

## **Global Payments 2020-30**

### **A quantum shift in the next decade**



### **Australia's challenge – to keep up**

## AUSTRALIA'S PAYMENT CHALLENGE

Australian payments will see more change in the next 10 years than the last 40 years combined.

Australia has an expensive US/Anglo legacy based retail payments system which will be challenge by new technology, new data uses, new players and the need to protect consumer rights and data.

Consumer retail payments total \$975.7 billion in 2019 and will reach \$3.2 trillion by 2030. A faster rate of expansion will occur in SME and Corporate payments.

Payments are a very high volume, low margin business with even the smallest changes in revenues or margins delivering significant changes in actual dollars.

Regulators around the globe will be challenged by forces of change and this requires all regulators and politicians to be aware of the scale of change and ensure the regulatory frame work changes and evolves quickly.

## 4 MYTHS DOMINATE THE NARRATIVE

1. **CASH WILL DISAPPEAR** – many including regulators keep predicting the death of cash. While bank notes may disappear, various forms of cash now dominate retail payments in Australia combining to total 71% share.
2. **CREDIT CARDS DOMINATE LENDING** – consumer credit cards are in decline having peaked 8 years ago. All the leading indicators are falling – average balance, average spend, revolve rate and number of cards. Corporate and Commercial cards are the only growth story.
3. **DIGITAL PAYMENTS ARE THE FUTURE** – many payment products use the 'digital' tag for marketing 'glint' however the reality is all payment products using Visa, MasterCard, Amex or eftpos payment networks are not digital. The only real time digital network in Australia is the RBA owned NPP/Osko.
4. **BUY NOW PAY LATER WILL DOMINATE** – Buy Now Pay Later (BNPL) in its current form has operated in Australia for 5 years. RBA data has sales of \$6 billion in Australia – that equates to less than 1 basis point of total consumer payments. Even in online payments BNPL makes up only 6.7% of all online sales – hardly a massive success as claimed by the sector.

Payments in 2030 will revolve around fully portable 'digital' consumer and business IDs which are supported in cyberspace and do not require a card, watch or phone --- but rather a consumer 'calls up' the ID at any point of sale and confirms the sale using bio-metrics and security features which work in person or remotely for digital and 'eCommerce' transactions. Portability and convenience will be the key drivers while service levels, data and ID protection are critical deliverables.

## **PAYMENTS - A GLOBAL REVIEW**

The world is a very large place with 7.5 billion people and 241 countries and territories and payments are a vital tool in all of these countries/territories.

To fully understand the next decade payment regulators need to have a global view – not entrenched views based on past local or regional activity.

### **Developed Markets are Not All the Same**

Developed markets have two major themes, a small number of strong credit card markets with high cash and cheque use -- 72% of global credit card receivables are in only 5 countries - USA, Canada, Japan, Korea and UK - Australia is part of this expensive mix.

Mainland Europe with 510 million consumers is the world's largest consumer market is an EDI/debit card market with little cash or credit card use and virtually no cheques. A number of EU countries have all but eliminated cheques over the last 15 years replacing them with EDIs, well before 'digital' became fashionable.

Both of these models are expensive and regulators need to understand the true costs as compared to new less expensive alternatives.

### **Emerging markets are about Cash, the Unbanked and Mobile**

Emerging markets make up 78% of the world population and are heavily dominated by cash. The unbanked population is estimated at 2.4 billion or 45% of working adults.

Mobile payments have limited impact in most emerging markets; however a number of pioneers developed very efficient and widely used mobile payments - Philippines since 2000, South Africa in 2001, and Kenya in 2007 all created new payment infrastructure where none existed. Bangladesh, Brazil, China, India, Nigeria, Mexico and Pakistan are all examples of emerging markets that are developing mobile payments.

The key drivers of success are factors such as the international remittance flows in the Philippines, drive for social cohesion in South Africa and Kenya or eCommerce in China.

China is now the world's largest mobile market with AliPay and WeChat totally dominant. India launched its own debit card scheme - RuPay to reduce payment costs and avoid being dependent on Visa or MasterCard debit.

### **Future Growth in population and GDP will drive payments**

The world's population is estimated to reach 8.6 billion by 2030 – most of this expansion is in Asia, Africa and Latin America. Population by itself is not a key driver of payments. However when added with GDP this becomes a key driver. The chart below shows current regional population in 2020 –

The World Bank estimate for global population by regions is -

Rank	Region	Share of Global Population (%)	Population
#1	Asia	60%	4.5 billion
#2	Africa	16%	1.2 billion
#3	Europe	10%	729 million
#4	North America	7%	534 million
#5	South America	6%	424 million
#6	Central America	1%	47 million
#7	Oceania	1%	42 million

The next decade will see significant shifts in global GDP with growth in ‘developing’ economies. The USA will lose its preeminent position as the world’s largest economy. The rise of China, India, Indonesia, Turkey and Brazil will have a profound impact on current economic and political norms.

Payments will be impacted as growth in consumer and business use drive new forms of payments. The dramatic rise in ‘China mobile’ is but one example of the change that will sweep the world. The rise of regional cryptocurrencies and new digital payments will challenge current legacy payment systems.

The World Bank projects the top 10 countries by GDP in 2030 as -

Rank	Country	Proj. GDP (2030, PPP)	GDP (2017, PPP)	% change
#1	China	\$64.2 trillion	\$23.2 trillion	+177%
#2	India	\$46.3 trillion	\$9.5 trillion	+387%
#3	United States	\$31.0 trillion	\$19.4 trillion	+60%
#4	Indonesia	\$10.1 trillion	\$3.2 trillion	+216%
#5	Turkey	\$9.1 trillion	\$2.2 trillion	+314%
#6	Brazil	\$8.6 trillion	\$3.2 trillion	+169%
#7	Egypt	\$8.2 trillion	\$1.2 trillion	+583%
#8	Russia	\$7.9 trillion	\$4.0 trillion	+98%
#9	Japan	\$7.2 trillion	\$5.4 trillion	+33%
#10	Germany	\$6.9 trillion	\$4.2 trillion	+64%

## **Vital Strategic Importance of Payments**

The European Union (EU) states that 'Payment Systems are the 2nd or 3rd most important infrastructure/network in any country outside national security and military issues'. Payments impact every government, business and household as well as every import and export transaction, every consumer and business payment transaction which make payments truly ubiquitous. Payment systems must be fast, reliable, secure, offer data protection and inexpensive to operate – an exciting and challenging task.

## **Comprehensive National Strategic Plans are a Priority**

Given the strategic importance of payments the critical question is does every country have a comprehensive payments plan? If there is a plan why isn't it public?

Unfortunately, the vast majority of countries do not have comprehensive, public plans and therefore savings and efficiencies are not being pursued and maximised. Nor is public scrutiny available to act as key driver. Australia is one of the countries without a public payment strategy – this is the key area public policy which should be developed.

## **The Cost of Payment System is a Key Issue**

The cost of retail payment systems is a major impost on all economies running at estimated average 1.2% of GDP. The EU estimates the range for retail payment systems in Europe is 0.6% to 1.6% of GDP. These costs blow out when emerging economies are considered - India recently changed its banknote policy to try to reduce cash use, South Korean has tenaciously developed credit cards in an attempt to eliminate the 'black' cash economy. The Irish National Payment Plan reflected the EU view -- they estimate their payment system is 1.4% of GDP and set clear goals and actions to try to reduce costs.

## **'Same Day' digital transactions are essential**

Since 2002 Payment Regulators in developed countries have targeted digital 'same day' transactions as the next key development - much of this has centred on ISO 20022 and has led to expensive executions using current systems and legacy providers. The first ISO 20022 standard was issued in 2004. It took ten years to have it widely deployed at an international scale with 34 countries and thousands of banks using it for cross-border credit transfer and direct debit applications.

The cost of debit and credit card networks continues to be a major issue for regulators regardless of attempts to rein costs in. While interchange has reduced this has been more than compensated by increases in annual fees, other fees - for example all international charges now have a 3% fee plus FX rates, having been zero fee prior to 2000. Other real time digital platforms run at 30-40% of the cost of association payments while new mobile offering in Asia are 45% cheaper.

## **Banks Profits and Payments**

Banks and independent card issuers are the prime drivers of consumer and business payments. However, major payment networks also exist within Governments and Business environments and can be used to create change. The ability of banks to service these three sectors efficiently and effectively is critical. Payments across institutional, wholesale and retail are a key part of most banks – "In 2016, the global

payments industry accounted for 34 percent of overall banking revenues — up from 27 percent just five years earlier. For the next five years, annual growth will average 7 percent, making payment revenues a \$3-trillion-dollar-industry by 2025,” according to McKinsey.

### **Technology is Critical to Payments**

Technologies influence on payments will expand dramatically in the next decade - the growth in computing from edge computing to quantum computers along with data service beyond the current ‘cloud’ will aid significant improvements. Add AI, the IoT, biometrics, autonomous computerised cars and transport, all of which need to be understood and regulated by payment regulators.

The payments industry has been an early adopter of technology; one key example is ISO 8583, early in 1980s the industry adopted electronic switching, which quickly developed into electronic charge submission to eliminate manual authorization phone calls and expensive paper charges. Today ISO 8583 underpins all consumer payment systems globally – a new standard ISO 20022 is progressively being adopted with 32 countries now using it.

Technology is part of the back bone of payments and is implicit in its efficiency. However, not all technology is well used and adoption rates can be low e.g. the US EMV program is a disaster, 4 years after the deadline only 68% of merchants are fully compliant and 18 years behind other developed markets due to the size of its installed base. The current market developments revolve around fast payments, wider adoption of social media payments, P-P payments, multi-currency payments with netting and better use of internet/eCommerce payments.

