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The Australian Payments System – What’s Your Viewpoint?

Each country’s payments system is the basic plumbing of its economy. It includes the instruments, rules and systems that enable payment service providers to offer their users ways to pay and be paid. It ranges from five cent coins to multi-million dollar high value payments to the cards and online payments we use every day.

The payments system necessarily touches everyone, every day: individuals, community bodies, businesses (particularly retail businesses) and governments. Getting the payments system right enables greater prosperity over the long run.

The Australian Payments Council has been established by the payments industry to provide strategic direction for the Australian payments system. Its first major undertaking is an Australian Payments Plan, due in late 2015. The Plan will establish a roadmap for industry collaboration to improve the Australian payments system in coming years.

To shape the Plan, the Council is now seeking your views on what we need from our payments system, and what we will need to do in the coming 10 years. More information about the Australian payments system can be found on the websites of the Reserve Bank of Australia and the Australian Payments Clearing Association.

What should we do together over the next 10 years to get the payments system we need?
We would welcome responses to the following questions set out in this consultation paper.

**Question 1:** Do Resilience, Efficiency, Accessibility and Adaptability as discussed in Section 2 address the desirable characteristics for the Australian payments system? Are there other characteristics that are more appropriate? Why?

**Question 2:** Are there any other current trends, aside from those outlined in Section 3, we need to take into account in developing the Australian Payments Plan?

**Question 3:** What are your views on “digital disruption” being the primary force for change affecting Australian payments over the next 10 years?

**Question 4:** What are your views on our forecast of longer-term trends for Australian payments, outlined in Section 4? Are there other factors to consider?

**Question 5:** To achieve the desirable characteristics for the payments system in the next 10 years, what should the Australian payments industry consider doing collaboratively on issues such as:
- digital identity, combatting fraud and network support?
- managing the range of payment systems (including the future of cheques and direct entry)?
- ensuring users have the information they need to make informed decisions in a complex market?
- ensuring the domestic regulatory framework / standards setting remains responsive?

**Question 6:** What else might the industry do collaboratively to achieve the desired characteristics??

Interested parties are invited to provide their viewpoints by Friday 3 July 2015. Detailed information on how to make a submission is provided on page 18 of this Consultation Paper.
2 Objectives for the Australian Payments System

The users of payments span the entire community and can be summarised as including:

- Individuals;
- Community groups, such as charities, educational institutions and clubs;
- Businesses, including retail merchants; and
- Governments at all levels.

These user groups are in turn supported by three groups of industry stakeholders:

- **service providers** such as banks and other payment organisations who offer services to payment users;
- **operators**, examples of which would include Visa, MasterCard, American Express, eftpos and BPAY, who provide the payment networks that link service providers and / or users with each other and often define certain payment services; and
- **infrastructure providers**, who administer common elements of the payments system, often used by multiple payment networks and services, such as the Reserve Bank of Australia settlement infrastructure.

The diagram below presents a simple conceptual model of a modern payments system.
A “good” payments system is one where all these elements integrate to meet the needs of users and industry stakeholders alike as well as the economy.

The payments system touches everyone every day. Getting it right enables greater prosperity over the long run.

The Council proposes that the desirable characteristics of a payments system can be summarised under Resilience, Efficiency, Accessibility and Adaptability.

Often, the structure and technology of a payments system will need to strike a balance between particular characteristics. For example, high resilience might be achieved through strict licensing requirements on operators and service providers, but this is likely to reduce accessibility by excluding some organisations who would otherwise offer those services.

Further explanation of the four desirable characteristics is provided in the table on the next page.

The Council proposes that this set of characteristics could be used to assess the Australian payments system as it is currently evolving, and also to assess the desired long term trajectory.

