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1. Executive summary

Card and payments revenue in Australia during 2020 totalled $9.7b, with an anticipated CAGR of 4% forecast to 2025[1] and whilst this revenue is not entirely generated through mobile payments and digital wallets. With the move to a cashless society and contactless payments due to the impact of COVID-19. We expect to see a significant increase in revenue, generated through mobile payments and digital wallets, as one in two Australians have setup a digital wallet in the last 12 months.

The rate of change in mobile payments and digital wallets has increased dramatically over the last few years, with mobile payments in Australia becoming a common part of day-to-day interaction for consumers and merchants alike. And with key players, notably big tech and smartphone giants, bringing new capability to the market, consumer and business cards can now be tokenized into a single digital wallet, alongside identity documents being made available via mobile apps. Human behaviour has shifted to that of not necessarily needing to hold or carry a physical wallet, cash or credit/debit card[2].

The broad use of mobile payments and digital wallets covers all types of interactions among consumers, merchants and vendors, as well as peer-to-peer and business-to-business transactions. Evolving technology in the payment ecosystem related to the use of devices and communication networks, alongside new authentication technology such as biometrics, enables innovative business models and solutions to enter the market quickly.

Deeper penetration of mobile payments and digital wallets also supports financial inclusion through the access of financial products via technology. It also provides access to capital for emergency or time-dependent payments, in comparison to traditional payment methods.

The business and commercial models in mobile payments and digital wallets is constantly changing. Domestic financial service providers are taking advantage of enhancements in fast payments network and open banking infrastructure, whilst trying to defend global overseas providers who see Australia as one of their key markets.

The role of government and regulatory bodies in the payments, business and consumer landscape must ensure that they keep up with technological advances whilst also protecting the ecosystem from nefarious behaviour. Australia is seen as a one of the world leaders in Financial Services and technology and a flexible approach to the adoption of newer payments capability and infrastructure may take time but is crucial to supporting ongoing sustainable innovation in Australia.

We recognise the importance of the Parliamentary Joint Committee's inquiry into the mobile payments and digital wallet ecosystem in financial services in Australia.

[1] Global Market Model - Cards & Payments Global Market Briefing 2021

[2] "Never going back: pandemic pushes Australians to digital wallets," *AFR website*, https://www.afr.com/companies/financial-services/never-going-back-pandemic-pushes-australians-to-digital-wallets-20210307-p578ga, accessed 11 May 2021.

2. Definitions

2.1 Mobile payments

In the context of this submission we refer to mobile payments as a payment performed on a mobile device, for goods and services. This may be via a payment mechanism such as card, account-to-account (A2A) or a digital currency. We consider mobile payments to be split into three categories:

1. **Remote:** A payment is made via commerce sites or mobile apps between parties, via mobile-commerce, peer-to-peer or business-to-business models.

2. **Proximity payments:** A payment is made in person, using mobile phone communication protocols, such as near-field communication (NFC), quick response codes (QR codes) or Bluetooth low energy (BLE).

3. **Acceptance:** A mobile device may accept a payment via an app or communication protocol. Transaction may be processed using a mobile points-of-sale (mPOS) service or app-to-app.

2.2 Digital wallet

Digital Wallets may have multiple connotations. In the context of this submission, a digital wallet is considered to be an electronic wallet, that provides the capability for payments to be made, typically through a mobile app. It traditionally holds payment mechanisms such as a credit or debit card. However, this may also expand into other assets such as digital currency, identity, gift cards, loyalty or reward cards, tickets and/or transportation passes.

3. Perspective on commercial relationships and business models

The commercial relationships and business models within mobile payments and digital wallets is both vast and complex. It has an ever-changing shift in the balance of power, based on economic, regulatory and technological changes and advances. In response to this submission, we've highlighted some of the key influences, challenges and innovations, that are impacting mobile payments and digital wallets.

