



Australian Payments
Clearing Association

Submission to the Reserve Bank of Australia

Strategic Review of Innovation in the Payments System: The Innovation Agenda

About this document

This is the submission of the Australian Payments Clearing Association to the Reserve Bank of Australia's *Strategic Review of Innovation in the Payments System: Issues for Consultation* document, issued in June 2011.

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The Association has no objection to publication of its submission.

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Table of Contents

About this document.....	ii
Table of Contents	iii
Overview	4
The RBA’s Review and APCA’s Response	6
About APCA	6
Our Response to the Consultation Paper	7
Payment System Principles	7
About Innovation	8
The Role of the Regulator.....	9
Australia and the World	9
RBA’s Issues for Discussion	11
The Decline of Traditional Payment Methods	11
The Decline of Cheques	11
Cash Replacement.....	13
The Environment for Innovation in the Australian Payments System	16
Structure of Clearing and Settlement Rules	16
System Architecture	16
Innovation Gaps in the Australian Payments System.....	18
The Transmission of Data with Payments.....	18
The Timeliness of Payments	20
Ease of Addressing Payments.....	22
Person-to-person Payments	23
Mobile Payments.....	24
Electronic Purse Systems.....	26
Standards.....	27
Future Trends.....	31

Overview

The Australian Payments Clearing Association (APCA) welcomes the Reserve Bank of Australia's (RBA) *Strategic Review of Innovation in the Payments System: Issues for Consultation* (Consultation Paper) and is pleased to provide the following comments.

In addition to answering the specific questions asked by the RBA, we have also addressed the essential questions of what innovation is and how it is best encouraged within the Australian payments system.

Innovation is not merely technology. It is about doing things better and smarter to meet the needs of payments system users.

However, innovation cannot be directed, imposed or regulated for in any sustainable way. What regulators can do is recognise how best to support innovation within a competitive environment. For the payment system, this includes the industry governance framework and the competitive marketplace where product and service development are driven by customer demand and business incentives.

Our responses herein, and in our supplementary submission relating to system governance, we have attempted to highlight the complex nature of innovation within a network system, where the input of the diverse participants must be appropriately considered, harnessed and shaped by good process, and overseen by an appropriate regulatory framework that is able to achieve compliance. In this way the optimal goals of the payments system, including innovation can be realised.

APCA anticipates that there may be further consultation on issues addressed in the Consultation Paper and we will look forward to participating in any such discussions.

Recommendations

RECOMMENDATION ONE

RBA should engage with and support the review of APCA's LVP Roadmap in 2012.

RECOMMENDATION TWO

RBA should incorporate "business potential" as a desirable principle through the course of its review.

RECOMMENDATION THREE

RBA should provide public clarity on the ability of merchants to surcharge payments instruments other than cards.

RECOMMENDATION FOUR

RBA should actively support exploration and initiatives by government agencies to move away from cheques and adopt card and electronic alternatives.

RECOMMENDATION FIVE

RBA should publicly support industry efforts to work with stakeholders on developing an agreed approach to the future of cheques in Australia.

RECOMMENDATION SIX

RBA should encourage federal and state governments to develop open loop contactless transit ticketing in coordination with the adoption of contactless payments in Australia.

RECOMMENDATION SEVEN

RBA should support APCA's development of an ISO 20022 voluntary schema.

RECOMMENDATION EIGHT

APCA will seek to develop an agreed evolution path for low value settlement in Australia.

RECOMMENDATION NINE

RBA should support the development of the new bank account switching services based on the APCA solution adopted by the Government.

RECOMMENDATION TEN

RBA should explore the need for clarity of jurisdiction of the relevant regulators over mobile payments in Australia.

The RBA's Review and APCA's Response

The Australian Payments Clearing Association Limited (APCA), as the self-regulatory body for Australian payments, welcomes the RBA's Strategic Review of Payments System Innovation. As far as we are aware, this is the first time since the Financial System (Wallis) Inquiry in 1997 that a comprehensive review of the public policy settings for the Australian payments system has been attempted.

The purpose of the review is expressed in terms of systemic innovation:

- identifying areas where the payments system may not be meeting end-user needs or may be lagging behind other countries; and
- identifying the factors affecting the environment for innovation, particularly the inhibitors.

Yet "innovation" is simply "beneficial change". As the RBA says later in the Consultation Paper, a key intent is "to determine an agenda for industry and set priorities".¹

APCA welcomes the RBA's approach to this public policy review — informal discussion, research, some initial proposals in the Consultation Paper, public submissions and wide consultation. This gives the best chance of articulating public policy priorities that clearly give effect to the RBA's payments mandate of controlling risk, promoting efficiency and promoting competition consistent with financial stability.

Clear public policy priorities would be an excellent outcome of this review and should be developed in consultation with as wide a range of stakeholders as possible.

About APCA

APCA is the primary industry vehicle for payments industry collaboration in Australia. Its traditional role is to manage and develop regulations, procedures, policies and standards governing payments clearing and settlement within Australia. Historically, its mandate has not included strategic agenda-setting for the payments system, but in 2006, new Core Principles were adopted establishing a mandate from members to improve the safety, reliability, equity, convenience and efficiency of the Australian payments system.

APCA has sought to help set the strategic agenda through the publication of *Low Value Payments: An Australian Roadmap* (the LVP Roadmap), policy submissions, discussion papers on issues such as the future of cheques, online payments and industry co-regulation, as well as convening the Australian Payments Forum and creating the APCA Stakeholder Forum. APCA intends to review its LVP Roadmap in 2012.

APCA has also supported innovation in payments through our industry projects and by providing thought leadership and opportunities for discussion about innovation within the industry. Two recent sessions of the Australian Payments Forum (March 2009 and November 2010) have provided an opportunity for payment system participants to discuss innovation. Both sessions have also had the benefit of RBA involvement.

RECOMMENDATION ONE

RBA should engage with and support the review of APCA's LVP Roadmap in 2012.

¹ As stated in the Consultation Paper at p22.

Our Response to the Consultation Paper

There are two quite different challenges facing the review:

- to articulate the “what” of systemic innovation — from what we know now, what “beneficial change” do we need systemically in the next 5 to 10 years; and
- to articulate the “how” of system innovation, now and in the future — how do we decide on specific priorities, ensure the right voices are heard, drive to a widely-supported solution and allocate responsibilities to deliver the result.

In this submission, APCA has set out to provide a comprehensive response to the “what” questions contained within the Consultation Paper — questions 1 to 9 and 26 to 51.

We have sought to address these questions by outlining, where relevant, the work that APCA has undertaken in these areas and the views of our members. In certain areas, such as future of cheques, settlement evolution and ISO 20022, industry work remains in progress as of the end of August 2011. In these sections, we have tried to indicate the path of likely future developments.

On the issue of industry governance in questions 10 to 25 — the “how” of innovation — we have prepared and will lodge a separate submission. Establishing a sound ongoing framework for setting the strategic agenda, ensuring it meets public policy priorities and also has widespread buy-in is, of course, critical. Yet good system governance must also meet other priorities such as safety, reliability and consumer protection, and it must balance competing priorities on a continuous basis as the system evolves, rather than simply establish a list at a given point in time. So our suggestion is that this needs separate attention beyond the scope of the current Review.

Payment System Principles

APCA strongly agrees that payment system policy development must be based on agreed principles and outcomes. A principle-based approach is the essence of the APCA Core Principles, which underpin all of our work.

The RBA has sought to define desirable attributes in the Consultation Paper by outlining a list of attributes valued by end users (timeliness, accessibility, ease of use, ease of integration, low and transparent pricing) as well as a list of desirable attributes for payment system design (efficiency, security, interoperability, open access, management of risks and ease of adaptation).

