Re : Proposed amalgamation of BPAY Group Holding Pty Ltd, BPAY Group Pty Ltd, BPAY Pty Ltd (together, BPAY), eftpos Payments Australia Limited and NPP Australia Limited

Statement by NPP Australia Limited in support of application for authorisation

Signed by: Adrian Lovney, CEO of NPP Australia Limited

Date: 16 March 2021

This document contains confidential information which is indicated as follows: **[Confidential to NPP Australia Limited]**

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A. INTRODUCTION

1 I am the Chief Executive Officer (**CEO**) of NPP Australia Limited (**NPPA**) and I am authorised to make this statement on NPPA's behalf.

2 Exhibited to me at the time of preparing this statement are two bundles of documents, one marked "**Confidential Exhibit AL-1**" and the other marked "**Exhibit AL-2**". Where in this statement I refer to tabs in Confidential Exhibit AL-1, I am referring to the tabs of Confidential Exhibit AL-1. NPPA claims confidentiality over Confidential Exhibit AL-1. Where in this statement I refer to tabs in Exhibit AL-2, I am referring to the tabs of Exhibit AL-2.

3 The matters set out in this statement are based on my knowledge of NPPA's operations, my review of NPPA's business records, my participation in NPPA's Executive Leadership Team, my involvement with NPPA's business, and my knowledge of the payments industry in Australia.

A.1 Qualifications and employment history

NPPA

4 I hold an Honours degree in Law from the Queensland University of Technology, which I completed from 1992 to 1997 and a Master of Business Administration from Melbourne Business School, which I completed in 2005. I completed the Advanced Management Program at Harvard Business School in Boston in 2011.

5 I have been the Chief Executive Officer of NPPA since September 2016 and concurrently a Director on the NPPA Board.

Experience Prior to NPPA

6 I was employed by Cuscal Limited (**Cuscal**) for approximately 17 years from 1999 until 2016. From February 2009 to February 2013, I was General Manager, Strategy & General Manager of the Cuscal 2013 Transformation Program. In this role I was responsible for leading the successful migration and transition of Cuscal's 87 financial institution clients to a new payments technology platform for processing all cards and payments processing at Cuscal and leadership of the commercial and client relationships.

7 From February 2013 until August 2016, I was employed as the General Manager, Product & Service at Cuscal. In this role I was responsible for all product management and operational functions, marketing, business development and customer service. These activities supported Cuscal's transactional, payments, and capital management portfolios including ATM's, cards, payments, and fraud prevention.

8 From February 2013 until August 2016, I was a Director on the Board of the Australian Payments Clearing Association Limited, (now AusPayNet), the Australian payments industry self-regulatory

body. From November 2014 until August 2016, I was a Director on the Board of EFTPOS Payments Australia Limited, in both cases representing Cuscal and its customers.

9 At the time I left Cuscal, it was a highly visible player in payments, processing approximately 15% of Australia's payments, on its own infrastructure, with an ADI licence, an A+ credit rating, 3,400 ATM's, and clients including Bendigo Adelaide Bank, Macquarie Bank, Mastercard, Virgin Velocity, Australia Post, ING Direct, Square, and 87 customer owned financial institutions.

A.2 Role and responsibilities

10 My role at NPPA includes leadership of the NPPA team; making decisions about the operation of the infrastructure on a day to day basis under delegated authority from the NPPA Board; working with the shareholders and users of the NPP to develop and gain support for enhancements to the infrastructure (at the central level and in each of the financial institutions who use the NPP) which will grow its use; engagement with a range of regulators and government, and championing the use of NPP in Australia.

11 I have three direct reports, a General Manager of Technology and Operations who is primarily responsible for running the technology and operations in conjunction with our vendor partners; a Head of Engagement who is responsible for external relationships including with our NPP shareholders and the broader market; and a General Counsel and Company Secretary who is responsible for governance, risk management and the rule framework that governs the NPP's use.

B. NPPA's EXISTING AND PROPOSED INFRASTRUCTURE/TECHNOLOGY

12 NPPA is an unlisted public company responsible for the management and operation of the New Payments Platform (**NPP**).

13 After an extensive RFP process, SWIFT, a global financial cooperative owned by 11,000 financial institutions worldwide, was selected to build the NPP Basic Infrastructure as bespoke market infrastructure tailored to NPPA's needs.

14 SWIFT also supplies the underlying payment infrastructure for the Australian Real Time Gross Settlement System (**RTGS**), which is a high value clearing system introduced in 1998. Under RTGS, payments between banks are made individually in real time out of credit funds in the paying bank's Exchange Settlement Account (**ESA**) with the Reserve Bank of Australia (**RBA**). RTGS payments are final and cannot be revoked by the paying bank or otherwise unwound. RTGS operates between 9am and 6pm, Monday to Friday.

15 There are three main categories of payment obligations settled through RTGS:

(a) wholesale debt securities and money market transactions in the Australian securities settlement system;

(b) the Australian dollar leg of foreign exchange transactions and correspondent banking flows; and

(c) interbank borrowing and lending, and special purpose interbank transactions entered directly into the RBA's Information and Transfer System (**RITS**)[1] as 'cash transfers'.

16 From a retail customer perspective, RTGS supports payments known as Telegraphic Transfers which are principally staff-assisted transactions costing about $30.

17 The NPP is designed to support a 24/7 modern, digital economy. It provides a fast, flexible and data-rich payments system that enables Australian consumers, businesses and government agencies to make real-time account to account payments.

18 The NPP was built as the payment industry's collaborative response to the observations made by the RBA's Payments System Board's (**PSB**) 2012 Strategic Review of Innovation in the Australian Payments System. A copy of the Review is attached at **Tab 1** of **Exhibit AL-2**. In this report, the PSB identified a number of gaps in the Australian payments system that were required to be addressed, in the public interest. These included:

(a) the capacity for businesses and consumers to make payments in real-time, with close to immediate funds availability to the recipient;

(b) the ability to make and receive low-value payments outside normal banking hours;

(c) the capacity for businesses and consumers to send more complete remittance information with payments; and

(d) the ability to provide for easier addressing of payments as an alternative to specifying a BSB and account number.

19 The NPP is a new, centralised, layered business architecture for payments clearing, and incorporates settlement of those payments transactions also occurring in real time between the parties' financial institutions.

20 The core components of the NPP are described as the Basic Infrastructure, which comprises 4 components:

(a) payment gateways, a set of which are controlled by each of the (currently, 13) directly-connected NPP participating shareholders (**Participants**);

(b) a central Addressing Service database which provides the PayID functionality;

[1] For more information about RITS, please see https://www.rba.gov.au/payments-and-infrastructure/rits/about.html.

(c) the Fast Settlement Service which is operated by the RBA's Settlement Department and which settles each successfully completed NPP transaction by moving funds in real-time between the relevant NPP Participants' Exchange Settlement Account held at the RBA; and

(d) networking connectivity which securely connects the componentry set out at sub-paragraphs (a) to (c) above.

DIFFERENCES BETWEEN THE TWO KEY AUSTRALIAN ACCOUNT-TO-ACCOUNT SYSTEMS: BECS AND NPP

21 NPPA is owned by 13 Australian financial institutions, including the RBA, and operates as a non-profit maximising payments utility.

22 NPPA commenced operation three years ago in February 2018.

23 The legacy account-to-account payment system Bulk Electronic Clearing System (**BECS**) is run by AusPayNet (formerly the Australian Payment Clearing Association) as a series of bilateral intraday file exchanges facilitated under a common rule book over the Community of Interest Network (**COIN**).

24 The connectivity and operational charges for BECS and the COIN are levied on the 12 Tier 1 institutions that participate in daily BECS file exchanges.

25 There are a number of differentiating features between the NPP and BECS which is still in use today and which commenced operation in the 1960's. These differences include:

(a) The BECS system is a batch-based system in which payments are held by a sending bank in bulk and then exchanged with other financial institutions at five file exchanges per business day, namely 10:45am, 1:45pm, 4:45pm, 7:15pm, and 9:15pm, whereas NPP transactions are processed on a continuous basis, with funds transferred from the sending bank's ESA account to the receiving bank's ESA account, and funds generally debited from the sender's account and credited to the receiver's account in less than 10 seconds.

(b) Payments sent via the BECS system can carry no more than 18 alpha-numeric characters in text with the payment, whereas the data capabilities of the NPP use the open ISO20022 international data standard, and can carry practically limitless amounts of either structured or unstructured data with a payment, with data carried able to be tailored to the needs of specific industries (securities, funds management, einvoicing).

(c) Payments sent via the BECS system must be addressed to an account number at a financial institution identified by a BSB number. This is also an option for NPP payments, however an NPP payment can also be addressed to a PayID alias as a proxy for a BSB and account number. The PayID system provides a number of benefits, principally replacing a hard to remember number with something which is familiar to the payer and payee, and also confirming the legal account name of the payee before a payment is completed.