3.1 Acceleration of contactless payments[3]

Whilst a reduction in cash use and convergence with other payment methods emerged in the payments industry, COVID-19 vastly accelerated the adoption of contactless payments. Contactless payments are now seen as a safer method of payment in relation to health, given the lack of physical handling of hardware or cash. In support of contactless, we also saw an increase in tap and go limits during the pandemic's peak, which is unlikely to reduce, given consumer behaviour and a change in expectation. Alongside, with the introduction of device authentication methods such as the Consumer Device Cardholder Verification Method (CDCVM), issuers are now able to support high value transaction authentication without the need for the consumer to enter a pin.

There is also a clear demographic preference when it comes to using digital wallets with a new generation entering the market with access to capital as they enter their professional careers. Financial

[3] EY FinTech Census 2020

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service providers must ensure that they cater to the next generational needs, or they risk losing customer relationship against others, who are innovating to lead in the market.

This shift towards mobile payments and digital wallets, has changed the commercial relationship of merchants and vendors. Merchants now look to quickly adopt new methods of payment acceptance, with a significant increase in broadening relationships with financial service providers, particularly in the Micro-SME and SME space.

3.2 Reduction in merchant discount rates

Merchants and vendors often baulk at the cost of acceptance. There is industry movement towards a reduction in fees and/or differing business models to accommodate the pressure from merchants as they become more conscious of their cost of acceptance. With the strain that COVID-19 put on millions of business owners, there’s an accelerated focus on acquirers to provide better value for money, through mechanisms such as least-cost routing (LCR) or value-added services on top of payments processing, such as data and analytics, or loyalty and rewards.

The shift towards mobile payments and digital wallets provides merchants and vendors with a challenge as to who they choose for their payments needs, as they look to reduce cost of acceptance and meet consumer demands for newer payment methods. If financial service providers don’t support new entrants in the market, merchants and vendors will be forced to look for new relationships or worse, develop more relationships, creating a fragmented business model, making it difficult for merchants to understand their overall cost base for payments, whilst confusing consumers at checkout.

3.3 Payments unbundled

A proliferation in the use of mobile payments and digital wallet providers fragments the relationship between the consumer and their banks, with mobile payments products shifting away from being directly linked to a consumer deposit or savings account. This, and the emergence of newer payment methods drive the link to deposits and savings accounts down the value chain, to secondary transactions. Non-bank financial service providers are becoming primary-relationship holders for consumer, as they’re able to provide a stickier ecosystem, that keeps consumers engaged and actively transacting.

This loss in relationship creates a material impact on the commercial relationship and business model for financial service providers, where there is a need to innovate and drive products up the value chain, into the hands of their customers. The impact on the business model is that financial service providers look to acquire or partner with FinTech, to obtain newer and innovative products, based on consumer and market demand.

Instead of looking to internally build products and features, financial service providers are now integrating products into their portfolio and don’t necessarily need the primary relationship. They rather look to drive additional revenue streams from traditional products and allow other partners to tackle lower-margin revenue streams.

3.4 Drive for omni-channel

Merchants and vendors needed to quickly adapt their models, for provisioning goods and services from proximity to remote, and seek new revenue streams due to the impact of COVID-19. This led to a widespread increase in the use of non-cash payment methods. In turn, merchants and vendors looked to their payment providers and acquirers, to provide new channels of acceptance and solutions to support their business needs.

New mechanisms for mobile payments such as pay-by-link or SMS, as well as digital wallets integrating into apps and online via mobile devices, has changed consumer behaviour and how consumers now interact to purchase goods and services. As we slowly emerge from the pandemic, there is an expectation for new and innovative consumer experiences, with payments at the heart of the experience.

Merchants and vendors will look at financial service providers for supporting their needs across remote and proximity payments, and to create a true omni-channel experience for their customers. As lines between in-store and online experiences converge, particularly in industries such as retail, there is pressure on traditional suppliers of financial services to keep up with the pace of innovation. They are facing democratization of their commercial relationships and business models, by both FinTech companies and large international companies, who can serve global businesses better.