APCA agrees that the RBA’s list of desirable attributes of the system is broadly appropriate and correspond with aspects of APCA’s own Core Principles, with an important addition that we outline below.

We also outlined desirable payment system outcomes in the LVP Roadmap. The outcomes articulated in the LVP Roadmap roughly correspond with the desirable attributes in the RBA Consultation Paper. Consumer expectations of the payment system in the LVP Roadmap are listed as reliability, security, efficiency and convenience.

The LVP Roadmap, however, also listed the expectations of participants of the payments system, which included risk management, global alignment and business potential. Though payments system design attributes identified by the RBA such as open access, security and interoperability may correspond with global alignment, there is no attribute in the RBA’s list that corresponds with “business potential”.

The lack of acknowledgement of the importance of incentives to the providers of payment products and services is a shortcoming within the RBA’s listing of desirable attributes. At the level of payments service provision to end users by system participants, it has always

been the case that high quality service outcomes depend upon commercial and competitive service provision.

This commercially driven system evolution is becoming multi-layered, with utility, collaborative payments clearing giving way to commercialised payment system operators who compete with each other to enhance network services. Technology and user demands are changing rapidly and the quality of what is available to end users will increasingly depend upon there being an environment where profitable businesses can respond quickly and effectively. Therefore, innovation will be driven by participants and system operators being incentivised to earn a return on their investment.

Overall, the key attributes outlined in the APCA and RBA documents are not out of step with similar overseas efforts to define high-level principles. The Canadian Task Force for the Payments System Review outlines six principles benefitting participants (competition and innovation, user access and efficiency, transparency and choice, fairness and accountability, security, and privacy), plus six governance principles (consistent standards, minimum regulation, neutrality by function, proportionality, inclusiveness and adaptability). The UK National Payments Plan similarly lists efficiency, innovation, security, standards, cost and integrity as desirable outcomes.

RECOMMENDATION TWO

RBA should incorporate “business potential” as a desirable principle through the course of its review.

About Innovation

APCA agrees that innovation in the payments system is important and a highly desirable outcome. But it needs to be considered alongside other important outcomes such as efficiency, security and reliability.

Product Innovation

Research into innovation often distinguishes between two kinds of product innovation: “sustaining” innovation, where existing participants continuously improve their services and products to serve their customers even better, and “disruptive” innovation, where new entrants find a way of changing the game to serve poorly-served customers better than incumbents, or previously unserved customers. Both are valuable and both derive from competition. Cooperative and/or regulatory effort should ideally provide a better environment for both kinds of innovation to flourish.

In a network industry such as payments, there is also a need to distinguish between proprietary innovation and co-operative innovation, something rightly done in the Consultation Paper.

Much of the innovation that directly benefits users will be proprietary and come from the competitive marketplace. The providers of payment services and products are generally best placed to judge what features users will demand from new products and services and what these users are prepared to pay. This can't be achieved solely through cooperation or regulation. Such services can only be sustainably provided in a robust competitive environment where there are business incentives to provide innovation.

Collaborative Innovation

Collaborative innovation is also often required given the network nature of the payments system. EFTPOS Payments Australia Limited (EPAL) is an example of a development

that, while encouraged by regulators and supported by significant industry cooperation, must ultimately stand or fall on competitive grounds, since it operates in an increasingly competitive environment with other payment instruments.

Confidence in the competitive market is promoted by regulatory certainty that encourages businesses to invest in innovation.

Another important form of cooperative innovation in payments is in relation to underlying common network elements. Rather than collaboratively building products or services that will be offered to users, this collaboration is about building the capacity for competition and innovation.

This often involves improving the underlying shared systems or elements, which are then used by various participants to provide competing payment products and services. These innovations are characterised by large network effects and have a limited direct impact on end customers, although they provide the basis for competitive provision of improved services to end customers in the future.

Collaborative innovation across multiple players is much harder than proprietary innovation. This is true even when the coordination is imposed externally, by regulation for instance. Getting all participants in a network to innovate together is difficult even if a central entity or a regulator has a high degree of coercive power. Recognition by regulators that innovations in a network environment often require industry collaboration, and take time, can significantly assist certain collaborative innovations. This issue is extensively addressed in our companion submission on governance.

The Role of the Regulator

The RBA has an important role in promoting innovation which includes the articulation of clear public policy priorities and acknowledging that:

1. product innovation is best left to the marketplace;
2. there will be instances where competitors will need to collaborate to bring about new products and services; and
3. proposals for common network element innovation, such as the future direction of settlement or physical connectivity, are often best developed and implemented in a collaborative, industry-led way.

We believe that providing incentives and confidence through regulatory certainty and making available the appropriate common network elements that enable new products and services to be brought to market will help to achieve this.

APCA is also of the view that the items outlined by the RBA in the Consultation Paper, such as the future of cheques, settlement, messaging and connectivity, are items worthy of further discussion.

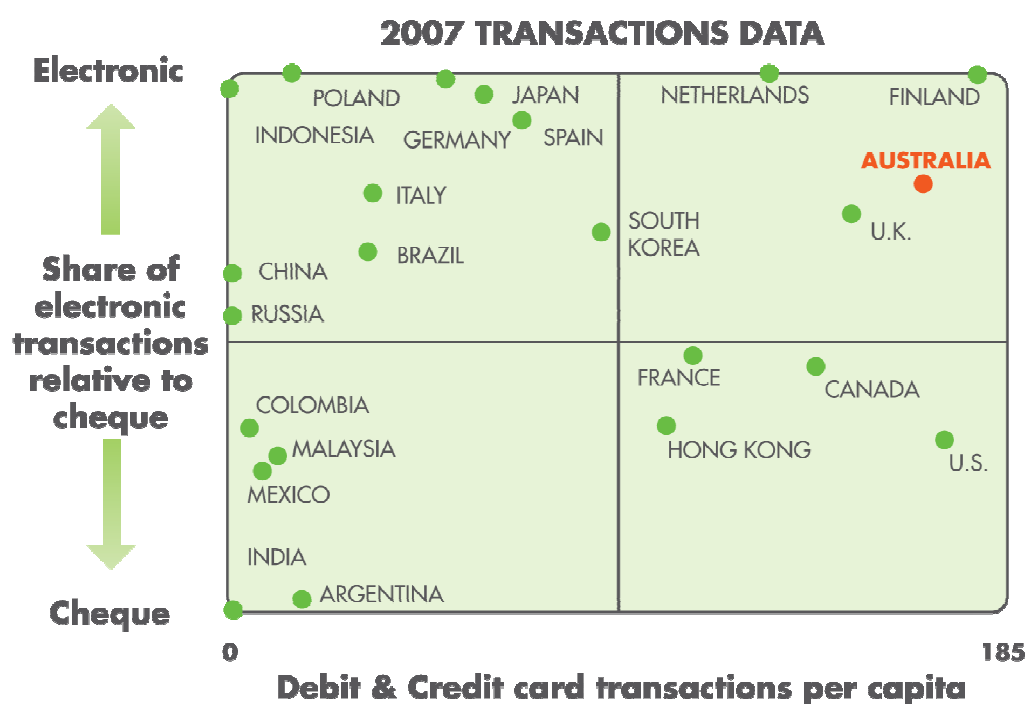
Sitting at the heart of discussions about the regulator's role is the issue of industry governance which should support the common network elements that promote competition and innovation.

Australia and the World

It is suggested in the Introduction of the Consultation Paper that Australia may be at risk of "lagging behind" other countries in the coming decade. Future developments remain unknown, but the best prospect for future innovation remains a robust environment in Australia for competition.

