

Towards the digital economy:
Milestones Report



**FOURTH REPORT
FEBRUARY 2015**

This paper has been prepared by the Australian Payments Clearing Association (APCA) for the purpose of reporting on the decline of cheques and the transition of the payments system towards the digital economy.



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1.0

Key Points



- Cheque use continues its steady decline, dropping 13.9 per cent in the 12 months to 31 December 2014. This compares to an 8.8 per cent increase in the use of debit and credit cards and a 7.5 per cent increase in the number of direct entry payments (debits and credits).
- Cheque value remains in flux, increasing slightly by 0.7 per cent, possibly reflecting continued higher value cheque use by businesses and for property settlement. This compares with a 6.2 per cent increase in the value of debit and credit card payments and a 4.8 per cent increase in the value of direct entry payments.
- The 2014 Reserve Bank of Australia's evolution of payment costs study confirms that cheques are the most costly form of payments for the community.
- Alternative options to cheques, and cash to some degree, will be bolstered by the New Payments Platform and the ever increasing availability of mobile and contactless payment options.
- Cash use continues to decline. In the 12 months to 31 December 2014, there were 741 million withdrawals made from ATMs around Australia, as compared to 778 million from the previous year, representing a 4.8 per cent drop.
- In terms of value, the total amount withdrawn from ATMs in the 12 months to 31 December 2014 was \$143 billion, as compared to \$146 billion for the previous period – a 2.1 per cent decrease.
- Areas that traditionally used high volumes and values of cheques – superannuation and property settlement – are implementing processes that will move many transactions online, providing for more efficient online payments.
- The Australian Payments Council is undertaking a comprehensive review of the future of payments through an Australian Payments Plan which will look at legacy payments, innovation and technology in payments.
- The Financial System Inquiry Final Report identified innovation as a key theme and has made a number of recommendations to Government that should promote digital payment options.



The Australian Payments Clearing Association (APCA) began issuing Milestones Reports in 2013 following an extensive review into the future of cheques.¹ This review, *The Decline of Cheques: Building a Bridge to the Digital Economy* (the Bridge Report), which involved widespread community consultation, led to a series of recommendations APCA believed would enhance the development of a payments system that would contribute to the digital economy. The review included a commitment by APCA to monitor the development of the digital economy through regular Milestones Reports that would chart the transition from legacy paper-based payments to electronic, online payments.

The Bridge Report identified a number of areas where progress was needed to ensure there were adequate replacements for cheques, including:

- Payments innovation, giving us, for example, instantaneous and confirmed transfer of data-rich value, particular via mobile payments;
- Regulatory recognition and government promotion of electronic payments; and
- Developments in areas traditionally heavily reliant on cheques such as property settlement and superannuation.

The past year has seen many significant initiatives in the payments system that will greatly promote the development of this digital economy.

On an industry level, the newly created Australian Payments Council has endorsed the development of an Australian Payments Plan that will identify the future of payments and ensure that the payments industry is prepared for innovation. The New Payments Platform has moved into its next phase “design, build and test”, with the aim of offering data-rich, near-real time payments in 2017.

On a national level, the Financial System Inquiry (FSI) Final Report emphasised the importance of technological advancements and innovation in financial services and endorsed the view expressed by APCA in its Bridge Report that greater efforts should be made to make regulations technologically neutral by, for example, addressing legislation that refers to payments by cheque. The FSI Final Report also identified the need to promote collaborative innovation, streamline aspects of payments regulation and address issues such as digital identity and cyber-security, all of which should support the growth of digital payments.

In this edition, given our interest in new and alternative forms of digital and online payment alternatives, we also look briefly at digital currency, an area that lately attracted interest following a recent Senate Inquiry.

APCA will continue to publish Milestones Reports on a regular six monthly basis.