3.5 Emergence of big tech and embedded finance

With the emergence of mobile payments capability in consumer devices, there is a shift in the economics whereby big tech (for example adding and tokenizing a card in a digital wallet) are now a part of the commercial ecosystem for payments. Big tech are taking advantage of technology such as the 5th generation mobile network (5G), Host Card Emulation (HCE) and Near Field Communication (NFC), removing the need for physical cards and wallets and simplifying and enhancing the consumer payments experience. The impact to merchant and vendors is pressure from the consumer for acceptance. Therefore, issuers and acquirers have to adopt or miss out. For example, if a consumer's card can't be added to a digital wallet, they make a conscious decision to use one that can, instead of reaching into their physical wallet. Traditional financial service providers need to stay ahead of, or at least catchup with, the trends in mobile payments and digital wallets. They must protect their commercial models from disintermediation from big tech, and/or partner with them to stay relevant, even though this may mean revenue leakage.

Beyond consumer devices through regulatory initiatives, partnerships and new technology, non-traditional businesses are now moving into "embedded finance." An example of this could be a large retail chain working with a technology partner, that transforms their consumer mobile app to enable payments at checkout, creating a strong closed-loop consumer-driven mobile payments ecosystem. By expanding into data through open banking, it would be relatively simple to provide complimentary financial service products, such as lending. Those taking advantage of innovative technology partners and flexible regulatory frameworks, will successfully take customer relationships away from traditional financial service providers.

For traditional financial service providers, it is a case of either innovating to keep customers engaged or look to support and partner in those ecosystems, so that they can still access relationships and revenue streams, albeit significantly reduced. Continuing to play a part of the ecosystem in support of embedded finance, is an opportunity for traditional financial service providers to find new revenue streams, such as giving access to complex financial products and data services for non-traditional businesses looking to enter the market.

3.6 Unclear commercial models and economics

A combination of the previously described factors results in unclear commercial models and economics for mobile payments and digital wallets in Australia. With the emergence of a number of domestic and overseas solutions, there is still an uncertainty regarding what will stick with the Australian consumer. Whilst mobile payments have been dominated by big tech more recently, there is a gap in the market to move mobile payments and digital wallets beyond just transactions and into value-added services for consumers, merchants and vendors.

This leaves a fragmented and highly competitive market open to disruption. With a potential threat to domestic providers being large overseas providers entering the Australian market, creating consumer advocacy and driving rapid change, leaving others behind playing catch-up.

4. Differing commercial relationships in Australia and other jurisdictions

The commercial relationships in Australia and other jurisdictions is often similar in relation to traditional payment networks, i.e. cash, card. Where commercial relationships differ for mobile payments and digital wallets, there is often a strong guideline or standard driven from either a central bank, monetary body or a government-led initiative.

Markets that had significant success in the role out of digital wallets and mobile payments share several key characteristics. Some of them are given below:

1. **Shortage of payment solutions**: Jurisdictions with limited availability of payment solutions in the market for merchants allowed new market entrants to deploy technology such as QR codes simply, quickly and broadly for payments acceptance, as they removed a reliance on legacy technology or physical devices.

2. **Limited regulation**: Friendly and limited regulation allow new payment solutions to move rapidly across markets and jurisdictions, driven by consumer demand. A tolerant approach in supporting mobile payments and digital wallets drives consumer trust and adoption. Also, this allows businesses to test and learn rapidly, until they find a solution that sticks in the market.

3. **Support new-technology partners**: Wherever significant and broad adoption occurred, one or two dominant technology partners supported by consumer behaviour in market are present. For example, we have seen the evolution of certain e-wallets that became super apps. Whilst this does not abate competition, governments working closely with larger entities can foster growth and innovation with the right approach.

By comparison, in Australia we have a strong and highly regulated payments ecosystem, making disruption feasible yet require more steps to launch innovative products. With an overdependence on traditional payment types, changing behaviour of the consumers, merchants and vendors will be challenging for mobile payments and digital wallet providers, without taking some of the lessons learned from other jurisdictions.