**Question 1:** Do Resilience, Efficiency, Accessibility and Adaptability as discussed in Section 2 address the desirable characteristics for the Australian payments system? Are there other characteristics that are more appropriate? Why?
<table>
<thead>
<tr>
<th>DESIRABLE CHARACTERISTICS</th>
<th>RESILIENCE</th>
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<tbody>
<tr>
<td>Stability</td>
<td>Payments infrastructure is certain and predictable and provides a basis for delivery of well-defined and valued payment services to users through operators and service providers.</td>
</tr>
<tr>
<td>Reliability</td>
<td>Payment services are available when users and service providers want them, and outages are minimised.</td>
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<tr>
<td>Security</td>
<td>The system is structured to protect against unauthorised access to value and data.</td>
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<tr>
<td>Resource allocation</td>
<td>Finite system resources are allocated for maximum stakeholder value.</td>
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<tr>
<td>Sustainability</td>
<td>Operators and service providers are able to develop and maintain sustainable business models.</td>
</tr>
<tr>
<td>Integration</td>
<td>Standardised, automated processes and straight-through processing minimise cost and risk.</td>
</tr>
<tr>
<td>Liquidity</td>
<td>Money circulates rapidly at minimal friction cost.</td>
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<table>
<thead>
<tr>
<th>EFFICIENCY</th>
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<td>Ease of access</td>
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<td>Competitiveness</td>
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<th>ACCESSIBILITY</th>
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<td>Openness</td>
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<td>Innovation</td>
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<tr>
<td>Cooperation</td>
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<tr>
<td>Regulatory certainty</td>
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</table>
Current Trends in Australian Payments

3.1 Australian Payments Snapshot

Australia has one of the most developed and dynamic payment systems in the world. We are one of the most highly banked nations – it is estimated that 99 per cent of the population over the age of 15 has an account with a financial institution. In 2014, 82 per cent of those over the age of 15 used a debit card to make a payment, and 56 per cent used a credit card.

Australian payments are also secure, with payment fraud levels in Australia comparing well with other jurisdictions. For example, in 2013 the rate of fraud on all Australian-issued payment cards was 49c in every $1,000 transacted, which is below the United Kingdom average of 74p in every £1,000 transacted.

The major Australian payment networks and methods are cash, cards, cheques, bulk electronic payments (direct entry) and high value. The vast majority of value ($100 billion per day) passes through the high value system, with most of the remaining value passing through the direct entry system ($45 billion per day).

By contrast, the vast majority of volumes are in cash, estimated at 30 million transactions per day, followed by cards, approximately 15 million transactions per day.

Figure 1: Distribution of Non-Cash Payments in Australia, by Value, May 2014
3.2 The Shift from Paper to Electronic Payments

In trend terms, Australian consumers and businesses have an increasing preference for the use of cards and electronic payments (Figure 2). Research from the Reserve Bank of Australia (RBA) notes that cash as a share of all payments fell from 69 per cent in 2007 to 47 per cent in 2013.\(^5\)

From 2002 to 2014, cheque use dropped by more than 70 per cent.\(^6\) The number of cheques per capita in Australia was nine in 2013, less than similar markets such as Canada (20) and the United Kingdom (11).\(^7\)

In 2014 alone, cheque use dropped by 13.9 per cent. By contrast, the number of debit card and credit card payments grew by 8.8 per cent and direct entry payments by 7.5 per cent.\(^8\)

Figure 2: Volume of Australian Non-Cash Payments per Head of Population

Australia is recognised as a leading market in the shift to electronic and card-based payments.\(^9\) The McKinsey Global Payments Map (Figure 3) locates Australia among the top countries in terms of the adoption of electronic and card-based payments.

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3.3 New Technologies

Like other industries, payments have been impacted by a wave of technological innovation. Australians are rapidly embracing new forms of payment such as contactless (“tap and go”) cards, which enable cardholders to simply tap their card against the terminal to complete a transaction.

According to an RFI report released in May 2014, Australia has the highest rate of contactless usage per capita in the world, with 43 per cent of consumers using contactless cards regularly, on average 7.3 times per month. Visa has reported that, as of January 2015, 60 per cent of all Visa face-to-face transactions in Australia are contactless.


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Where historically most retail payments were face-to-face, increasingly Australians are making payments online. Analysis of RBA research on payments use in Australia notes that about 40 per cent of credit card values are now “card-not-present”, with the vast majority of that being online.  

This growth is linked to the rise of online shopping and use of smartphones. Smartphones have revolutionised our lives – providing connectivity, mobility and enormous choice through apps. Australians now access online banking and payment apps through their smartphones – enabling the phone to replace the physical card or to provide an alternate means of making or accepting a payment. Initiatives such as Apple Pay and LoopPay will further link smartphones and payments. “Wearable” technology, such as smartwatches, are also changing the consumer experience.

Online shopping and smartphone use are not confined to the technologically savvy. According to NAB’s Online Retail Sales Index, in 2014, Australians spent up to $16.4 billion online. This represents about 6.8 per cent of total retail spending. According to Visa, 43 per cent of Australians shopped online using their smartphones in 2014. Overall, 92 per cent of all Australians have shopped online.