(d) Payments sent via the BECS system involve a lag between when funds are debited from the sender's account and credited to the recipient's account and when funds are transferred between the Exchange Settlement Accounts of the relevant financial institutions. This is known as Deferred Net Settlement and can introduce credit risk in the event of disruptions in the banking system (whether technology-related outages or failures of financial institutions). Under the NPP, funds are transferred in less than 10 seconds between the relevant financial institutions generally before funds are made available to the end recipient. The advantage of this real-time settlement approach, together with the 24/7/365 nature of operation, removes credit risk and enables settlement of large amounts of money with certainty to all parties at all times. It makes the NPP suitable for large purchases such as property settlements, as well as confidence in paying much larger payments without any credit risk related to deferred settlement. Accordingly, the largest single value transaction conducted over the NPP to date was for $19.8 billion dollars.

DIFFERENCES BETWEEN ACCOUNT-TO-ACCOUNT AND CARD-BASED PAYMENTS

26 The eftpos system was established in 1983. In broad terms, it involves a system by which electronic transactions are initiated using a plastic card linked to a bank account and (on the assumption that funds are available and the correct authentication, e.g. PIN, is entered) are authorised enabling a merchant to confirm the success of a transaction in a few seconds (although settlement, or exchange of value between the relevant financial institutions for the cardholder and the merchant, does not occur until the next business day).

27 eftpos was able to achieve functionality that was suited to the needs of merchants (always available, with near instant notification of success) in a way that wasn't possible with account-to-account payments (which only operated on business days and included lags of between a few hours and a few days over the weekend), because of the following differences between card-based payments and account-to-account payments:

(a) card-based payments flourished at Point of Sale – enabling fast, convenient payments, generally for goods and services. Functionality was extended to support different retail needs, such as refunds, as well as pre-authorisation or "holds" of funds (commonly used when staying at a hotel). They were extended over time in various ways, for example, with the introduction of contactless payments (tap and go, without a PIN) for lower value payments;

(b) account-to-account payments through BECS were traditionally used by businesses to pay Direct Credits, i.e. supplier invoices, staff wages and shareholder dividends (generally in bulk files simultaneously, i.e. a large number of invoices to various suppliers, payroll for their entire staff, or companies paying dividend payments to thousands of shareholders). The Direct Debit system enabled billers (particularly utilities) to debit funds payable to them from account holders who had agreed in advance (originally via a paper Direct Debit Authority) for their bill to be paid by Direct Debit. The biller would submit a large number of simultaneous debits as a batch via the BECS system for their numerous customers, with funds taken from their customers' accounts sometime later. As internet and mobile banking was introduced in the late 1990's, financial institutions enabled consumers to make "Pay Anyone" credit transactions (for example to repay funds to a friend, or to pay rent) using the BECS system. These payments were generally initiated individually by bank customers, though submitted in bulk and credited to the payee at the next available file exchange.

28 In other words:

(a) the card-based system provided near-real-time confirmation of the success of a transaction and was 'always available' in ways that the account-based system was not and therefore this suited retail uses;

(b) the account-to-account based system evolved to include functionality which was useful to businesses (but not always ideal for payers).

29 Importantly, neither the eftpos nor BECS system has evolved satisfactorily to meet the needs of online payments and this situation still exists today.

30 The BPAY bill payment service was introduced in 1997 to respond in part to the deficiencies in BECS and eftpos. Clearing occurs separately via an exchange of files orchestrated by BPAY. It also utilises the BECS system to settle in bulk the movement of funds between financial institutions, usually for the payment of bills, originally by telephone and subsequently via online banking. The BPAY system incorporates Biller ID's which are allocated uniquely to billers (i.e. utilities, local councils) and Biller Reference Numbers which represent the account holders unique customer reference number with the relevant biller.

31 BPAY is superior to Direct Debit because BPAY payments are initiated by the payer who has control over the timing of a payment and knows the amount being paid, whereas under the Direct Debit system, payments are initiated by the biller, with less control or visibility by the payer over the timing or the amount of a payment, and often difficulties in cancelling existing Direct Debit arrangements. However BPAY is not real-time, and so while it is useful for making Bill payments over the internet or phone for services where an ongoing business and/or credit arrangement exists between a biller and a payer, it is not generally suitable for online payments where there is

no such existing ongoing business and/or credit relationship, because payment confirmation does not occur in real-time, but at a later stage, generally overnight.

32 As account-to-account payments are moving from batch (using BECS) to real-time (using NPP) the historical differences between the payment systems have become blurred. This is particularly as:

(a) card scheme transactions increasingly shift from being initiated by plastic card to being “cardless” online or via a mobile phone;

(b) transactions move from being initiated via physical credentials, to seamlessly (i.e. using a Scan & Go type app in a physical store, or in an Uber-type app); and

(c) transactions shift to online ecommerce or subscription.

33 It is noteworthy that Mastercard and Visa had their origins as card processing businesses, like eftpos albeit operating internationally (and thereby offering international reach for cardholders, including buying goods and services from international websites). However, in both cases, Mastercard and, to a lesser extent, Visa have extended their businesses into real time account-to-account payments as well as their traditional card businesses. In the case of Mastercard, it supplies, or has contracts to supply, real time account-to-account payments via two businesses it has acquired (Vocalink and NETS) in the UK, USA, Canada, Singapore, Denmark, Norway, Sweden, and Saudi Arabia.

ACCESS TO AND USE OF THE NPP

34 There are different pathways to access the NPP, enabling as many organisations as possible to reap the benefits of the platform.

35 As noted above, NPPA has 13 Participating shareholders, each of them ADIs, who are directly connected to the NPP with their own Payment Gateways which are connected to each other and to the Fast Settlement Service.

36 These 13 Participants have, between them, relationships with a further 84 identified institutions (80 of which are also ADIs and four of which are not ADIs) who connect to the NPP indirectly via one of those 13 Participants (**Identified Institutions**).

37 Some of the 13 Participants conduct banking business under a number of brands, for example: Commonwealth Bank and BankWest; Westpac, St George, BankSA, and Bank of Melbourne.

38 The 13 Participants and their various brands, and the other 84 Identified Institutions, send and receive NPP payments between them. Collectively, these organisations currently enable real time payments between 74 million retail, business, commercial, and institutional bank accounts.

39 The NPP went live to the Participants and the Identified Institutions in October 2017, and to the public in February 2018 with a Single Credit Transfer message.

40 All Participants are obliged by the NPP Regulations to receive the core Single Credit Transfer (**SCT**) message which is properly formatted and pass value to their customer, but they are not obliged to send SCT messages. In practice, nearly all of the Participants have chosen to send SCT messages, though not necessarily via each channel of service – for example some financial institutions send SCT's initiated by the mobile channel but not for transactions initiated via an internet browser. This is generally because of technical and/or cost reasons.

41 The concept of an "Overlay Service" is set out in the published NPP Regulations. Any Australian-domiciled business which meets certain minimum criteria is able to register with NPPA and establish an Overlay Service which NPP Participants and Identified Institutions can choose to optionally subscribe to and offer to their customers. These Overlay Services were anticipated to incorporate, and potentially extend, the core capabilities available within the NPP's Basic Infrastructure, or existing Overlay Services (according to the commercial conditions set by the Overlay Service Provider).

42 The only Overlay Service that exists on the NPP and is in production is Osko by BPAY. BPAY was selected in 2015 via a tender process to be the provider of this first NPP Overlay Service (the 'Initial Convenience Service', subsequently branded as 'Osko').

43 Osko by BPAY is an example of a relatively simple Overlay Service with no additional or new message orchestration. It extends the NPP Single Credit Transfer with a requirement to post funds within a specific SLA and a consumer facing brand name, Osko.

44 Subscription to the Osko Overlay Service requires a commercial agreement between the relevant financial institution and BPAY and requires compliance with a number of rules set by BPAY for the Osko service, principally the Osko branding and a set of defined customer experience elements.

45 The majority of NPP participants have opted to subscribe to Osko while others have not and these organisations send and receive SCT messages only. There are a range of technical and customer impacting issues that arise from the fact that a number of financial institutions have not joined the Osko service, including that they cannot send and receive faster payments between themselves and financial institutions who do not send SCT messages. For example, faster payments using the NPP cannot be sent between Westpac and either of Macquarie Bank and HSBC, because the latter financial institutions have not elected to join the Osko service and because Westpac does not send SCT messages for transactions initiated in its retail channels (which it is not required to do). In this example, if a Westpac customer wanted to send funds to a Macquarie Bank or HSBC customer, it could not be sent as a fast NPP payment but would "fall back" to a BECS payment.

46 The original proposition behind the Overlay Service framework set out in the NPP Regulations was to allow financial institutions to elect to subscribe to different Overlay Services depending on their own commercial imperatives and business priorities. In practice, it is my experience that payment services require sufficient critical mass or network effect to be useful for broad usage. Where it is not sufficiently clear that an Overlay Service has, or will have, sufficient critical mass or network effect to be useful, this acts to inhibit participation by others.

