and offers passers-by the opportunity to purchase items right from the street after viewing photos and videos of them”.²⁷ Tencent talk of a new QR code economy built on a “ubiquitous digital connection between people, things and places using convenient code-scans within the WeChat ecosystem”.²⁸
- While it is predicted that consumers will maintain their new online behaviours post-pandemic and expectations of seamless payments experiences will increase, delivering on those expectations is not without its challenges. A survey by The Economist Intelligence Unit found integrating systems to create a seamless shopping experience was the biggest challenge faced by corporate treasurers.²⁹

Common standards and solutions

- Globally, the payments industry has been working to develop the ISO 20022 messaging standard for their cross border domestic markets ahead of November 2025, when SWIFT has required that all applicable MT messages must be migrated to the ISO 20022 messaging standard. Once implemented the common language is expected to provide richer data and increase interoperability.³⁰
- The Reserve Bank of India has issued a circular requiring all licensed prepaid payment instruments and mobile wallets, such as PhonePe, Paytm, Google Pay and Mobikwik, to be interoperable from April 2022. This will allow a digital wallet user that has been vetted and satisfied KYC requirements to send and receive money between different mobile wallets. The limit for cash withdrawals from mobile wallets will also increase.³¹
- The use of common standards in the regulatory space is one way of achieving wider market adoption of RegTech across the European Union (EU). The European Banking Authority has noted that “in the longer term, additional actions, such as the creation of a centralised EU database of RegTech solutions or a potential certification of RegTech could be further explored and considered”.³²
- In Germany, banks are continuing standardisation of their online payment processes after approval from the German Federal Cartel Office to merge their online payment solutions Paydirekt, Giropay, and Kwitt into one brand. The German banking industry wants to bundle payment offers to simplify how payments are made and enable consumers to transfer money faster, regardless of which bank the customer uses.³³
- The European Commission have announced merger approval of the P27 Nordic Payments Platform to create a pan-Nordic payments infrastructure for domestic and cross border payments utilising common standards.³⁴

26 Digital tech lessons for SMEs in 2021, www.acuitymag.com February – March 2021

27 <https://www.bbc.com/news/business-55579480>

28 <https://www.prnewswire.com/news-releases/wechat-releases-new-report-on-the-qr-code-economys-fight-against-covid-19-301060807.html>

29 https://eiuperspectives.economist.com/sites/default/files/eiu_deutsche_bank_report_the_resilient_treasury_optimising_strategy_covid19.pdf

30 <https://www.finextra.com/newsarticle/38380/ebaday-2021-payments-innovation-and-the-benefits-cascading-down-the-waterfall-model>

31 <https://www.businesstoday.in/industry/banks/story/people-can-send-receive-money-from-different-mobile-wallets-from-april-next-year-296613-2021-05-20>

32 <https://www.euronews.com/2021/06/29/uk-eu-banks-regulator>

33 <https://www.fnp.de/wirtschaft/banken-und-sparkassen-bringen-bezahldienst-voran-zr-90527508.html>

34 https://ec.europa.eu/commission/presscorner/detail/en/mex_21_3625

Cross border payments

- The G20 made improving cross border payments a priority in 2020, requesting the Financial Stability Board (FSB) develop a roadmap to make cross border payments faster, cheaper, more transparent, and more inclusive. The roadmap was released in three stages throughout 2020 and identified five focus areas that aim to enhance the existing ecosystem and explore new payment infrastructures, and a range of actions to progress initiatives in the plan.³⁵ In May 2021, the FSB published a public consultation document on proposed targets to address speed, cost, transparency, and inclusivity.³⁶ The results of this consultation will be presented to the G20 Summit in October 2021 along with an update on the overall progress of the roadmap.
- Six leading international banks, including Bank of China, Citi and Deutsche Bank, have confirmed they are preparing to use SWIFT's transaction management platform when it launches in November 2022. The system will enable a frictionless cross border payments experience using SWIFT gpi and ISO 20022 messaging standards, and will allow for upfront validation of beneficiary details, central management of exceptions and the transfer of lower value payments.³⁷
- SWIFT have also launched SWIFT Go, a new low value cross border service that will enable small businesses and customers to make real time cross border payments from their bank accounts.³⁸
- The Bank of Thailand (BOT) and the Monetary Authority of Singapore (MAS) have linked their real time payment systems. The banks say the service, which joins Thailand's PromptPay and Singapore's PayNow, is the first of its kind globally. The BOT and the MAS plan to work with other Association of Southeast Asian Nations to develop a network of connected retail payment systems across the region.³⁹
- Building on the concept of linking payment systems, the Bank for International Settlements has published a report on project Nexus which provides a blueprint for linking domestic instant payment systems to enable cross border payments.⁴⁰
- The central banks of Thailand and Malaysia have also announced they will link their real time payment systems enabling users to make real time cross border payments using QR codes. It is expected the service will be available in both countries by the fourth quarter of 2022.⁴¹
- The pandemic has had a profound impact on cross border remittance flows due to restrictions on the use of cash, remittance firms not being deemed essential services and some expatriate workers not being entitled to claim relief payments, preventing them from sending remittances. The World Bank estimates total remittances to developing countries could drop by a record 20% this year, to \$445 billion. At the same time the pandemic has shown, to those sending and receiving remittances, the potential benefits of fast cross border digital payments.⁴²
- The increasing risks and costs associated with anti-money laundering and countering financing of terrorism requirements is also impacting correspondent banking networks and economies in the Pacific that rely on remittance payments. This has prompted the Reserve Bank of New Zealand to urge banks to "re-consider how they can continue to serve the needs of our Pacific neighbours".⁴³

35 <https://www.fsb.org/2020/10/enhancing-cross-border-payments-stage-3-roadmap>

36 <https://www.fsb.org/wp-content/uploads/P310521.pdf>

37 <https://www.businesswire.com/news/home/20210624005197/en/Global-Banks-Preparing-to-Leverage-SWIFT%E2%80%99s-New-Platform-for-International-Payments-Flows>

38 <https://www.finextra.com/newsarticle/38536/swift-takes-on-low-value-cross-border-payments>

39 <https://www.reuters.com/article/thailand-economy-payment/thailand-singapore-launch-linkage-of-real-time-payment-systems-idUSL4N2MM1G6>

40 <https://www.bis.org/publ/othp39.pdf>

41 <https://www.reuters.com/technology/thailand-malaysia-cbanks-launch-cross-border-qr-payment-linkage-2021-06-18/>

42 <https://www.economist.com/finance-and-economics/2020/06/15/covid-19-has-squeezed-migrants-remittances-to-their-families>

43 <https://www.rbnz.govt.nz/news/2021/07/tide-going-out-on-pacific-banking-services>

- New entrants are also addressing challenges in the cross border payments market. Most new entrants are offering faster and cheaper alternative payment methods in emerging markets that are currently underserved by the banks, such as WeLucy, a mobile app targeting women that will launch in Singapore before being released internationally.⁴⁴ These new entrants are largely focused on low value transactions, some utilising mobile wallets and back-end networks, and are putting traditional money transfer operators such as Western Union under pressure.⁴⁵
- The increase in central banks researching CBDCs has also led to several partnerships exploring the use of CBDCs for cross border payments. The Bank for International Settlements' Innovation Hub, in partnership with a private sector consortium led by Accenture, and the Bank of France and the Swiss National Bank, are working on Project Jura, which will investigate using two wholesale CBDCs and a French digital financial instrument on distributed ledger technology for settling cross border payments.⁴⁶
- The Bank for International Settlements has also partnered with the People's Bank of China, the Central Bank of the United Arab Emirates, the Hong Kong Monetary Authority, and the Bank of Thailand "to develop a proof-of-concept prototype to facilitate real time cross border foreign exchange payments on distributed ledger technology".⁴⁷ If phase three of the project is successful, they intend to commercialise the prototype.⁴⁸

Drivers of change

Our theme conclusion is underpinned by the following drivers of change:

1. COVID-19 accelerating adoption of digital payments solutions and changes in consumer behaviour, which in turn is fast-tracking innovation.
2. A growing realisation of the benefits of using standards and integration to ensure interoperability and to leverage network effects.
3. An increasingly connected system of global personal and commercial relationships.
4. A realisation of the need to serve all customers and to address markets that are currently underserved.

⁴⁴ <https://fortune.com/2021/07/15/covid-migrant-workers-women-domestic-work-remittances-money-transfers>

⁴⁵ https://www.ey.com/en_gl/banking-capital-markets/how-new-entrants-are-redefining-cross-border-payments

⁴⁶ <https://www.bis.org/press/p210610a.htm>

⁴⁷ <https://www.bis.org/press/p210223.htm>

⁴⁸ <https://forkast.news/hong-kong-cbdc-commercialize-cross-border-payments>

Theme 2



Payments are faster, more mobile, more informative, less visible and increasingly better linked across the value chain

2021 theme conclusion

The need for faster, more mobile, more informative payments which are linked across the value chain continues to grow at pace, driven by innovations in technology, connected devices, software, and cellular technology which make it possible for people and businesses to integrate their digital and physical worlds.

Scan of global activity and change trends

Introduction

A scan of global activity reveals developments in four areas:

1. New use cases and new product offerings associated with faster payments.
2. The open data economy.
3. Invisible payments.
4. The mobility ecosystem.