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5. Competition and consumer protection

The consideration for competition and consumer protection varies, depending on the ecosystem, stakeholders and interactions involved. Creating an ecosystem, that supports healthy competition for both domestic and international financial service providers, is essential for a fair, vibrant and innovative marketplace in Australia. Also, a supportive regulatory and legislative ecosystem should be in place that supports innovation and interoperability, whilst not hindering the ability to bring products to market quickly. It should also protect and inform the consumer, by driving advocacy and trust.

5.1 Competition

Competition in the mobile payments and digital wallets ecosystem shifts dynamically, as new products come to market and new entrants from overseas look at Australia as a growth market. Supporting a competitive ecosystem is critical for mass adoption of mobile payments and digital wallet solutions in Australia, though a consistent consumer experience should be considered. Some deliberations for competition in Australia are detailed below.

5.1.1 Global entrants

Australia is seen as a leader in financial services and FinTech globally, with several global payments providers successfully launching, either independently or in partnership with incumbent financial service providers. Government initiatives supporting cross-border innovation, such as the UK FinTech Bridge, have enabled new entrants, that can disrupt or partner and potentially own customer relationships. The challenge for domestic financial service providers is the way they compete and continue to provide suitable services to their global customers, as well as support alternative payment entrants from overseas. Those embracing key partnerships and evolving with the market, will be successful in defending their customer relationships.

5.1.2 Merchant fees and surcharging

Fees associated with mobile payments acceptance have been at the crux of merchants and vendors day-to-day operations. Cost transparency in the ecosystem will help both merchants and vendors manage their own business operations more effectively and communicate their cost of acceptance to their consumers. This will ultimately reduce friction in the consumer experience.

The impact of COVID-19 drove an unexpected outcome whereby through media coverage, consumer empathy increased for the cost borne by merchants and vendors to accept payments, that in turn initiated a re-focus on least-cost routing to help reduce the overall cost to merchants.

With the influx of new business models and competition, the economic model continues to shift. The cost of acceptance also continues to evolve. Recently, power has shifted into the hands of merchants and vendors, resulting in a reduction of around 20% in merchant fees in Australia, directly impacting financial service providers. This cost reduction should be passed onto the consumer, resulting in a better experience and reduced friction at checkout.

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5.1.3 Impact of big tech[4]

Major entrants from big tech providing newer products whilst accelerating innovation, have dominated the consumer relationship, pushing issuers and acquirers to adopt their solutions at the expense of revenue.

In the innovation space, technology providers who wish to exist within the big tech ecosystem to access customers, are required to use native in-app payment methods. This removes competition, whilst taking a significant margin on payments and subscriptions. It also creates a significant disadvantage to mobile payments and digital wallet providers, as they are potentially limited in their ability to innovate, at the cost of either revenue or the customer experience.

Without suitable consideration from a regulatory standpoint, there is potential for monopolisation and hindered innovation from the influence of big tech, particularly for domestic payment schemes. More importantly, technology providers are forced to compromise customer onboarding and engagement experience, as an avoidance tactic, meaning long-term adoption of competitive mobile payments and digital wallets is at a significant risk of realisation in the Australian market.

5.2 Consumer protection

Consumer protection is critical to the success of remote or in-person adoption of new technology and its related interaction. The role of industry bodies working with payment regulators, will be critical in driving innovation and adoption.

There is also consideration for education and clarity on consumer rights, and how digital wallets can play a key part in financial inclusion in Australia. As a part of this submission, we've highlighted some key considerations relating to consumer protection.

5.2.1 Lack of understanding

There is a lack of understanding from consumers on their rights, obligations and protections, when making a mobile payment or using digital wallets. With several parties involved in every transaction, potentially not following the same rules or regulations, tackling consumers' issues becomes difficult to understand. Remediation and/or chargeback processes may become difficult to navigate, resulting in confusion and a bad experience for the consumer. This is particularly apparent in demographics unfamiliar with technology, thus, without clarity and support, broad adoption may be hindered in Australia.