The recently established Committee on Payment and Settlement Systems (CPSS)² working group on payments innovation, as well as the work of the Canadian Payments Task Force, suggests that concerns over the pace of innovation within developed economies is not unique to Australia. Indeed, the concerns over payments systems “falling behind” appear to be a common theme amongst policymakers in developed economies.

When looking at the evidence, Australia appears to be a leading country in terms of finding efficiencies within its payments system. CPSS statistics on payment settlement systems from 2007 demonstrate that Australia has been one of the top performing countries in the world in respect to the penetration of electronic and card-based transactions. The 2009 figures recently released by CPSS suggest that the trends illustrated in the graph below continue. Furthermore, BPAY has been identified as one of a few success stories in terms of global payments innovation by the chair of the CPSS payments innovation working group.³



[Source: Global perspective on payments: McKinsey Global Payments Map 2009](#)

² The CPSS is a committee of the Bank for International Settlements and acts as a standard setting body for payment and securities settlement systems. It also serves as a forum for central banks to monitor and analyse developments in domestic payment, settlement and clearing systems as well as in cross-border and multicurrency settlement schemes.

³ Schrade, Dirk (2011) “A Closer Look at Innovation in Retail Payments”, *European Payments Council Newsletter*, 15 July 2011.

RBA's Issues for Discussion

The Decline of Traditional Payment Methods

The Decline of Cheques

1. Are there aspects of cheque usage that are unlikely to be dealt with by industry initiatives currently underway or likely to be undertaken in the next five to ten years?

On 8 June 2011, APCA began a public consultation as part of our Future of Cheques in Australia project. This consultation has been in response to rapidly declining cheque volumes (35% decline over the past four years) and seeks to engage with community stakeholders to develop an appropriate industry response.

This consultation process will examine ways that industry and stakeholders could proactively address the issues raised by cheque decline. This could include encouraging education of consumers about the availability of safer and more efficient ways to make payments, supporting the development of alternative payment methodologies and seeking the removal of any barriers that may prevent the use of alternative payment methods.

The process has been well received, with 94 submissions received by 10 August 2011. We believe that the consultation and subsequent work will assist in identifying the issues associated with the decline of cheques and provide industry with an opportunity to address them. We appreciate the submission made by the RBA and agree that the way forward on the future of cheques should involve industry, the regulator and relevant stakeholders and we welcome any further input.

2. Could the decline in cheques be managed by pricing cheque use in a way that provides better signals to users?

APCA believes that decisions on pricing of cheques by financial institutions should be left to individual providers.

However, clarity from the RBA on the ability of merchants to surcharge when cheques are used by customers would assist in ensuring that various payment methods, not just cards, are subject to appropriate price signals.

RECOMMENDATION THREE

RBA should provide public clarity on the ability of merchants to surcharge payments instruments other than cards.

3. Can a case be made for reforms to make cheque processing more efficient and therefore sustainable at lower cheque volumes?

The pursuit of cheque processing efficiencies is important in managing the decline of cheques. However this needs to be balanced with the costs associated with significant changes for a product declining in use.

APCA supports the investigation of efficiencies that can be achieved at manageable costs across the industry, and which are mindful of the decline in cheque use. For example, as part of the Future of Cheques project, APCA gathered the views of

members in relation to initiatives for increasing efficiency and reducing cheque processing costs, such as imaging. With the support of our membership, and in addition to our current Future of Cheques project, we are undertaking a high-level investigation into imaging, including issues such as the legal, security and technology implications.

4. Could institutions unilaterally withdraw from the cheque system, leading to specialisation by a small number of institutions?

Individual financial institutions can choose not to issue or accept cheques from their customers. Indeed a number of recent entrants to the market do not provide personal cheques as part of their transaction account products.

However, the difficulty remains that cheques are a network payment system. As long as cheques are issued, customers will want to deposit them with their financial institutions. As well, the industry-supported cheque clearing system and associated infrastructure costs will need to be maintained even as volumes continue to decline.

The industry has already done extensive work to rationalise and reduce cheque processing costs, and more is being considered. This means that the cost burden of cheques as a specialised instrument may be more manageable, although potential remains for more to be done.

5. Is there a case for phasing out cheque clearing over time? How could that be managed while ensuring that satisfactory alternatives are developed?

APCA is currently undertaking a comprehensive public consultation on this issue. Based on the current rate of decline in cheques use, cheques will eventually disappear from common use.

It is the transition that presents the most serious challenges. Industry will need to ensure that adequate replacements to cheques are available to consumers, which may include the alternatives that do not currently exist. Significant education for customers who may not be aware of alternatives, or are uncomfortable using them, may also be required. Additionally, factors such as access to technology will impact on the ability of customers to use new alternatives.

Phasing out cheques, through the imposition of a deadline, remains one option available but will require a rigorous and transparent engagement process with all affected stakeholders well before any decision can be considered and made. It will, in particular, be important to manage expectations so that any final decision to phase out is widely anticipated and disruption is minimised. Ensuring that customers are aware of and have access to alternatives to cheques will be important to any such process.

6. Should government agencies' policies on payments be used to influence cheque usage?

According to the research undertaken by Edgar, Dunn & Company for APCA, governments remain significant issuers of cheques in Australia.⁴

Government should, as a matter of public interest, be concerned with lowering costs and improving efficiencies. As the RBA's own studies have indicated the costs associated with payments by cheque are relatively high. This point of Government "leading by example" was similarly made in the 2006 DCITA *Exploration of Future Electronic Payments Markets* report.

⁴ APCA (2011) *The Role of Cheques in an Evolving Payments System*.

We support recent efforts by the Commonwealth Department of Human Services and the newly elected NSW Government exploring the efficiencies to be gained from the use of card and electronic payments as opposed to use of cheques.

RECOMMENDATION FOUR

RBA should actively support exploration and initiatives by government agencies to move away from cheques and adopt card and electronic alternatives.

7. Should the approach to cheques be determined by individual institutions, determined collectively by the industry, or determined by the Payments System Board?

The future of cheques is a complex issue and will require decisions to be made at a number of levels.

Issuance and pricing of cheques are matters which should be left to individual institutions, based on the specific demands of customers. Robust competition will best ensure that a range of products, both with and without cheques, are available.

Because cheques operate as a network payment instrument, the development of rules and regulations in respect to cheque clearing should continue to be undertaken collectively by the industry.

Likewise, broad industry direction on cheques should also be developed collectively by the industry. However, APCA recognises the need to work closely with stakeholders in developing any industry policy response and is undertaking the current public consultation to seek community views. If there are public policy objectives identified by the Payments System Board (PSB), they should be considered and ideally addressed by the industry in the first instance rather than subject to regulatory intervention.

It remains within the powers of the PSB to intervene on the issue of cheques if it so chooses, however, we see no case for this. We would encourage support for the APCA process and we remain confident that a combination of robust competition and industry engagement with stakeholders is the best way to address competing demands and concerns around the future provision of cheques.

RECOMMENDATION FIVE

RBA should publicly support industry efforts to work with stakeholders on developing an agreed approach to the future of cheques in Australia.

Cash Replacement

As noted in the RBA's Consumer Payments Use Study, cash continues to be used for small value transactions where speed and privacy are considerations, though payment cards have been displacing cash in recent years.

The claim made in the RBA's Consultation Paper that the costs of cash are significantly lower for low-value transactions only applies for the smallest transactions. Cash can often be an expensive payment method. The 2006 DCITA report notes that cash has the lowest transaction costs only at the very lowest amounts, ordinarily for transactions below \$20. For transactions above \$20, direct entry and debit cards have lower economy wide costs.⁵ Overseas research confirms that when the costs of all the key parties

⁵ Department of Communication, Information Technology and the Arts (2006) *Exploration of Future Electronic Payments Markets*, Canberra, p. 45.