Faster payments

- As more consumers experience the speed of real time capabilities for person-to-person (P2P) payments, those capabilities will make greater inroads into e-commerce, and from there to instore payment scenarios. ACI Worldwide reported India are exploring new use cases for faster payments, with their real time market now considering merchant, bill, tax and toll payments. ACI expected other markets would follow this example in time, stating “we are beginning to see most real time schemes also account for large corporate needs, dispelling the misconception that real time payments are exclusively a consumer payments and P2P

opportunity. Business-to-business (B2B) use cases promise to create high margin opportunities and drive higher values of transactions through real time payment networks.”⁴⁹

- PayPal has introduced a new feature in Australia that enables instant transfers from a PayPal balance to domestic bank accounts and eligible Visa debit cards. It uses Australia’s New Payments Platform, via PayPal’s partnership with National Australia Bank, and Visa Direct, Visa’s real time payments platform. The feature is available to both customers and small businesses, with the maximum transfer amount allowed depending on consumer or business trading history.⁵⁰
- The adoption of fast payment capabilities has increased the focus on the need for strong fraud and risk management protocols. In the US, over the course of the pandemic, consumers have moved to instant payment apps to avoid retail bank branches and as online commerce has become more ingrained. Instant payment apps give a reduced window to identify fraudulent transactions. “Fast payments equals fast fraud”. Instant payment apps “are super convenient for customers but that also makes them ripe targets”.⁵¹

Open data economy

- The move towards open banking has grown into a broader debate about the benefits of open financial data more generally. McKinsey estimate “the potential value of open financial data ranges from 1% to as much as 5% of GDP, depending on economic structure and levels of financial access”.⁵²
- The Financial Conduct Authority in the UK have released a summary of feedback received in response to their consultation on open finance, which will help to shape their regulatory approach and ensure it develops in the interests of consumers.⁵³

49 <https://go.aciworldwide.com/2021primetime.html>

50 <https://www.itnews.com.au/news/paypal-taps-into-the-npp-for-instant-transfers-to-bank-accounts-565489>

51 <https://www.nytimes.com/2020/10/11/technology/fraud-payment-apps.html>

52 <https://www.mckinsey.com/industries/financial-services/our-insights/financial-data-unbound-the-value-of-open-data-for-individuals-and-institutions>

53 <https://www.fca.org.uk/publication/feedback/fs21-7.pdf>

- New Zealand has announced the introduction of a Consumer Data Right (CDR) with the CDR to work hand-in-hand with the Digital Identity Trust Framework announced earlier in 2021.⁵⁴ Increased competition, innovation, economic development and better outcomes for consumers are cited as key drivers behind the development of a CDR in New Zealand. These objectives are closely aligned with those of the Australian CDR regime and the New Zealand deployment of the CDR is expected to closely align with that regime.⁵⁵
- The API Centre has released version 2.1 of the Payment Initiation and Account Information standards and developed a high-level scope for v2.2 and v3.0 of both of those standards. The new versions will likely reduce the amount of optionality in the standards, as well as introducing new functionality to support accounts that require multiple authorisations (e.g., business accounts), and two-way API notifications between the API Provider and Third Party.⁵⁶
- The API Centre is also working on a Partnering Framework with the aim of making it easier for API Providers and Third Parties to form bilateral agreements by streamlining requirements such as risk, liability, data management and security.⁵⁷
- In Singapore, artificial intelligence (AI) is being used to power unstaffed convenience stores. Launched with assistance from Visa, AI is used to track the actions of customers and record items that are removed from shelves, while facial recognition technology is used for both store access and payments. This type of AI deployment is consistent with Singapore's Smart Nation initiative.⁶³
- In Sweden, Lifvs convenience and grocery stores are returning to remote rural areas where shops had closed down because of the struggle to stay profitable. Customers can access the Lifvs using the company's app, which leverages a secure national identification app, BankID, operated by Sweden's banks. Once inside they can then use a smartphone to scan barcodes with the bill automatically charged to a pre-registered bank card.⁶⁴

Mobility ecosystem

- As consumers grow more accustomed to using digital payment solutions, the number of consumers using wearables, mobile wallets, smart speakers and voice assistants to make payments online or in-store are growing, along with the expectation that merchants will support payments using a variety of methods and devices. The shift to mobile shopping has also resulted in more customers making purchases through social media platforms.⁶⁵

Invisible payments

- Amazon will be expanding their in-store shopping experiences. The company has announced that their Just Walk Out technology will be trialed in a full-sized grocery store for the first time,⁵⁸ and that they will also be rolling out Amazon One – a palm based contactless payments service – to more Whole Foods stores.⁵⁹ Although Amazon led the way, several competitors are now entering the checkout-free market. UK supermarket chain Tesco are set to launch their first checkout-free store,⁶⁰ whilst New Zealand based start-up Imagr⁶¹ and US based Grabango⁶² are both looking to expand their solutions, which are easily scalable.

54 <https://www.scoop.co.nz/stories/PA2107/S00043/govt-agrees-to-establish-a-consumer-data-right.htm>

55 <https://www.russellmcveagh.com/insights/august-2020/new-zealand-consumer-data-right-mbie-invites-submissions>

56 <https://www.apicentre.paymentsnz.co.nz/about/news/version-21-api-standards-update/>

57 API Centre Update, June 2021

58 <https://www.theverge.com/2021/6/15/22534570/amazon-fresh-full-size-grocery-store-just-walk-out-cashierless-technology-bellevue-washington>

59 <https://www.usatoday.com/story/tech/2021/04/21/amazon-one-whole-foods-pay-palm-tech-seattle-stores/7317945002/>

60 <https://www.standard.co.uk/news/uk/tesco-checkout-free-stores-northern-ireland-booker-welwyn-garden-city-amazon-b941309.html>

61 <https://www.forbes.com/sites/tiffanylung/2021/01/28/japans-checkout-free-grocery-store-gives-amazon-a-run-for-their-money>

62 <https://www.forbes.com/sites/rebeccaszkat/2021/06/07/grabango-raises-a-39-million-series-b-round-for-its-checkout-free-grocery-technology>

63 <https://www.straitstimes.com/singapore/new-unmanned-and-cashless-cheers-outlet-opens-in-our-tampines-hub>

64 <https://www.bbc.com/news/business-56237988>

65 <https://securecdn.pymnts.com/wp-content/uploads/2021/05/PYMNTS-Anatomy-Of-A-Consumer-Payment-May-2021-Playbook.pdf>

- Publicis Groupe have become the latest brand to partner with TikTok to test the platform's new social commerce products. TikTok will also share opportunities, insights, and strategic advice with Publicis Groupe's clients.⁶⁶ The partnership was announced as the hashtag #TikTokMadeMeBuyIt and had reached over 3.8 billion views. The hashtag promotes products TikTok users have recently purchased because of the platform signalling how purchasing behaviour and platforms are evolving.⁶⁷
- In Europe, Danske Bank A/S, OP Financial Group and the group of banks behind Vipps in Norway have agreed to merge their mobile payment solutions MobilePay, Pivo and Vipps. The companies want to merge their wallets to improve innovation, to invest in cross border payments and e-commerce, and to ensure the best features of their existing wallets are offered to customers.⁶⁸
- Fintech Australia has made a submission to the government in response to the inquiry into mobile payment and digital wallet financial services. They suggested six ways they could protect innovation and competition in the mobile payments market in Australia, including requesting direct access to manufacturers' near-field communication payment technology, permitting the use of Bluetooth Low Energy, and suggesting data collected by digital wallet providers should be shared with the industry, believing this would help improve customer adoption in the sector.⁶⁹ The Reserve Bank of Australia also raised concerns over big tech's impact on competition in the payments sector in their submission.⁷⁰
- Tencent's 2020 Pandemic and the QR Code Economy Report highlighted the benefits of mobile platforms and the role their WeChat ecosystem played in connecting communities and disbursing government assistance during the pandemic. In total, local governments shared 10 billion yuan of WeChat Pay Spending Vouchers, and users were able to access over 45,000 municipal service and healthcare related Mini Programs.⁷¹
- PayPal's super app ambitions are becoming a reality with the coding for their new digital wallet app now complete. Like WeChat and Alipay, the app is expected to integrate commerce and offer "direct deposit, check cashing, budgeting tools, bill pay, crypto support, subscription management, and buy now, pay later functionalities" as well as messaging.⁷²
- In Australia, Quest Payment Systems are trialling Airpay TAP, a tap-on-phone payments solution that transforms mobile devices into payment terminals. Payments can be made using contactless card, wearables, or digital wallets.⁷³
- In the UK, Marks & Spencer have announced they are closing all in-store branches of their banking arm as they transition to online-only banking products and a "more integrated end-to-end shopping and payment experience".⁷⁴
- These digital innovations are also reaching New Zealand, with companies like digital wallet app, Dosh, which will enable Kiwis to make instant payments and split bills, expected to launch in the near future.⁷⁵

Drivers of change

Our theme conclusion is underpinned by the following drivers of change:

- Irrespective of the use case scenario, end users of payments expect convenient, fast, seamless and transparent end-to-end payment experiences.
- There is an increased emphasis on collaboration. While competition in payments is vital to ensuring innovation, lower costs and good consumer outcomes, there is a need for collaboration in some of the common strategic assets to ensure the full suite of network effects are realised across the ecosystem.