The way we access and authenticate payments is also being revolutionised by biometrics. Already, it is common for us to access our smartphones and banking apps using fingerprint technology. Initiatives, such as tokenisation which replace a card number with a “token”, use technology to provide a more secure payments environment.

Even more radical innovations are being opened up by technology including new digital currencies such as Bitcoin. The blockchain technology that supports these digital currencies opens up new opportunities for making efficient online payments, though concerns remain around the sustainability of Bitcoin and some of its imitators. The current volume of Australian digital currency transactions is negligible.

In this environment, financial institutions, other payment providers and a range of new “fintech” entrants in Australia offer a wide range of innovative ways to pay through smartphones and online.

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12. APCA Views and News.
13. NAB Online Retail Sales Index.
3.4 Infrastructure Developments

Infrastructure is the platform that links service providers and operators to develop their offerings which consumers, businesses and government use to make and receive payments.

**PINwise**

Australia has moved to the chip and PIN for credit and debit cards at point of sale, providing greater security than signatures. As of August 2014, signatures were phased out for most domestic point of sale card transactions.

**Faster Settlement**

In response to the RBA’s 2012 Strategic Review of Innovation in the Payments System, same day settlement for the direct entry system was implemented by industry and the RBA in late November 2013. Financial institutions are now better able to provide their customers with faster access to funds without settlement risk.

**The New Payments Platform**

Also in response to the RBA’s Strategic Review, the New Payments Platform (NPP) is currently being developed collaboratively by eleven Australian financial institutions and the RBA. It will provide a versatile, fast and data rich payments platform for the future that can connect all authorised deposit-taking institutions in a standard way and allow them to process fast payments from one account to another. As well as making payments processing much faster, the NPP will allow for more data to be included with the payment and support a diverse range of payment products and services for consumers and businesses. The NPP is anticipated to be operational in 2017.

![A “good” payments system is one where the elements integrate to meet the needs of users and industry stakeholders alike as well as the economy.](image)

**PEXA and SuperStream**

PEXA (for property settlement) and SuperStream (for superannuation contributions, roll-overs and benefits) also represent recent initiatives in Australia to better automate business and payment processes through the adoption of industry standards and new technology. Linking additional data with the payment not only embeds the payment within the economic activity but also creates additional value for the parties involved.
3.5 Globalisation

As national payment systems are increasingly interconnected, the evolution of the Australian payments system has been affected by international developments. This means that important elements of the Australian system, such as message formats and workflow, must conform to international requirements and expectations.

Global Developments in Card Payments

The major card schemes are globally interoperable, so the evolution of card payments tends to follow global rather than domestic trends. Card transactions are increasingly reliant on chip and PIN and new network technologies such as contactless terminals are being rolled out globally. In line with this, card fraud trends follow global vectors with fraud on Australian cards increasingly occurring offshore rather than domestically. As well, card regulation is increasingly following global trends, illustrated by the consideration of interchange fees, surcharging and routing in many jurisdictions around the world.

Users are demanding efficient cross-border payments and increasingly expect global interoperability.

New Domestic, Regional and Global Infrastructures

Australia’s NPP can be seen as part of a wider trend towards development of new fast payment services and infrastructures. One of the earliest examples was the UK Faster Payments, which began in 2008, and now supports a number of online and mobile services. Singapore, Poland, Mexico and a number of other countries now have near-real time services, while the United States, Canada and the European Union are also looking at this type of innovation.16

Mobile has also supported new offerings internationally, particularly in the developing world. Most notable has been M-PESA in Kenya, which relies on SMS messaging and agents to enable domestic money transfer. Today in Sub-Saharan Africa, 12 per cent of adults (64 million adults) have mobile money accounts, where value is held by a telecommunications provider.17 The launch of Apple Pay in the United States in late 2014 indicates a further convergence of mobile and contactless on iPhones.

17. World Bank Global Findex.
Global and Regional Standards

Global standards are increasingly being adopted. The Payment Card Industry Data Security Standard (PCI DSS) was first launched in 2004 and has been regularly updated. These establish standards for the holding and transmission of card data, with particular relevance to the use of cards online. ISO 20022, the international standard for the development of financial messages, has also had significant impact on global and domestic payments, including its adoption in initiatives such as the NPP and the Single European Payments Area.18

Question 2: Are there any other current trends, aside from those outlined in Section 3, we need to take into account in developing the Australian Payments Plan?