(consumer, merchant, central bank and financial institution) are included, cash can actually be the most expensive option for transactions above \$50.⁶

It is highly unlikely that cash usage will achieve any renaissance. One of cash's strengths, its "no tech" nature, is also one of its weaknesses. Finding cost efficiencies for cash from technological enhancements are limited compared to the possibilities for card and electronic payment methods. Similarly, the opportunities for the efficient use of cash may contract further as prices at the checkout rise and retailing continues to migrate online.

This is not to say that cash will or should disappear. Predictions of a "cashless society" have proven as wrong as predictions of the "paperless office". Cash will likely retain its use for very small value face-to-face transactions and as a technology-free fallback when required.

If we accept the long-term retention of cash, consideration should be given to finding efficiencies where possible. New Zealand undertook coin reform in 2006, removing the 5 cent coin from circulation and reducing the size and weight of their other coins. Though such a reform carries significant transitional costs, there are potential long term benefits to be gained from reduced coin distribution costs for financial institutions and governments, and improved convenience for customers and merchants.

8. Are there any impediments to the development and adoption of products to replace cash?

One impediment to the development and adoption of cash replacements is the lack of regulatory clarity on the ability to surcharge cash. The absence of clear regulatory signals on the acceptability of surcharging cash has likely meant merchants have been hesitant to explore this path.

This on-going uncertainty effectively constrains the ability of merchants to recoup costs associated with non-card payments, potentially creating cross-subsidies (card users subsidising cash and cheque users). An unintended consequence of card surcharging is that it drives consumers to cash, which can be costly and inefficient.

Contactless card payments methods are now beginning to take off in Australia and have the potential to provide competition to cash for small value point-of-sale transactions. Contactless card payments adoption would possibly be assisted in Australia if contactless transit ticketing became more common. Overseas experience suggests that contactless transit ticketing can assist consumers to become comfortable with contactless low value payments and assist in overcoming the challenge of building critical mass.

One example of this is the electronic ticketing system in London, called the Oyster card. It was introduced for use on public transport in 2003, with additional features having been added since its original introduction. It can be used on a wide range of transport services including underground, railways, trams, buses and ferries. Just four years later in 2007, a bank began issuing a credit card that incorporated the Oyster card functionality into a scheme contactless card.

Ideally contactless transit ticketing should be done on an open loop basis to best encourage the use of existing standards, promote competition and provide users in different jurisdictions with a more consistent, and ideally interoperable, experience.

⁶ Daniel D Garcia-Swartz, Robert Hahn and Anne Layne-Farrar (2006) "The Move Toward a Cashless Economy: A Closer Look at Payment Instrument Economics" *Review of Network Economics*, 5(2), June 2006, pp. 175-198.

9. Is there any case for public intervention in cash replacement?

Given the RBA's objective for payments efficiency, there should be clarity on the ability of merchants to surcharge both card and non-card payment instruments to recoup acceptance costs and to effect more robust payment instrument competition.

Slow development of contactless transit ticketing within Australia may be an impediment to the development of cash replacement and government commitment and coordination for open loop contactless transit ticketing may help promote cash replacement innovation.

RECOMMENDATION SIX

RBA should encourage federal and state governments to develop open loop contactless transit ticketing that promotes the adoption of contactless payments in Australia.

The Environment for Innovation in the Australian Payments System

In the RBA's Consultation Paper, questions 10 to 25 relate to the current governance structures associated with the Australian payments system and how they could be improved to support innovation, provide greater input into decision making and provide access for new participants.

APCA believes that a discussion about the governance of the Australian payment system is vital. However, we also believe that such a discussion should be undertaken separately to the discussion about innovation, and not considered simply as an enabler for innovation.

In keeping with the fundamental importance of this issue, APCA will respond to these questions in a separate submission.

Structure of Clearing and Settlement Rules

Issues arising from the current structure

The Consultation Paper states that clearing is largely focused in the five APCA clearing streams, although mention is made of other non-APCA systems.

The RBA has raised the issue of whether the current structure accommodates innovation and provides ease of access for new entrants. These structures are perceived as making it hard to achieve change.

The RBA has also pointed to some inconsistencies between the various sets of clearing rules and discusses whether greater uniformity would be useful.

The development of clearing and settlement systems and amendments to these (for example, to support product innovation or new entrants) depends upon an appropriate governance structure. APCA discusses the requirements of a governance structure to provide optimum industry self-regulated outcomes in our separate submission on industry governance.

It is important to keep in mind that as schemes commercialise and the payment system becomes marketised, the role of traditional clearing systems becomes increasingly less relevant. The public policy and systemic innovation challenge is how to appropriately configure the industry governance framework to support this competition.

System Architecture

26. Could greater use of hubs improve the efficiency, access, and innovation in the Australian payments system?

Hubs come in many shapes and sizes and use of a hub as a network solution is one of many options. Indeed, there are so many different network configurations that are loosely called "hubs" it is hard to make any general comment about "hub solutions" without more detail about what services are to be provided and to whom. Any such solution would need to be considered on its own merits and take into account the payment system(s) it would support. Other important considerations would include the business model, associated costs of building the hub, and competitive pressures and business case for

participants. The decision parameters for any hub-based network solution should also include the cost of maintaining the hub, which can be substantial.

However, APCA would make the following general observations:

- Modern network architecture usually focuses on layering of network attributes, and often addresses efficiency, access and innovation independently in multiple layers. Unitary structures that provide physical, logical, application and business services in a centralised way are increasingly rare, since while they can be efficient when set up, they do not allow for competition and can be slow to evolve once established. The technological drivers towards centralisation have reduced markedly over recent years, as the cost of communications technology has declined as communications networks have become ubiquitous. In cloud computing, hubs by definition do not exist.⁷
- As payment networks marketise, with increasing competition amongst network operators. APCA would see the “hub” decision as falling principally to the competing network operator.
- It would be undesirable for the industry to be thinking in terms of an industry-wide “hub” for multiple payments systems, if this is intended to suggest centralisation of service provision across multiple network layers. The detriment in terms of loss of flexibility and competition over time is very unlikely to be justified by the efficiency gain, and is not needed to promote standardisation. Modern best practice would strongly be against this, focussing instead on message and process standardisation to deliver ubiquity.

27. In what areas would a hub be useful – for instance, for transmission of clearing files, or for real-time individual transactions? For what type of payments would a hub be useful? What functions could a hub or hubs provide? Could a hub be available for use by multiple payment systems?

As suggested in answering question 26, APCA believes that the use of a hub is but one type of solution to be considered, based on assessment of the most appropriate solution for each situation (for instance payment system or transaction type). The assessment should take into account the business model, associated costs of building the hub, competitive pressures and business case for the project participants. The ongoing maintenance and operational arrangements and cost must also be part of this assessment.

28. Should hubs be considered best practice for new payment systems? Should existing systems be migrated to a hub? Could hub services be offered in a way that allows participants to opt in, while providing full services to new entrants?

APCA does not believe so. The value of hubs depends on the circumstance, as indicated above. Network design is an important issue for any individual new payments system, but decisions should be driven by market dynamics, not by public policy.

29. What type of ownership, governance and management arrangements would be desirable for a hub?

The ownership, governance and management arrangements for a hub would be dependant on the payment system it supported, the participants and the operation and maintenance requirements.

⁷ For more information about network layers see Hubert Zimmermann (1980) "OSI Reference Manual", *IEEE Transactions on Communications*, 28(4), April 1980, pp. 425 – 432.