### **Mobile in some ‘Emerging Markets’ is Soaring**

The rapid growth in mobile in key emerging markets has been largely ignored by Western economies. Yet the figures make eye catching reading – in just 9 years China’s mobile has reached US\$41.7 Trillion while credit and debit cards combined have taken 60 years to reach annual volumes of US\$24.5 Trillion in 2018.

China Mobile is the innovative model – but a regulatory night mare. It combines payments, eCommerce, social media, games, dating, music and entertainment with a Telco in one ecosystem. In other words the China Mobile model effectively combines: Visa/MC, Amazon, Facebook, EA Games, Match.com, Spotify along with Telco services – a very powerful and alluring offering.

### **China Leads the Way with Mobile**

China's mobile payment market is the world’s largest reaching US\$41.7 Trillion in 2019, from US\$81 billion in 2012. AliPay has 1 billion active users globally and TenPay is in partnership with WeChat -- WeChat has 1.2 billion active global users 45% using payments. These two platforms share 85% of the mobile market and now threaten the government owned payment card China Union Pay. Key to the initial rapid development and growth is Nov 11<sup>th</sup> ‘Singles Day’, which is a rebranding of Batchelor’s Day, a 90s student tradition – sales for one day in 2019 totalled US\$38 Billion! Mobile has also expanded overseas to support the 190 million travelling Chinese tourists: AliPay is in 38 countries and WeChat in 27. Chinese mobile payments use QR codes, this is currently not standard at point of sale globally - there are some concerns about the security of QR codes.

### **Third Generation Mobile P2P Show Potential**

Zelle, Venmo, PayPal Cash, Square Cash and Dwolla are all 3<sup>rd</sup> generation US P2P transfer apps on smart phones primarily aimed at 15-35 year olds -- these apps have zero cost for consumers and are a quarter of the cost to operate vs debit/credit cards and present a major threat to the card schemes for smaller transactions and social media interaction. Zelle (re-branding of ClearXchange) owned by 30 US banks, Venmo owned by PayPal with combined volumes expected to reach US\$1 Trillion by 2020 year end.

### **Mobile Payment Wallets in Developed Markets are a Dud**

Mobile wallets have been totally unsuccessful in building critical mass quickly in developed markets. Attempts made by banks, card issuers, Google, Apple, Microsoft, Amazon, Visa, MasterCard, Amex, Telco joint ventures include WPS in Canada and ISIS (rebranded Softcard in 2014) in USA, all have been resounding failures in attracting mass consumer use. Expensive contactless payments have quickly become the default point of sale payment in most developed markets, despite being 'legacy' technology, reaching 60-90% consumer usage in 3-5 years.

Apple Pay is a good example of the 2<sup>nd</sup> generation mobile product which is performing poorly – due to poor strategy and implementation. Apple Pay was launched 6 years ago in the USA just as the entire payments market was distracted with EMV implementation. Apples low market share in many markets combined with the fact that 2/3<sup>rd</sup> of Apple phone users couldn't use Apple Pay also created considerable dissatisfaction with many Apple consumers.

### **Card Networks Proliferate in Developed Countries**

The global players all have strengths and weakness - Visa and MasterCard are the largest but are far from dominant. For example Visa are weak in mainland Europe known as a debit card, both MasterCard and Visa has made no progress in China and limited progress in India. Other global card players include American Express, Discover/Diners Club, JCB, Cetelem and China Union Pay. There is also a strong layer of local players who in many markets control 30-45% of a market – these include, domestic debit networks, retail store cards, conglomerate consumer cards, single purpose consumer offers e.g. car finance, airline cards, consumer finance offers, buy now pay later, instalment loans as well as budget services, payday lenders, pawn brokers and traditional lending practises e.g. family loans which vary in many markets.

### **Bitcoin is a Non-Starter for Mass Payments**

Bitcoin has been attempting for a decade to convince markets of its ability to provide timely payments. Shortly after its launch in 2007 a number of experienced payments experts reviewed the capabilities of Bitcoin. The review concluded that Bitcoin and or blockchain had no possible role in global mass consumer or business payments. The concept of a global peer to peer network was simple not feasible given the current and future volumes. Bitcoin processes 7 transactions a second with an average transaction time of 12 mins – but with peak delay of up to 3 days. Visa and MasterCard process 16,000 transactions per second with a peak of 24,000. No amount of 'tweaking' will take bitcoin to this level. Bitcoin has also had 2 systems outages in 10 years requiring the total network to backup transactions for 2 days – if this was to occur in the global payments market the result would be catastrophic. The ability of blockchain to work in

other high volume segments such as corresponding banking or foreign remittances is also unlikely given the global spread of these products and the volumes.

### **Cryptocurrencies have Potential – Maybe?**

There are over 2900 cryptocurrencies most aimed at investors brave enough to invest in them and risk never getting their money back. The number of fraud cases grew in 2019 to US\$300 million as did the amount of alleged fraud and the US\$4-5 billion OneCoin ponzi scheme. This activity is not limited to cryptocurrencies but certainly creates media headlines.

The other area of development is sovereign cryptocurrencies which has been quietly developing over the last 5 years. A number of countries and technology companies have been exploring the potential to replace cross border payments with cryptocurrencies which would avoid the need to use reserve currencies – much is yet to play out and it's not a case of will the technology work, but rather how will the geopolitical issues play out.

### **Fintech Has Failed to Deliver its Revolution**

Fintech - the buzz word invented in 2008 was to herald the 'total destruction' of banking, payments and insurance by fledgling start-ups - however a decade on Fintech has yet to reach this goal with investment levels insufficient to build true competitors to banks. Total Fintech Investments 2008-18 are US\$63.9 Billion which includes Venture Capital and other investors including private equity and crowd funding, representing only 6.7% of total start-up funding.

The key question is whether this level of investment is sufficient for major disruption. Uber, for example, has raised US\$11.5billion in funding and debt in 18 funding rounds since March 2009 and has success in some taxi markets, a much smaller segment than Financial Services. Uber has raised the equivalent of 21% of total Fintech funding. AirBnB raised US\$2.95Billion and Snap (SnapChat) raised \$2.63Billion – this is more than many Fintech categories have raised

Today most Fintech's are seeking to sell or create partnerships with banks in the hope of being acquired - hardly an enthralling prospect for many of these young entrepreneurs.



## THE AUSTRALIAN RETAIL PAYMENTS MARKET

### The Market is Large and Growing

Total Australia payments market processes \$242 billion payments per day or 14% of GDP – split between government, business and retail consumers. The dominant payment types are bank transfers and cash while cheques, debit/credit cards and person to person transfers play supporting roles.

Retail payments made by consumers total \$975.7 billion to November 2019, while SMEs and Corporate payments within retail payments totalled \$118.3 billion – a total of \$1.094 Trillion.

Debit cards are the major payment type used by consumers with 35% share; while 2019 growth is only 4% the decade growth is 9.8% per year, the fastest of any major payment type.

### Australian Payments by Consumers – Full Year to November 2019

Payment type	Volume in billions	% Increase over 2018
Debit Cards	\$347.4	4%
Credit Cards	\$273.4	- 1%
Osko Cash – NPP	\$200.6	258%
ATM Cash	\$127.5	-5%
Cash – notes*	\$8.2	-6%
Pre-Paid Cards	\$7.5	31.5%
Buy Now Pay Later	\$6.0	79.2%
Cheques*	\$5.1	-8%
TOTAL	\$975.7	18.2%

Data – ex RBA at Nov 2019 \* private research Nov 2019

Consumer credit cards make up 28%, while the new digital Osko payments platform has grown quickly to 20%. It seems evident that the rapid growth in Osko has impacted debit card growth in 2019 which is down from 11% growth in 2018.

ATM cash use, while in slow decline is still significant at 13% - with the rest including: bank notes from other sources, prepaid cards, buy now pay later and cheques all total 2.7% of payments. While prepaid cards and buy now pay later have significant growth rates this is not enough to change their market relevance – e.g. NPP/Osko growth of \$144.6 billion or 258% in 2019 shows the difference in scale.

Cash related payments make up 71% of all consumer payments and with growth of \$151.3 billion or 27.7% in 2019 is also the fastest growing segment. This raises a significant policy issue for the RBA/Payments Board – who currently does not consider consumer payments as a category, but rather lump SME's and Corporate payments as one category.

This issue should be considered as a matter of urgency. The payment products offered to SMEs/Corporate are different and have totally different terms and conditions, different payment terms, different costs and in some cases different regulators. For example - it is confusing to have Corporate T&E Cards, Commercial Cards and Purchasing Cards included in credit card statistics which are then considered part of 'consumer' use and debt.

It is also important from a policy point to consider future developments and growth of mixed payments – that is payments with consumers, SMEs and large Corporates all participating. Current RBA data only shows SME/Corporate use across a limited number of categories as the table below shows - this should be expanded to include Debit Cards, ATM use and other categories.

**Australian Payments by SMEs/Corporates with retail payments to Nov 2019**

Payment type	Volume in billions	% increase over 2018
Corporate Credit Cards	\$66.3	9.5%
NPP – none Osko use	\$25.0	11%
Corporate cheques*	\$21.1	-2%
Cash – notes*	6.0	-4%
<b>TOTAL</b>	<b>\$118.3</b>	<b>6.5%</b>

Data – ex RBA at Nov 2019 \* private research Nov 2019

**Cash Related Transactions Dominate**

RBA data clearly shows the priority – cash and cash related payments make up 71% of retail payments. It is the fastest growing segment and has the most consumer usage with 8.2 trillion transactions or 77% of all transactions. This is the segment that requires the most policy action and key deliverables one of which should be lower costs.