4 Forecast of Longer-Term Trends to 2025 – Continuity and Change

The Australian Payments Plan (see page 1) is being developed to help steer future industry collaboration. Competition drives innovation but highly networked industries such as payments require some level of collaboration.

Though forecasts in a dynamic environment can be risky, understanding what that future state might look like can help guide where that collaboration will have the greatest benefit.

We have developed what we believe is a credible forecast of longer-term trends for the Australian payments system to 2025. We see this future as being one of both continuity and change. A 10-year period has been chosen as it is far enough into the future to inform long-term strategic decisions but near enough for there to be continuity with the present.

4.1 Continuity in Australian Payments

While the trends identified in Section 3 are likely to continue, the future can never be seen as just a straight line projection based on current trends. Regulatory models and well-established community attitudes can take decades or even generations to shift. On this basis, we have forecasted what will likely remain consistent over the next 10 years.

The Australian dollar will remain the main currency for Australia. While globalisation may mean a greater awareness of currency conversions, it is difficult to see digital / alternative currencies, such as Bitcoin, dislodging traditional currencies for domestic transactions.

Given the high level of banked Australians, accounts with regulated financial institutions will remain the main source and destination for Australian payments.

The regulatory architecture will remain stable. Payments regulation (both public regulation and industry self-regulation) in Australia will remain at a national level, though there will be increased pressure on regulators to deal with the regulatory challenges presented by significant global players, global standards, new entrants and data security.

Australia will be a “less cash” rather than a “cash less” society. Cash will likely remain the fallback option for face-to-face payments.
4.2 Digital Disruption and Change

Digital disruption will be the dominant force for change in payments for the foreseeable future. Digital disruption is the impact of digital and network innovation on consumers, businesses, markets and society as a whole.¹⁹

For payments, it will make it easier to establish new networks, creating opportunities for efficiency and innovation but also bringing new risks. As a result, the payments ecosystem will become global with global players and global standards.

Importantly, digital disruption will disrupt payment markets, make payments even more digital / virtual, and create a world where mobility, “always on” (24/7/365) and “big data” (where data analysis is an important source of value) are the norm.

Digital disruption will significantly change the user experience, industry stakeholders and the payments market over the coming decade.

Importantly, digital disruption will disrupt payment markets, make payments even more digital / virtual, and create a world where mobility, “always on” (24/7/365) and “big data” (where data analysis is an important source of value) are the norm.

A number of changes we should expect to see are provided in the table on the next page.

## IMPACT OF DIGITAL DISRUPTION TO 2025

<table>
<thead>
<tr>
<th>DISRUPTED MARKETS</th>
<th>USER EXPERIENCE</th>
<th>PAYMENT MARKETS</th>
<th>INDUSTRY STAKEHOLDERS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Customised payments for particular users and use cases</td>
<td>Low barriers to entry for new methods and networks</td>
<td>Intensified competition along value chain / new partnerships</td>
</tr>
<tr>
<td>DIGITAL / VIRTUAL / MOBILE PAYMENTS</td>
<td>Non-cash paper payments no longer used</td>
<td>Globalised markets</td>
<td>New business models</td>
</tr>
<tr>
<td></td>
<td>Use of “wearables” and other new form factors to make payments</td>
<td>Software and apps replacing specialised payment hardware</td>
<td>Blurring between cards and non-cards business</td>
</tr>
<tr>
<td></td>
<td>“Seamless” payments, where the payment is deeply integrated into the purchasing process</td>
<td>Standards development focusing more on software and the cloud rather than hardware</td>
<td></td>
</tr>
<tr>
<td></td>
<td>More mobility and BYOD (payments-only terminals disappear)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>“ALWAYS ON”</td>
<td>Near real-time value and 24/7 availability</td>
<td>More layered and complex networks with higher availability demand</td>
<td>Increased maintenance requirements for payment networks and infrastructure</td>
</tr>
<tr>
<td>“BIG DATA”</td>
<td>Digital identity</td>
<td>Provision of richer data for users</td>
<td>Need to manage new forms of fraud, cybercrime, money laundering and terrorist financing</td>
</tr>
<tr>
<td></td>
<td>New forms of authentication (biometric, geo-locational)</td>
<td>Need to manage new forms of fraud, cybercrime, money laundering and terrorist financing</td>
<td></td>
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<tr>
<td></td>
<td>“Embedded” payments, where users derive value from the data accompanying the payment</td>
<td>More value derived from data</td>
<td></td>
</tr>
</tbody>
</table>

**Question 3:** What are your views on “digital disruption” being the primary force for change affecting Australian payments over the next 10 years?