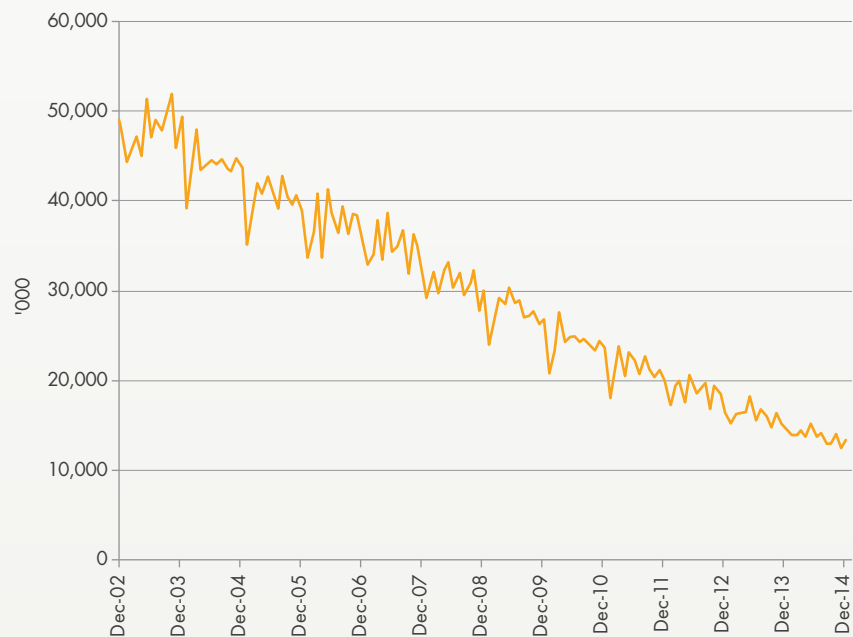
1. <http://www.apca.com.au/docs/cheques/decline-ofcheques.pdf>



3.1 Cheque Volumes

APCA has continued to chart the decline in the use of cheques in Australia, and this decline shows no sign of abatement. Between the years ending December 2013 and December 2014, the number of cheques being used dropped from 194 million to 167 million – a 13.9 per cent fall (compared to 13.3 for the similar period between December 2012 and December 2013). Between June 2002 (when this data series began) and December 2014, monthly cheque use has dropped by 71 per cent.

Figure 1: Monthly Cheque Volumes December 2002 – December 2014



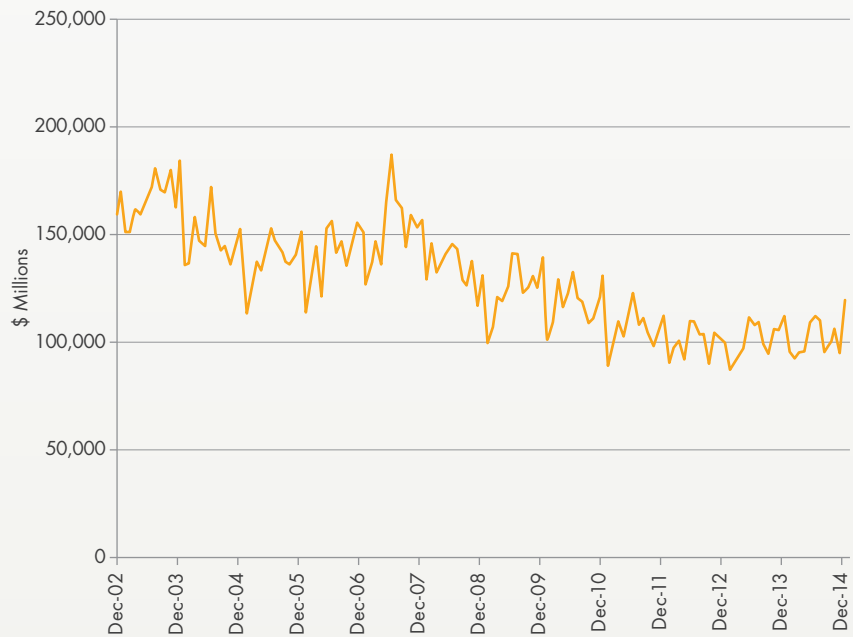
Source: Reserve Bank of Australia

3.2 Cheque Values

Cheque values continue to defy volume decline, reflecting the fact that while fewer cheques are being written, larger value amounts are being exchanged (suggesting continued use by the business community and for property exchange).