**Consumer Use of Cash vs Credit – 12 months to November 2019**

Payment Type	Annual Volume billions
Debit Cards	\$347.4
Osko NPP	\$200.6
Cash notes, prepaid, cheques	\$20.8
<b>TOTAL</b>	<b>\$696.3</b>
Credit cards – consumer only	\$273.4
BNPL	\$6.0
<b>TOTAL</b>	<b>\$279.4</b>

This chart excludes Corp Cards, Corp cash and cheque use – RBA data at Nov 2019

## **THE REGULARITY CHALLENGE IN AUSTRALIA**

Australian payments will see more change in the next 10 years than the last 40 years combined.

Australia has an expensive legacy US/Anglo based payments system which will be challenge by new technology, new data uses, new players and the need to protect consumers.

Retail payments by consumers total \$975.7 billion in 2019, by 2030 will reach \$3.2 trillion. A faster rate of expansion will occur in SME and Corporate payments.

Payments are a very high volume, low margin business with even the smallest changes in revenues or margins delivering significant changes in actual dollars.

The key catalyst for change in the payments industry will come from open competition. It must be encouraged in all aspects, for consumers, businesses and institutions. Competition is the seed to foster innovation, it drives change, lowers costs and forces decision making. It is the most important spark in creating a better deal for consumers and businesses. Yet there is less competition in the Australian payments industry than 15 years ago and this should be a major concern for a critical piece of national infrastructure.

### **Payments are Strategically Important**

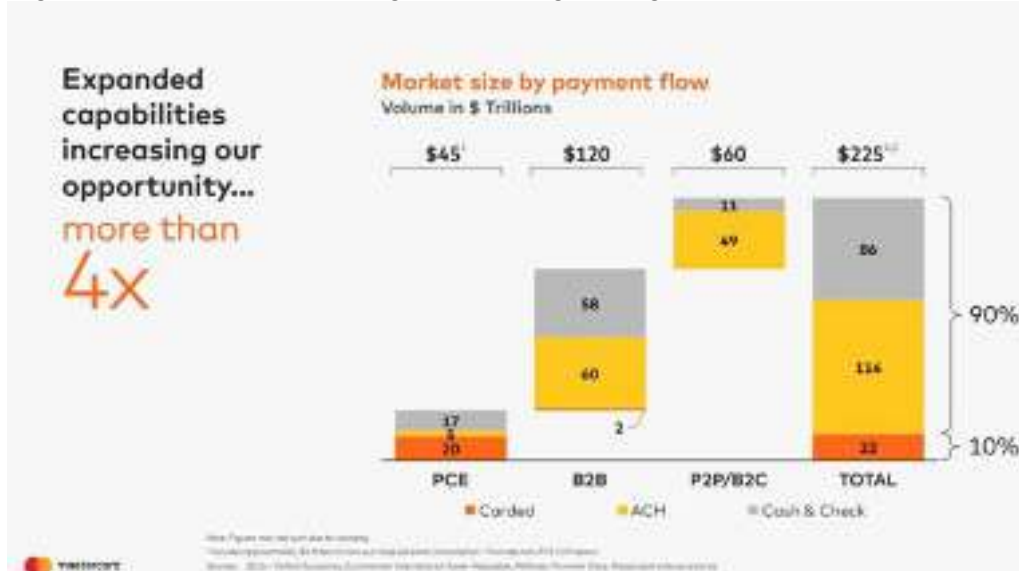
The EU states that 'Payment Systems are the 2nd or 3rd most important infrastructure/network in any country outside national security and military issues'. Payments impact every government, business and household as well as every import and export transaction, every consumer and business payment transaction which make payments truly ubiquitous.

Strategically the retail payment network is far more important and has a wider reach than for example mobile phones, broadband, 5G coverage and even fixed line phones – yet receive scant coverage by comparison. Any internet search of the NBN, which only reach 70% of households at best, has a massive amount of media coverage versus payments. The RBA should consider how payments can be more widely discussed and how the debate around payments should be encouraged.

Current payment policy thinking in Australia can be summarised by this quote – “the retail payment system accounts for the majority of payments – about 99% of the number (not value) of payments” APCA2015b.

This thinking totally ignores all Government payments, business to business payments as well as business to consumer payments which are much more than 1% of payments. Within the retail payments sector business and government payments are largely ignored by regulators and are not separated within key market data – one example Commercial Cards with \$66 Billion or 19% of credit card spend. The structure, usage and liability of these products which include travel spend, purchasing business items and procurement of key inventory has nothing to do with consumer spending - other examples also exist.

It is very apparent payment markets will evolve and payment providers will seek to gain new growth and new markets. A chart from MasterCard's annual report demonstrates this, as they begin targeting non card payments in SMEs, larger businesses and government sectors. Visa and MasterCard will attempt to bring their high fee, low utility formula to other payment markets and this should be avoided. The regulatory challenge is to understand how markets will evolve and change the regulation as this is happening and not to get caught behind the curve.



Australia's current retail payments products are expensive versus other payment options available including EDIs, P2P mobile payments, 'China mobile', digital cash and other cash transfer systems. Any discussions about future strategic directions must include the cost of payments. Australia current retail payment mix includes cash, cheques, debit/credit cards with very small P2P and mobile payment products. The sector is dominated by the four major banks that have done little innovation and by key acquisitions have in fact reduced competition.

The last cost of payment study in Australia was in 2014 – which is light years away from the 2020 reality and a different universe from 2030. This is a serious strategic and structural issue which directly impacts policy and resource issues - this needs urgent attention at the highest levels of Government.

### Total Payment Costs are Significant

The EU estimates retail payment systems in Europe range from 0.6% to 1.6% of GDP. Australia is similar to the UK and Ireland with a high mix of debit & credit cards, cash and cheques – Ireland has higher cash use and lower electronic payments than Australia. Ireland with EU assistance developed a payment plan which detailed retail payment costs at 1.4% of GDP. If we assume Australian retail payment costs are therefore lower, at say 1.2% of GDP it is then possible to estimate the full cost of retail payments - 2019 est. Australian GDP is A\$1.89 Trillion x 1.2% in payments costs would equal A\$22.6 Billion in costs per year.

If Australia could reduce retail payment cost to 0.6% as Sweden, Denmark, Norway, Belgium and others have done -- costs per year would equal A\$11.34 Billion -- a significant annual saving of \$11.26 Billion.

To reduce annual payment costs in Australia by 49% would have enormous economic benefit by improving speed of payments and improve cash flows for businesses and consumers. This type of objective should be the cornerstone of future Australian payment policy. Future efforts should be detailed in a strategic plan with clear goals and reviewable actions.

The development of real time digital payments and mobile ubiquity has the potential to massively change the cost of payments well beyond current estimates. Figures from markets with high digital payments or high mobile suggest savings of 65-70% are available, that would equate to savings of \$14.6 – 15.8 billion per year or \$146 – 158 billion over a decade!

### **The Right Strategy is Critical and Competition – The Key to Change**

The need for robust competition is almost completely overlooked in Australia.

One example - the major payment policy change in the last 17 years was the RBAs three pronged 'reforms' of credit card interchange. The objectives of increasing competition and enabling new entrants to enter the market have not eventuated. The desire to create open and transparent pricing has only been partial met, interchange reductions have been achieved at the wholesale level while the industry has more than recovered the 'lost' revenue at the retail level. At the same time Australian consumers have endured significant increases in fees and charges for no increase in services and faced the arrival of uncontrolled surcharging.

The other significant issue was the failure by the ACCC to supervise and require retailers to pass on the interchange savings to consumers. The net result retailers pocketed \$118.8 million in year one, plus increased their revenues by starting uncontrolled surcharging – rampant by those with market power, monopolies or special services e.g. Telstra, Qantas, Utilities and specialist retailers.

The Australian competitive landscape is in stark contrast to other markets - this UK quote demonstrates this "given the importance the Government attaches to improving competition... arguments now lie in favour of a full utility-style regulator". This UK thinking resulted in the appointment of a new regulator in 2014 this model should be considered in Australia.

### **A Lack of Competition**

There have only been two major credit card launches in 15 years – Virgin Money and Aussie who 'launched' cards – the back office for both entrants was provided by Westpac and ANZ respectively with no significant product variations.

At the same time consolidation impacted the Australian debit/credit card market with Bankwest and St George both active debit/credit card issuers purchased by CBA and Westpac resulting in decreased activity across the market.

GE Money a sizable competitor to the 4 banks was a casualty of the GFC in 2008 when the securitization market collapsed; the business lost market share, sold its

mortgage portfolio and was in 'maintenance' mode until it was sold to private equity in 2015 – today it is a minor player.

A number of small acquirers have attempted to launch these include Distra in 2001 (now owned by ACI) and Tyro 2003. Today Tyro is a niche acquiring/switch player reporting \$17.5 billion in transaction value which equates to 2.5% market share of the debit/credit card market. US acquirer/pos provider Square launched in 2016, has 65,000 merchants and \$4.6 billion in sales - less than 1% of debit/credit sales. Other new entrants are rumoured to be following Amazons launch in 2018 but have yet to eventuate.

No major overseas player has entered the Australian card market and those who did evaluations went to other international markets considered more favourable – the lack of positive credit reporting and the size of the market seen as key factors for not proceeding.

The lack of competition in payments should of great concern as it prevents innovation and cost reduction. It will also prevent the development of some newer technologies over the next decade.