Innovation Gaps in the Australian Payments System

The Transmission of Data with Payments

30. How widespread is the demand for the innovation in question and how significant would the impacts be?

The direct entry (DE) system was designed to efficiently process bulk payments files and has been highly successful in terms of facilitating large volumes of low value transactions at a low cost, across every payments application. APCA's LVP Roadmap found that re-configuration of the current DE system to accept larger quantities of information had modest demand and significant cost.

However, APCA notes that there is often strong demand for automation of manual data flows that are specific to an industry segment or value chain, where most of the value results from data and process automation, rather than payments automation. This typically includes a desire for integration of payments data and value transfer into the broader data flow. Well-publicised examples of this are:

- Financial market (shares, derivatives and commodities) transactions;
- Superannuation contributions, superannuation rollovers and superannuation benefit payments;
- Government benefits and payments;
- Corporate actions and securities registry processes;
- Supply chain logistics including transport; and
- Real property transactions.

APCA has worked at different times with these user groups, and there are certainly others. The challenge is that data requirements vary a great deal, and that the parties that need to be involved in each data flow differ. Generally, each industry must design its own message set and automation processes, with payments integrated into the industry solution, rather than the other way around. The work of the superannuation industry on SuperStream is a case in point.

The challenge for the payments system is to develop a framework that adapts to all these different data flows as needed. One way to think of this is that each data flow with integrated value transfer is in effect a specialist payment system, but operating on the common payments platform to maximise efficiency and ubiquity.

31. Are there any specific impediments to that innovation occurring, e.g. barriers to entry, co-ordination problems, technological constraints?

The issue of demand and impediments are discussed in the response to question 33 below.

32. Is there a case for public intervention?

There are currently industry projects underway to address issues in the area of transmission of data with payments. APCA's view is that public intervention is not currently warranted, although consultation should continue as appropriate.

33. Possible solutions to the transmission of additional data with payments include: the use of existing free data fields in the DE system for a referencing system; the reconfiguration of the DE system to accept much larger quantities of free-form information; or the use of another system for payments requiring the carriage of additional data. Are there other alternatives? What are the advantages and disadvantages of each? Which option is preferred? How should that option be implemented?

The DE system was designed as a bulk system and has been highly successful in terms of facilitating large volumes of low value transactions at a low cost. Re-configuration of the current DE system to accept larger quantities of information had modest demand and significant cost.

However, the DE system has proved extraordinarily flexible. A great deal of specialist process automation can be done without major configuration changes, as some participants in the superannuation and share registry space have shown. The current DE system can cater for a structured reference up to 18 characters in length to be carried in the Lodgement Reference field (such as ISO 11649), which could provide a link to additional data to be passed between participants outside the payment system.

If industry participants in each segment were to agree to adopt such an approach then agreement would be required on the structure of the reference field and the processes for transmission of the extra data between themselves and not necessarily require a change to the DE system.

The advantage of such an approach is that it could be taken up with minimal impact to the existing DE system. Additionally, a similar structured reference field could also be used in the High Value Clearing System (HVCS). A possible disadvantage is that collaboration on common reference and transmission processes may impact on current or future competitive offerings. Some payment industry participants/service providers currently do provide additional data for certain products through links from the Reference Field to additional payment data. Enforcing a common standard could therefore prove difficult.

APCA intends to investigate the potential use of ISO 20022 messages (with the ability to carry extra information) through development of a voluntary schema as well as SWIFT LVP using MX messages over the next 12 months.

RECOMMENDATION SEVEN

RBA should support APCA's development of an ISO 20022 voluntary schema.

34. What role should messaging standards, such as ISO 20022, play in any solution for transmission of additional data?

Messaging standards can be the means to provide the transmission of extra data with payments. Standards such as ISO 20022 can cater for a significant amount of data to be carried. However, practical issues such as the end-to-end system and business process capabilities of users need to be taken into account in relation to standard selection.

In many cases, the weakest link in the chain will determine the efficacy of the solution. There is a trend in Europe to carry large amounts of extra data outside of the payment by utilising structured referencing to link the payment to the extra data. The extra data can be referenced through a URL or other means determined by the participants. If extra data is to be carried with the payment, as in the USA Fedwire model, the approach appears to be to provide an option of either structured or unstructured data with a limit imposed on the maximum size of the message.

A common standards framework such as ISO 20022 also has the potential to support the entire financial supply chain in that it can provide the platform for e-invoicing, customer-to-bank payment initiation, bank-to-bank payments, statements, account management and other services. This increases the benefits and efficiency to all parties. Other industries such as securities and superannuation, which are also involved in the payments processing chain, could benefit from adoption of the same standard.

35. The superannuation industry is working to address issues associated with transmission of data related to superannuation accounts and payments. Is there a contribution that can be made by the payments industry beyond the proposals discussed above?

APCA has been actively involved in superannuation industry developments on data standards. APCA has also been a member of Treasury's SuperStream Working Group and has consulted with organisations such as the Association of Superannuation Funds of Australia (ASFA) and the Financial Services Council (FSC) on the development of an ISO 20022 schema.

We are pleased that the SuperStream Working Group has endorsed the use of the direct entry system as the payment mechanism for SuperStream. We are also heartened that there is exploration of effectively using the DE message set to link payments and data as well as a commitment to monitor ISO 20022 developments.

The Timeliness of Payments

30. How widespread is the demand for the innovation in question and how significant would the impacts be?

APCA acknowledges the RBA's views on the benefits of more timely payments and notes that several APCA members already post to customer accounts within a short period of receiving the payment instruction.

APCA has been consulting with members on the future evolution of low value settlement. The view of APCA's members is that customers are concerned about funds availability rather than the underlying settlement arrangements. Our members expect retail consumers, government agencies and merchants to increasingly demand faster funds availability for low value payments.

Members have also indicated that faster funds availability is increasingly being delivered through competition and enhancements to their own systems. The current settlement arrangements do not present an insurmountable block to faster funds availability, though appropriate changes to settlement could assist these developments.

31. Are there any specific impediments to that innovation occurring, e.g. barriers to entry, co-ordination problems, technological constraints?

It is APCA's view that innovations in the area of timely payments, which require updating core processing within legacy systems, will require significant lead times due to the level of investment risk and cost involved with changes to member systems.

32. Is there a case for public intervention?

APCA notes the introduction of the RBA's Low Value Settlement Service (LVSS) facilitates the introduction of intraday settlement. In addition to working with the RBA on LVSS implementation, APCA's members remain committed to continued work towards an industry policy position on the evolution of low value settlement and funds availability.

This work has progressed significantly and we anticipate an outcome in the next few months.

RECOMMENDATION EIGHT

APCA will seek to develop an agreed evolution path for low value settlement in Australia.

36. To what extent will systems already under development or discussion address issues related to the timeliness of payments? What gaps will remain?

Faster posting to customer accounts has become increasingly available due to system enhancements and robust competition. As part of our settlement evolution work, APCA members have discussed the possibility of a minimum posting standard that would see all BECS participants update their posting systems such that intraday posting is available for certain transactions cleared through BECS. Such a standard would require further exploration to ensure it does not impose unnecessary costs or inhibit competition.

APCA members have similarly explored the potential of 7 day file exchanges in order to facilitate more timely funds availability over weekends and public holidays. However, greater competition in posting appears to be addressing particular concerns, such as those of smaller merchants. Several members also appeared to have significant concerns about the potential operational costs. There is also the significant challenge of money markets not being available seven days a week, which inhibits the ability to fund intraday liquidity positions.

37. What new systems or enhancements to existing systems would be required to achieve more timely payments?

APCA supports the implementation of the RBA's LVSS and is coordinating aspects of the transfer onto this new system. As previously noted, the LVSS will provide greater flexibility and functionality for the settlement of low value payments. Appropriately using this flexibility and functionality is something that APCA is seeking to help define through its current work with members on the future evolution of low value settlement.