Between the years ending December 2013 and December 2014, cheque values rose from \$1,220 billion to \$1,228 billion – a 0.7 per cent increase. Overall, the trend indicates that cheque values have continued to decline, with a 25 per cent drop in monthly values since the current data series began in January 2002.

Figure 2: Monthly Cheque Values December 2002 – December 2014



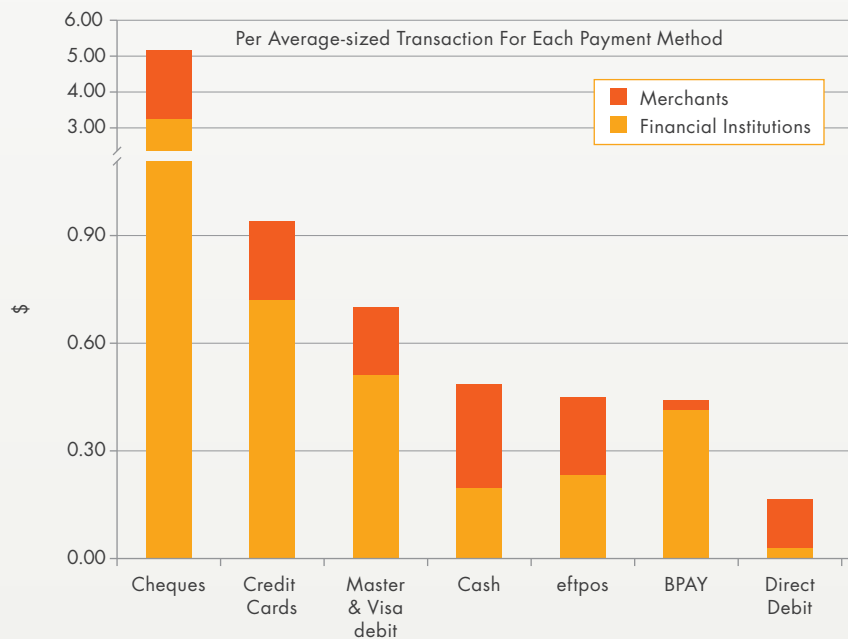
Source: Reserve Bank of Australia

3.3 The Cost of Cheques

In December 2014, the Reserve Bank of Australia (RBA) released new research on payment costs. The research, based on data collected from financial institutions, businesses and consumers, sought to document both “resource costs” (the costs to the whole economy) and “private costs” (the costs borne by consumers, merchants and financial institutions respectively). The research explores the relative costs of various payment methods by comparing the costs based on the average-sized transaction for each method.²

On this basis, cheques proved to be the most expensive payment method. For an average-sized transaction, the resource cost of a single cheque was \$5.37. While this represents a modest decline from the \$5.79 recorded in the RBA’s 2006 research, the relative cost of cheques far outstrips that of most other payment methods.