47 This is a common issue in payments – the absence of coordination and certainty drives a “chicken and egg” problem – a bank will only subscribe to a service if it is reasonably clear that others will also subscribe to it within a similar timeframe. In the absence of this certainty, the optimal course of action for an individual institution is to sit back and wait and take no action, particularly if there are other alternatives to action which are equally attractive (i.e. where Visa or Mastercard offers a similar service which meets the needs of the institution’s customers), or if investment dollars are scarce and there is contention for funds to be used for other purposes. For this reason, payment schemes traditionally use a combination of incentives (“I will economically incentivise you to roll out a specific service”) or mandate rules (“I will penalise you if you don’t roll out a specific service”) to create the necessary network effect required for success. This is an approach typically adopted by the international card schemes in particular.

48 BPAY had originally announced its intention to deliver three Overlay Services in October 2015, after a formal Request for Proposal and competitive selection process during NPP’s development. However, only the initial Osko service was established and there are no current firm plans to deliver the additional services, being Osko Request to Pay or Osko Payment with Document. Included in Confidential Exhibit AL-1 at: **[Confidential to NPP Australia Limited]**

49 Similarly, it was originally thought that specific industry verticals with the need and the commercial imperative to develop tailored payment services (with the ability to carry specific data payloads) might want to modify and extend the existing NPP capabilities to create Overlay Services to meet those specific business objectives. Examples could include:

(a) payment services which supported the carriage of defined; or

(b) market specific data in the securities, superannuation; or

(c) property conveyancing market segments.

50 In conversations with various industry verticals, it was identified that development of an NPP Overlay Service was either:

(a) not a priority; or

(b) there was a preference to use a common industry standard rather than develop a proprietary data standard; or

(c) there was a concern that an insufficient number of financial institutions would be prepared to subscribe to that Overlay Service,

thereby undermining its commercial viability.

51 In my view, the development of Overlay Services, as originally anticipated, did not occur because there are relatively few market participants with the commercial influence or with the ability to influence a critical mass of NPP participants to prioritise and complete the necessary technical or commercial activities to implement these Overlay Services. Specifically, a "chicken and egg" problem arose in that financial institutions were unwilling to subscribe to Overlay Services in the absence of certainty that a specific proposal would have sufficient other financial institution subscribers to have network effect and therefore be successful.

52 In my experience, there are a range of factors that impact a bank's willingness to roll out specific services which include:

(a) differing commercial strategies (some financial institutions focus on business and institutional customers, including merchant customers; other financial institutions focus on retail customers);

(b) differing investment cycles and funding available;

(c) other compliance or remediation priorities; and

(d) congestion in specific limited technical resources focussed on other priorities (particularly development in the mobile channel, which is the channel that most customers now use to engage with their financial institution. For example, CBA's banking app services ~7m customers).

53 There are specific challenges that involve changes to digital channels (mobile, internet banking, business portals) because these are high availability, highly contested applications in terms of development, with a strong focus on CX. Any changes involving new functionality in a bank's digital channels introduces exponential effort. Additionally, it is particularly the case that financial institutions already have similar functionality in place or planned via one of the international card schemes, and therefore in an environment where resources are constrained, implementing a similar ("me too") product may not be a high priority.

54 I have a number of years' experience as part of payment schemes proposing developments to financial institutions (from my time on the eftpos Board, and now at NPPA) and also as a financial institution having developments pitched to me by payment schemes (at Cuscal). In my experience, a plethora of similar product options from domestic payment schemes which are developed independently, generally makes the allocation of scarce resources even more complex, contested, and progress glacial. Financial institutions are reluctant to make decisions

to allocate scarce resources unless they know a proposed product or feature will have broad take-up amongst other financial institutions in order to create the required network effect; if this is not clear they will generally delay or defer an investment until it is clear.

55 The NPP Regulations continue to support the potential development of Overlay Services. However as of today, there are no additional Overlay Services which are operational with subscribers or even in the pipeline beyond the original Osko by BPAY service. Included in Confidential Exhibit AL-1 at **Tab 4** is a monthly summary of Osko transaction performance from 01 Mar 2020 to 28 Feb 2021.

56 Given the investment that financial institutions had made in building the NPP, the calls from outside market participants and relevant regulators (specifically the RBA and the ACCC) to enable use of the NPP by third parties, and the financial imperative for NPPA to increase volumes through the NPP given its fixed cost of operation, the NPP Executive Leadership Team recommended to the NPPA Board in 2017 that, in parallel to the Overlay Service framework, NPPA sponsor the development of processing rules for particular NPP message types as native Business Services. Certain capabilities were identified through discussions with NPP Participants and other market participants as supporting a range of potential uses and capable of supporting large numbers of NPP transaction volumes. The proposed approach would see the NPPA develop capabilities as Business Services and make them broadly available to the market for anybody to use. This was deemed to be likely to result in greater use of the NPP by a wider range of third parties and organisations.

57 Accordingly, in the NPPA 2017/18 Strategic Plan, the NPPA Board agreed that, in addition to supporting new Overlay Services from third party proponents, it would also sponsor the development of Business Services, which are each extensions to the existing NPP messaging capabilities, having their own defined business rules and processes to support a range of new use cases. These Business Services could be used by Participant financial institutions and third parties in a variety of ways and incorporated into their own product and service offerings outside of the platform, thereby supporting more competition and innovation 'at the edges'. These Business Services are set out below in paragraphs 66, 67, 73, and 85-87. Included in Confidential Exhibit AL-1 at: **[Confidential to NPP Australia Limited]**

58 As a matter of recent practice, and in line with a recommendation from the RBA review into NPP Access and Functionality,[2] ongoing NPP functionality developments are published in a bi-annual NPP Roadmap. A copy of NPPA's Roadmap from 30 October 2020 is attached at **Tab 2** of **Exhibit AL-2**.

59 Finally, a feature of NPP's operating model since its establishment in 2016 was a major and minor annual release cycle. Every year, a minor and major infrastructure release is implemented

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2 Please see **Tab 3 of Exhibit AL-2**.

in April and October respectively. These minor and major releases contain a mix of compliance, infrastructure and (in the case of the major release in October) product enhancements.

60 Candidates for inclusion in these release cycles are discussed as far as 24-36 months in advance through a number of different NPP governance committees. While the decision about the content of the release is ultimately determined by NPPA management (or the Board if significant investment is required), there is generally a high degree of alignment amongst these committees in respect of the necessity and utility of candidates for inclusion in minor and major releases. Developments involving investments within the approved budget are delegated to the CEO, while developments involving investments beyond this level are reserved for the NPPA Board (these would generally be major product enhancements, such as the Mandated Payments Service).

61 While NPP Regulations require that implementation of agreed minor and major releases is mandatory for directly connected NPP Participants, it became clear through 2019 that there was no effective mechanism to enforce compliance with these requirements (other than suspension or termination of NPP participation). After consulting with NPP Participants, there was broad (but not unanimous) support for the implementation of a Mandatory Compliance Requirements framework under which certain minimum network requirements (relating to network integrity or operational performance) could be designated as Mandatory Compliance Requirements by (a 2/3 majority of) the NPPA Board and a date set by which these were required to be implemented.

62 The Mandatory Compliance Requirements regime was established by the NPPA Board in October 2019. Since that time, ten requirements have been designated as mandatory, and these are published on the NPPA website.[3]

63 Non-compliance with Mandatory Compliance requirements potentially exposes NPP Participants to non-compliance charges, which are assessed and determined by the NPP Governance Committee comprised of independent NPPA Directors.

64 Generally speaking, mandatory requirements related to network integrity require NPP Participants (and their sponsored Identified Institutions) to implement technical requirements on the receive side, although the rules are not prescriptive and do not oblige participants to offer customer services in any particular way, or restricts them from providing other services. Further, this approach does not impose any requirements on participants to offer commercial services, or restricts them from offering commercial services; any decision to offer payment services to customers that involves sending payments or payment initiation messages remains a commercial choice. For example, under the NPP rules, which are contractual, all participants are obliged to receive and be able to process Single Credit Transfers that other participants send to them. Where a payment includes structured data that the payee needs for reconciliation, the

[3] https://nppa.com.au/mandatory-compliance-requirements-2/

designation of the requirement to receive and pass on the structured data in the payment message as a mandatory compliance requirement creates a financial incentive for participants to make the technical changes to their payments gateways to ensure this is done. In this way, a mandatory compliance framework can assist in the establishment of a network effect where NPPA determines that a product enhancement is necessary or considered desirable.

65 For completeness, it should be noted that while mandates are effective to a point, multiple and overlapping mandatory requirements imposed on financial institutions from different schemes creates different problems for financial institutions, including a reduction in autonomy, redirection of discretionary funding pools to compliance funding pools (and therefore makes agreement of mandatory requirements at the scheme level even more contested).