66 <https://www.marketing-interactive.com/tiktok-joins-forces-with-publicis-to-drive-community-commerce>

67 <https://talkinginfluence.com/2021/08/06/social-commerce-is-the-future-of-marketing>

68 <https://www.globenewswire.com/news-release/2021/06/30/2255302/0/en/Danske-Bank-A-S-to-merge-MobilePay-with-Norwegian-Vipps-and-Finnish-Pivo.html>

69 <https://www.zdnet.com/article/fintech-australia-reckons-the-government-should-force-access-to-nfc>

70 <https://www.apf.gov.au/DocumentStore.ashx?id=e804dece-65a2-470e-9038-11b2cd3ff8ad&subId=707291>

71 <https://www.prnewswire.com/news-releases/wechat-releases-new-report-on-the-qr-code-economy-fight-against-covid-19-301060807.html>

72 <https://techcrunch.com/2021/07/29/paypals-new-super-app-is-ready-to-launch-will-also-include-messaging>

73 <https://www.questpaymentsystems.com/press-release-airpay-tap.html>

74 <https://corporate.marksandspencer.com/media/press-releases/5ff7017fc6fe1bc26cb21d12/m-and-s-bank-announces-next-stage-of-its-transformation-plans-and-outlines-future-product-offering-and-evolution-of-account-servicing>

75 <https://fintechnz.org.nz/2021/05/06/dosh-to-deliver-aotearoa-first-digital-wallet-app>

Theme 3



Payments infrastructure refreshes and renewals are widespread

2021 theme conclusion

The movement toward real time infrastructures and capabilities continue at pace, as does the adoption of ISO 20022 messaging standards as part of legacy system replacements or new system developments. Central bank digital currencies have moved from an interesting but impractical idea to an innovation whose time may have come.

Scan of global activity and change trends

Introduction

A scan of global activity reveals developments in three areas:

1. Real time or faster payment capabilities are now considered mainstream.
2. The changing attitudes of central banks towards central bank digital currencies.
3. Infrastructure upgrades to support resilience and innovation.

Real time or faster payment capabilities

- Fast payment systems (FPS) are increasingly considered a mainstream payment system. Over 60 countries have implemented an FPS, and several have announced their plans to develop one. The basic principles underpinning these systems are the same – to provide a real time, 24/7 funds transfer facility.⁷⁶

- The rapid adoption of FPS, must be balanced with appropriate safeguards and risk-management frameworks. The risk of social-engineering attacks, such as phishing, can be higher with fast payments which means a range of mitigants are required including an appropriate monitoring system, fraud-prevention tools, and end-user training. The UK Payment Systems Regulator notes that “different uses of Faster Payments lead to different risks. Push payments (that are irrevocable after authorisation by a consumer) can be exploited by fraudsters, leading to life-changing losses for some victims (‘authorised push payment scams’). We have been working together with the industry and with Pay.UK for some time to tackle this issue. This has led to our work on the Contingent Reimbursement Model and to the implementation of Confirmation of Payee checks as standard for the largest banks.”⁷⁷
- In the US, a ubiquitous real time payments mechanism could have made a difference in resolving the challenges in disbursing COVID-19 stimulus funds to millions of Americans.⁷⁸ Some of those funds were delivered via paper cheques in the mail. This delayed access to immediate funds for many citizens and businesses.⁷⁹ In contrast, financial institutions in Canada offered online registration for Canada Revenue Agency Direct Deposit through online banking channels, enabling government payments to be made faster and more securely.⁸⁰
- The European Central Bank and Sweden’s central bank, Riksbank, are continuing to explore how the TARGET Instant Payment Settlement (TIPS) could support the settlement of instant payments between the euro and the Swedish krona. The next step is to define the operational model and legal setup of the potential cross currency settlement feature. It is expected that TIPS will offer instant payment settlement in Swedish krona from May 2022, when Riksbank joins the platform, and instant payments in Danish krone could be available by November 2025.⁸¹

⁷⁶ <https://thedocs.worldbank.org/en/doc/8f85b06f02562c802e97d9ec9d413b0e-0350012021/original/Fast-Payment-Preview-April21.pdf>

⁷⁷ <https://www.psr.org.uk/publications/general/our-proposed-strategy/>

⁷⁸ <https://www.nytimes.com/2020/04/15/opinion/coronavirus-stimulus-check-payment.html>

⁷⁹ <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/financial-services/us-real-time-payments-and-implications-of-the-covid-19-pandemic.pdf>

⁸⁰ <https://www.payments.ca/about-us/news/your-cheque-mail-hopefully-not-much-longer>

⁸¹ <https://www.finextra.com/pressarticle/88238/work-on-cross-currency-instant-payments-in-tips-moves-forward>

- Canada's Real Time Rail is expected to launch in 2022 and will enable users to "initiate payments and receive irrevocable funds in seconds, 24/7/365. Leveraging the ISO 20022 data standard, the system will support payment information traveling with every payment."⁸²
- Responding to growing demand for faster payments, the Federal Reserve have brought forward the launch date for their core instant payments platform, FedNow, to 2023,⁸³ with overlay services to be added following the initial launch. More than 110 institutions are currently participating in a pilot programme to refine the platform.⁸⁴
- Payments NZ are working with Participants to confirm an industry implementation schedule to extend the settlement and interchange of transactions across the Bulk Electronic Clearing System to enable payments to be made and received every day of the year.⁸⁵
- The Bank for International Settlements have backed the development of CBDCs in their Annual Economic Report 2021, detailing their design preferences and why CBDCs built on digital identification could be used to improve cross border payments.⁸⁸
- The Bank of England and HM Treasury have announced a Central Bank Digital Currency Taskforce that will consider the case for a CBDC in the UK. The Taskforce will also work alongside a CBDC Engagement Forum and a CBDC Technology Forum, which will be developed to engage with stakeholders to provide strategic input into the operational and technological aspects of a CBDC.⁸⁹
- The People's Bank of China (PBC) have issued an update on the trial of their digital yuan, confirming the currency has been used to make almost 71 million transactions.⁹⁰ To participate in the trial, citizens could apply to win a share of renminbi that can be spent with selected merchants.⁹¹ The lottery, coupled with the PBC partnering with retailers, apps and service providers, has encouraged higher adoption of the digital yuan – nearly 21 million personal and 3.5 million corporate digital yuan wallets have been created so far. Financial institutions and intermediaries are responsible for "onboarding of users, disbursement of funds and carrying out KYC/AML due diligences, however the PBC have full visibility of all transactions made". Digital wallets, including Alipay and WeChat Pay, are used to disburse the digital yuan, and there is an offline component that allows the use of payment cards at point of sale and for transferring funds to mobile wallets.⁹²
- In the US, the Federal Reserve announced in May 2021 its plans to increase research on CBDCs and to consult with the public on a US dollar-backed CBDC. This move was driven by developments in four areas: "the growing role of digital private money, the migration to digital payments, plans for the use of foreign CBDCs in cross-border payments, and concerns about financial exclusion".⁹³ It demonstrates the changing stance of many central banks towards CBDCs with the Federal Reserve stating in 2018 that "there is no compelling demonstrated need for a Fed-issued digital currency" and that "it is not

Central bank digital currencies

- Attitudes towards central bank digital currencies (CBDCs) have changed dramatically in recent years with an increasing number of central banks exploring the potential for CBDCs in response to the risks associated with technology platforms developing digital currencies, such as Facebook's Libra/Diem, the potential for CBDCs in cross border payments, the reducing volumes of cash and cheque use, and COVID-19 highlighting the need to ensure resilient and accessible digital payment systems.
- Since 2017, the number of central banks engaged in CBDC work has grown by one third to 86%, representing over 70% of the world's population and 91% of global economic output. In 2020, 60% of central banks were conducting CBDC experiments (an increase of 18% since 2019) and 14% were moving to development and pilot programmes.⁸⁶
- The motivations and risks for issuing a CBDC are likely to vary significantly between different jurisdictions, however they can be grouped into payment motivations such as payment system resilience, diversity, and financial inclusion; monetary policy motivations and risks; and financial stability risks.⁸⁷

82 <https://modernization.payments.ca/the-plan/real-time-rail/>

83 <https://www.frb.org/news/press-releases/020221-federal-reserve-updates-fednow-service-launch-to-2023>

84 <https://www.frb.org/news/press-releases/012521-federal-reserve-announces-fednow-pilot-program-participants>

85 <https://www.paymentsnz.co.nz/our-work/our-payment-systems/settlement-before-interchange/>

86 <https://www.bis.org/publ/bppdf/bispap114.pdf>

87 <https://www.bis.org/publ/othp33.pdf>

88 <https://www.bis.org/publ/arpdf/ar2021e3.htm>

89 <https://www.bankofengland.co.uk/news/2021/april/bank-of-england-statement-on-central-bank-digital-currency>

90 <http://www.pbc.gov.cn/en/3688110/3688172/4157443/4293696/2021071614584691871.pdf>

91 <https://www.cnn.com/2021/06/02/china-digital-currency-beijing-to-hand-out-6point2-million-in-trial.html>

92 https://www.payments.ca/sites/default/files/paymentscanada_centralbankdigitalcurrency_retail_globaldevelopments_2021.pdf

93 <https://www.federalreserve.gov/newsevents/speech/brainard20210524a.htm>

obvious what additional value a Fed-issued digital currency would provide” to customers.⁹⁴

- The Bahamas released their Sand Dollar in October 2020, marking the first countrywide launch of a CBDC. Motivated by high paper usage and a largely unbanked population, the Sand Dollar was an opportunity to provide banking access to those cut off from banking infrastructure due to geography, reduce fraud and encourage use of the Bahamian dollar which is pegged to the US dollar. In addition, small businesses have benefited by no longer having to pay large transaction fees. Like the digital yuan, the Sand Dollar is compatible with digital wallets and has payment cards linked to wallets for offline use. Mastercard have released a Sand Dollar prepaid card that allow users to access funds using the card, a QR code or a unique alias, and convert Sand Dollars to Bahamian dollars.⁹⁵
- Motivated by the high costs of their legacy bank system, high rates of financial exclusion, and a reliance on remittances, El Salvador have become the first country to make bitcoin legal tender.⁹⁶
- The Reserve Bank of New Zealand have been actively researching retail CBDCs and monitoring international developments⁹⁷, and have announced that they will publicly consult on the policy cases for a CBDC.⁹⁸
- Vendors are also considering how CBDCs could be used in payment systems, and their role in this. SWIFT has published a discussion paper looking at how CBDCs could work for international payments⁹⁹ and Mastercard are in discussions with several central banks to help enable cross border use of digital currencies.¹⁰⁰