### **Collaboration is not Competition, What about the Industry Bodies?**

Sometimes collaboration within an industry can be seen as a way to create benefits for customers. With four banks dominating, collaboration is not a starter – in fact it's an oligopoly.

Collaboration across the wider payments industry should a broad objective detailed in the regulators operational objectives. The Australian Payments Clearing Association (APCA) and Australian Payments Council's (APC) roles and positions must be reviewed. Both organisations are controlled by the banks, effectively for the banks. APC's 15 page 'Australian Payments Plan' clearly demonstrates its limited horizon and is clearly hampered by lack of resources and money. APCAs annual fraud report is one example of key data that is needed to ensure the debate in Australia is driven by facts and not opinion and nebulous research. There are numerous topics which should receive similar treatment. If real change is to be created in payments the make-up regulators, industry and consumer bodies need to be fully representative of all wider market - this was a key driver in the UK.

UKs Card Association and Payments Canada – the rebranding of The Canadian Payments Association provide important models for Australia. Both these organisations reflect the wider views of the industry and also provide detailed factual data and research which improves the level of the debate in their markets.

### **Why Ask the Regulator To Lead in Strategy Development?**

As regulator, the RBA/Payments Board plays a role in working with many businesses and consumer groups that are involved in payments. Since 1998, when the Payment Systems Act took effect, regulation and review has taken place.

The RBA/Payments Board has performed the de-facto role of developing the strategy for payments in Australia. This role should be questioned - is this the right place to develop the strategy? Does the Payments board have the right structure, people and tools to undertake a comprehensive strategy development?

The Payments Board operates under the imprimatur of the RBA. The Board has five independent Non-Executive Directors with RBA and APRA representatives and is advised by RBA staff. The independent board members are all well respected business leaders; however a review of their CVs shows none of them have payments industry experience nor do they have the benefit of consulting with an Advisory Board.

This is an untenable situation for independent directors and should be reviewed – payments are a specialised industry and given the strategic importance some Board members should have industry experience and all Board members should have access to a range of views both at Board level and to consult with an Advisory Board to provide independent views to ensure good policy is created and implemented.

## **‘CASH’ IS STILL DOMINANT IN AUSTRALIA**

Cash related transactions dominate Australia with 71% of all consumer transactions using: debit cards, Osko/NPP, ATM cash, cash-out services, bank notes/coins, prepaid cards and cheques.

The cost of these services varies widely

### **Debit Cards are Not all Equal**

The debit card market needs a major overhaul – it’s a high priced relic from a past era and is now used to gouge consumers and over charge retailers. Debit cards were created as the expansion of cheque guarantee cards in the 1980s by providing consumers access to their own cash at ATMs. Consumer research confirms that “access to my own cash” and “convenience of use” is the two most powerful attributes of debit cards.

Local debit cards providers morphed into local associations and then Visa and MasterCard entered the market. The market today has two price structures delivering similar offerings. Visa and MasterCard claim they offer global acceptance which justifies their much higher price – yet only 3% or \$11.1 billion transactions are used overseas or for off-shore eCommerce. Consumers typically pay 3% on these foreign transaction which is certainly not justified and results in consumers paying \$330 million in fees per year to access their own money.

The RBA/Payments Board should compare all cash based payment costs and look to reduce debit card costs to retailers ensuring there is genuine competition among cash payments. There is no justification for dual pricing and Visa/MasterCard prices should be reduced to at or below current *eftpos* levels.

### **Cheques, Cash, Cards... What about Bank Transfers and P2P Payments?**

There’s no doubting the benefit of electronic payments. Payments occur at every level of Government, business and consumers. One of the clear themes in Australia is the rapid growth debit card and Osko usage while credit cards have negative growth. While such “modern” payment methods can help to replace cash and cheques, the idea that cards can be the sole electronic alternative to cash and cheques is not the case. For many businesses the cost and some of the scheme terms imposed are onerous. And beyond issues of costs, there are real and valid concerns about fraud and security – the rapid rise of contactless fraud is one example. Card acceptance has its place and when they work, they work extremely well and provide a superb network that enables trade. But it is important to recognise that non-card based payments can be implemented with equal success and much lower costs.

For Australian consumers and businesses, access to their core payment account, often their ‘current account’ has been restricted to internet banking services using BPay. More recently the banks have launched 2<sup>nd</sup> generation mobile apps for consumers but for businesses who wish to be paid or pay, their online offerings are limited. The most effective, low cost and low risk way to pay is by credit transfer. The ability to be paid or pay directly from any account has been made a reality by new technology. Such functionality can be delivered online but also via integrated interfaces (APIs).



### **Is the National Payments Platform the answer?**

The development of the New Payments Platform (NPP) has been heralded as a breakthrough for low value instant digital transfers for individuals and businesses using mobile apps and internet banking applications.

Based on ISO 20022 the Swift/Fiserv development is not new having been implemented in 32 other countries (54 countries claim some part of ISO roll out) – Australia has lagged well behind in this area. The launch was delayed several times and predictably the four major banks continue to delay the roll out. While the costs of use by businesses will be a major issue - banks changed their terms and conditions to allow fees to be charged when products are developed.

The Swift/Fiserv development will cost around \$1 Billion and is considered by many to be expensive for what it delivers. The openness of the NPP to new entrants and start-ups is still a major issue and it has to be proven that it will be open and inclusive – which simply restricts competition which is exactly what the four major banks want.

### **Third Generation P2P Payments should flourish**

The NPP should have seen the development of branded digital and mobile products with P2P payment apps, B2B and C2B payments executions developed and launched.

Zelle, Venmo, PayPal Cash, Square Cash and Dwolla are all examples 3<sup>rd</sup> generation US P2P transfer apps primarily aimed at 15-35 year olds -- these apps have zero cost for consumers and are a quarter of the cost to operate vs debit/credit cards and present a major threat to the card schemes for smaller transactions and social media interaction – volumes in 2020 will exceed US\$1 billion.

This product category has been very slow to reach Australia and this should be reviewed. Fintech players in Australia are developing these products and regulators should understand the issues they face and how the market can be encouraged.

Initial NPP/Osko volumes have been significant with growth of 258% for the last 12 months – a cautionary note needs to be made with the last 3 months increase only 13.5% - is this a slow down or just a pause?

### **Past Behaviour is a Good Predictor of Future Behaviour**

The ultimate ownership of the NPP also needs to be reviewed as with no intervention it will become yet another 'zombie' payments company owned and run by the banks. Currently the NPP is being developed by the RBA in conjunction with banks and other deposit taking institutions. This has been the model for a series of stunningly unsuccessful payment companies e.g. Bankcard – now closed, eftpos which has lost 45 per cent market share – BPay which has never fulfilled its potential – these are but three examples.

The nature of these decisions needs to be understood – why did the four banks decide to 'ditch' Bankcard and become totally dependent on Visa and MasterCard. A stunning decision and probably the worst strategic blunder in Australian payments history. Apart from the USA no other developed market has done this. Europe and Canada stand out as markets where domestic networks still thrive. Interac Canada is probably the best example – even with all the pressure and power of US banks and US card networks can exert, they have been unable to destroy Interac. In fact Interac has flourished - yet the

four Australian banks closed Bankcard in 2006. India launched its own debit card – RuPay to ensure competition is achieved in 2012.

A similar situation applies to eftpos, the only Australian pos network, which the four banks co-own with banks, credit unions and retailers. In a series of truly stunning decisions eftpos was deprived of investment and quality management and has been allowed to go from 86% market share in 2003 to 39% by 2018. Banks and Credit Unions who co-own eftpos have preferring to trash their investment in eftpos to issue Visa and MasterCard debit cards which charge much higher merchant fees for exactly the same service in Australia. One of many examples - the Federal Government and Indue are using the more expensive Visa debit cards instead of eftpos cards in a trial of social services payments to Aboriginals.

The routing of Visa and MasterCard transactions through eftpos must be removed by regulation, as this is another pricing 'rort' by the acquiring banks – this will cause fees to drop for merchants. This goes beyond least cost routing and all linkages should be investigated as many are historical but not economic. The scale of savings could be considerable – retailers estimate least cost routing currently costs as much as \$550 million per year.

The consequence of these decisions is very significant as without any real competitors Visa and MasterCard are able to wield monopoly power in Australia.

### **The Global Activities of Visa and MasterCard should be reviewed**

Given the monopoly Visa and MasterCard enjoy in Australia any hint of collusion or insider fixing needs to be actioned by the RBA/Payments Board

The world's six largest card companies – Visa, MasterCard, Amex, JCB, Discover/Diners Club and China Union Pay now run a closed 'Association' called EMVCo.

EMVCo was established in 1999 and has positioned itself as “the representative” of the global card and payments industry. EMVCo claims to produce technical “definitions and specifications” needed to ensure global card interoperability. However a number of claims have now been made that these specifications become de facto standards with implications far beyond the initial 'limited' technical compatibility.

A number of credible bodies claim EMVCo has a “collusive relationship” with its card company owners. The claims involve a “systemic pattern by the card companies to use EMVCo to develop anticompetitive standards that protect the interests of its owners and pre-empt competition in the market that could lower costs and improve security for businesses and consumers alike.”

A serious claim, if true results in increased prices to merchants and consumers alike, as well as an inefficient payment system.

The investments in Fintech start-ups by all card associations should also warrant RBA attention. Many of these investments are in infrastructure start-ups and some will become critical in new payments.

## CREDIT CARDS – SINKING LIKE A STONE

The Australian consumer credit and charge card market is in decline with the key data all going backwards – average balance per card, revolve rate, consumer use and number of cards are all going backwards. The only growth is occurring in Corporate Cards a sector which receives little focus.