C. ACTUAL AND PROPOSED SERVICES AND/OR FORM FACTORS

66 The core Single Credit Transfer service defines how a credit payment is processed between two financial institutions according to the NPP's Core Clearing and Settlement rules using the ISO 20022 pacs.008 message. The rules define the core message orchestration of clearing and settlement messages that result in a completed transaction and the movement of funds. The SCT service forms the basis of Osko by BPAY.

Category purpose code

67 NPPA is implementing a category purpose code business service in April 2021. This service is designed to support specific payment types, namely payroll, tax, superannuation and e-invoicing payments. Under the business service rules, category purpose codes are used to identify these different payment types and also specify that certain data elements should be included in the NPP payment message. All NPP participating financial institutions are obliged to receive NPP payment messages formatted with additional defined data elements for payroll, tax, superannuation and e-invoicing payment by April 2021. The sending of these payment messages will be a commercial decision for participating financial institutions according to their individual strategies and commercial objectives.

68 I have seen recent media coverage[4] about eftpos' Deposits and Withdrawals service though my knowledge is limited to what I have read in the public domain. I think that the success of this service is likely to be influenced by a range of factors, including cost relative to other alternatives (which will include distributor's margins), and account reach relative to other alternatives (like BECS or NPP payments).

[4] Please see https://treasury.gov.au/review/future-directions-consumer-data-right/final-report.

69 Visa and Mastercard have launched similar services in other markets[5] supporting disbursements and payouts, however these have included countries with relatively higher 'unbanked' populations and/or slower (3 day clearing) bulk payment systems.

70 Unlike the NPP category purpose code payments which use the ISO20022 data standard, eftpos' Deposit & Withdrawal service does not appear to be data-rich, although disbursement payments do not require significant data payloads other than a clear indication to the payee of what the payment is for. Non-bank organisations acting on behalf of payers may be attracted to the economics of the eftpos offering, but I consider that the offering will be constrained by a lack of certainty around account reach (relative to NPP and BECS) and an uncertainty about exceptions processing and how this would be managed.

71 Banks are likely to be more inclined to favour account-to-account payments, utilising either existing bulk payment file formats or moving to alternative channels such as APIs rather than card-based disbursements.

*Mandated Payments Service (**MPS**)*

72 The MPS business service will enable customers to authorise third parties to initiate payments from their bank accounts using the NPP. The capability is intended to support a range of use cases, including a better alternative to current Direct Debit payments which was the original driver for the pursuit of this NPP development by financial institutions commencing in 2017, before the NPP went live. Included in Confidential Exhibit AL-1 at **Tab 8** is a paper titled "Mandated Payments Service: Capability Definition", dated January 2020, which provides an overview of the MPS.

73 The MPS service has a number of elements:

(a) the ability for customer authorised payment arrangements or 'mandates' to be created and stored;

(b) payment initiation messaging which references that mandate record;

(c) a centralised database for storing the mandate (the Mandate Management Service);

(d) business rules that define how those mandates are created, the processing of payment initiation requests, the customer facilities that participating financial institutions must provide to their customers, recovery processes for error payments and mistaken payments, the liability framework associated with unauthorised payment initiation requests and participation rules and criteria for different parties accessing the MPS; and

[5] Please see https://www-marketwatch-com.cdn.ampproject.org/c/s/www.marketwatch.com/amp/story/visa-is-eyeing-the-opportunity-beyond-checkout-and-estimates-its-worth-185-trillion-11613754013.

(e) APIs for creating, amending and accessing mandate records in the Mandate Management Service.

74 While the MPS capability was originally conceived to support migration of Direct Debit arrangements from BECS to the NPP, it has actually been designed as broad, flexible capability which will enable a range of different use cases including merchant-initiated ecommerce and in app payments, and to support third party payment initiation for account-to-account payments, with the account-holder's authorisation. The Australian Government's recent Review into Future Directions for the Consumer Data Right strongly endorses the use of the NPP's Mandated Payments Service to enable third party payment initiation, informally known as "write access".[6]

75 MPS customers provide their explicit authorisation for payments to be initiated from their account by a specified third party, in advance of any payments being processed. This authorisation is recorded with the creation of a digital payment arrangement or 'mandate' and stored centrally in a secure database managed by NPPA. Customers can digitally view, modify and manage the authorisations that they have established on their account and will be able to move these mandate payment arrangements between bank accounts including at a different financial institution.

76 The MPS is an improvement over Direct Debit today because:

(a) it is more digital and less manual;

(b) it enables account holders to have visibility of the entire range of payment arrangements they have established in one place (generally in a digital channel); and

(c) enables these arrangements to be cancelled, suspended, or transferred between financial institutions.

77 For merchants, the digitisation of MPS provides benefits over the current Direct Debit arrangements including real-time notification of available funds, if a payment arrangement is cancelled, as well as real-time remittance of funds.

78 All NPP Participants are required to implement elements of the MPS by December 2021. That will require them to effectively give effect to their customers' instructions by obtaining express authorisation of new payment arrangements and processing the associated payments.

79 In Europe, the growth of account-to-account real-time payments (originally introduced by regulatory action under Payment Service Directive 2) have been predicted to make major inroads into the market share of card-based payment options online. Ovum Research predicted that

account-to-account real time payments would make significant inroads into card-on-file transactions across various markets in Europe as it was enabled in various markets.[7]

80 Though this is still evolving, there have been a number of market developments recently which are evidence of this shift, for example UK Fintech GoCardless raising $95m in funding from Bain Capital Ventures in December 2020 to enable more businesses to accept account-to-account payments in place of card based transactions.[8]

81 UK fintech Truelayer, which originally launched as a platform to enable fintech connectivity under Open Banking, in January 2021 also launched PayDirect to enable businesses to replace online card payments with account-to-account payments.[9]

82 In Australia, the regulatory driver for the growth of account-to-account real time payments (known as the Consumer Data Right "write access", including payment initiation) has been framed as being more about opening up the data economy to a range of parties.

83 NPP expects that payment initiation under the Consumer Data Right in Australia, which is likely to utilise the NPP's MPS among other options[10], will provoke similar market responses from these same international players as well as local domestic fintechs, for example:

(a) GoCardless has launched in Australia and is exploring MPS;[11]

(b) Truelayer has opened an office in Australia;[12]

(c) Australian fintech and NPP Identified Institution, Monoova, is promoting recurring payments and the MPS;[13]

(d) Australian fintech PaypaPlane describes MPS as "the one we have all been waiting for - the direct debit replacement- and banks will be required to participate - at least to receive the MPS messages. The real 'diamond' though is the ability to be able to send MPS messages (essentially this is the bit that will allow businesses to send payment request via the NPPA)."[14]

84 The history of development of the MPS itself (set out below) provides some insights into the challenges of product development and the impact of a lack of coordination among domestic

7 https://iconsolutions.com/wp-content/uploads/2017/05/Instant-Payments-and-the-post-PSD2-landscape-Final-1406-1.pdf
8 https://www.reuters.com/article/us-gocardless-funding-idUSKBN28R0V2
9 https://blog.truelayer.com/introducing-paydirect-5db2766bc71d
10 https://treasury.gov.au/review/future-directions-consumer-data-right/final-report
11 https://www.fintechfutures.com/2020/08/gocardless-australia-readies-for-open-banking-and-instant-direct-debits/
12 https://www.finextra.com/newsarticle/36816/truelayer-enters-australian-open-banking-market
13 https://www.linkedin.com/posts/monoova_monoova-mps-the-next-step-for-real-time-activity-6767308808390881280-OoKd/
14 https://www.paypaplane.com/post/subscription-payments-payment-systems-and-the-covid-coloured-future

payment entities all accessing similar funding, investment, and technology resources from the domestic payment sector's (largely common) shareholders:

(a) in mid-2015, debit messages were descoped from Day 1 NPP deliverables. Osko Request to Pay was also descoped at that time;

(b) in February 2017, in response to requests from more than half of the NPP Participants, the NPPA Board endorsed the formation of an industry and NPPA working group, the Direct Debit Alternatives Working Group, which produced a 50 page analysis. This piece of work was noted by the NPPA Board in May 2017, which endorsed further work upon a proposed model;

(c) work continued through a range of workshops on the structure of a mandate service, payments messaging models, and approach to commercialisation through 2017 and early 2018;

(d) in March 2018, the NPPA Board formally established a project to establish a consent and debit payment model, broadening the original scope beyond a direct debit replacement to a broad payment initiation messaging capability;

(e) in October 2018, the NPPA Board endorsed the strategic rationale, selected a vendor, and endorsed a budget to build the Consent and Mandate Service, which continued under various working groups, with a target delivery date of end 2020;

(f) despite this endorsement, certain Participants raised concerns about a lack of funds to implement, congestion in their mobile channels, and the relative merits of this approach relative to Osko Request to Pay and eftpos online (which were also variously supported by a number of Participants);

(g) NPPA management reported in July 2019 that, following bilateral conversations with each of the 13 Participants, there was a lack of sufficient consensus to proceed in line with the agreed design. On 25 July 2019, the NPPA Board endorsed a recommendation to explore an alternative design that involved a lower level of central investment and this exploration continued until September 2019;

(h) on 17 October 2019, following a series of bilateral discussions, NPPA management reported that there was no consensus around the alternative design and the Board endorsed a recommendation to progress with the original option, albeit now scheduled for delivery with a 12 month delay at end 2021;

(i) **[Confidential to NPP Australia Limited]**

(j) debit-like messaging on the NPP and Osko Request to Pay were descoped from the original NPP delivery program in 2015 and may or may not be delivered by Australian banks in mid-2022. This is a delay of seven years and still no meaningful online payment capability is broadly available under any Australian domestic payment scheme – in the meantime, the international card schemes have almost 100% market share of online transactions.