Upgrades to support resilience and innovation

- In the UK, Pay.UK continues its work to deliver the New Payments Architecture – a conceptual design for the modernisation of the UK’s shared retail payment infrastructure. When implemented, it will see a single clearing and settlement core utilising ISO 20022 messaging.¹⁰¹
- The Bank of England is currently in the middle of a multi-year programme to enhance the resilience of its Real Time Gross Settlement service and better support greater competition and innovation.¹⁰²
- The central bank for the Philippines is close to the launch of its new peso Real Time Gross Settlement (RTGS) platform, PhilPaSSplus. The new payment and settlement system is expected to go live in mid-2021. PhilPaSSplus will only accept SWIFT’s ISO 20022 messages, and will improve interoperability of payment systems across the Philippines and other jurisdictions. It is also an integral component of the Philippines’ Digital Payments Transformation Roadmap 2020-2023.¹⁰³
- The Bank of England has announced an omnibus account policy within its Real Time Gross Settlements (RTGS) system. The policy allows the RTGS system to interface with a wider range of payment systems – including those using distributed ledger technology.¹⁰⁴
- Building on their strategy to enable instant, frictionless payments, SWIFT’s ‘gpi Instant’ connects cross border rails with real time domestic infrastructure to enable real time cross border payments.¹⁰⁵ In December 2020, Lloyds Banking Group was the first to implement SWIFT gpi Instant via the UK’s Faster Payments system.¹⁰⁶
- In New Zealand, the Reserve Bank’s Payment Systems Replacement Programme delivered a replacement processing platform (ESAS 2.0) on 24 February 2020. This was the culmination of a multi-year project to shift New Zealand’s financial markets infrastructure to a modernised and higher integrity platform.¹⁰⁷

94 <https://www.federalreserve.gov/newsevents/speech/files/brainard20180515a.pdf>

95 https://www.payments.ca/sites/default/files/paymentscanada_centralbankdigitalcurrency_retail_globaldevelopments_2021.pdf

96 <https://www.bbc.com/news/world-latin-america-57398274>

97 <https://www.rbnz.govt.nz/research-and-publications/speeches/2020/speech2020-10-19>

98 <https://www.rbnz.govt.nz/-/media/ReserveBank/Files/Publications/Statements%20of%20Intent/soi-2021.pdf>

99 <https://www.swift.com/news-events/news/exploring-central-bank-digital-currencies-swift-and-accenture-publish-joint-paper>

100 <https://www.nfcw.com/whats-new-in-payments/mastercard-in-talks-with-pboc-over-support-for-cross-border-digital-yuan-transactions/>

101 <https://www.wearepay.uk/programmes/new-payments-architecture-programme>

102 <https://www.bis.org/review/r210622b.pdf>

103 <https://business.inquirer.net/322977/bsp-banks-testing-new-payments-framework>

104 <https://www.bankofengland.co.uk/news/2021/april/boe-publishes-policy-for-omnibus-accounts-in-rtgs>

105 <https://www.swift.com/news-events/news/swift-enables-instant-247-cross-border-payments>

106 <https://www.fintechfutures.com/2020/12/lloyds-is-worlds-first-bank-live-on-swift-gpi-instant>

107 <https://www.rbnz.govt.nz/-/media/ReserveBank/Files/Markets-and-payments/esas/ESAS-Annual-Report-2020.pdf>

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- In Australia, the financial systems regulator, AUSTRAC, have announced they are commencing a 4-year transformation programme that will replace AUSTRAC Online to help build resilience in the financial system and to disrupt money laundering, terrorism financing and other serious crime. AUSTRAC are in the discovery phase of the programme and have requested feedback from regulated businesses on system and reporting issues they feel can be improved to make AML/CTF reporting simpler.¹⁰⁸

Drivers of change

Our theme conclusion is underpinned by the following drivers of change:

1. A clear demand for faster payment capabilities, with a bias toward systems with real time functionality.
2. The need to ensure regional and global interoperability, centred around ISO 20022.
3. Rising interest in the capabilities of CBDC and the use cases they can support.

¹⁰⁸ <https://www.austrac.gov.au/austrac-online-system-transformation-get-involved>

Theme 4



Financial services and payments regulation is expanding, and aiming to produce more inclusive and resilient systems

2021 theme conclusion

Regulation continues to be a pervasive force for change in the financial services and payments arena but for an expanding array of reasons. Some of this regulation is oriented towards soundness, efficiency and competition objectives. Whereas other regulation is in direct response to the pandemic. A desire to have greater control over fintechs and global technology platforms has also increased the regulatory footprint, as has the desire to ensure consumers benefit from greater competition and innovation in the marketplace. As before, regulation continues to have impacts across borders and jurisdictions.

Scan of global activity and change trends

Introduction

A scan of global activity reveals developments in four areas:

1. A continued emphasis on the maintenance of a sound and efficient financial system.
2. An increased interest in the regulation of fintechs and global technology platforms.
3. The drive to give consumers greater control over their data as part of building a data ecosystem and a digital economy.
4. A focus on improving consumer and end user outcomes.

Sound and efficient financial system

- The UK Payment Systems Regulator has published its 5-year strategic plan and identified four strategic priorities that provide a framework for meeting this ambition. Priority 1: Ensure users have continued access to the payment services they rely upon and support effective choice of alternative payment options. Priority 2: Ensure users are sufficiently protected when using the UK's payment systems, now and in the future. Priority 3: Promote competition in markets and protect users where that competition is not sufficient, including a) between payment systems within the UK and b) in the markets supported by them. Priority 4: Ensure the renewal and future governance of the UK's interbank payment systems supports innovation and competition in payments.¹⁰⁹
- Also in the UK, the Financial Conduct Authority have proposed changes that will streamline their decision making and governance processes and enable them to make decisions more efficiently by moving some decision making from the Regulatory Decisions Committee to other divisions.¹¹⁰
- In New Zealand, the new Financial Market Infrastructures (FMI) legislation has now received Royal Assent. The new legislation provides an enhanced set of regulatory powers that apply to FMIs that are identified as systemically important, or that opt in to access legal protections around settlement finality, netting, and the enforceability of their rules. The regulatory powers include oversight of rules (including a requirement for rule changes to be approved by the regulator, and the regulator having the ability to require rule changes) and crisis management powers (direction powers and a tailored statutory management regime). The Reserve Bank of New Zealand and Financial Markets Authority are currently consulting on the implementation plan, as well as the framework for identifying systemically important FMIs and the approach to developing standards for designated FMIs. A transition period of 18 months is planned to implement the new regime.¹¹¹ Separately, the

¹⁰⁹ https://www.psr.org.uk/media/riohib3k/psr_strategy_factsheet_jun2021.pdf

¹¹⁰ <https://www.fca.org.uk/news/press-releases/fca-proposing-changes-streamline-decision-making>

¹¹¹ <https://www.rbnz.govt.nz/news/2021/07/reserve-bank-and-fma-consult-on-new-law-to-safeguard-the-plumbing-of-the-financial-system>

Reserve Bank of New Zealand Bill has been passed after its third reading in Parliament. The bill updates and strengthens the Reserve Bank's decision making and accountability arrangements to make them fit for purpose to address future monetary and financial policy issues.

- In their latest Statement of Intent 2021–2024, the Reserve Bank of New Zealand announced development of the Future of Payments Framework that will consider the future of the payments ecosystem in New Zealand and the associated infrastructure requirements.¹¹²

Regulation of fintechs and global technology platforms

- The Bank for International Settlements (BIS) have released a paper that examines the policy challenges arising from big techs entering the financial services sector. Big techs use of data to reinforce their advantage and their potential to dominate the market were cited as two areas BIS felt could be addressed “by developing specific entity-based rules, as proposed in several key jurisdictions – notably the European Union, China and the United States”.¹¹³
- China appears poised to rein in aspects of its fintech and big-tech industry, in part to mitigate potential risks but also to ensure a closer alignment between the state and this sector. The problem Chinese regulators face is that fintechs could “perish once regulated”.¹¹⁴
- In the US, President Biden has signed an executive order which, among other things, responds to areas where dominant tech firms are believed to be undermining competition and reducing innovation. The executive order specifically addresses tech platform business models which depend on the accumulation of sensitive personal information and related data.¹¹⁵
- In the UK, the HM Treasury has been consulting on a government proposal to bring the promotion of certain types of crypto assets within scope of financial promotions regulation. The measure is intended to enhance consumer protection, while continuing to promote responsible innovation. Submissions are currently being reviewed.¹¹⁶

- Also in the UK, the HM Treasury has released a call for evidence on whether the government's aims in respect of payments have been achieved and what more needs to be done to both address persistent issues and consider new opportunities and risks in the payments landscape. Again, submissions are currently being reviewed.¹¹⁷
- In Europe, two proposed laws would significantly toughen the regulation of global technology platforms. The Digital Services Act is a wide-ranging legislative proposal, which would impose new obligations on tech companies regarding advertising and illegal content.¹¹⁸ Its companion proposal, The Digital Markets Act, would define the largest tech companies as market “gatekeepers” and would introduce prohibitions to discriminate in favour of their own services, obligations to ensure interoperability with their platforms, and obligations to share, in compliance with privacy rules, data that is provided or generated through business users’ and their customers’ interactions on the gatekeepers’ platform.¹¹⁹

Consumer control of data

- In the UK, the Competition and Markets Authority has been consulting on the future of the governance arrangements for open banking in that jurisdiction. The UK is often cited as having delivered one of the most well-developed frameworks for allowing consumers to share their bank account information securely with trusted intermediaries and, in doing so, to place competitive pressure on the larger, more established banks.¹²⁰
- The Information Commissioner's Office, the UK's independent regulator for data protection and information rights law, has released a code of practice to guide organisations about how to share personal data in compliance with data protection law.¹²¹