Credit card balances earning interest are now only 1.7% of consumer lending including mortgages. The share of unsecured lending has declined to 17.7% an all-time low.

### Unsecured Lending and Payments

Australia has a small unsecured credit market compared to mortgages – APRA reports 1.7 Trillion in mortgage lending and \$108 billion in unsecured lending by banks and other licensed deposit takers. The unsecured lending market includes many non-banks that lend \$55 billion to consumers and businesses and their activity is largely unreported.

These include retail store cards, conglomerate consumer cards, single purpose consumer credit offers for example - car finance, airline cards, consumer finance offers, buy now pay later, instalment loans, budget services, payday lenders, pawn brokers and traditional lending practises e.g. family loans. The size of the market and the segments is detailed below –

<b>Unsecured Lending Segments</b>	<b>Market Size 2019 A\$ billion</b>	<b>CAGR 2010-2019 %</b>
Credit cards	29.0*	- 2.0
Retail store cards	19.5	5.0
Revolving credit	10.0	6.0
Auto lending	44.0	9.0
Student loans	4.5	6.0
Personal loans	38.0	9.0
Retail instalment loans/BNPL	18.0	15.0
<b>Total</b>	<b>163.0</b>	<b>7.0</b>

\* Credit card receivables earning interest only

Source – McLean Roche

Regulation of unsecured credit falls partly under APRA, partly under ASIC while the payment policy and regulation falls under the RBA/Payments Board and the ACCC is also involved. This is extremely inefficient and cumbersome and doesn't allow the required skills and industry knowledge to be developed to ensure supervision across the entire unsecured credit market.

Consumer lending has inherent risks in the quality of lending as well as consumer rights and obligations. The number of internet offerings is staggering with little or no documentation, even less about whom the lender is and what are their bona fides, what regulation they comply with and their dispute resolution process.

The options for regulators involve building the right level of skills and market knowledge in one organisation to ensure this group has the skills to review the total industry and not the current piece meal approach.

### **Positive Credit Reporting – the Backbone for Effective Consumer Lending**

Positive credit reporting should be an essential tool, creating a vibrant, competitive consumer/SME lending market if regulators implement the correct policy settings.

Benefits exist for consumers, SMEs and lenders by providing a much deeper picture of applicant's financial health. This enables better credit decisions to be made with higher loans to SMEs and consumers with good credit history and avoids many loans made to SMEs and consumers who would be unable to service the debt.

The major banks have always had major concerns about positive credit reporting fearing it would allow competitor's access to their customer's data. The trade-off is banks stand to benefit the most from better credit decisions and gaining a 'total' view of customers who apply for credit.

The second issue is banks do not want 'risk based' pricing to start in Australia as this could increase customer churn rates. Experience in the USA and UK with positive credit reporting did allow new competitors to gain a foothold – however it also allowed existing banks to expand.

In the mid-1990s advances in technology and the internet allowed the '60 sec' loans to rapidly develop. The key requirement is each individual's credit score -- pricing of a mortgage, credit card, personal loan etc is determined by consumer's credit score, so the price is different for each consumer. In the US the credit score is called FICO (named after Fair Isaacs who invented it) which is the range of scores from bad to good.

Australia has decided on a watered down version of credit reporting – even New Zealand has gone with a broader concept. This will inhibit competition and dull the true impact full positive credit reporting would deliver.

The key policy issue is, will positive credit reporting enhance competition and will it bring new entrants into the Australian market?

### **Frequent Flyer Card Programs – Pure Greed or a Loyalty Tool?**

Since the inception of credit card links to domestic airlines in 1991, Australian consumers embarked on an initial spending spree. Diners Club and Ansett Australia

introduced the first domestic credit card program in 1991, followed by American Express in 1992 and, belatedly, the banks in 1993-1995.

From the outset, the richness of the programs attracted consumers. A Sydney-Melbourne-Sydney return flight required 17,000 points or A\$11,000 of spend. The cost to credit card companies of airline points was very cheap by international standards - 30 basis points average.

Twenty seven years on the market place has changed substantially. Costs of airline points have increased five-fold as Qantas and Virgin have used their market power – reflected in their frequent flyer customer bases 10.2 million for Qantas, 4.5 million Virgin and 2 million for international programs.

The Australian banks' love affair with airline rewards had been a feature of the card market. The concept of rewarding part of your customer base in return for "loyalty" is not new. In essence, credit cards have evolved into an unsecured loan product with customers who revolve as the prime revenue source. Airline rewards, however, appeal to high volume transactor customers - many of whom never pay interest.

With 40% of spend now made by transactors, Australian banks are in a sense rewarding the wrong customers. The major banks have limited data-mining capability needed to identify which transactors have other key relationships with their bank. This makes it difficult to target transactors and recover the ever-increasing cost of reward points.

In 2018 most frequent flyer card programs have caps on points and high annual fees – the Sydney-Melbourne return flight ranges from \$50,000 spend to a massive \$147,000 spend. Consumer interest has declined and research shows attitudes have also changed significantly – reward points are no longer a key driver.

### **Data, Data and More Data – What is Important?**

Payment regulators need to ensure they collect the right data and that it is accurate. The RBA collects and publishes data on debit cards and credit cards. There is very limited data on the other retail payment types.

Some of the data is compromised – for example Commercial Credit and Charge Cards issued under the Visa, MasterCard, Amex and Diners brands are \$66 Billion or 19% of credit card spend. The structure, usage and liability of these products includes travel spend, purchasing business items and procurement of key inventory - this spend has nothing to do with consumer spending. The notion that employees spending company money on expenses or procuring business service is somehow related to consumer spending is simply false. Therefore 19% of credit card spend is not consumer related and should not be included in RBA Consumer figures. The same issue impacts debit cards, ATM use and transfers. It simply distorts decision making and has unintended consequences when decision are made.

There are number of key data points that are not collected or made public by regulators. This includes – the number of credit and debit cards issued, average balances per card, credit losses, foreign spending by Australians and local spending by foreigners in Australia, the number and size of contactless and mobile payments and the spending across various channel types.

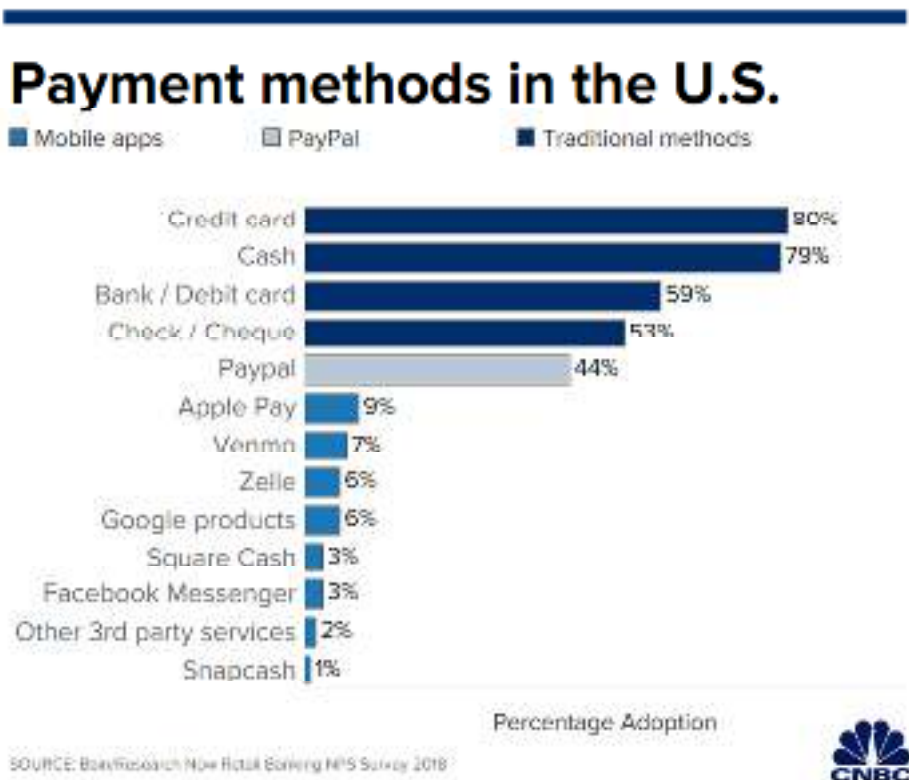
## MOBILE PAYMENTS - THE ALLURE OF SUCCESS?

Mobile wallets have been totally unsuccessful in building critical mass quickly in Australia. Attempts made by banks, card issuers, Google, Apple, Microsoft, Visa, MasterCard, American Express and the Telcos have been resounding failures in attracting mass consumer use.