38. Would multiple same-day interbank settlements be sufficient to facilitate faster availability of funds?

APCA has had extensive discussions with members and conducted a formal consultation on this topic. APCA members have noted that current operational limitations, rather than settlement arrangements, represents the key barrier to improving funds availability.

Intraday settlement, if properly constructed, could support accelerated posting but ultimately it will be a combination of system upgrades, customer demands and competition that will drive change.

39. Is there a case for real-time settlement system for low-value payments and how should it be provided?

When presented with an option of intraday or real-time low value settlement, APCA members have expressed a preference for intraday settlement over real time settlement. Members seek to manage their liquidity needs and particularly value the continuation of the batching facility within LVSS. Our members believe that the cost associated with real-time settlement for low value payments far outweigh the benefits.

40. To what extent would financial institutions' own systems need to change to allow faster access to incoming payments to customers' accounts? What would this involve and

how could it best be achieved? Could the desired improvements be achieved by competitive pressures if financial institutions were forced to publicly disclosed information on the timing actually achieved on payments? Would some form of mandated time limit for availability of funds be appropriate?

Based on the submissions to the APCA Settlement Evolution Paper, and the discussions of the APCA Settlement Evolution Expert Group, APCA believes a substantial number of its members (including BECS Tier 2 participants) would have to make changes to their core system processing in order to accelerate posting of bulk electronic transactions. However, it also appears that market forces have resulted in members moving towards accelerated posting as they upgrade their core platforms. APCA intends to further consult members to understand any significant challenges they face in moving to accelerated posting.

Given the market progression to accelerated posting, any further reporting in this area, would need to be carefully considered particularly given the associated costs. As accelerated posting is not unusual in the industry now, it seems unlikely to APCA that any member updating their core systems as part of scheduled changes would seek to exclude intraday posting capabilities.

41. How strong is the demand for payment options that will provide availability of funds 24 hours a day, 7 days a week? What would need to occur to achieve this?

As noted above, APCA is currently undertaking discussions with members over weekend file exchanges. Implementation of weekend file exchanges may need to be supported by RITS settlement sessions and availability of liquidity.

Ease of Addressing Payments

30. How widespread is the demand for the innovation in question and how significant would the impacts be?

Ease of addressing payments is an important feature of all non-cash payment methods, though we are uncertain of the level of demand. Enhancements in addressing over recent years, for instance BPAY, have been an important component in assisting payers and payees to migrate away from costly payments methods such as cheques.

31. Are there any specific impediments to that innovation occurring, e.g. barriers to entry, co-ordination problems, technological constraints?

The challenge is that many types of addressing methods are available, each with strengths and weaknesses.

As noted in the RBA's Consultation Paper, the minimal address information required for a cheque is the payee's name or, if a remote payment, the payee's postal address. This reliance on addressing information effectively created outside of the payments system has been duplicated in some recent contexts where the payee's email address or mobile phone number is used.

Externally-created addressing information has certain advantages. It is something the payee will ordinarily remember and can easily provide to the payer. The payer may already hold that information about the payee, for instance a local council or insurer will likely hold postal address information about a ratepayer that it wishes to provide a refund to.

Yet externally created addressing information has its own drawbacks. The payee may change their postal address, or cease using a mobile phone number or email address

and not inform payers. Reliance on externally created addresses may also have security issues. A thief may steal a cheque from a mailbox, take a mobile phone or successfully hack an email account and, in the absence of proper procedures, be able to receive the payment.

32. Is there a case for public intervention?

Given that the Commonwealth is unlikely to issue individual Australians with a unique identifier, mainly due to concerns over privacy, the case for public intervention is likely limited to supporting industry initiatives.

The Fraser Review of Account Number Portability rejected a recommendation for full account portability based on concerns about cost and the uncertain benefit any such change would provide. Instead, the Fraser Review rightly recommended the development of an enhanced switching arrangements for banking services, which the Government has accepted. This model was subject to significant industry collaboration through APCA and will include the development of the APCA Account Switch Mail Box. It will address many of the concerns faced by consumers wishing to change their financial institution.

Additionally, the progress that industry and ASIC are making on a regime for mistaken payments will address the outstanding concerns over use of bank account information in making a “pay anyone” payment.

RECOMMENDATION NINE

RBA should support the development of the new bank account switching services based on the APCA solution adopted by the Government.

Person-to-person Payments

30. How widespread is the demand for the innovation in question and how significant would the impacts be?

Because of the competitive nature of payments in Australia, new innovations must succeed or fail in a competitive marketplace. Any new person-to-person payment services must appeal to end customers to ensure success. In this environment, payment services will be offered where service providers see a demand and a way to provide a successful, competitive product.

The demand for person-to-person payments is unknown. The RBA, in their published results of the 2010 Consumer Payments Use Study, report the study indicated “that the mix of old and new payment methods available are generally meeting customers’ needs.”⁸ In Australia, as in other comparable economies, societal norms have always had a great influence in the areas where person-to-person payments are used, such as the RBA’s example of splitting restaurant bills. It is likely that changing demographics in Australian society will alter these norms — younger generations are generally acknowledged as being more engaged with electronic solutions and the digital economy — and the demand for person-to-person payments is likely to increase. As demand grows over time, it should be expected that providers will offer products to meet that demand.

⁸ RBA, *Strategic Review of Innovation in the Payment System: Results of the Reserve Bank of Australia’s 2010 Consumer Payments Use Study*, Sydney, June 2011, Page 34.

31. Are there any specific impediments to that innovation occurring, e.g. barriers to entry, co-ordination problems, technological constraints?

There are no impediments or constraints particular to the development of person-to-person payment services that APCA is aware of.

32. Is there a case for public intervention?

Many person-to-person payment services, such as PayPal, could be termed “secondary” payment systems in that they provide a service that relies on an underlying payment system, such as the DE or cards system. Concerns about how standards should apply to such services are outlined in the response to question 32 as it applies to the Standards section on page 27.

There is no case for public intervention unless it can be demonstrated that there are particular features of the payments system that are preventing competitive developments in this space. Given that a number of competitive developments exists (bank-specific solutions, PayPal and others) it is not obvious that this is the case.

Mobile Payments

30. How widespread is the demand for the innovation in question and how significant would the impacts be?

While demand from consumers for innovation in relation to mobile payments has been low in Australia, the take-up of mobile payment offerings in many parts of the world has been more significant, mainly due to the offering of products that fill an identified service gap. The impact of these products, such as the SMS based M-PESA offering in Kenya and Tanzania, has been widely analysed and mostly reported as positive for the users in these developing countries.

Other forms of mobile payments, such as direct to bill where customers buy goods or services which are charged to their mobile phone bill, are used mainly for the purchase of digital content. It would seem reasonable to assume that as the customer base for digital products grows, so will demand for the associated payment services.

The demand for mobile contactless payments — where a customer uses a credit card loaded into their phone at point of sale (POS) — is more difficult to ascertain. Commentators have been widely predicting increasing demand for such transactions. However, this has not translated into a driver for Australian financial institutions to provide these services.

The impacts of this type of mobile payment may exceed the impacts of other types because it has the potential to achieve the ubiquity currently enjoyed only by cash and cards in Australia, and thus to challenge the dominance of these payment methods.

31. Are there any specific impediments to that innovation occurring, e.g. barriers to entry, co-ordination problems, technological constraints?

Where there is demand and a provider who finds it commercially attractive to meet that demand, there seems to be little reason for *most* types of mobile payments not to be developed in Australia.