5.2.2 Interoperability between payment methods

With competition in payments, comes fragmentation. This leads to differing consumer experiences and limited ability to simply switch payment methods at the time of transaction or at least the creation of a consistent experience. Proprietary solutions in the market, can lead to a hinderance towards innovation.

The lack of interoperability also means that opportunities for financial inclusion and accessibility are difficult to bring to the market, with limited flexibility in the ecosystem.

[4] Select Committee on Australia as a Technology and Financial Centre – Second Interim Report page 13

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5.2.3 Data protection, cyber security and fraud

As newer technology enters the market, so do the risks of attacks or fraud, resulting in a loss for stakeholders involved in the ecosystem. Alongside this, consumer trust also plays a key role and must be addressed by financial service providers, to create consumer confidence and advocacy in the newer methods of payments and interactions. The continued pursuit of the use of a standardised digital identity in payments is one example that can provide a secure ecosystem for all stakeholders involved in mobile payments.

5.2.4 Dormant assets

There is a risk related with digital wallets of dormant assets, where value is stored digitally in an app and a material change occurs, such as a loss of credentials or device or an event that impairs a user from accessing that digital asset. Though in some instances this may be small from a value perspective, the sum of the part from an aggregated view may be quite significant. There is consideration for suitable consumer protection to be put in place by regulators for the retrieval of digital assets with a monetary value as digital wallet usage grows.

5.2.5 Financial inclusion and access

Mobile payments and digital wallets provide a foundation for innovation to support both financial inclusion and access to financial services for consumers, who may be underbanked, unemployed, have unsteady income or accessibility constraints. Aspects such as reducing the necessity on cash and digital onboarding, simplifies financial services for those in need, whilst also minimising fraud and loss through nefarious parties. Digital wallets may also provide the ability for those in need, to access healthcare and government services and support more easily.

Financial inclusion and access must also be considered from a technological standpoint, as devices become the norm in proximity payments. Financial service providers must be cognizant of not only distribution, but accessibility, particularly in regard to solutions related to newer mobile payments innovation such as pin-on-glass and contactless payments.

6. Regulatory and legislative ecosystem

The role of regulatory bodies involved in the payment ecosystem will be key towards the evolution of mobile payments and digital wallets in Australia.

Australia is one of the most highly regulated financial service ecosystems in the world, with one of the most mature payments infrastructure. Australia is also one of the heaviest card-driven markets in the world, with the adoption of “tap and go” driving consumer behaviour. This is both an advantage and a disadvantage in relation to mobile payments. The advantage being Australia has a very stable and well-regulated payment ecosystem, with significantly reduced fraud and increased consumer trust. On the opposing side, countries with immature payment infrastructure have adopted mobile payments and digital wallets almost overnight, driven by central government bodies or financial institutions.

There are several considerations for the regulatory and legislative ecosystems surrounding mobile payments and digital wallets, some of which are given below.

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6.1 Increased support for FinTech[5]

Australia is one of the market leaders in FinTech globally, with one of the most active and well-supported ecosystems. About 30% of Australian FinTech companies focus on payments, wallets and supply chain.

Whilst there are several government initiatives and support in place in the FinTech industry, there is still a need for continual focus and evolution of policy updates and regulatory changes. Without continued focus and support for innovation, there is a risk that domestic providers will lose out to global-market entrants. Some areas that support the mobile-payments and digital-wallet ecosystems for regulators to consider include the following:

- Access to banking products, stored value and remittance services.
- Data usage and sharing.
- Access to fast payments and open banking.
- Supporting the eligibility of software in R&D tax regulation.
- Considering the impact of big tech and their roles in the payment ecosystem.