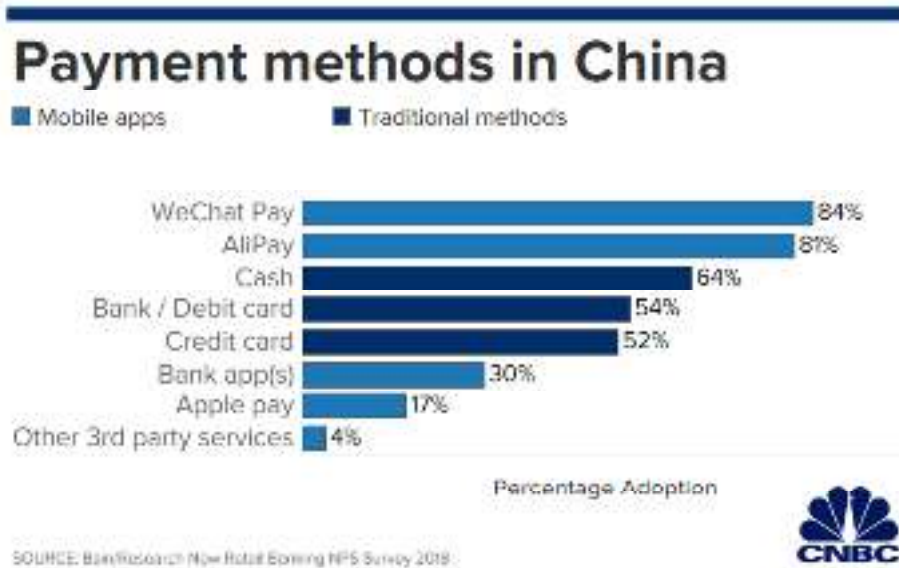
Contactless payments have quickly become the default point of sale payment, despite being 'legacy' technology, reaching 70-80% consumer usage in 7 years. Market figures for mobile wallets and contactless payments are not published nor is the total data – industry sources say mobile is less than 3% of total debit/credit card spend.

ANZs Apple Pay is a good example of the 2<sup>nd</sup> generation mobile product which is performing poorly – due to poor strategy and implementation. Apple Pay was launched 4 years ago in Australia and has underperformed. Apples market share of 38% of mobiles and the fact that 75% of existing Apple phone users couldn't use Apple Pay created dissatisfaction with many Apple consumers.

It's a similar issue in US market with all mobile options reaching a low 16% usage figure. In the USA credit cards, cash, debit cards and cheques still dominate



It is worthwhile comparing China’s mobile market structure with the USA – the differences are compelling and show considerable potential for mobile payments and cost reductions.



China's mobile payment market is the world’s largest reaching US\$41.7 Trillion in 2018/19 according to POBC figures. This is a staggering increase from US\$81 billion in 2012.

AliPay part of the Alibaba Group has 1 billion active users globally and TenPay, part of Tencent is in partnership with WeChat -- WeChat has 1.2 billion active global users 45% using payments. These two platforms share 85% of the mobile market and now threaten the government owned payment card China Union Pay as well as the bank issued debit cards.

The rapid growth in mobile in key emerging markets has been largely ignored by Western economies. Yet the figures make eye catching reading – in just 9 years China’s mobile has reached US\$41.7 Trillion while credit and debit cards combined have taken 60 years to reach annual volumes of US\$24.5 Trillion, while global auto loans and Instalments/BNPL are small by comparison.

GLOBAL SCALE – US\$ SPEND IN KEY LOAN SEGMENTS 2018

China Mobile	\$41.7 Trillion
Credit/Debit Cards	\$24.5 Trillion
Auto Loans/Leases	\$8.5 Trillion
BNPL/Instalments	\$1.2 Trillion

China Mobile is the innovative model – but a regulatory night mare which would be unlikely to be allowed in most OEDC countries. It combines payments, eCommerce, social media, games, dating, music and entertainment with a Telco in one ecosystem. In other words the China Mobile model effectively combines Visa/MC, Amazon, Facebook, EA Games, Match.com, Spotify along with Telco services – a very powerful and alluring offering which drives very high consumer involvement.



## **BUY NOW PAY LATER – ‘LAUNCH NOW COMPLY LATER’**

Buy Now Pay Later (BNPL) has been successful due to unfulfilled demand in unsecured consumer credit in Australia and New Zealand. BNPL companies exploit a legal loop hole in Australia and a passive legal position in New Zealand – yet these products lend consumers money and some consumers will default as with any loan.

RBA should find after deliberating, that BNPL contracts cannot stop retailers surcharging consumers if consistency in payment policy is to be maintained. Retailers will then surcharge to recover margins – 6% for online 4% in high street stores which is consistent with all other payment types. This will totally undercut BNPL’s claim that consumer pay no fees or charges and consumers habits will adjust as with other changes in the payment market.

A key issue for regulators is the unregulated lending and the number of young consumers who are now having their credit ratings impacted – UBS estimates 9% or 450,000 consumers have defaulted on Afterpay loans in the past 3 years. This is very high and demands urgent action by regulators before this figure reaches 1 million.

Key Trends in Australia and New Zealand --

- BNPL has no scale in Australia/NZ (ANZ) which is critical in payments - \$8.5 billion in sales after five years represents just 97 basis points (BPS) market share of \$875 billion in ANZ electronic payments. RBA figures for Australia has BNPL spend at \$6 billion which therefore NZ sales are NZ\$2.6 billion.
- BNPL targets young vulnerable consumers – many of whom are students – ASIC’s own research says nearly half (44%) consumers earn less than \$40,000 – a description of ‘bottom feeding’ lending would normally apply. ASIC research states 2 million consumers used BNPL in 2018 – 60% of users age 18- 34, with 55% of consumer saying they spent more than they could afford using BNPL. ASIC research also states 16% of BNPL consumers experience a negative impact from using the products including account cancellation.
- BNPL in Australia bad debts are 4 times higher than Europe - European bad debts range from 20 to 35 BPS of sales, in Australia/NZ range 90 to 143 BPS, with Afterpay at the top end. ANZ Bad debts in BNPL total \$97.58m in 2019 – this is 1.14% of sales. A UBS December 2019 report highlight the poor credit performance of Afterpay – “Afterpay’s losses exceed the peak credit card charge off rate of 10.5% in the USA after the global financial crisis in 2010”.

Just as concerning is UBS’s estimate that 450,000 or 9% of Afterpay customers have defaulted in the last 3 years – this has major lifestyle issues for these young consumers as their credit history will take 7 years to clear. In this period they will be unable to access most lending products such as mobile phones and unable to sign rental or car purchase agreements.

- Australian eCommerce market – Australia Post 2019 Online Report has online market at 10% of retail spend – or \$27.5B in 2018, up 24.4% on prior year. Payment types used: PayPal dominates at 48.8%, Credit Cards 24.4%, Debit Cards 15.5% and BNPL 6.7%. BNPL sales of \$1.8 billion are hardly dominantly the online market.
- Regulation – AUSTRAC – the UK OPBAS and US Department of Treasury (who enforce the Patriot Act in USA) are all reviewing BNPL. Both UK and USA laws are much more draconian than Australia or New Zealand AML Laws and enforcement.
  - ASICs own research hints at what they need to do -- regulate the sector to enforce responsible lending standards. Only Zip Money credit checks consumers applications, evaluating if they can pay for goods/services – all other BNPL's simply charge a consumers debit card, (unless they have a default) a clear demonstration of irresponsible lending.

## **OVERSEAS EXPANSION – US MARKET IS CRITICAL FOR MARKET VALUATION**

USA expansion is the major factor supporting the large BNPL market valuations. The major factors against rapid growth and high market share are: very heavy indebtedness of US millennials, their attitudes to debt, competition and the structure of the US online market. In the US market BNPL is only used for online payments.

### **Key Trends**

- US Millennials have the highest debts in the OECD world – 73 million with avg. incomes \$35,952 and net worth of just \$8000. 45% have student debt totalling \$1.5 Trillion or \$29,800 avg. (300% more than their parents) – the fastest growing and largest share of US unsecured lending.
- As a result this groups attitude to debt is totally different – debt seen as “being free of any loans or obligations”. Debit cards, p2p cash and cash dominant -- 53% get money from parents for basics, 55% have low paid jobs. Importantly 78% say they “spend money on experiences and not buying stuff” all of which is bad news for BNPL sector.
- The US online (eCommerce) market is worth \$517.6 Billion in 2018, an increase of 15%. BNPL is ‘locked out’ of 55% of this market. Amazon controls 49% of all eCommerce and doesn’t accept BNPL. Walmart next with 6%, has signed an exclusive BNPL deal with Affirm. 75% of US consumers start online searches using Amazon – 66% use the site to search for ‘new products’. Amazon would not accept BNPL unless it’s under 1% (at 1% BNPL are under water

with 1.1% bad debts). Amazon is likely to do BNPL themselves as they have done with wallets and cards.

- USA has 330 million people – 550 million credit cards and 250 million debit/ATM cards with sales of US\$6.7 Trillion in 2018 – consumers spend US\$3.6 Trillion on credit cards and US\$2.67 Trillion on debit cards. The average debt on credit cards US\$5700 – 4 times the Australian level. These payment types are well entrenched, also fast rising Peer to Peer cash such as Zelle, PayPal, Venmo, Dwolla do not exist in Australia.
- Klarna and Affirm have just launched single use prepaid debt cards, with a fixed available balance - they can be used in any online sites accepting debit cards as mobile wallets. The single use 'virtual cards' encourages wider use and both companies hope to sign more exclusive merchants as a result. Other BNPL players are being forced to respond in what could be an expensive 'arms race'.
- Affirm demonstrates how tough the US market is. Founded in 2012 by Max Levchin (a Paypal founder), seven years later Affirm has just \$2 billion in loan receivables and 5 million consumers.
- Affirm uses a FICO score of 550 or more and clearly names it's BNPL as a 'loan'. Paypal instalments also use a FICO score. Other US players Afterpay, Klarna, Sezzle, Splitit, Quadpay and Zebit do not use FICO scores; rather rely on a consumer's bank account or debit card to ensure the first payment. This sets up a potential legal battle vs current US consumer laws with Affirm and Paypal potentially lobbying for enforcement especially against foreign entrants.
- Afterpay claim 2 million US users with total US sales since May 2018 of US\$632 million – the last 6 months accounts show US\$445.5 million or US\$74.2 million per month which gives an avg. spend of \$220 for 6 months - hardly 'shooting the lights out'. UK sales are woeful – since April 2018 GDP3.1 million from ClearPay. The competition in Europe is older, bigger and has more muscle – Cetelem (BNP Paribas), Klarna, AfterPay Europe (Bertelsmann Group).
- 'Pop up' research shows low demand in USA – study in July 2019 - 10 shopping centres visited in California, Chicago and NY state – 420 millennials interviewed about online shopping and debit card use. Only one in twenty knew or used BNPL – the rest had never heard of it – while this is not scientific research – it's enough to be very sceptical.