International payments

85 The NPP International Payments business service is a scheme agnostic business service that enables the NPP to be used to send payments to the ultimate beneficiary or customer over the NPP as the inbound domestic leg of the cross-border payment process.

86 This business service has certain additional requirements for the processing of these payments:

(a) it must be separately identified as an international payment; and

(b) specific data fields – like the full legal account name of the sender, date of birth, and other details –need to be transmitted from end to end to allow the receiving bank (as the ultimate beneficiary's bank) to conduct any necessary screening.

87 The international payments business service is currently in production and is an optional service that NPP Participants can opt in to. However, all NPP Participants are obliged to join the international payments business service to receive inbound international payments via the NPP by December 2022, as part of the platform's annual infrastructure release. This requirement has been designated as a mandatory compliance requirement coming into effect in April 2023.

D. TOP 10 CUSTOMERS FOR EACH SERVICE, BASED ON ANNUAL REVENUES FROM THE CUSTOMER FOR THAT SERVICE IN THE LAST FINANCIAL YEAR

88 The following 12 NPP Participants contributed 100% of NPPA's revenue in 2019/20 for the single service currently available today – the Single Credit Transfer:

NPP Transaction Revenue – Single Credit Transfer	2019/20 revenue
ANZ	8,999,500
CBA	8,999,500
NAB	8,999,500
Westpac	8,999,500
Bendigo Adelaide Bank	1,404,800
Cuscal	1,404,800
ING Australia	1,404,800
RBA Banking (Government Banking services)	1,053,600
Citibank	878,000
Macquarie Bank	878,000

ASL	439,000
Indue	439,000
Total Revenue	**43,900,000**

89 This revenue is collected by NPPA on a fixed-cost transaction basis, rather than on a per-transaction basis. This approach was adopted by the NPPA Board at go live in 2018, as a temporary measure while transaction volumes grow. Under this arrangement, NPP participants may process unlimited transaction volumes, with contributions fixed on the basis of these Participant's shareholding in NPP.

90 From 2022/23 onwards, it is likely that transaction pricing will be adopted, because:

(a) the anticipated transaction volumes at the time will mean that the price per transaction will be in the vicinity of a few cents per transaction; and

(b) there will be a more diverse range of additional services available, principally payment initiation messages and associated mandate management services, supporting third party payment initiation for 'debit-like' payments via MPS and in this context, per transaction pricing will be a more equitable way of allocating costs between NPP Participants who will increasingly use the NPP in different ways.

E. NPPA'S ACTUAL AND POTENTIAL COMPETITORS FOR EACH SERVICE

91 Included in Confidential Exhibit AL-1 at **Tab 9** is a table that sets out the offerings I consider to be NPPA's actual and potential competitors for services.

F. KEY TRENDS IN NPPA'S MARKETS

92 In my experience, there is an accelerated trend towards digital payments by both consumers and businesses, including:

(a) the ongoing decline in use of cash as a payment instrument;

(b) the uptake of contactless payments at the Point of Sale, and 'seamless payments' embedded into online experiences (the so-called Uber experience, as well as 'card / account on file' arrangements);

(c) the increase in e-commerce and the more prevalent use of digital payment channels, such as mobile banking, is driving the growth of electronic transactions;

(d) an increased expectation of real-time fulfillment including availability of funds (by both customers and businesses), including an expectation that payment systems will be resilient and always available;

(e) the drive for digitisation, automation and a reduction in manual processing (by businesses particularly); and

(f) an expectation that the cost of processing and accepting payments will continue to reduce (including an expectation by retail customers that payments are effectively 'free').

93 For banks, financial institutions, and payment processors, these factors combined with current and evolving business conditions, the regulatory and compliance environment, competitive pressure, and reduction in overall levels of profitability (particularly in a sustained low interest rate environment) lead to a number of imperatives:

(a) achieving more resilience in terms of system uptime to meet customer and merchant expectations;

(b) reducing complexity of systems – including reducing the number of disparate payment systems that are supported (including run, compliance, and upgrade costs). A particular focus is on rationalising legacy payment systems like cheques and BECS;

(c) including more data in payments rather than less, including about the origin and purpose of payments, to reduce fraud losses and help combat financial crime; and

(d) gaining momentum (including via regulation) towards securely opening up bank systems to a range of third parties, either selected by financial institutions for product partnerships, or customers e.g. via the Consumer Data Right.

G. NPPA'S CURRENT STRATEGIES

94 Four of NPPA's key strategic imperatives have remained the same since NPPA's establishment:

(a) *Firstly,* to achieve **reach and performance**. That is to:

(i) achieve universal reach of Australian bank accounts to deliver a consistent and positive customer experience; and

(ii) ensure performance stability and robust resilience of the platform. The NPP was intentionally designed to be highly available and resilient, operating 24/7/365. The distributed architecture of the platform is intended to maximise resilience and minimise outages;

(b) *Secondly,* to **develop new capabilities**, including to manage the platform roadmap and future capability development to support innovation (by supporting the development of innovative payment solutions by third parties outside of the platform using the platform's native capabilities). The NPP Roadmap outlines the following three key capability developments:

(i) Data-rich message standards by April 2021. NPPA has developed message usage guidelines for specific payment types, namely payroll, tax, superannuation and e-invoicing payments. All NPP participating financial institutions are obliged to receive NPP payment messages formatted with additional defined data elements for payroll, tax, superannuation and e-invoicing, guaranteeing the required network effect for those wanting to send these messages;

(ii) Third party payment initiation by December 2021 (Mandated Payments Service). The MPS will enable customers to authorise third parties to initiate payments from their bank accounts using the NPP. All NPP participating financial institutions are required to support their customers to authorise new payment arrangements and process the associated payments; and

(iii) International payments by December 2022. This will ensure that inbound international payments being processed over the NPP will include complete payer information. All NPP participating financial institutions are obliged to receive these payments.

A further focus of NPPA's new capability development is the Addressing Service (**PayID**). NPPA owns and controls the PayID asset – it is optionally available for use in the payment flow. Ongoing awareness and usage of PayID will extend its use as an accounts receivable solution for corporates and businesses and also help in resolving other problematic issues for payers (such as misdirected payments and invoice fraud, where payers are tricked into paying account details that have been altered).

(c) *Thirdly* to **drive volume**. With required capabilities in place, NPPA seeks to coordinate Participant activities to actively migrate and drive volumes, supporting a sustainable transaction price and further transaction growth. NPPA aims to be economically self-sustaining, operating on a cost recovery basis. As transaction volumes grow, transaction costs will decline further, offering a low-cost payment option to third parties; and

(d) *Fourthly, to* **support access and market participation**. NPPA seeks to ensure diverse market participation and an open access framework that provides a range of access options for participating organisations.

95 Included in Confidential Exhibit AL-1 are the following documents: **[Confidential to NPP Australia Limited]**

96 Under the current model, there are a range of entry points into the NPP which are open to organisations of different status – the access point which is most applicable to a particular end-user depends on what they want to do with the NPP.

97 This access framework was considered by the ACCC as part of its authorisation of certain participation eligibility criteria and suspension and termination provisions in the NPP Regulations in 2017.[15]

98 Currently, all NPP users access the NPP via a directly connected ADI, or via an Identified Institution who is sponsored into the NPP via an ADI. This includes a number of FinTechs (Monoova, Assembly Payments, AzuPay, Split Payments) who are themselves offering services to third parties, though they access the NPP via an ADI and are therefore subject to sponsorship and commercial arrangements determined by that ADI. For instance, PayPal has commenced offering NPP payments in real-time from its PayPal wallet via an Australian ADI **[Confidential to NPP Australia Limited]**.

99 With the commencement of the MPS, payment initiation requests can either be submitted via an ADI, or directly as a Connected Institution. Connected Institutions need not be ADIs, but are required to fulfil a number of criteria[16] which are directed to the management of operational and credit risk and are analogous to the accreditation requirements associated with the Consumer Data Right. Through one single connection, these organisations could initiate payments, if authorised by the account-holder, from any one of the 74 million accounts currently reachable via the NPP. Accessing the NPP directly, they would pay the same wholesale payment charges, published on the NPP website, as every other directly connected NPP Participant.