112 <https://www.rbnz.govt.nz/-/media/ReserveBank/Files/Publications/Statements%20of%20Intent/soi-2021.pdf>

113 <https://www.bis.org/publ/bisbull45.pdf>

114 <https://www.economist.com/finance-and-economics/2021/03/13/chinas-government-is-cracking-down-on-fintech-what-does-it-want>

115 <https://www.whitehouse.gov/briefing-room/statements-releases/2021/07/09/fact-sheet-executive-order-on-promoting-competition-in-the-american-economy>

116 <https://www.gov.uk/government/consultations/cryptoasset-promotions>

117 <https://www.gov.uk/government/consultations/payments-landscape-review-call-for-evidence>

118 <https://digital-strategy.ec.europa.eu/en/policies/digital-services-act-package>

119 https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/digital-markets-act-ensuring-fair-and-open-digital-markets_en

120 <https://www.gov.uk/government/consultations/future-oversight-of-the-cmas-open-banking-remedies>

121 <https://ico.org.uk/for-organisations/guide-to-data-protection/ico-codes-of-practice/data-sharing-a-code-of-practice/>

- In New Zealand, the Ministry of Business Innovation and Employment explored options for establishing a consumer data right (CDR). The Reserve Bank believes a CDR “will support competition in retail banking, payments and other financial services, and therefore efficiency in the financial system. This could also support a growing fintech sector in New Zealand”.¹²² In July, the Minister of Commerce and Consumer Affairs announced that the government intends to introduce a CDR framework for New Zealand.¹²³
- In Australia, the Treasury and the ACCC have announced a series of enhancements to their CDR regime to allow consumers to consent to an accredited person sharing their data with trusted advisers, to support consumer convenience, and to reduce the costs of accreditation for smaller participants and start-ups.¹²⁴
- Also in Australia, the Inquiry into the Future Directions for the Consumer Data Right has concluded and identified four broad future directions for the CDR. These are i) the CDR should be expanded to deliver more convenience to consumers (towards data empowered consumers); ii) that broader participation in the CDR should be encouraged to create more choices for consumers (towards economy wide foundation); iii) interaction with the digital economy opened up to create a data ecosystem which gives confidence to consumers (towards an integrated data ecosystem); and iv) Australia should be at the forefront of the cross border progress in consumer-driven data frameworks (towards international digital opportunities).¹²⁵
- In May 2021, the Australian and New Zealand Prime Ministers instructed officials to continue work towards interoperable government services, payment practice policies, and the CDR.¹²⁶

Improving consumer and end user outcomes

- Recognising all consumers need to be considered, the UK’s Financial Conduct Authority has released guidance material on the fair treatment of vulnerable consumers. A vulnerable consumer is someone who, due to their personal circumstances, is especially susceptible to harm.¹²⁷
- The Financial Conduct Authority has also stated that it wants to ensure that open finance develops in a way that maximises its benefits and reduces risks, both to consumers and firms. The needs of consumers, including those who are vulnerable and digitally excluded, should be considered from the start.¹²⁸
- In New Zealand, the Reserve Bank has released a report that examines whether the financial system is adequately serving the needs of the Māori community. The report also explores financial arrangements that iwi have used to improve access to financial services for their people.¹²⁹
- In response to a review on diversity and inclusion, the Bank of England has committed to create a truly diverse and inclusive Bank in part to offset the dangers of having policy decisions made by officials with highly similar backgrounds and lived experiences. The Bank of England has also been clear that it expects both focus and progression on diversity and inclusion from the firms it regulates.¹³⁰ Diversity is also a focus for the Financial Conduct Authority (FCA) who are consulting on a proposal to disclose the diversity of listed company boards and executive management teams. The FCA commented that “this may have broader benefits in terms of the quality of corporate governance”.¹³¹

¹²² <https://www.rbnz.govt.nz/-/media/ReserveBank/Files/Publications/Financial%20stability%20reports/2020/fsr-nov-20.pdf>

¹²³ <https://www.beehive.govt.nz/release/govt-agrees-establish-consumer-data-right>

¹²⁴ <https://treasury.gov.au/media-release/developments-australias-consumer-data-right-response-community-feedback>

¹²⁵ <https://treasury.gov.au/publication/inquiry-future-directions-consumer-data-right-final-report>

¹²⁶ <https://www.beehive.govt.nz/release/joint-statement-prime-ministers-jacinda-ardern-and-scott-morrison>

¹²⁷ <https://www.fca.org.uk/publication/finalised-guidance/fg21-1.pdf>

¹²⁸ <https://www.fca.org.uk/publication/feedback/fs21-7.pdf>

¹²⁹ <https://www.rbnz.govt.nz/-/media/ReserveBank/Files/Publications/Analytical%20notes/2021/AN2021-04.pdf>

¹³⁰ <https://www.theguardian.com/commentisfree/2021/jul/21/i-am-going-to-make-the-bank-of-england-better-by-improving-racial-diversity>

¹³¹ <https://www.fca.org.uk/news/press-releases/fca-consults-proposals-boost-disclosure-diversity-listed-company-boards-executive-committees>

- Concerned about any potential harm to New Zealand consumers from the rapid growth in buy now, pay later services, the Minister of Commerce and Consumer Affairs has indicated consultation on the regulation of these services will commence late 2021.¹³² In February 2021, UK regulators announced their own regulation plans, and a self-regulatory code has subsequently been developed by the Australian industry group, amidst ongoing calls for federal-level regulation in Australia.^{133 134}
- In New Zealand, the Government directed the Ministry of Business Innovation and Employment to develop a regulatory framework to reduce merchant service fees. That framework will 1) introduce a transitional downward price path to require reductions in interchange fees as soon as possible; 2) enable direct intervention by the Commerce Commission using a broad suite of powers to regulate different participants, or classes of participants, in the retail payment system and 3) introduce a disclosure and reporting requirement to enable the Commerce Commission to monitor the retail payments system. A new Retail Payment Systems Bill will be drafted to reflect this framework and consultation will be undertaken on several secondary policy issues, such as the criteria and process for designation to be included in the legislation.¹³⁵
- Despite the continued decline in cash use, there is evidence globally and in New Zealand that regulators and decision-making bodies remain committed to maintaining access to cash for those in the community who need to use it.
- In the UK, the Financial Conduct Authority (FCA) and Payment Systems Regulator have set out their expectations that banks will protect customer access to cash and banking services, and published guidance for banks to consider when closing branches and ATMs, requesting they pause any closures that did not meet expectations.¹³⁶ The HM Treasury are also currently consulting on the governments proposed legislation to protect access to cash,¹³⁷ And the FCA has published an updated assessment of the UK's access to cash infrastructure.¹³⁸
- The Reserve Bank of New Zealand (RBNZ) has announced their new role as steward of the cash system and have made it their priority to work with industry to ensure the cash system remains fit for purpose.¹³⁹ The RBNZ will be undertaking a review of the cash system and will be consulting on money and cash issues papers to progress issues raised during the Future of Cash consultations in 2019.¹⁴⁰ Banking hubs are also being trialled in regional areas to provide basic banking services and customer assistance.¹⁴¹
- In Australia, the Department of the Prime Minister and Cabinet has been consulting on a guide to regulator performance. The guide outlines the principles of best practice that underpin the Australian Government's expectations of performance for Commonwealth regulators. It was developed following initial consultations with businesses, regulators, and other stakeholders, and encompasses lessons learned during COVID-19 and the experiences of regulatory frameworks in other jurisdictions. The guide encourages regulators to deliver a more outcomes-focused, principles-based service that emphasises a proportional approach to risk and genuine engagement with regulated entities and the broader community.¹⁴²

Drivers of change

Our theme conclusion is underpinned by the following drivers of change:

1. The need to balance the regulation of fintechs with an enabling environment that facilitates their success.
2. A global push to give consumers greater control over their data and a realisation that data is fundamental to the success of the digital economy.
3. Growing calls for global technology platforms to be held to account, in part because their activities span regulatory perimeters and geographic borders.
4. A rising sentiment that consumers should be protected from harm and that markets must function well for all consumers, not just the most sophisticated.

¹³² <https://www.interest.co.nz/personal-finance/110754/buy-now-pay-later>

¹³³ <https://www.gov.uk/government/news/buy-now-pay-later-products-to-be-regulated>

¹³⁴ <https://www.simpsongrierson.com/articles/2021/paying-it-forward-buy-now-pay-later-products-and-the-cccfa>

¹³⁵ <https://www.mbie.govt.nz/business-and-employment/business/competition-regulation-and-policy/retail-payment-systems>

¹³⁶ <https://www.psr.org.uk/news-updates/latest-news/announcements/access-to-cash-fca-and-psr-joint-statement>

¹³⁷ <https://www.gov.uk/government/consultations/access-to-cash-consultation>

¹³⁸ <https://www.fca.org.uk/news/press-releases/fca-psr-publish-updated-evidence-cash-access>

¹³⁹ <https://www.rbnz.govt.nz/news/2020/10/reserve-bank-seeks-to-preserve-benefits-of-cash>

¹⁴⁰ <https://www.rbnz.govt.nz/news/2021/07/reserve-bank-confirms-consultations-key-to-the-future-of-how-new-zealanders-pay-and-save>

¹⁴¹ <https://www.stuff.co.nz/business/farming/123948759/banks-are-phasing-out-cheques-too-soon-for-rural-communities>

¹⁴² <https://deregulation.pmc.gov.au/sites/default/files/2021-04/regulator-performance-guide-consultation-draft.pdf>

Theme 5



Payments security and authentication is a key concern

2021 theme conclusion

The pandemic has accelerated a range of technology innovations in areas like work, service delivery, product distribution and how we make and receive payments. This has also opened new possibilities in the areas of cybercrime. Our increased dependency on digital infrastructure raises the question of the cost of failure at a time when cybercriminals are finding increasingly sophisticated ways to penetrate systemic defences when those defences might be lowered due to the focus on the public health crisis. According to the International Monetary Fund, cyber risk is the new threat to financial stability.¹⁴³ Digital identity offers the potential to expand access to digital services and to act as a building block for safer and more secure payments.