**SUMMARY OF BNPL START-UP PERFORMANCE**

	Sales US\$	Consumers	Profit/Loss US\$	US\$ Market Cap/Valuation
Klarna	29 billion	60 million	114 million	5 billion
AfterPay Europe	3 billion	4.8 million	N/A	N/A
Affirm	6.5 billion	5.1 million	(14.9 million)	2.9 billion
AfterPay Aus	2.3 billion	4.5 million	(33.4 million)	5.2 billion

**INNOVATION IS QUESTIONABLE**

BNPL is as old as cash – instalments, lay-buy and BNPL have always been a small segment in payments. Using a mobile app is a new twist on a very old idea – the business model remains a very high volume, low margin business e.g. a \$100 sale earns \$4 in revenue with the hope of making 30 – 40 cents profit.

BNPL start-ups - Klarna Sweden founded 2005

Afterpay Europe founded 2010

Affirm USA founded 2012

Afterpay Australia founded 2015

## CRYPTOCURRENCIES

### **Cryptocurrencies have Potential – The Questions are When and If?**

There are over 2900 cryptocurrencies, most aimed at investors brave enough to invest in them and risk never getting their money back.

A cryptocurrency is defined as 'virtual' or 'digital money' which takes the form of tokens or 'coins.' While some cryptocurrencies operate in the physical world using credit cards or other payments, the large majority remain entirely intangible. The "crypto" in cryptocurrencies refers to cryptography which allows for the creation and processing of digital currencies and their transactions across decentralized ledger systems.

Cryptocurrencies are almost always designed to be 'free' from government regulation and control. As they have become more popular this foundational principal has come under question by some.

The currencies modelled after bitcoin are collectively called 'altcoins' and have often tried to present themselves as improved versions of bitcoin. While some of these currencies are easier to mine there are significant trade-offs, including greater risks of fraud, acceptance and levels of liquidity.

Excluding Bitcoin, the top 10 Cryptocurrencies provide a very useful snap shot of the sector and encapsulate many of the issues and concerns raised. Their individual stories chart to cryptocurrency journey.

### Top 10 Cryptocurrencies After Bitcoin

#### 1. Ethereum

Ethereum a decentralized software platform that enables 'smart contracts' and 'decentralized applications' to be built and run "without any downtime, fraud, control, or interference from a third party". The applications on Ethereum are run on its platform-specific cryptographic token called 'ether'. Ether, launched in 2015, is currently the second-largest digital currency by market cap after bitcoin as of January 2020, ether's market cap is roughly 1/10 the size of bitcoin's.

Ethereum value January 2020 - market cap US\$15.6 billion - per-token value of \$142.54.

#### 2. Ripple

Ripple is a real-time global settlement network that offers "instant, certain and low-cost international payments". Launched in 2012, Ripple "enables banks to settle cross-border payments in real-time, with end-to-end transparency, and at lower costs." Ripple's consensus ledger (its method of conformation) is unique in that it doesn't require mining. Ripple, claims to sets itself apart other altcoins. Since Ripple's structure doesn't require mining, it should reduce computer usage, power use and minimizes network latency.

Ripple value January 2020 - market cap US\$9.2 billion - per-token value of \$0.21.

#### 3. Litecoin

Litecoin launched in 2011, was among the first cryptocurrencies to follow bitcoin and has often been referred to as “silver to bitcoins gold.” It was created by Charlie Lee, an MIT graduate and former Google engineer. Litecoin is based on an open-source global payment network that is not controlled by any central authority and uses "scrypt" as a proof of work.

Litecoin value January 2020 - market cap US\$3.0 billion - per-token value of \$46.92

#### 4. Tether

Tether was one of the first and most popular of a group of so-called ‘stable coin’ cryptocurrencies which aim to peg their market value to a currency or other external reference point to reduce volatility. Tether and other stablecoins attempt to smooth out price fluctuations in order to attract users who may otherwise be cautious. Launched in 2014, Tether describes itself as "a blockchain-enabled platform designed to facilitate the use of fiat currencies in a digital manner."

Tether value January 2020 - market cap US\$4.6 billion - per-token value of \$1.00.

#### 5. Bitcoin Cash

Bitcoin Cash is one of the earliest and most successful ‘hard forks’ of the original bitcoin. In the cryptocurrency world, a fork takes place as the result of debates and arguments between developers and miners. Due to the decentralized nature of digital currencies, wholesale changes to the code underlying the token or coin. When different factions can’t come to an agreement, sometimes the digital currency is split, with the original remaining true to its original code and the other copy beginning life as a new version. Bitcoin Cash started in August 2017 as a result of one of these splits.

Bitcoin cash – value January 2020 - market cap US\$4.4 billion - value per token of \$240.80.

#### 6. Libra

One of the most-hyped cryptocurrencies in the category when rumours circulated in 2018 that social media giant Facebook was developing its own cryptocurrency. With Facebook’s global customer base and its platform, the cryptocurrency world had long speculated that the social media company might launch its own digital token.

Facebook released the white paper for Libra in June 2018. The tentative launch date for the token is later in 2020, as Facebook has committed to sorting through regulatory barriers before launch. Libra will be overseen in part by a new Facebook subsidiary, the financial services company Calibra. When or if Libra does launch, it will continue to receive amounts of attention and speculation.

#### 7. Monero

Monero is a secure, private and untraceable currency. This open-source cryptocurrency was launched in April 2014. The development of this cryptocurrency is completely donation-based and community-driven. Monero was launched with a strong focus on decentralization and scalability, and it enables complete privacy by using a special technique called “ring signatures.” Transactions appear with a group of cryptographic signatures including at least one real participant, but since they all

appear valid, the real one cannot be isolated. As a result of this security mechanism Monero has developed a dubious reputation and linked to criminal and operations.

Monero value January 2020 - market cap US\$994.0 million - per-token value of \$57.16.

## 8. EOS

Launched in June of 2018, EOS was created by cryptocurrency pioneer Dan Larimer. As EOS is designed after ethereum it offers a platform for developers to build decentralized applications. EOS's initial coin offering was launched in 2019 with US\$4 billion through crowdsourcing. EOS consists of EOS.IO, similar to the operating system of a computer and acting as the blockchain network for the digital currency and EOS coins. EOS differs because of it lacks a mining mechanism, producers generate blocks and are rewarded with EOS tokens based on their production rates. EOS has a complex system of rules to govern this process allowing a more 'democratic' and 'decentralized' currency.

EOS value January 2020 - market cap US\$2.7 billion and a per-token value of \$2.85.

## 9. Bitcoin SV

Bitcoin SV, with "SV" standing for "Satoshi Vision," is a hard fork of Bitcoin Cash. A planned network upgrade for November of 2018 resulted in a protracted debate between mining and developing factions in the Bitcoin Cash community, leading to a hard fork and the creation of Bitcoin SV. Developers of Bitcoin SV claim that this cryptocurrency restores Bitcoin developer Satoshi Nakamoto's original protocol, while also allowing for new developments to increase stability and to allow for scalability.

Bitcoin SV value January - market cap US\$2.1 billion - a per-token value of \$114.43.

## 10. Binance Coin

Binance Coin (BNB) is the official token of the Binance cryptocurrency exchange platform. Founded in 2017, Binance has quickly risen to become the largest exchange of its type globally. The Binance Coin token allows users to trade in dozens of different cryptocurrencies efficiently on the Binance platform. BNB is used to facilitate transaction fees on the exchange and can also be used to pay for certain goods and services, including travel fees.

Binance value January 2020 - market cap US\$2.3 billion - per-token value of \$14.71.

## **Cryptocurrency Fraud and Hacks are major concerns**


Cryptocurrencies (and their blockchains) are particularly attractive to criminals as fraudulent transactions cannot be reversed as they can be in traditional financial systems. In addition it has long been understood that just as blockchains have unique security features, they have unique vulnerabilities. Marketing slogans and PR headlines that called the crypto technology "unhackable" were simply wrong.

The number of fraud cases grew in 2019 to US\$300 million as did the amount of alleged fraud with the US\$4-5 billion OneCoin ponzi scheme and BitClub Network

US\$722 million mining scam. This activity is not limited to cryptocurrencies but certainly creates media headlines.

## Hacks on crypto exchanges in 2019



 | cointelegraph.com

source: Cointelegraph analytics



## **Cryptocurrencies as Sovereign Currencies?**

The other area of development is sovereign cryptocurrencies which has been quietly developing over the last 6 years. A number of countries and technology companies have been exploring the potential to replace cross border payments with cryptocurrencies which would avoid the need to use reserve currencies – much is yet to play out and it's a case of will the technology work and how will the geopolitical issues play out?

### **CHINA**

The crypto yuan, which may be on offer as soon as 2021, will be fully backed by the central bank of the world's second-largest economy.

The consensus is that the token will be a private blockchain, a peer-to-peer network for sharing information and validating transactions, with the People's Bank of China in control of who gets to participate. Initially the currency will be supplied through the banking system and replace some part of physical cash. That won't be difficult given the ubiquitous Chinese QR code-based digital wallets such as Alipay and WeChat Pay

The digital yuan could disrupt both traditional banking and the post-Bretton Woods system of floating exchange rates that the world has lived with since 1973.