**Question 4:** What are your views on our forecast of longer-term trends for Australian payments, outlined in Section 4? Are there other factors to consider?
5 Areas for Industry Collaboration

Clearly, the payments system of 2025 presents significant opportunities and challenges for all stakeholders. But the interconnected nature of the payments system means that some opportunities and challenges cannot be addressed by any one stakeholder; they are systemic and need collaborative attention. This is where the Council can add value – by acting as a venue for debate and collaboration on systemic issues.

The main purpose of this consultation is to gather informed views on systemic challenges of this kind, including suggestions for what collaborative efforts could focus on. This section suggests matters that have been identified so far using the characteristics of a good payments system from Section 2 as a framework. The Council is interested in your views on the relative importance of these matters, but also on other challenges you think need attention.

To maintain resilience, we may need to better ensure security on digital identity, combat new forms of fraud and cybercrime and maintain network reliability.

Digital identity has been identified in the Financial System Inquiry Final Report as requiring a more coordinated and strategic approach around a federated model. Industry could look at ways of working with government and other stakeholders in helping to define the digital identity ecosystem for Australia.

While fraud prevention has been actively pursued in Australia through collaboration, digital disruption opens up new opportunities for fraud that potentially undermine resilience and confidence in the system. Industry could look at innovative ways of combating fraud and emerging cybercrime and cybersecurity threats, including working with law enforcement and the public sector.

The volume, complexity and “always on” future of payments may require industry to consider the level of investment and support required to maintain networks and infrastructure.

To maintain efficiency, we may need to manage the range of payment systems.

Industry participants support multiple payment systems. Industry could look at ensuring that the number and types of systems available remain appropriate for the Australian environment.

Cheques volumes are declining significantly and cheques will be all but abandoned by users over the next 10 years. Industry could look at coordinating this transition in a way that is both efficient for industry and fair for users.

20. FSI Final Report
As well, new infrastructures, such as the NPP, and new technologies open up new ways to make digital payments. Industry could look at the future of current systems (such as the existing direct entry system) and whether migration to newer infrastructures should be done in a coordinated way.

To maintain accessibility, we may need to better assist users with complexity.
The payments marketplace will become more complex. Industry could look to assisting users to navigate the complexity, so that users make more informed decisions and choose payments that suit their needs.

To maintain adaptability, we may need to review how we regulate and set standards.
Innovation will bring with it a wave of new offerings, entrants and technologies. Industry could look at engaging with public regulators and reviewing industry self-regulation and standards to ensure these remain responsive in what will become an increasingly dynamic environment. New regulatory approaches may need to be considered to deal with new types of participants and new business models.

Below are a series of questions to help gather that input.

**Question 5:** To achieve the desirable characteristics for the payments system in the next 10 years, what should the Australian payments industry consider doing collaboratively on issues such as:
- digital identity, combating fraud and network support?
- managing the range of payment systems (including the future of cheques and direct entry)?
- ensuring users have the information they need to make informed decisions in a complex market?
- ensuring the domestic regulatory framework / standards setting remains responsive?

**Question 6:** What else might the industry do collaboratively to achieve the desired characteristics?
Your Views on Shaping the Future of Australian Payments

In this paper we outline the desirable characteristics for a payments system, current and longer-term trends in payments and some area for potential industry collaboration.

The Council is keen to hear views on these and, in doing so, on the future of Australian payments.

So now it is over to you.

The best future is the one we create together. You can help shape this future by providing your views to this consultation paper by written submission or posting a comment on the Council website by 3 July 2015.

We look forward to your contribution.

Making a Submission

Written submissions should be emailed to: submissions@australianpaymentscouncil.com.au

Alternatively, submissions can be posted to:
Australian Payments Council
Level 6, 14 Martin Place
Sydney NSW 2000

Unless marked confidential, all submissions will be posted on the Australian Payments Council website (www.australianpaymentscouncil.com.au), though the Council reserves the right to not post a submission it deems inappropriate. Respondents should clearly indicate whether their submission is confidential.

Comments can also be posted on the Australian Payments Council website. http://australianpaymentscouncil.com.au

During the consultation period, stakeholder forums will be held to discuss the issues raised in the Consultation Paper. For more information on the forums or to discuss any aspect of the consultation process, please email info@apca.com.au or telephone 02 9216 4888.
ViewPoints

Shaping the Future of Australian Payments