100 Access models like this are in place to support third party payment initiation models in other real-time payment rails and are used by a range of third parties to initiate payments from regulated bank accounts. For example, in Brazil, WhatsApp recently launched a P2P payment solution connected to the PIX Instant Payment System. While this has been suspended by the Brazilian Central Bank, for reasons understood to be related to data protection, it is widely expected to return.[17] Less controversially, GooglePay in India has built its entire product on India's Immediate Payment Service (**IPS**)[18], with Google Pay understood to be responsible for approximately 60% of IPS payments. Google initiates payments as a third party in a range of countries. In November 2019, Google published a white paper which provides its perspective on relevant best practice features for third party payment initiation frameworks.[19] The MPS capability incorporates many of these key features, among others.

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[15] https://www.accc.gov.au/public-registers/authorisations-and-notifications-registers/authorisations-register/npp-australia-limited-authorisation-a91560-a91562

[16] https://nppa.com.au/wp-content/uploads/2020/11/Connected-Institutions-Eligibility-Application-and-Onboarding-v3.pdf

[17] https://www.finextra.com/newsarticle/36954/brazil-launches-instant-payments-platform-expects-whatsapp-to-return-soon

[18] https://pay.google.com/intl/en_in/about/business/

[19] Please see https://static.googleusercontent.com/media/pay.google.com/en//about/business/static/data/GPay_RTP_2019.pdf.

101 A recent development which has not been analysed in depth in Australia is Google partnering with a number of small USA community banks and credit unions to rollout GooglePlex[20], the next generation Google Pay app which (in the US context) piggybacks upon a minor bank license and the associated access to the payment rails to promise a new revolution in banking experience to the customers of that institution, via a new Google Pay app. This upgraded application is not available in Australia, but only available to those customers of the handful of USA institutions that Google has partnered with[21]. In the US, which does not have open banking initiatives of any kind, Google is partnering with the financial institution to offer a better Google front-end, in lieu of a traditional partnership with a mobile application developer. **[Confidential to NPP Australia Limited]**.

102 **[Confidential to NPP Australia Limited]**.

103 To support access by third parties, NPP maintains an API framework incorporating key payment activities. This will be extended to support key MPS functions, such as mandate verification, mandate maintenance and mandate event notification APIs. NPPA will also update its API sandbox to include these sample MPS APIs, enabling third parties to test these APIs in a sandbox environment.

104 NPPA's strategic focus is presently on three key volume opportunities:

(a) migration of existing Direct Entry volumes (credit transfers and debit transfers);

(b) e-commerce, recurring, in-app & in-store payments (via software applications rather than hardware-based solutions); and

(c) migration of selected payments from RTGS, e.g. IFTIs, emergency payments, Telegraphic Transfers, etc. (High value payments > $100 million are likely to continue to be processed via RTGS).

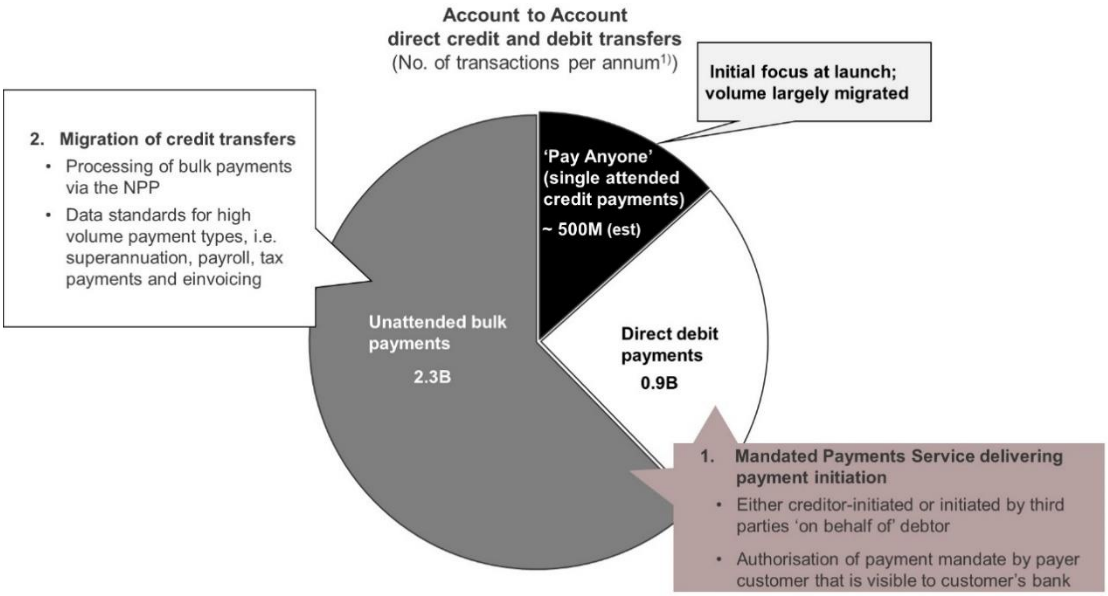
105 A key focus is on supporting the processing of bulk payments and migration of existing volumes from Direct Entry (as set out in Exhibit 1 below) through:

(a) coordinating Participant readiness for unattended and bulk payments; and

(b) completing planned activities identified as part of a DE migration plan and considering if additional work is required, e.g. support of payment initiation bulk booking across the BI and expanded file formats for submitting payments for processing.

Exhibit 1: Account to account direct credit and debit transfers

[20] https://blog.google/products/google-pay/reimagined-pay-save-manage-expenses-and-more/
[21] https://www.forbes.com/sites/ronshevlin/2020/11/30/google-plex-the-mobile-banking-app-every-bank-wants/?sh=47a15605f974



1) Source: RBA Statistics (Dec 2019-Nov 2020)

106 Included in Confidential Exhibit AL-1 are the following documents: **[Confidential to NPP Australia Limited]**.

107 More than 25% of account-to-account credit payments now occur over the NPP (either as Osko payments or Single Credit Transfers). These payments are principally 'pay-anyone' transactions previously sent by BECS.

108 NPPA's focus is now on supporting migration of the remaining BECS transactions. This includes:

(a) Continued focus on migration of payments currently carried via BECS and principally submitted in bulk files via Participants and Identified Institutions. These will be submitted to the NPP in bulk files and increasingly individually via APIs, using the Single Credit Transfer service;

(b) Data-rich payments using Category Purpose Code payments using the open ISO20022 message standards in key industry verticals such as superannuation, salary, tax, and e-invoicing;

(c) Via the MPS, which will deliver "debit-like" payments, including those submitted by third parties, commencing from end 2021. It will provide an alternative to account-based direct debits currently using the BECS system, resolving a number of pain points for consumers and merchants / businesses. In addition to an improved direct debit product, it will support other payment types not currently available from bank accounts (except via an international card scheme or via PayPal) such as online, in-app and ecommerce payments as well as potentially at POS via QR codes.

H. BACKGROUND TO THIS PROCESS

109 In November 2019, the RBA released its Review of Retail Payments Regulation: Issues Paper,[22] which sought feedback on the following issue (among others):

> *The roles played by the range of domestic-focused schemes and frameworks in Australia. As well as the cooperative frameworks managed by AusPayNet for a range of clearing streams and the real-time payments infrastructure managed by NPP Australia, there are domestic schemes for bill payments (BPAY) and debit card transactions (eftpos). There has been a tendency for consolidation of domestic arrangements in some other countries; for example, in the UK, Pay.UK has been established to manage a range of domestic systems and schemes that have been brought together in the New Payments Architecture. The [Payments Systems Board] invites views from stakeholders on any challenges posed by the various domestic schemes and frameworks in Australia and any changes or consolidation that might be worth considering.*

110 The NPPA Board considered that the RBA's invitation required NPPA to form a view about whether in fact the three industry-owned payments companies would benefit from better coordination and if so, how that might be enabled.

111 In forming an initial view on this matter, the NPPA Board had regard to the company's own risk management framework, which highlights strategy delivery risk as a key risk for the organisation. This risk, simply put, is that where the utility of, and network effect for, NPP capability development is dependent on all participating financial institutions upgrading their own systems, any actual or potential demands on their investment and resources from other sources, including domestic payment company mandates, can become impediments to securing internal investment approval and making progress.

112 The NPPA Board also considered and had regard to the challenge of achieving coordination on future capability development outside of a corporate group structure.

113 Ultimately, the NPPA Board decided that coordination around specific initiatives with BPAY and eftpos to develop an integrated roadmap which was being sought by a number of our shareholders (for example around online payments or perhaps QR codes) would likely require ACCC authorisation for specific conduct, which would be limited to specific areas of authorised activity.

114 The NPPA Board therefore took steps to canvass stakeholder and shareholder views and – as these were supported in principle – established an Industry Committee process on the basis that the Committee's focus and purpose would be to assess objectively on the basis of sound research and evidence, whether a merger or amalgamation serves the objects of NPPA, EPAL

[22] A copy of the RBA's Issues Paper is attached at **Tab 4** of **Exhibit AL-2**.

and BPAY having regard to the interests of their respective shareholders, stakeholders and – critically - the public interest.