Figure 3: Direct Resource Costs of Various Payment Methods



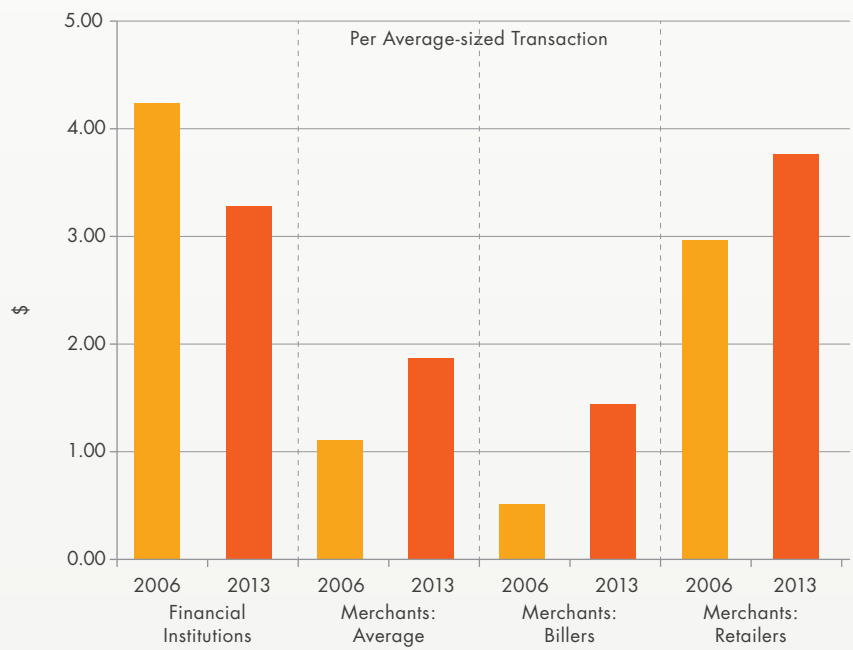
Note: Payment Function Only

Source: Reserve Bank of Australia

2. RBA: The Evolution of Payments Costs in Australia, <http://www.rba.gov.au/publications/rdp/2014/pdf/rdp2014-14.pdf> at page i.

The RBA research also notes that while financial institutions have been able to reduce their cheque resource costs through back office efficiencies, cheques have become increasingly expensive for merchants (see figure below).

Figure 4: Resource Costs of Cheque Payments



Source: Reserve Bank of Australia

3.4 International Trends in Cheques

In December 2014, the Bank for International Settlement (BIS) released its 2013 payment statistics for 23 developed and developing countries. Overall, there was a 10.9 per cent decline in cheque volumes between 2012 and 2013. This represents the most significant percentage decrease in global cheque volumes ever recorded in the BIS statistics.³

Much of the decrease is due to a significant decline in the most important cheque market in the world – the United States of America. The 11 per cent decline in cheque volumes from 2012 to 2013 was the largest percentage decrease in US cheque volumes since the BIS began reporting on that basis since 2001. However, there are still 16 billion cheques being written in the US every year – which represents two-thirds of the total cheques recorded in the 23 countries – and cheques still make up 13.3 per cent of all non-cash payment volumes in the US.

Other countries that have historically been heavy users of cheques, such as France and Canada, are seeing similar declines. France experienced a 12.5 per cent decline in cheque volumes – its largest decline ever recorded – though cheques still make up 13.6 per cent of non-cash payment volumes in France. Canada saw a decline of 8 per cent in cheque volumes from 2012 to 2013.

Other countries, that have made investments in near-real time payments infrastructure in recent years, such as the United Kingdom and South Africa, are seeing even most dramatic declines in cheque volumes. South Africa had more than 20 per cent per year decline in cheque volumes between 2010 and 2013. In the UK, cheque volumes declined by 15.3 per cent between 2012 and 2013. In 2013, 718 million cheques were used in the UK, about half of what was used in 2008.

3. <http://www.bis.org/cpmi/publ/d124.pdf>



4.0

Cash Usage



In 2014, APCA released a study into the use of cash which predicted that while cash would remain an important method of payment, its use in retail payments would decline significantly in the near future as more payment choices offering greater convenience become available to consumers.⁴

A useful source of data on the use of cash is the number of withdrawals from ATMs. In the 12 months to 31 December 2014, there were 741 million withdrawals made from ATMs around Australia, as compared to 778 million in the previous year, representing a 4.8 per cent drop.