However, for mobile contactless payments, there are potential impediments, including:

- The need for cross-industry business models to provide some services;
- Competing platforms and lack of certainty in relation to the technology ; and

- Uncertainty around interoperability preventing investment and consumer and merchant uptake.

Until there is a winning technology or standards are set to assure interoperability and encourage widespread adoption, financial institutions, merchants, and other stakeholders will be less likely to invest in the technology.

32. *Is there a case for public intervention?*

APCA is of the belief that competition provides the most robust markets for payments and that public intervention should be used to address issues that cannot be addressed by industry alone.

To successfully establish mass market mobile payment services, it is important that security, interoperability and regulatory issues be addressed. Similar complex issues have previously been addressed and resolved through industry cooperation.

Regulatory ambiguity has been seen as a barrier to the development of mobile payments, particularly in developed economies.⁹ This is because regulators with responsibility for payments systems, financial services, telecommunications, consumer protection or anti-money laundering/counter-terrorist financing could have jurisdiction for mobile payments. It is difficult to predict the extent to which different Australian regulators will become involved and coordination across any efforts to regulate mobile payments will be important.

RECOMMENDATION TEN

RBA should explore the need for clarity of jurisdiction of the relevant regulators over mobile payments in Australia.

42. *What form are mobile payments likely to take in Australia over the next five to ten years – SMS-based, mobile internet, contactless or some other form?*

Considering the trends in comparable economies and the potential impediments, the development of mobile payments in Australia is likely to be characterised by:

- The growing popularity of mobile banking and mobile Internet payments;
- Wide-spread development of alternative payment schemes such as stored value cards, smartphone apps and direct to bill services; and
- Continued growth in the use of contactless cards.

43. *Are there impediments to the development of mobile payments in Australia? If so, what type of payments are being impeded and how?*

Currently in Australia, and also around the world in other developed countries, contactless mobile payments at POS — where an application in a phone takes the place of a debit or credit card — could be impeded by:

- The need for certainty and standards around technology and interoperability; and
- Low customer demand.

Our response to question 31 further outlines the current impediments APCA sees for the development of mobile payments in Australia.

⁹ Marianne Crowe, Marc Rysman and Joanna Stavins, *Mobile Payments in the United States at Retail Point of Sale: Current Market and Future Prospects*, Federal Reserve of Boston Public Policy Discussion Paper No. 10-2, Boston, May 2010 (available on the Federal Reserve of Boston website at www.bos.frb.org).

44. Are there security issues particular to mobile phones that may impede adoption of some types of mobile payments in the future? Are there likely to be issues with interoperability of mobile payment systems?

The trust that consumers have in particular types of payment service providers may have an impact on take-up of any new service. As noted in the ACMA research of Australian consumers:

“Respondents expressed strong concerns about mobile payment methods that rely on a telco or mobile payment services company, whom they trust less than a bank...”¹⁰

The implementation of mobile contactless payments, where a software version of a credit or debit card is loaded into the phone, will require security equal to that required for physical credit and debit card payments.

The most pressing interoperability issues for mobile payments are that standards are in place to ensure a level of interoperability required to encourage investment and development, and that customers are able to choose the mobile devices they wish to use and be able to use them widely.

45. Are there adequate standards to support the development of mobile payments in Australia? If not, what standards are lacking, what types of mobile payments are affected, and who should be responsible for setting them?

The potential areas for further standards development or adoption in relation to mobile payments include:

- Security;
- Interoperability between services, devices, terminals and service providers;
- Personalisation, provisioning and management of services; and
- Consumer issues such as the ability to choose technology, services and service providers.

APCA believes that coordination between industry participants will be necessary and advantageous for addressing the requirement for standards in the areas of technology, interoperability and security.

Electronic Purse Systems

30. How widespread is the demand for the innovation in question and how significant would the impacts be?

As suggested by the RBA’s Consultation Paper, electronic purse systems usually develop out of transport applications where transactions volumes are high, values are low and processing speed is of utmost importance. While they can be used for other applications, they will only ever be as ubiquitous and in demand as the associated application. Public transport provides a unique opportunity for this payment type, which ideally should be open loop. There has been an obvious demand for electronic ticketing across Australia with state governments working to implement solutions separately.

¹⁰ Australian Communications and Media Authority, *Community research into attitudes towards use of mobile payments in Australia: Qualitative Research Report*, Canberra, July 2010. www.acma.gov.au.

31. Are there any specific impediments to that innovation occurring, e.g. barriers to entry, co-ordination problems, technological constraints?

As pointed out by the RBA, the slow introduction of chip card technology and lack of interoperability between transport ticketing systems has been the main impediment to innovation such as electronic purse systems based on transport applications.

32. Is there a case for public intervention?

With public transport systems overwhelmingly owned and operated by governments in Australia, it would seem necessary for public coordination to ensure innovation such as open loop Electronic Purse Systems for transport ticketing.

Standards

30. How widespread is the demand for the innovation in question and how significant would the impacts be?

The demand for innovation is addressed in the response to question 46 below.

31. Are there any specific impediments to that innovation occurring, e.g. barriers to entry, co-ordination problems, technological constraints?

Impediments to innovation are addressed in response to question 48 below.

32. Is there a case for public intervention?

The convergence of media, mobile communications and the Internet has generated new secondary systems for payments and will continue to do so. For example, merchants such as Apple (iTunes), social media channels such as Facebook and services providers such as Google (Google Wallet) provide payment services that rely on an underlying primary payment system.

Clearly, a new payment *service* is easier to offer than a new payment *system*. Usually there is already a network in existence for a new service to leverage, and providers of new services do not necessarily have to deal with the significant demands associated with developing a payment system, such as the associated standards, security and infrastructure costs.

It is not clear the extent to which the risks inherent in payments systems are associated with these payment services and it will become increasingly important to understand the inherent risks associated with such services and their impact on the underlying system. For example, to what extent are authentication processes and to what level is payment data security required for such payment services. Additionally, if these services are developed by providers outside the payments industry, payments industry standards may be more difficult to enforce.

As secondary services become more prevalent, understanding the inherent risks associated with them and the impacts they may have on the operation and security of the underlying system will be important. Regulation of these services and application of payment system standards are issues that will require further consideration.

46. What is the case for moving to ISO 20022 compliant standards for Australia's retail payment systems? What is the preferred process for doing so?

As noted by the RBA, ISO 20022 is increasingly being adopted globally as the standards framework for not only payments and related transactions, such as e-invoicing, account

management and statements, but also for securities, funds and other areas of the finance sector.

Adoption of ISO 20022 across the payments industry and its customers would offer future cost and efficiency benefits and establish a long term, flexible platform, which is not constrained by technology, as a basis for innovation and competition. However, the benefits of adoption must be weighed against the costs. It is not clear that in the short or medium term that adoption across existing systems would be cost effective. A progressive approach, where new systems adopt the standard is considered a more suitable process for the Australian environment than mandating adoption across all existing systems.

47. Should all new payment systems be required to adopt ISO 20022? Should existing systems be required to do so?

Development of an ISO 20022 payments platform could be achieved through progressive adoption as new payment systems arise rather than mandating its adoption. It is APCA's intention to adopt such an approach for the work we are currently undertaking on ISO 20022. APCA has already agreed to establish the initial ISO 20022 schema to provide a common interpretation of the standard for the Australian payments industry. Based on the growing global adoption of ISO 20022, it is unlikely another payments industry standard will be adopted.

48. To what extent are other standards, such as device standards, an impediment to competition and innovation? Is that justified?