I. ANY POTENTIAL BENEFITS FOR NPPA FROM THE PROPOSED AMALGAMATION

115 From NPPA's perspective, there are nine key benefits of the proposed amalgamation. I explain each of these nine key benefits in detail below.

116 *First*, the existing NPP Roadmap commitments for delivery through to June 2022 will continue to be delivered by NewCo within their current timeframes. Specifically:

(a) <u>Data-rich message standards will be delivered by April 2021.</u> NPPA has developed message usage guidelines for specific payment types, namely payroll, tax, superannuation and e-invoicing payments. All NPP participating financial institutions are obliged to receive NPP payment messages formatted with additional defined data elements for payroll, tax, superannuation and e-invoicing, guaranteeing the required network effect for those wanting to send these messages;

(b) <u>Third party payment initiation will be delivered by December 2021 (MPS).</u> The MPS will enable customers to authorise third parties to initiate payments from their bank accounts using the NPP. All NPP participating financial institutions are required to support their customers to authorise new payment arrangements and process the associated payments. This has heightened importance given recent recommended extensions to the Consumer Data Right to support third party payment initiation; and

(c) <u>International payments will be delivered by December 2022.</u> This will ensure that inbound international payments being processed over the NPP will include complete payer information. All NPP participating financial institutions will be obliged to receive these payments from December 2022.

117 *Secondly,* a single Australian domestic payments company will be more efficient in its engagement with its owners and users. This is for at least the following reasons:

(a) An integrated organisation can better coordinate the ways in which different payment rails can be used to solve customer problems and fill identified gaps in functionality. The lack of this ability to coordinate significantly undermines the efforts of the separate companies to deliver efficient, competitive strategic outcomes. I don't believe that NPP, BPAY and eftpos compete with each other today, or perhaps only in a very limited way. These products weren't designed as competitors, and they don't compete in the markets in which they operate. But they do compete for financial institutions' limited investment pools, for their limited technical resources and for their mindshare. The companies themselves aren't competing for capital. With the exception of an investment of $135m by 13 Participant financial institutions to capitalise and fund the initial central build and start-up phase of NPPA in 2014, there has, to the best of my knowledge, been immaterial requests from financial institutions to invest capital in these entities. While the central costs of development in these entitles is relatively immaterial, the 10X multiple investment (at least) is in financial institution's own environments, and this is where the congestion for scarce resource and capital exists.

(b) While the three entities do not currently compete in their existing markets, the shift from physical to online / digital payments requires product development to occur in integrated and coordinated ways among the entities to be more effective in addressing the dominance of the international card schemes.

(c) Ubiquity and network effects are critical in providing payments services. The proposed amalgamation will facilitate the formation of network effects, which is difficult to achieve in practice. A "chicken and egg" problem exists in that financial institutions are unwilling to commit to the (10X) investment required to extend products through multiple back office systems and channels in the absence of certainty that a specific proposal would have sufficient other subscribers to be successful.

(d) In my experience, there are a range of factors that impact a bank's willingness to roll out specific services which include:

(i) differing commercial strategies (some financial institutions focus on business and institutional customers, including merchant customers; other financial institutions focus on retail customers);differing investment cycles and the availability of funds;

(ii) other compliance or remediation priorities; and

(iii) congestion in specific limited technical resources focussed on other priorities.

(e) Additionally, it is likely that financial institutions already have similar functionality in place (or planned) via one of the international card schemes, and so in an environment where resources are constrained, implementing a similar ("me too") product may not be a high priority.

(f) A plethora of similar product options from domestic payment schemes which are developed independently generally makes the allocation of scarce resources even more complex, contested, and glacial. From my experience of working within a bank and within two schemes, the existence of multiple different product options among multiple stakeholders often results in significant delays or no decision. Mandates can be effective if used sparingly in creating the required network effect, however competing and overlapping mandates from different schemes to do similar things, which are each required to be replicated and implemented in each bank, is not effective and does not produce efficient outcomes. The examples I have provided at paragraph 84 of the design, iteration, and proposal of multiple different versions of the Mandated Payments Service evidence this.

(g) NPP benefits from a "recency effect", given the scale of recent investments by financial institutions, and somewhat disproportionate "mindshare", including from regulators, because it is new technology. However, any benefit NPP currently enjoys in this space will pass in time. Conversely, in other quarters there is reluctance to invest in NPP because of the investment recently made and a feeling that "enough is enough".

(h) In summary, the inefficient model that has evolved over time is a structural problem requiring a structural solution to deliver more efficient outcomes for all involved. These problems do not just impact the viability of eftpos (though I believe they have had a particularly pronounced impact upon eftpos, because of the strength of its competitors in the retail payments space, Visa and Mastercard), but they have also impacted the ability of BPAY and NPPA to get satisfactory traction on investments (such as BPAY's Request to Pay and Pay with Document and NPPA's Mandated Payments Service) because of the competition for resources, investment, and funding from financial institutions to roll out their products.

118 *Thirdly,* new product developments and enhancements will be more effective and competitive with the global schemes if they can be developed collaboratively with eftpos and BPAY. Faster and more efficient development and deployment of capabilities will also support competition more broadly as these capabilities will be available for others to use under an open access approach. This is for the following reasons:

(a) The proposed model will support better coordination of future product developments across the three companies, than is the case with them housed separately. These include the ability to develop hybrid products which incorporate the most appropriate underlying technology, or to ensure that new developments are interoperable across multiple payment rails.

(b) Both eftpos and NPP are at the beginnings of their relative journeys into online and digital payments and are facing into competitors (Visa, Mastercard and AMEX) with a combined market share of nearly 100% in this segment. While each organisation's products have been developed independently and defined as Prescribed Services, there will inevitably be opportunities to tune and refine their implementation collaboratively to greater effect.

(c) Similarly, there should be opportunities to ensure that future plans are implemented in a coordinated and interoperable way to maximise the chances of success and ensure effective competition with the global payment schemes, for example Digital ID capabilities that are interoperable with multiple payment rails; or potentially a Beem It

Digital wallet which could incorporate eftpos, NPP and BPAY payment capabilities, as well as potentially offering access to fintechs via CDR.

(d) The most significant potential future opportunity for a hybrid product is for the three organisations to approach the implementation of QR codes in a way that is interoperable across the three different payment product/rails. While there is an international EMV (Europay, Mastercard, Visa) standard established for chip cards and QR Codes, in practice there are so many variants that alone it offers no practical guidance to market participants. Included in Confidential Exhibit AL-1: **[Confidential to NPP Australia Limited]**

(e) The preferable outcome would be for the three domestic Australian payment organisations to collaborate to ensure that QR codes can get rolled out with ubiquity. A single QR code presented by a merchant could be used to initiate a payment either via eftpos, NPP, or BPAY. This is an example of a hybrid product that would utilise the underlying rails and coordinate a seamless customer experience that is compelling while preserving the competitive dynamics of the underlying rails and delivering a solution that would not otherwise be achievable if the three organisations were not combined. While arguably not as seamless a customer experience as an NFC transaction, QR Codes are newly familiar to Australians post-COVID, work in multiple environments (face to face, online, paper) and offer solutions to technical lockouts currently benefitting both the international card schemes (dual network debit cards) and handset manufacturers (control of the NFC element).

(f) These developments (for example the MPS, online payments, and potentially QR Codes) will also support competition more broadly because they won't be just available for financial institutions who use the NPP, but also available to companies who wish to build products on top of them, or to extend them into new products (for example as AzuPay, Monoova, and Split Payments have done), but also to support organisations who connect to the NPP in different ways, including as Connected Institutions, to send, receive, and initiate payments using this functionality to and from 74 million connected accounts.

119 *Fourthly,* combining different assets into a single organisation would enable more efficient competition with dominant global payment schemes. In particular, this proposal will make eftpos stronger. This is for the following reasons:

(a) The global payment schemes completely dominate the Australian retail card-based payments landscape with approximately 100% market share of online payments and approximately 70% of payment value at point of sale. From dominating card-based payments and digital and online acceptance, the global payment companies have moved to incorporate real time account-to-account payments and digital ID solutions.

(b) A core benefit of the proposed amalgamation is that it preserves and strengthens eftpos. Although eftpos transaction volumes are not published, I understand from data provided to the Industry Committee process that eftpos market share in debit transactions has declined from 80% of transactions in 2009 to less than 30% of transactions in 2019, although I understand from eftpos 2020FY annual report that its transaction volumes have increased in 2020 over 2019 because of the introduction of merchant choice routing.

(c) eftpos' business has been structurally challenged for a number of years. It has declining market share, and has been challenged in delivering a broadly available online payment capability to compete with the international card schemes. In the case of Dual-Network Debit Cards, which also contain either of a Visa or Mastercard payment credential, eftpos is always ranked second. In my view, eftpos suffers from the same challenges as BPAY and NPPA in terms of coordination challenges, but is particularly disadvantaged because:

i it has dominant, highly profitable competitors in the international card schemes who can financially support and/or incentivise product rollout; and

ii some of its financial institution issuers perceive it as being insufficiently distinguishable when compared to the other products that they issue, generally one of either Visa or Mastercard.