Scan of global activity and change trends

Introduction

A scan of global activity reveals developments in four areas:

1. The growing impact of cyberthreats partly in response to an acceleration of digital trends already underway.
2. Organised crime leveraging payments innovation to extract value.
3. Compliance and regulatory action in the AML/CFT space.
4. An increased push for digital identity solutions.

Growing impact of cyberthreats

- The G7 have pledged to work together to address the threat of cybercrimes and have encouraged countries (specifically Russia) to “identify, disrupt and hold to account those within its borders who conduct ransomware attacks, abuse virtual currency to launder ransoms, and other cybercrimes”.¹⁴⁴
- The Australian Government are considering a Ransomware Payments Bill that will mandate businesses and government agencies to notify the Australian Cyber Security Centre before paying any ransom demands.¹⁴⁵ The Ransomware Payments Bill builds on a coordinated government response to the threat of cyberattacks that has resulted in reforms to a range of Bills, providing greater powers to government entities, and redefining what is considered critical infrastructure.¹⁴⁶
- In Singapore, the Cyber Security Advisory Panel of the Monetary Authority of Singapore has reiterated the need for financial institutions to respond to the elevated technology-related risks as a result of the COVID-19 pandemic.¹⁴⁷
- Also in Singapore, the pandemic has led to a rise in cybercrimes with e-commerce fraud having the highest reported cases in the first half of last year. The number of scams increased by 73.8% partly due to the rise in online transactions during the pandemic.¹⁴⁸
- The Hong Kong Monetary Authority has responded to the rapidly evolving cybersecurity landscape by launching the Cybersecurity Fortification Initiative (CFI) 2.0. The CFI 2.0 came into effect on 1 January 2021 and will be introduced in a phased approach. CFI 2.0 reflects the latest trends in technology and in global cyber practices.¹⁴⁹

¹⁴³ <https://blogs.imf.org/2020/12/07/cyber-risk-is-the-new-threat-to-financial-stability>

¹⁴⁴ <https://www.g7uk.org/wp-content/uploads/2021/06/Carbis-Bay-G7-Summit-Communique-PDF-430KB-25-pages-5.pdf>

¹⁴⁵ <https://www.legislation.gov.au/Details/C2021B00079>

¹⁴⁶ <https://www.zdnet.com/article/minister-prioritises-critical-infrastructure-bill-as-others-pass-through-parliament>

¹⁴⁷ <https://www.mas.gov.sg/news/media-releases/2020/financial-institutions-need-to-review-security-controls-amidst-covid19>

¹⁴⁸ <https://www.cnbc.com/2021/07/01/new-digital-payments-spur-questions-over-consumer-privacy-security-.html>

¹⁴⁹ <https://www.hkma.gov.hk/eng/news-and-media/press-releases/2020/11/20201103-4>

- The European Commission is proposing new regulations to improve the operational resilience and the ability to respond to cyberattacks of financial services firms. The regulation is part of the commission's wider "Digital Finance Package". The feedback period on whether the commission should adopt the new regulations closed in May 2021.¹⁵⁰
- There is an increasing international sentiment that cyber threats require a coordinated international response. The US, UK, EU and NATO and New Zealand have jointly condemned the People's Republic of China for their role in cyberattacks on Microsoft Exchange and urged China to take action.¹⁵¹
- In May 2021 the leaders of Australia and New Zealand welcomed the joint implementation of the Trans-Tasman Cyber Security Research Programme and its projects¹⁵² that will develop new cyber security solutions to help support the industry response to cyber-attacks.¹⁵³
- The US government is looking at the role of cryptocurrencies in ransomware attacks that have disrupted key industries in the US, including energy and food supply.¹⁵⁸ However, there is widespread acknowledgement that there are limits on what regulation and financial penalties can achieve.
- Sweden's Coop, a cooperative retail chain, reported that 800 of its physical grocery stores had to be shut down after an attack by REvil ransomware. To fix the issues, Coop's payment provider had to physically visit all of its stores and restore payment machines manually from backups.¹⁵⁹
- In New Zealand, Parliament's Finance and Expenditure Committee has launched an inquiry into cryptocurrencies to understand the impact of mining, identify risks to users and financial stability, and consider regulatory requirements.¹⁶⁰

Compliance and regulatory action

Organised crime and payments innovation

- Bitcoin now accounts for approximately 98% of ransomware payments because bitcoin, like other cryptocurrencies, offers a high degree of anonymity, making ransomware payments difficult to track.¹⁵⁴
- That said, there are suggestions cybercriminals now prefer newer cryptocurrencies, such as Monero or Zcash to bitcoin, as they have a greater focus on privacy.¹⁵⁵ The fact that blockchain makes transactions using bitcoin "wallets" traceable, aided in the recovery of some of the Colonial Pipeline ransom after it was paid.¹⁵⁶
- While highly visible ransomware attacks this year have focused on health care, food processing and energy supply, hackers have also successfully targeted payments. In June, cybercriminals disrupted a US ferry operator's ability to process electronic payments for vehicle and passenger tickets and parking lot fees.¹⁵⁷
- In New Zealand, findings from the Financial Action Taskforce's Mutual Evaluation¹⁶¹ found our anti-money laundering/countering financing of terrorism (AML/CFT) system was effective yet identified several areas where the system could be strengthened. The Mutual Evaluation will influence a review of the AML/CFT Act which is expected to commence mid-2021.¹⁶²
- Demonstrating the Reserve Bank of New Zealand's (RBNZ) more intensive supervisory and enforcement approach, the RBNZ took a bank to court for the first time after they failed to show adequate and effective compliance with their anti-money laundering/countering financing of terrorism obligations.¹⁶³ Ongoing, the RBNZ's newly announced Enforcement Department will be responsible for tracking compliance breaches and applying escalated responses to ongoing failures.¹⁶⁴

150 https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12090-Financial-services-improving-resilience-against-cyberattacks-new-rules_en

151 <https://www.rnz.co.nz/news/political/447239/government-points-finger-at-china-over-cyber-attacks>

152 <https://www.beehive.govt.nz/release/joint-statement-prime-ministers-jacinda-ardern-and-scott-morrison>

153 <https://www.auckland.ac.nz/en/news/2020/03/17/multi-million-dollar-collaboration-in-cyber-security.html>

154 <https://www.marsh.com/us/insights/research/ransomware-paying-cyber-extortion-demands-in-cryptocurrency.html>

155 <https://www.economist.com/briefing/2021/06/19/ransomware-highlights-the-challenges-and-subtleties-of-cybersecurity>

156 <https://www.thomsonreuters.com/en-us/posts/investigation-fraud-and-risk/colonial-pipeline-ransom-funds>

157 <https://www.pymnts.com/news/security-and-risk/2021/cryptos-troubling-rise-and-role-in-growing-ransomware-attacks>

158 <https://www.wsj.com/articles/u-s-looks-into-cryptocurrencys-role-in-ransomware-hacks-11622759665>

159 <https://www.reuters.com/technology/coop-other-ransomware-hit-firms-could-take-weeks-recover-say-experts-2021-07-05>

160 <https://www.interest.co.nz/news/111270/inquiry-cryptocurrencies>

161 <https://www.fatf-gafi.org/media/fatf/documents/reports/mer4/Mutual-Evaluation-Report-New-Zealand-2021.pdf>

162 <https://www.dia.govt.nz/Regulatory-Stewardship---AML-CFT>

163 <https://www.interest.co.nz/banking/111402/rbnz-v-tsb>

164 <https://www.rbnz.govt.nz/financial-stability/financial-stability-report/fsr-may-2021/reserve-bank-launches-enforcement-department>

- Some financial institutions have been forced to turn to remote on-boarding and identity verification due to social distancing requirements and mandated work from home requirements. This created potential loopholes, especially in cases where financial institutions may not be fully equipped to verify the identity of customers remotely. Luxembourg's Commission de Surveillance du Secteur Financier (CSSF) has encouraged the use of digital ID systems in line with relevant Financial Action Taskforce guidance. For example, the CSSF considers live video chats could provide appropriate safeguards to verify a customer's identity.¹⁶⁵
- In some jurisdictions government and private sector employees working on anti-money laundering/ countering financing of terrorism (AML/CFT) have been working remotely, been redeployed to COVID-19 responses, or, in some instances, are not working at all. In those countries with more limited resources and less advanced business continuity planning, re-prioritisation efforts by governments are likely to result in a reallocation of resources away from AML/CFT activities to other areas, such as financial stability, and humanitarian and economic recovery efforts.¹⁶⁶

Digital ID

- COVID-19 has bolstered the case for digital ID solutions around the world to make it quicker and easier to access government services remotely, speed up access to government support payments and reduce instances of fraud and waste.¹⁶⁷
- Being able to establish identity in the digital realm is essential for economies to realise the full value of innovation and be able to streamline processes across both private and public sectors. A recent McKinsey study noted digital ID with broad population coverage was one of three structural features of financial infrastructure necessary for a successful government disbursement programme (the other two features being digital payment channels and simple data on individuals and businesses that are tethered to the ID).¹⁶⁸
- COVID-19 has revealed many instances of fraud and error, some of which could have been prevented by the introduction of digital ID solutions. A report by the Public Accounts Committee notes that between 35% and 60%, equivalent to £16 billion to £27 billion of loans issued through the Bounce Back Loan Scheme may never be repaid due to fraud or credit risks.¹⁶⁹
- The European Commission has announced plans for a European bloc digital identity wallet. It will allow all EU citizens, residents and businesses to access public and private services via their phones or other devices across all 27 member states for free. The wallet will not be mandatory, but all public services and large private platforms will be obliged to accept it. It will not replace the traditional ID issued by national governments, but users will be able to link their new digital ID with other documents like diplomas and driver's licences.¹⁷⁰