Other standards associated with the payments industry are mainly focused on card payments. They include:

Areas covered	Associated standards
Device security	<ul style="list-style-type: none"> • PCI • CECS (mostly AS2805)
Functionality	<ul style="list-style-type: none"> • EMV • AS2805
System security and functionality	<ul style="list-style-type: none"> • CECS (supported by AS2805) • PCI • Individual card scheme standards

There are important benefits for competition and innovation that are achieved by strict use of standards. These include:

- Customers and merchants having confidence that devices provide the necessary security;
- Maintaining and fostering trust in the payments system, thus encouraging its use;
- Protecting against weak security that can harm trust in the system;
- Innovation in device manufacturing driven by strong security demands set out by standards;
- Limiting “the race to the bottom” by rewarding those manufacturers and service providers who take security seriously by ensuring competitors have to achieve an appropriate level of security rather than focusing only on price.

However, impediments to competition and innovation can be created by imposing standards, including:

- Additional cost to manufacturers of getting devices and systems through necessary testing;
- Longer time to market for new offerings and possibly innovations; and
- Limiting the situations in which card information, such as a PIN, can be used, thus potentially impeding innovations.

As well, the creation of domestic standards can create a diversion from global standards.

Considering that trust in the payments system is vital for the whole of society and that such trust is underpinned by appropriate security standards, it would seem that accepting some level of impediment imposed by standards is justified.

Fraud risk to the payments system is mainly borne by card issuers, while the cost of applying standards mainly falls to acquirers and associated service providers and manufacturers. Security standards also provide a way to manage this risk relationship.

The importance of security standards is demonstrated by the development and adoption of global standards, such as PCI — the extent of which has been growing rapidly over the last few years. This shows that on a global basis the advantages are seen to outweigh the disadvantages associated with impeding competition and innovation.

Importantly, Australia has the opportunity to build on global and international standards in a way that is suitable for our own domestic environment. This can reflect the fact that globally accepted standards, such as PCI, may at times fall short of what is considered in Australia as acceptable risk.

For example, PCI standards, while aimed at merchant devices that accept cards and PINs, do not currently cover ATMs, even though the same threats exist. APCA's CECS standards fill this gap.

49. How should compliance with industry standards, both by new entrants and incumbents, be monitored?

To ensure that the potential gains are achieved by the adoption of standards, it is important that all participants involved in the provision of payments adhere to those standards. Historically, certain aspects of the Australian payments industry have made it somewhat easier to achieve this.

For example, the historic trend for Australian FIs to undertake the role of both issuer and acquirer has made it easier to ensure that both issuers and acquirers are able to and do implement standards.

However, as the Australian payments industry becomes more complex and fragmented, with new entrants offering new services or providing the possibility for FIs to outsource certain functions, it will become increasingly challenging to ensure that standards are correctly and fully implemented across the industry.

This is compounded by the tendency for innovation towards mobile devices, Internet payments and secondary payment services which potentially shift decision making away from the issuers, even though they still tend to bear much of the risk.

The way in which compliance with standards is monitored will be greatly influenced by the governance structures for any payments system. APCA see a number of options for monitoring compliance with industry standards, including:

- Commercial card schemes rules enforced by contractual agreements;
- Industry self-monitoring through an association such as APCA;
- Government monitoring and compliance enforcement; or
- A combination of some or all of the above.

There are some general advantages and disadvantages of commercial, government and industry based monitoring.

Compliance monitoring	Advantages	Disadvantages
Commercial card scheme rules	Compliance issues linked to commercial contracts providing a greater incentive to comply.	<ul style="list-style-type: none"> • Potential for commercial interests to take priority over security or other important issues. • Potential for international organisations to have an inappropriate level of influence in the Australian marketplace.
Industry self monitoring through an industry body	<ul style="list-style-type: none"> • Board industry representation in decision making. • Access to industry experts to provide advice. • Industry bodies often have strong links to both industry and government, providing a coordination role to deal with issues. 	<ul style="list-style-type: none"> • Some cost to industry of developing and maintaining verification and compliance regimes. • Harder to enforce standards across non-member organisations.
Government monitoring	Some government organisations have legal powers to enforce compliance.	<ul style="list-style-type: none"> • Ability to enforce compliance must be linked to a government agency's powers. • Processes to change regulations may be more cumbersome. • Cost to government of developing and maintaining verification and compliance regimes. • Industry-based experience is less available.
A combination	<ul style="list-style-type: none"> • Setting monitoring responsibilities that best suit each set of standards. • Ability to make changes in specific areas of compliance without impacting other compliance regimes. 	<ul style="list-style-type: none"> • Possible lack of coordination between monitoring of related standards. • Onerous requirements for industry participants having to report to several different organisations.

50. Is there a case for greater industry co-operation on the setting of security standards for retail payments? If so, how should this be achieved?

The commercialisation of retail payment schemes and the marketisation of payments more generally strongly suggest the need for a mechanism for establishing the minimum transactional standards for the Australian payments system. Ideally this mechanism should be independent of the interests of commercialised scheme operators.

Setting of security standards requires:

- Reliance on “tried and tested” security principles;
- Appropriate scepticism of new cryptographic algorithms and security protocols;
- Consideration of implications from as wide as possible cross-section of the payments industry;

- Recognition of where costs lie in both the development and implementation of standards and the potential losses due to fraud or lack of trust in the system; and
- Trust in the standards setting body and confidence that it is suitably independent but able to provide the right opportunity for stakeholders to influence the results.

Current standards setting for the Australian payments industry is undertaken by PCI, the ISO and Australian Standards (AS), and APCA. The stakeholders and development process of each of these bodies is briefly outlined below:

Body	Stakeholders	Development process
PCI	Owned and run by the international card schemes.	<ul style="list-style-type: none"> • Standards are developed with input from various organisations including regular discussions with some vendors and the PCI approved testing laboratories. • Formal consultation with PCI Participating Organisations (\$2000 to join). • All decisions made by the card schemes.
ISO/AS	<ul style="list-style-type: none"> • Industry and industry/trade associations • Science and academia • Consumers and consumer associations • Governments and regulators • Societal and other interests. 	<ul style="list-style-type: none"> • Development process open to public comment. • ISO Standards based around an extensive process of consultation from national standards bodies. • Australian Standards includes formal process for public review. As far as possible adopts ISO standards.
APCA	CECS members	<ul style="list-style-type: none"> • Decisions are made by CECS members (limited to issuers and acquirers). Some involvement by stakeholders via the CECS Advisory Council and direct discussions with some vendors and APCA approved testing laboratories. • Wherever possible adopts AS and ISO standards to ensure the requirements for setting standards, as outlined above, are met.

Future Trends

Q51. Are there any significant changes in the payments landscape in prospect that have not been considered by this paper, for instance in terms of architecture or significantly different payment products? What will be the implications of these changes? Are there actions that should be taken now to take full advantage of these changes?

In looking to the future, the RBA needs to be fully aware of the underlying changes within payments.

Marketisation needs to be more fully considered. Marketisation arises where underlying payment clearing systems become commercialised and begin to compete with each other. The best example of this in Australia is the creation of EPAL.

This sees payments schemes and systems acting less as underlying utilities and more as competitors. This heightens the need for the regulator to ensure that interventions do not

impede efficiency, security or competition, which becomes more difficult as fragmentation occurs and new secondary payment service providers, such as PayPal, enter the marketplace. This will only accelerate with the development of payment services in the online environment where social networking sites already provide payment methods and virtual currencies. As well issuers and acquires may explore new business models that involve splitting these areas of business. The injection of new technology in this regard may become both an advantage and disadvantage.

As well, the RBA must be mindful that regulation is an important determinant in the promotion of innovation. A clear and consistent regulatory environment should create incentives to provide innovative payment products and services. It should also be recognised that often industry needs to collaborate to create a platform for innovation in a network industry such as payments.