In terms of value, the total amount withdrawn from ATMs in the 12 months to 31 December 2014 was \$143 billion, as compared to \$146 billion in the previous period – a 2.1 per cent decrease.

Internal figures obtained by APCA indicate that cash reserves held by banks remain high, while cash purchases from the RBA remain relatively low, indicating little turnover in cash.

The RBA payments cost research⁵ notes that identifying the cost of cash is difficult given its widespread use and the absence of a centralised ledger or record-keeping. However, the research does find that the resource cost for an average-sized cash transaction has increased from 41 cents in 2006 to 51 cents in 2013. This is the only payment method that saw an increase in its resource cost. The cost of cash has increased for both financial institutions (particularly due to the costs associated with branch withdrawals) and for merchants (particularly due to the tender time associated with a cash transaction).

Collection of international data on cash use is similarly challenging. Recent research which looks at payment diary data from seven countries, including Australia, has found some interesting trends.⁶ The research notes, that across all seven countries, the widespread use of cash for lower-value transactions is due to its acceptance, cost and ease of use. However, there is variability between the countries as to the alternatives to cash for higher-value transactions (for instance, greater credit card use in North America as opposed to Europe). Merchant acceptance of alternatives to cash appears to be a critical factor, with higher levels of card acceptance at point-of-sale linked with lower levels of cash usage across countries. The key learning is that while cash use will remain, investment in alternatives can reduce its overall use.

⁴ "The Evolution of Cash", <http://apca.com.au/docs/policy-debate/evolution-of-cash.pdf>

⁵ Op cit., <http://www.rba.gov.au/publications/rdp/2014/pdf/rdp2014-14.pdf> at page 12.

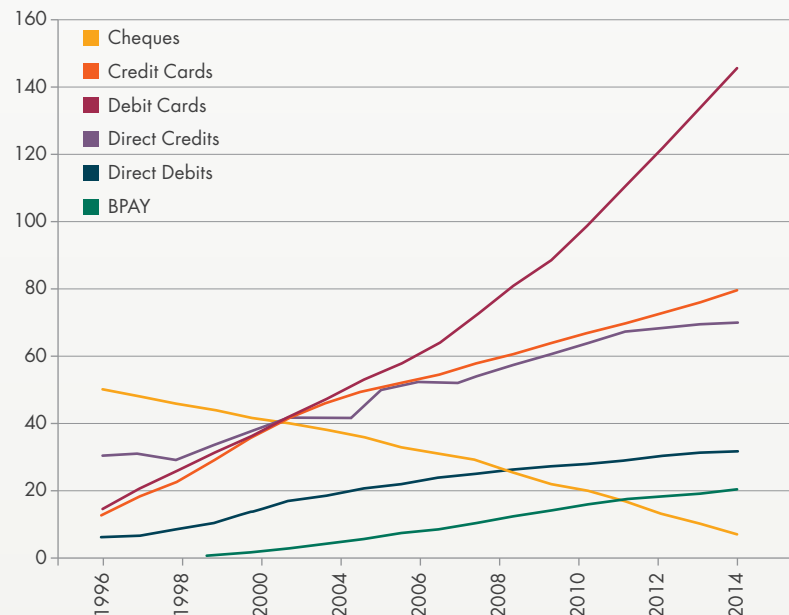
⁶ <http://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1685.pdf>



Australian payments statistics continue to indicate a strong preference by consumers for the use of cards and other electronic payments and a decline in the use of cheques.

For example, debit card and credit card payments grew by 8.8 per cent in volume and 6.2 per cent in value in the year ending December 2014. Direct entry payments (debits and credits) grew by 7.5 per cent in volume and 4.8 per cent in value over the same period.