¹⁶⁵ <https://www.bis.org/fsi/fsibriefs7.pdf>

¹⁶⁶ <https://www.fatf-gafi.org/media/fatf/documents/COVID-19-AML-CFT.pdf>

¹⁶⁷ <https://www.economist.com/leaders/2020/09/05/covid-19-strengthens-the-case-for-digital-id-cards>

¹⁶⁸ <https://www.mckinsey.com/industries/financial-services/our-insights/covid-19-making-the-case-for-robust-digital-financial-infrastructure>

¹⁶⁹ <https://committees.parliament.uk/publications/6469/documents/70574/default>

¹⁷⁰ <https://www.euronews.com/2021/06/03/eu-puts-forward-plans-for-new-bloc-wide-digital-id>

- The UK government have released version two of their digital identity and attributes trust framework and are requesting applications from organisations interested in testing the framework¹⁷¹. The UK Minister for Digital Infrastructure notes the trust framework approach has gained traction globally, with Canada, Australia, Sweden and New Zealand all taking this route. The Minister has committed to working with international partners to make sure the UK standards are interoperable with those adopted abroad.¹⁷²
- Eftpos Australia's digital identity business, connectID, is now live. It works as a broker between identity service providers and merchants or government agencies that require ID verification. ConnectID has been designed to work within the federal government's Trusted Digital Identity Framework and the banking industry's TrustID framework.¹⁷³
- Also in Australia, the National Australia Bank are piloting facial recognition technology that will enable customers to verify ID using their mobile device after identifying the need for new identity capabilities during the pandemic. The technology will be tested against Australia's data ethics framework.¹⁷⁴
- In May 2021 the Australian and New Zealand Prime Ministers welcomed agreement on a roadmap for mutual trans-Tasman recognition of digital identity.¹⁷⁵
- Digital Identity New Zealand has produced a report on the "Reliance and Reuse of Identity Verification for AML/CFT Purposes", which signals the possibility for banks and other entities required to report on anti-money laundering/countering financing of terrorism to share and reuse core KYC information.¹⁷⁶

Drivers of change

Our theme conclusion is underpinned by the following drivers of change:

1. A blurring of the differences between our physical and digital lives.
2. The rapid growth of cybercrimes which are putting pressure on fraud detection, meeting compliance obligations and securing systems against elevated technology risks.
3. A realisation a digital financial infrastructure which is integrated with a digital ID system is now an essential requirement for the future.

¹⁷¹ <https://www.gov.uk/government/publications/uk-digital-identity-attributes-trust-framework-updated-version>

¹⁷² <https://www.gov.uk/government/publications/the-uk-digital-identity-and-attributes-trust-framework/the-uk-digital-identity-and-attributes-trust-framework#ministerial-foreword>

¹⁷³ <https://www.zdnet.com/article/eftpos-sends-connectid-digital-identity-solution-live>

¹⁷⁴ <https://www.industry.gov.au/data-and-publications/australias-artificial-intelligence-ethics-framework/testing-the-ai-ethics-principles/ai-ethics-pilot-case-study-national-australia-bank>

¹⁷⁵ <https://www.beehive.govt.nz/release/joint-statement-prime-ministers-jacinda-ardern-and-scott-morrison>

¹⁷⁶ <https://www.minterellison.co.nz/our-view/digital-identity-nz-releases-report-addressing-identity-verification-for-aml-cft-purposes>

Theme 6



Payments associations face increased expectations

2021 theme conclusion

Payments associations and allied bodies are faced with an increasingly difficult balancing act; ensuring they represent and consider a more diverse range of issues from a more complex and disparate range of stakeholders, which is likely to also present a growing number of challenges. Additionally, the range of payment system issues and offerings payments associations and allied bodies need to support are ever broadening.

Scan of global activity and change trends

Introduction

A scan of global activity reveals developments in three areas:

1. Having to consider a broader range of stakeholders as the payments ecosystem evolves and efforts are made to make the industry more inclusive for new entrants.
2. Increasing the breadth of offerings associations are currently supporting beyond their traditional confines.
3. Delaying some projects as associations move their focus towards ensuring payment systems remain resilient and reliable.

Gaps and weakness exploited

- In Singapore, the Monetary Authority of Singapore has announced that Non-Bank Financial Institutions (NFI) are to have access to two important e-payment platforms used within the Singapore banking system's retail payments infrastructure (Fast and Secure Transfers and PayNow). This will enable users of NFI e-wallets to make real time funds transfers between bank accounts and e-wallets as well as across different e-wallets.¹⁷⁷
- In the UK, the Chancellor to the Exchequer has made it clear the UK will be open to the adoption of new technologies set out by the Kalifa Review of UK Fintech.¹⁷⁸ This will almost certainly broaden the range of stakeholders who want a say in payments and allied activities.
- Public consultation on Payments Canada's new Real Time Rail (RTR) revealed an agreement that broader access to the RTR beyond federally regulated financial institutions would encourage competition, innovation, and the introduction of enhanced and new payment products and services. However, consultation also revealed that the security and resilience of the RTR should not be compromised as a result.¹⁷⁹
- AusPayNet is conducting a review to ensure its constitution and governance framework remains fit-for-purpose in a time of accelerated change and as its membership continues to grow and broaden in scope. The review will examine its corporate objects, decision-making architecture, funding, membership, and board structure.¹⁸⁰
- Also in Australia, neobanks have expanded their market presence, with research suggesting that 63% of bank customers in the Asia Pacific region would be willing to switch to neobanks and challenger banks in the next five years.¹⁸¹ Neobanks could be expected to be a prominent voice in any debates over removing barriers to competition.

¹⁷⁷ <https://www.mas.gov.sg/news/media-releases/2020/non-bank-financial-institutions-to-have-access-to-fast-and-paynow>

¹⁷⁸ <https://www.gov.uk/government/speeches/mansion-house-speech-2021-rishi-sunak>

¹⁷⁹ <https://www.payments.ca/about-us/news/payments-canada%E2%80%99s-public-consultation-shows-support-real-time-payments-system>

¹⁸⁰ <https://www.auspaynet.com.au/insights/Annual-Review/2020-Annual-Review>

¹⁸¹ The challenger banks – ripe for new money www.acuity.com February – March 2021

- Payments Canada's Stakeholder Advisory Council (SAC) now includes the Canada Revenue Agency as a member. The Canada Revenue Agency is responsible for administering the tax laws for the government of Canada and for most provinces and territories. The SAC provide advice to the Board of Directors of Payments Canada on payment, clearing, and settlement matters and contribute input on proposed initiatives, including bylaws, policy statements and rules that affect third parties.¹⁸²
- With upcoming changes in the regulatory landscape anticipated to affect the Payments Association of South Africa, the association has signalled it aspires to be an inclusive, member-driven payments organisation, and that the need for its existence is unquestioned and funding it is an easy decision.¹⁸³

Broader range of offerings

- In the US, NACHA has started offering a subscription-based learning management platform to provide courses on topics including ACH, account validation, APIs, artificial intelligence, faster payments, risk and compliance. Branded as SPEAK (Strengthening Payments Engagement and Knowledge), this new online, on-demand learning system further expands NACHA's leadership in payments education.¹⁸⁴
- Pay.UK has published primary research exploring perceptions of consumer protections in payments. The research explored a range of topics, including consumer understanding of payment behaviours; the role of protections; usage and attitude to Faster Payments; and perceptions and gaps in payments protection.¹⁸⁵

Delays posed by pandemic

- The Australian Payments Council reports that aspects of work on the policy issues surrounding the accessibility of digital products have been paused in response to feedback from the disability community that there are more pressing issues at hand because of the pandemic.¹⁸⁶
- In the UK, the Financial Conduct Authority have delayed the deadline for implementing Strong Customer Authentication for e-commerce transactions by a further six months in an attempt to minimise disruption to merchants and customers during the pandemic and the ongoing challenges being faced by the industry.¹⁸⁷
- The Payments Association of South Africa (PASA) notes that after consultation with stakeholders, certain projects within PASA were reprioritised, and, in some cases, delayed to ensure there was capacity to deal with any eventualities arising as a result of the pandemic.¹⁸⁸

Drivers of change

Our theme conclusion is underpinned by the following drivers of change:

1. The rapid evolution of a more open and technologically advanced ecosystem.
2. Regulatory and stakeholder expectations that payment associations and allied bodies will consult and engage widely across the ecosystem as part of their planning and decision-making processes.

¹⁸² <https://www.payments.ca/about-us/how-we-collaborate/stakeholder-advisory-council>

¹⁸³ <http://www.pasa.org.za/docs/default-source/default-document-library/pasa-annual-report-2020.pdf>

¹⁸⁴ <https://www.nacha.org/news/nacha-launches-speak-and-expands-its-leadership-payments-education>

¹⁸⁵ <https://newseventsinsights.wearepay.uk/media/w2cn4ftr/exploring-perceptions-of-consumers-protections-in-payments.pdf>

¹⁸⁶ <https://australianpaymentscouncil.com.au/wp-content/uploads/2020/11/APC-Annual-Review-2020.pdf>

¹⁸⁷ <https://www.fca.org.uk/news/statements/deadline-extension-strong-customer-authentication>

¹⁸⁸ <http://www.pasa.org.za/docs/default-source/default-document-library/pasa-annual-report-2020.pdf>



Conclusion

Conclusion

In the two years since our last scan, the lines dividing our physical and digital lives have become increasingly blurred. In many respects the distinction between the physical and digital has now dissolved to the point where those worlds are one and the same. The progressive merging of the physical and the digital was well underway before COVID-19 but has accelerated markedly since the pandemic took hold.