6.2 Supporting the adoption of new payment mechanisms or networks

Government support in accelerating new functionality in faster payments, such as pull payments and international transactions, as well as in the broader adoption of open-banking standards, will alleviate innovation prohibitors on the dependency on traditional payment methods. Once greater functionality such as write access via open banking is available, linking payments in an account-to-account (A2A) ecosystem creates new opportunities in mobile payments and digital wallets to innovate.

As well-established global fast payment networks look to connect, Australian regulatory bodies need to consider how and what roll digital wallets play in overseas payments. For example, Singapore and Thailand recently linked their fast-payment networks, so one can send up to US$1,000 cross-borders via a digital wallet, using just a mobile number. This is the first of its kind, globally.

There is also opportunity for a more consistent use of QR codes in payments, given the mass adoption driven by COVID-19. QR codes provide several advantages in the market to drive a more secure and enhanced consumer experience.

Australian regulatory bodies need to ensure that they are not left behind by pushing a strong interoperability agenda on global as well as domestic payments.

6.3 Security, fraud and scams[6]

Ensuring the safety of people's money when kept in a digital wallet, requires consumer trust and advocacy, to help broad adoption. Regulatory and legislative control as well as flexibility, particularly for non-bank financial service providers, is necessary for consumer protection.

Newer and more sophisticated threat vectors are constantly evolving in payments. In 2020, fraud and scams cost the Australian consumer US$175.6m, which was 23.6% more than 2019. This was driven by a move to online transactions, due to the impact of COVID-19. Australian regulatory and legislative

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[5] EY FinTech Census 2020

[6] "Scam statistics," *Scam watch website*, https://www.scamwatch.gov.au/scam-statistics?scamid=all&date=2020, accessed 11 May 2021.

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considerations may support a reduction in online scams and fraud, around a broader use-case of a centralised digital identity in payments.

Newer authentication methods have entered the market, as consumer-device technology evolves. In other jurisdictions the use of biometrics in payments has seen an influx of solutions such as “pay-by-face” which is supported by a digital or government-issued identity.

Consumer trust in providing biometric data to be stored in a payments eco-system will need support from Australian regulators to facilitate a strong and secure framework or guidelines that the industry can support.

6.4 Digital currencies and blockchain[7]

Digital currencies and technology such as blockchain, play a key role in the future of mobile payments and digital-wallet framework and infrastructure. The introduction of Central Bank Digital Currencies (CBDC) is expected to drive an evolution in cross-border payments. This will be of keen interest to the global payment ecosystem, and what long-term role they can play. The results of the RBA’s research in a CBDC will be of keen interest to the industry and regulators.

The role of cryptocurrencies as investment assets has risen dramatically. Consideration of the taxation framework is required, as retail investors look to liquidate or turn their investments into day-to-day spend via digital wallets. With models supported by digital wallets, particularly with regards to issuance, there is no need for a bank to be a part of the transaction. This has completely disrupted the traditional three-and four-party models. This ongoing drive for cryptocurrency to be used as a medium for exchange, is something that will require close attention from regulators.

The use of an underpinning blockchain or distributed ledger technology, is well suited for transactional interactions such as payments. However, with a decentralised framework, regulators need to consider guidelines or standards to support innovation.

6.5 Market regulation vs. self-regulation — creating a level-playing field

The role of regulators in Australia is to provide a fair and level-playing field for competition, whilst also facilitating innovation. They do so by supporting simplified and cost-effective access to data, financial frameworks and payment networks. Whilst strong regulation to provide consumer protection is necessary whilst considering security, fraud, data and monetary loss, there must also be flexibility, that supports innovation for start-ups and new market entrants.

Recently, we’ve seen the impact in relation to the buy-now-pay-later industry, where innovation moved faster than regulation, resulting in a self-regulated ecosystem. There are arguments on both sides about heavy versus light-to-flexible regulation. However, the broader consideration is for consumers to see regulatory bodies working closely with financial service providers to support innovation, but also protect their data and rights from nefarious practices.

[7] Select Committee on Australia as a Technology and Financial Centre – Second Interim Report page 15

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