Figure 5: Volume of Australian Non-Cash Payments per Head of Population 1996 – 2014



Source: Reserve Bank of Australia/APCA

5.1 Online retail

The latest NAB Online Retail Sales Index indicates that year-on-year, online sales increased by 3.3 per cent to October 2014 (although the report did note a slowing in figures towards the end of the period).⁷

7. <http://business.nab.com.au/wp-content/uploads/2014/12/Online-Retail-Sales-Index-monthly-update-%E2%80%93-November-2014-PDF-57KB.pdf>

5.2 Smartphone use

According to a recent survey by Deloitte, 81 per cent of Australians now own a smartphone, a 21 per cent increase over the last three years.⁸ Globally, it is estimated that there are 1.75 billion smartphone users.⁹ The table below indicates that this figure will continue to grow.

Figure 3: Smartphone Users and Penetration Worldwide 2012 – 2017

	2012	2013	2014	2015	2016	2017
Smartphone users (billions)	1.13	1.43	1.75	2.03	2.28	2.50
–% change	68.4%	27.1%	22.5%	15.9%	12.3%	9.7%
–% of mobile phone users	27.6%	33.0%	38.5%	42.6%	46.1%	48.8%
–% of population	16.0%	20.2%	24.4%	28.0%	31.2%	33.8%

Note: individuals of any age who own at least one smartphone and use the smartphone(s) at least once per month

Source: eMarketer, Dec 2013

This will inevitably affect the use of smartphones for banking as more people have access to online banking through their smartphone. Banks are already taking advantage of this by offering more capabilities for their smartphone apps. One local bank has introduced the ability to use smartphones to withdraw funds from ATMs.¹⁰ Another has introduced fingerprint access to online banking for users of smartphones with this technology.¹¹

8. <http://www2.deloitte.com/content/dam/Deloitte/au/Documents/technology-media-telecommunications/deloitte-au-tmt-media-consumer-survey-2014-011014.pdf>

9. <http://www.emarketer.com/Article/Smartphone-Users-Worldwide-Will-Total-175-Billion-2014/1010536>

10. http://www.afr.com/p/technology/cba_to_introduce_smartphone_atm_OzRa0xpnJ7sUnUAKVm3b6L

11. <http://www.theage.com.au/it-pro/business-it/westpac-launches-fingerprinting-access-for-online-banking-on-ios-and-android-devices-20141205-120yr9.html>



6.0

Updates on Industry and Stakeholder Initiatives



The APCA Bridge Report identified a number of important milestones that would indicate how digital forms of payments are evolving, enabling the provision of greater alternatives to legacy payments systems such as cheques.

6.1 New Payments Platform

The New Payments Platform (NPP) is a major industry initiative to develop new national infrastructure for fast, flexible, data rich payments in Australia.

On 2 December 2014, the NPP Program reached an historic milestone. Twelve leading authorised deposit-taking institutions (ADIs) committed funding for the build and operation of the NPP. These institutions became the founding members of NPP Australia Limited – a new industry mutual company set up by APCA to steer the NPP Program going forward.

NPP Australia also signed a 12-year contract with global provider of secure financial messaging services Society for Worldwide Interbank Financial Telecommunication (SWIFT) to design, build and operate the basic infrastructure. SWIFT was appointed the successful vendor by the NPP Program following a highly competitive global tender process.

The establishment of NPP Australia and the appointment of SWIFT marked the launch of the Program's third phase, "design, build and test". The NPP is expected to be operational in the second half of 2017.

6.2 Digital Cheque Imaging

One of the recommendations arising out of the Bridge Report was that APCA investigate ways to make cheque processing more efficient in order to try and reduce the operational costs of providing cheques.

APCA has undertaken an investigation into digital cheque imaging which would reduce many of the operational costs associated with processing cheques, such as the physical transportation of cheques. This involves digitising physical cheques and allowing for the transmission of cheque images electronically. This process is due to be implemented prior to June 2015.

6.3 SuperStream

SuperStream is a government reform aimed at improving the efficiency of the superannuation system. Under SuperStream, employers must make super contributions on behalf of their employees by submitting data and payments electronically in a consistent and simplified manner. This initiative will displace the use of cheques in superannuation, a sector heavily reliant on paper.