Restrictions on activities that require human gathering and interaction have forced our lives to be more online than ever, resulting in changes to consumer behaviour and lifestyles that we expect to become permanent and to influence business models for years to come.

Unsurprisingly the way we make and receive payments is now evolving rapidly as a result. We have seen an acceleration of non-cash transaction methods, a greater reliance on new digital solutions to improve the customer experience, and a need to integrate payments into those digital solutions. Additionally, the pandemic has highlighted:

- The benefits of real time payment capabilities.
- The advantages of common standards (because they promote interoperability and ubiquity).
- The need for an enhanced focus on cyber security in payments and allied systems.
- The importance of having a robust digital ID system to allow citizens to verify their identity in a safe and secure way to access and pay for services online.
- The need for regulatory settings to be broadened to go beyond the financial safety and stability of institutions and the financial system.
- The need for a more mature and nuanced discussion about digital currencies and the potential role they can play. The number of central banks considering digital currencies makes the likelihood of widespread CBDC solutions not a question of if, but when.

Looking ahead, we consider the New Zealand payments ecosystem will be shaped by:

- Industry investigations into how best to develop real time payment capabilities.
- The increased adoption of common standards in payments and allied fields.
- Efforts to increase the level of partnering between banks and fintechs to deliver greater levels of innovation in payments.
- The development of a consumer-centric data culture, focused on data rights.
- An increased regulatory footprint on matters like greater control over the systems used to clear and settle payments, to the ways consumers make and receive payments, to frameworks used to control access to data and cybersecurity.
- Decisions made in other jurisdictions concerning the regulation of big tech which have the potential to spill over to New Zealand.
- An increasingly diverse number of organisations with an interest in payments and related matters.
- A growing recognition that ecosystem development must also reflect the needs of members of the community who are marginalised or vulnerable.

Glossary

Anti-Money Laundering/Combatting the Financing of Terrorism (AML/CFT) – New Zealand has specific legislation, the Anti-Money Laundering and Countering Financing of Terrorism Act 2009. This Act places obligations on New Zealand's financial institutions to detect and deter money laundering and the financing of terrorism.

Association of Southeast Asian Nations (ASEAN) – a regional grouping that promotes economic, political, and security cooperation among its ten members: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.

Australian Competition and Consumer Commission (ACCC) – an independent Commonwealth statutory authority whose role is to enforce the Competition and Consumer Act 2010 and a range of additional legislation, promoting competition, fair trading and regulating national infrastructure for the benefit of Australians.

Australian Payments Network (AusPayNet) – a membership body set up by the payment industry to improve the safety, reliability, equity, convenience and efficiency of payments.

Australian Payments Council – the strategic coordination body for the Australian payments industry.

Bank of England – the central bank of the United Kingdom.

Bank for International Settlements (BIS) – established in 1930 the BIS is owned by 60 central banks and is headquartered in Basel, Switzerland. Its mission is to assist central banks in their pursuit of monetary and financial stability, to foster international cooperation in those areas and to act as a bank for central banks.

Bitcoin – cryptocurrency without a central administrator.

Blockchain – a transaction ledger database that is shared by all parties participating in an established, distributed network of computers. It records and stores every transaction that occurs in the network, essentially eliminating the need for trusted third parties.

Bulk Electronic Clearing System (BECS) – governs how a range of bulk electronic payments are made, such as direct debits, automatic payments, bill payments and direct credits. The BECS rules, standards and procedures include timeframes for when settlement and interchange occurs, what format the payment information needs to be in, and how any processing or payment issue between banks is resolved. BECS Participants use Settlement Before Interchange (SBI) to settle transactions and exchange payment information.

Buy Now Pay Later (BNPL) – a financing agreement that enables customers to make a purchase from a participating merchant and pay it off in instalments.

Central Bank Digital Currency (CBDC) – the digital version of a fiat currency for a particular nation or region.

Commission de Surveillance du Secteur Financier (CSSF) – regulator of the Luxembourg financial sector.

Cryptocurrencies – are digital currencies that use cryptography to secure the transactions and control the creation of new units. Cryptocurrencies are a subset of alternative currencies, or specifically of digital currencies.

Digital Identity New Zealand – a membership-based organisation with a focus on the opportunities that digital identity can offer New Zealanders.

Digital Identity Trust Framework – a regulatory framework that will set out rules for the delivery of digital identity services.

European Banking Authority (EBA) – an independent EU Authority which works to ensure financial stability in the EU and to safeguard the integrity, efficiency and orderly functioning of the banking sector.

European Central Bank – the central bank of the 19 European Union countries which have adopted the Euro.

European Commission – the executive of the European Union.

Federal Reserve – the central bank of the United States.

Financial Action Task Force (FATF) – an intergovernmental body established in 1989 to set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and other related threats to the integrity of the international financial system.

Financial Conduct Authority (FCA) – is the conduct regulator for 59,000 financial services firms and financial markets in the United Kingdom and the prudential regulator for over 18,000 of those firms.

Financial Stability Board (FSB) – an international body that monitors and makes recommendations about the global financial system.

Fintech – an abbreviation of financial technology. Fintech is a term which describes the intersection of financial services and technology and especially the use of technology to deliver innovation in financial services.

Group of Seven (G7) – an organisation of the world's seven largest 'advanced' economies - Canada, France, Germany, Italy, Japan, the UK and the United States.

Group of Twenty (G20) – an international forum for governments and central bank governors from 19 countries and the European Union.

High Value Clearing System (HVCS) – governs large payments that cannot be reversed. The HVCS is commonly used for large value payments between corporate institutions and property settlements. The HVCS rules, standards and procedures set out how these types of transactions are made, including what payment information is required and the timeframes for completing the transaction. HVCS Participants use a dedicated SWIFT-based system between banks to settle these payments and interchange payment information between them.

Hong Kong Monetary Authority – the government authority in Hong Kong responsible for maintaining monetary and banking stability.

ISO 20022 – a financial services messaging standard developed within the International Organisation for Standardisation. ISO 20022 is a single common language for financial communications whatever the business domain, the communication network and the counterparty (other financial institutions, clients, suppliers and market infrastructures).

Monetary Authority of Singapore (MAS) – Singapore's central bank and integrated financial regulator.

MT message – a SWIFT message type based on a non-XML proprietary message format.

NACHA (previously the National Automated Clearing House Association) – among other things creates broadly adopted payment and financial messaging rules and standards and administers the ACH network.

New Payments Platform (NPP) – new infrastructure for Australia's low-value payments. It provides Australian businesses and consumers with a fast, versatile, data-rich payments system for making their everyday payments.

Nordic Payments Platform (P27) – a joint initiative between banks in the Nordic region that aim to create a digital platform that will allow businesses and consumers to make real-time, cross-border payments in multiple currencies.

Paper Clearing System (PCS) – governs how all paper-based payment instruments, such as cheques, work. The PCS rules, standards and procedures include the format cheques and deposit forms must be in, how they are processed and the timeframes for processing them.

Participant – a Participant exchanges payments directly with other Participants in one or more of the four clearing systems run by Payments NZ.

Payments associations – are those organisations which have a role in the management, governance or self-regulation and oversight of a payments system.

Payments ecosystem – includes payment systems, payments products and people and organisations that make and receive payments and those people and organisations that are involved in payment adjacent activities.

Payments industry – refers to Participants, Members, the Reserve Bank of New Zealand and other relevant stakeholders in the business of payments which will vary from time to time.

Payments NZ – includes the Company, Governance Committees and Management (officers and employees)
Payments system – a payments system consists of the mechanisms – including the institutions, people, rules and technologies – that make the exchange of monetary value possible.

Payments System Regulator – regulator of the payments system in the UK.

Pay UK – the UK's retail payments systems operator.

Quick response (QR) codes – a type of two-dimensional barcode often used to provide access to information through a mobile phone.

Ransomware – a type of malware that blocks users from accessing their systems and files until a ransom is paid to restore access.

Real time payments (RTP) – payments that are initiated and settled almost instantly. Real time payment systems typically allow 24x7x365 access, enabling customers to make and receive payments every day of the year.

Regulatory technology (RegTech) – the management of regulatory processes within the financial industry through technology. The main functions of RegTech include regulatory monitoring, reporting, and compliance.

Real time gross settlement (RTGS) – continuous process of settling payments on an individual order basis rather than through a batch payment process. These payments are irrevocable.

Settlement Before Interchange (SBI) – is New Zealand's batch retail financial payment system, administered by Payments NZ, through which SBI Participants bilaterally interchange and settle transaction files multiple times throughout each business day.

SBI365 – a project we are working on with our Participants to extend the settlement and interchange of financial transactions between banks, which will enable Kiwis to make and receive electronic payments between accounts across different banks every day of the year.

Strong Customer Authentication (SCA) – a new regulatory requirement of the second Payment Services Directive (PSD2) for authenticating online payments and reducing fraud. SCA will require banks to perform additional checks when consumers make payments to confirm their identity and will apply to the European Economic Area (EEA) and the United Kingdom.

SWIFT – the Society for the Worldwide Interbank Financial Telecommunication is a co-operative organisation dedicated to the promotion and development of standardised global interactivity for financial transactions.

SWIFT gpi – a standard from SWIFT for handling cross border payments that improves speed, traceability and transparency.

World Bank – an international organization that provides financing, advice, and research to middle- and low-income nations to aid their economic development.

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