China's "One Belt One Road" policy and its Central Bank Digital Currency could work together. The idea that the RMB will "replace" the US dollar or Euro in home markets isn't the stated goal – this is disputed.

All that has to happen is for China's Belt and Road partners to start using the digital RMB and you've got a sizeable market. Will Belt and Road countries such as Italy trust China sufficiently to engage in large scale infrastructure projects?

China isn't the first to tie development and currency together. The post WW2 Marshal plan allowed the US to export its currency. In 2018 dollars the Marshal plan is valued at \$130 Billion while One Belt One Road commitments are already over \$300 Billion.

### **SINGAPORE**

Faster cheap cross-border payment settlement is one application of JPMorgan Chase & Co.'s Quorum, an Ethereum-based platform on which the Monetary Authority of Singapore is running Project Ubin, an exploration into central bank digital money.

If blockchain technology shows promise in handling a large number of transactions simultaneously, then digital currencies could become substitutes not just for physical cash but also for bank reserves.

### **USA**

The US Treasury Department is concluding a series of tests of a blockchain-based platform which monitors and tracks grant payouts.

The agency has almost completed a proof of concept program which is planned to track letters of credit issued to recipients of financial grants. Electronic federal letters of credit are sent out to grant recipients to help track the grant payments made to grant recipients, which will be tokenized in the hopes that this strengthens the security of the transaction and provides better monitoring.

KEY ISSUES

Token transactions would be pseudonymous - if the central bank wants to see who's spending where, it can. Anonymity disappears when cash does. While that will make life difficult for money launderers and terrorists, it could also become a political issue used as tool delivering punishment and stifling political activism.

Key design features of central bank money					Table 1
	Existing central bank money		Central bank digital currencies		
	Cash	Reserves and settlement balances	General purpose token	accounts	Wholesale only token
24/7 availability	✓	*	✓	(✓)	(✓)
Anonymity vis-à-vis central bank	✓	*	(✓)	*	(✓)
Peer-to-peer transfer	✓	*	(✓)	*	(✓)
Interest-bearing	*	(✓)	(✓)	(✓)	(✓)
Limits or caps	*	*	(✓)	(✓)	(✓)

✓ = existing or likely feature, (✓) = possible feature, \* = not typical or possible feature.

That's when the game potentially changes - reserves at a central bank are maintained by deposit-taking lenders. A digital yuan — or Singapore dollar or Indian rupee — could bypass this system and allow any holder of the currency to have a deposit at the central bank, potentially making the state the monopoly supplier of money to retail customers.

But why would central banks want to demote their own banking systems?

Looking at Europe and Japan, is that negative interest rates are doing that anyway. Lenders are starved of profit because while the central bank charges them for keeping money on deposit, they can't as easily pass on those negative interest rates to their own depositors. If the global economy gets mired in long-term stagnation, official digital currencies could be one way of monetary easing without involving banks.

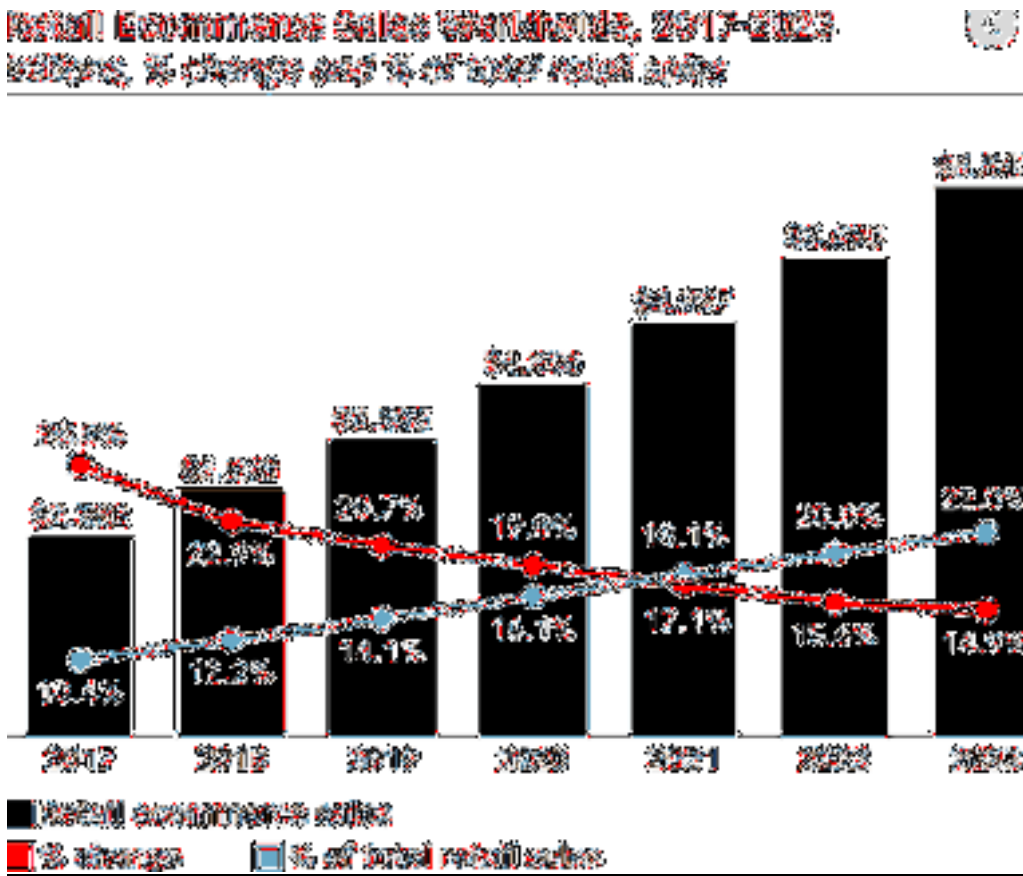
The other major issue is technological is making the status quo untenable. It's no coincidence that China hastened its national cryptocurrency after Facebook announced the Libra project. Perhaps all of this is fanciful, and as Libra has hit a wall of regulatory concerns, the changes won't end current banking and monetary arrangements.

The RBA should consider running a number of test and trials to understand the issues and build knowledge – undertaking simulations is not enough.

**eCOMMERCE IS GROWING QUICKLY AND NEEDS REGULATION**

Online purchasing or eCommerce is growing quickly in Australia and is already 10% of retail sales in Australia. The Australia Post Online Study – 2019 report estimated online sales in 2018 of \$27.5 billion and increase of 24.4% over prior year. The payment types used are: PayPal dominates at 48.8%, Credit Cards 24.4%, Debit Cards 15.5% and BNPL 6.7%.

The \$27.5 billion equates to 10% of retail spending – forward projections have online spending reaching 20-25% of retail sales in Australia by 2030. Global estimates are featured below – Australia is expected to exceed these estimates by some margin.



The payment issues in the online market are totally different than in high street retail and with new technologies and the growth expected market distortions and consumer issues will feature heavily in the next decade. Australia has a retail high street payments system therefore more innovation in payments is required to match the growth expected.

In China and the USA online markets major players dominant and this issue should be considered as a strategy and policy issue by the RBA. The total domination of any market should be avoided and real competition should be considered essential to ensure efficiencies are achieved – especially in payments.

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## Top 10 US Companies\*, Ranked by Retail Ecommerce Sales Share, 2018

% of US retail ecommerce sales

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**1. Amazon**

**49.1%**

**2. eBay**

**6.6%**

**3. Apple**

**3.9%**

**4. Walmart**

**3.7%**

**5. The Home Depot**

**1.5%**

**6. Best Buy**

**1.3%**

**7. QVC Group**

**1.2%**

**8. Macy's**

**1.2%**

**9. Costco**

**1.2%**

**10. Wayfair**

**1.1%**

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*Note: total US retail ecommerce sales=\$252.69 billion in 2018; top 10 companies' sales share=70.1% of total retail ecommerce in 2018; includes products or services ordered using the internet, regardless of the method of payment or fulfillment; excludes travel and event tickets; \*excludes privately held companies*

*Source: eMarketer, July 2018*

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[www.eMarketer.com](http://www.eMarketer.com)

The RBA needs to consider how new payment technologies can assist in the development of online payments. What roll can the NPP/Osko play in this market – both in consumer payments and business to business payments including overseas payments?

## About McLean Roche

McLean Roche is a specialist retail banking and payments consultancy established in 2001.

*Specifically, our Group specialises in the following services:*

- Strategic development and planning of retail banking and payment services
- Global research and development of payment systems
- Detailed knowledge and experience in Mobile Payments
- Advice on development of e-commerce and cyber strategies
- Identification and development of potential Strategic Partners
- Specialised assistance in the development of loyalty/reward programs
- M&A advice and detailed project work
- Product research and development
- Strategic advice, coaching and mentoring of senior executives within the financial industry

Our experience in Mobile Payments covers developed markets and emerging markets. We have also been involved with a number of the Mobile Payment vendors in North America, Europe, Asia and the Middle East/ Africa

We have assisted a number of payment and technology companies with M&A advice. This also involved in pitching to Venture Capitalists for funding as well as advising VC run companies in the US, Europe and Asia.

Grant Halverson - CEO McLean Roche Consulting with CEO experience in Financial Services and Financial Technology and has been an investor in Fintech.

Grant has 32 years' experience in payments and retail banking, has been a CEO for 23 years in 4 organisations and has held senior executive positions in Asia, Australia and New Zealand