Employers with 20 or more employees have until 30 June 2015 to meet SuperStream requirements for electronic contributions, while those employers with 19 or fewer employees have until 30 June 2016 to meet the SuperStream requirements. Employers have been able to voluntarily adopt the SuperStream from 1 July 2014, if ready.

6.4 E-Conveyancing

Electronic conveyancing – e-conveyancing – will mean that property settlement and transfer of funds can take place online in a streamlined process that will preclude the necessity for face-to-face physical transfer of documents and settlement of cheques. Australia is well advanced in implementing this process through a joint venture company called Property Exchange Australia Limited (originally known as National e-Conveyancing Development Limited), or PEXA Ltd, owned by a number of State governments as well as a number of financial institutions.

The ability to perform lodgements and financial settlements online will commence for all property lawyers and conveyancers in NSW and Victoria from February 2015 and for Queensland and Western Australia from May 2015, with other States to follow.

It is expected that this will impact on the volume and value of cheques in the future.

6.5 Government Policies

APCA has been continuing to engage with the Federal Government on ways to encourage the use of electronic payments across government departments. The Financial System Inquiry (FSI) Final Report released on 7 December 2014 recommended that the Government make regulations technologically neutral.¹² This was an issue APCA first raised in relation to payments in its Bridge Report, where it identified legislation which made reference to cheques as the sole form of payment and sought an approach to deal with this issue. APCA raised concerns that referencing legacy payment methods such as cheques in legislation may cause dysfunctions in the payments system should these payment methods cease to be used in the future.

The FSI Final Report also identified the need to promote collaborative innovation, streamline aspects of payments regulation and address issues such as digital identity and cyber-security, all of which should support the growth of digital payments.

APCA also continues to advocate for a whole of government approach to payments to ensure electronic payments are supported and encouraged across all government departments.

It is noted that departments such as the Australian Tax Office and the Department of Human Services have taken steps to promote the use of electronic and online payments through the facilitation of online services. The NSW Government has introduced a comprehensive Information and Technology Communications (ITC) policy which encompasses Digital +, a proposal to promote the digital economy.¹³

12. <http://fsi.gov.au/publications/final-report/appendix-1/>, Recommendation 39.

13. <http://www.finance.nsw.gov.au/ict/sites/default/files/resources/Digital%2B%20NSW%20Government%20ICT%20Strategy%20Update%202014-15.pdf>



7.1 Australian Payments Council

The Australian Payments Council (APC) is a new industry coordination body that will foster the ongoing development of the Australian payments system to ensure it continues to meet the changing needs of Australian businesses and consumers with innovative, secure and competitive payment services.¹⁴

It will coordinate industry efforts to drive the strategic agenda for the Australian payments system, working closely with the Reserve Bank of Australia (RBA), and will engage directly with the RBA's Payments System Board (PSB). The APC has been established with the support of APCA and the RBA, following close consultation with payments industry stakeholders.

The inaugural meeting of the APC was held on 30 October 2014, followed by the first meeting of the Payments Community on 4 December 2014. The APC decided that one of its first activities will be the development of an Australian Payments Plan.¹⁵ While the parameters of the Plan are yet to be finalised, some of the issues it will cover include a review of legacy payment systems such as cash and cheques as well as enabling the development of new payment technologies.

14. More information about the Australian Payments Council can be found at www.australianpaymentscouncil.com.au

15. See discussion at <http://australianpaymentscouncil.com.au/wp-content/uploads/2014/12/Payments-Community-Update-December-2014.pdf>

7.2 Digital Currency

Digital Currency has been attracting a great deal of interest recently, coinciding with a Senate inquiry into this area in December 2014. The following is an excerpt from APCA's submission to the inquiry.¹⁶

Emergence of Digital Payments

More than 80 per cent of Australian currency is already digital – it exists and is transferred only in electronic dematerialised form between accounts with authorised deposit-taking institutions. This is the largest component of what is defined as “narrow money” – banknotes and coins, as well as balances which can immediately be converted into currency or used for cashless payments, i.e. overnight deposits. Only a small percentage is ever converted into physical form. As recent APCA research shows, cash as a means of payment is of declining importance in the Australian economy.

Based on Reserve Bank of Australia research for 2013, cash and cheques combined constituted only 20 per cent of consumer payments value while two-thirds of the consumer payments value was electronic and card-based. Australians are amongst the strongest adopters of contactless payments and mobile banking and now among the most frequent users of card and electronic payments in the world.

Electronic (including card-based) payments offered through the established payments systems are particularly reliable, efficient and secure when compared to other forms of payment such as cash and cheques. APCA believes the digitisation of payments is critical for enhancing overall economic efficiency and supporting the evolution of the digital economy for the benefit of all Australians.

16. <http://www.apca.com.au/docs/2014-submissions/submission-on-inquiry-into-digital-currency.pdf>

Digital Currency

In this sense, digital currency is merely another method for making a digitised payment – with some perceived technological advantages but subject to other limitations associated with use of a private currency, such as stability of value and acceptance. The block chain technology and open ledger systems used by many digital currencies potentially offer opportunities for further innovation, including new ways of issuing, holding and transferring financial assets.

Bitcoin is the best known example of digital currency, but there are over 500 different types of currencies at last count, not including loyalty schemes.

It is important to recognise two separate elements here: the block chain technology used to process transactions and the operating/administrative service exploiting this technology (in this case, Bitcoin). The technology has the potential to provide innovative payments solutions in the future and is open source – available to anyone without cost. The operating or administrative services that process digital payments such as Bitcoin are a separate element akin to an overlay service – and there are a number of different services currently operating (Bitcoin being the dominant service at the moment).

The Future of Digital Currency

In the domestic payments system, virtual currency operates similarly to foreign currency with fluctuating values independent of our domestic system.

One such challenge is that the utility of a digital currency, as with other currencies, depends on its use, acceptance and stability. If a single digital currency effectively replaced multiple national currencies, then its use and acceptance could potentially be greater than a national currency, leading at least theoretically to greater economic utility.

On current evidence this seems a very long way off, and of course beyond the control or influence of any one national authority. Instead, there appears to be a proliferation of competing digital currencies of limited reach and uncertain value stability and it is difficult to see large economic utility arising from such a situation. At this stage, it is unlikely that digital currency will impact greatly on Australian payments in the short to medium term, but the technology behind it may provide impetus for further innovation.



8.0

Conclusion



The continuing decline in cheque use indicates that both the government and the industry need to consider the possible future of a world without cheques. Cheques are far more costly and less efficient than other means of payment, less people are using and accepting them and the cost of providing them is increasing – ameliorated to some degree by industry action to digitise cheques.

In our Bridge Report we recognised that the payments industry needed to ensure that there were adequate alternatives in place as cheques disappear.

Enhanced mobile payments, electronic conveyancing and the New Payments Platform are three developments that will ensure the gaps identified by APCA in the Bridge Report in providing alternatives to cheques are progressively being addressed.

APCA will continue to work with the industry, members, the government and the community to ensure that viable alternatives to legacy payments continue to evolve. This will include continuing to provide education on the benefits of a digital economy and working to ensure innovations such as the New Payments Platform provide consumers with greater choice in payments.

The Australian Payments Council is embarking on a comprehensive roadmap for payments which will include consideration of how we deal with cheques as they continue to decline in use and there will be widespread community consultation on this issue. The Final Report of the Financial Systems Inquiry recognises the importance of technological neutrality in financial services, and this provides a welcome recognition of the need to ensure legislation keeps pace with technological advancements in payments that will replace the need to rely on cheques.