(d) Recent agreement by major financial institutions to support the rollout of eftpos online as a component of this proposal will assist (but only if the proposed amalgamation proceeds). The majority of the banks only recently agreed to support the rollout of eftpos online, in my view, to capture the future coordination benefits envisaged as part of the amalgamation (if approved). The commitment to deliver the Prescribed Services was set out in the Implementation Agreement which has been executed by the parties with ACCC Authorisation as a Condition Precedent. In my view, if the proposed amalgamation does not proceed, then neither will the broad rollout of eftpos online.

(e) Similarly, recent developments in Merchant Choice Routing (also known as Least Cost Routing) have begun to stem the loss of market share for eftpos. However, there are, in my view, clear risks over the medium term (5-10 years) that the effectiveness of Merchant Choice Routing as a mechanism by which eftpos can regain market share will be challenged:

i. *First*, commercially, it is likely that the international card schemes will (as they have done previously) deploy pricing mechanisms to ensure that merchants continue to accept their cards in preference to eftpos. A similar situation occurred in 2010 where one of the major retailers stopped accepting international card scheme debit cards for a number of months because it was perceived as being too expensive, relative to eftpos[23]. This change principally impacted credit unions and building societies who at the time were the primary issuers of debit cards issued by the international card schemes. At the time I was employed by Cuscal who processed these Visa transactions and I am aware that Visa lowered the cost of processing these cards by introducing a special rate for supermarkets accepting this card and the cards were again accepted at that merchant. I have been told that more recently, a similar situation occurred with Chemist Warehouse, which threatened to introduce Merchant Choice Routing and in response their pricing was reviewed by the international card scheme and the threat was withdrawn.

ii. *Secondly*, Merchant Choice Routing is a short-term technical response to specific issues arising from dual network debit cards (where the plastic card contains two elements, with Visa or Mastercard always set as the priority element). While in a plastic card context, the merchant can take steps to accept the eftpos credential in preference to the international card scheme credential, this does not apply in a digital setting. In this environment, the customer or handset manufacturer will determine which payment option is presented via a toggle switch that is set once. Merchants will not be able to override the customer's payment choice. The advantage provided by Merchant Choice Routing to merchants will likely come to an end.

(f) As the move away from plastic and towards digital wallets and other non-plastic payment methods are growing, the scale and scope of a stronger domestic payment entity is needed to adequately respond to current and future payments trends.

(g) The proposed amalgamation is aimed at setting up a structure in which the existing Australian domestic payment schemes can coexist but which can facilitate coordination of their future product development and, perhaps, their long-term (i.e. 10-20 year) technology strategy to position them for the future. The potential rollout of eftpos online will support this, while Merchant Choice Routing has given a temporary reprieve in respect of dual network debit cards which will be eroded with the move away from plastic cards to digital methods of payments. What is needed is to establish a framework for coordination and long-term strategy that will assist each of the three organisations to make rational and coordinated decisions about the **next set of long-term challenges**, including ongoing developments in digital and online payments, QR codes, digital ID and (potentially) long-term technology rationalisation which can better support the next generation of products.

[23] https://www.afr.com/companies/visa-extremely-disappointed-on-woolies-to-limit-debit-card-use-20100401-ivriw

120 *Fifthly,* NewCo can develop a long-term roadmap for Australian payments infrastructure that can take into account developments in long-term infrastructure and market developments in a way that is not possible to achieve housed within three separate organisations. In the long-term, if the transaction proceeds, there will be opportunities to consider the optimum future technology roadmap which could support a range of different products for the next 30-40 years. Over the next 10-20 years there should be opportunities to reimagine the underlying technology platforms to support multiple product developments by different products. This would offer benefits in terms of resilience, cost, as well as simplification – importantly not just for financial institutions but also for end-users such as merchants, businesses, and fintechs (among others) who are currently required to integrate with multiple payment rails (as many as 6-7) including 5 domestic schemes which are more or less owned by the same parties. These are complex questions which require deep analysis over multiple years and while they could be progressed in a combined entity, I believe they would never be considered by three different entities even if they legally could do so, because this kind of long-range planning isn't possible among separate entities, not least because the overlapping tenures of vendor contracts would preclude it.

121 *Sixthly,* the proposed amalgamation will ensure a better balance of perspectives across a wider shareholder base, with more involvement by different types of organisations at ownership and governance levels (including through relevant engagement forums. This is because:

(a) The proposed governance and ownership structure of NewCo ensures a more balanced perspective with involvement from the core users of the payment systems, but without allowing the agenda to be dominated or controlled by any one constituency. The proposal reduces the influence of the major banks to 4 votes from 13 Directors, similar to the model in place at NPPA.

(b) At an ownership level, the proposal "levels up" the ownership model, enabling all users of the payment services to have an equal role in the ownership of the organisation regardless of their size. Further, organisations who use the payment systems will be able to become a shareholder of the organisation for a nominal capital contribution and (aside from the right of shareholders with <15% ownership to nominate a Director) will be equal in every other respect, including in their ability to be elected to the Board.

(c) In my experience, NPP Australia has a governance structure which enables broad input into decision making and which isn't prone to either gridlock or being dominated by larger organisations. Broadening involvement in the governance of NewCo to include a wider perspective, including four independent Directors, will ensure broad perspective into decision making and produce better outcomes for all users of Australian payments.

122 *Seventhly,* the amalgamation will achieve better engagement and participation from fintechs and other new joiners. This is for the following reasons:

(i) Current NPP priorities which are important to fintechs have been enshrined in the proposal – like the MPS. Existing NPP access options such as Connected Institutions which will support direct access to the NPP in order to support third party payment initiation will be preserved.

(ii) New participants, including potential Connected Institutions, may choose to optionally become a shareholder of NewCo in order to contribute to the future strategic direction of the payment services. It is anticipated that this would only require a nominal capital contribution and these shareholders would have equal rights to other similar shareholders.

(iii) Over time, there are likely to be opportunities to streamline and integrate API frameworks and supporting assets such as sandboxes that support third party access to the different payment rails.

(iv) The engagement model should be streamlined for small to mid-sized players requiring them to engage with one entity not three.

(v) Over time the membership requirements and processes for the three schemes could be harmonised but there is no defined timeframe for this to occur.

123 *Eighthly*, the proposed amalgamation will enable a greater degree of focus on resilience in payments than is possible between separate organisations. The core infrastructures of NPP and eftpos are highly resilient. Both organisations have – to the best of my knowledge – never had a single incident affecting their core clearing architecture since going live. However, this does not mean that there are not significant outages impacting the NPP and/or eftpos system, that are experienced by its end users (including payers and merchants). These often involve system failures within banking institutions,[24] failures at the network level impacting communications between banks and their customers,[25] and finally physical damage to network infrastructure caused by a third party such as backhoe cutting lines.

124 These outages variously have a significant impact upon end-users of the payments systems and have been identified as a priority for action by the RBA.[26] I consider that they are caused by a range of issues which are unrelated to the central performance of core infrastructure, but which instead relate to bank-specific systems as well as outages caused by third parties such as telecommunication and network suppliers. Solutions include using a range of diverse suppliers across critical infrastructure so that an outage in one supplier does not cause a widespread

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24 Please see https://www.abc.net.au/news/2020-10-19/nab-outage-across-australia/12783316.

25 Please see https://www.news.com.au/technology/online/anz-eftpos-and-optus-outage-causes-issues-for-customers-nationwide/news-story/a89d4593179276e91f4a07726e8353f0. See also https://www.itnews.com.au/news/reports-telstra-wobble-hitting-cba-nab-payments-528075.

26 Please see https://www.afr.com/companies/financial-services/rba-to-force-banks-to-come-clean-on-rising-payment-systems-outages-20201016-p565nj.

outage, fall-back arrangements to alternative suppliers, and a focus on identifying common risk factors and planning for more effective incident response arrangements.

125 **[Confidential to NPP Australia Limited]**.

126 *Finally,* for NPPA staff the proposed amalgamation will provide an opportunity to work in a larger, more diverse organisation, with greater opportunities to work on a broader range of activities and technologies and access to more resources, systems, and benefits.

127 A copy of a presentation made at a NPPA Strategy Committee meeting on 21 January 2020, which describes the consolidation proposal, is included at **Tab 25** of Confidential Exhibit AL-1. This presentation describes consolidation rationale, including a high level overview of the key benefits, and provides an overview of the payments market.

128 Also included in Confidential Exhibit AL-1 a**t Tab 26** is a NPP Governance Committee paper, dated 30 October 2020, with the subject "Domestic Consolidation – Merits Assessment & Implementation Agreement". This paper analyses the proposed amalgamation as against stakeholder interests. This analysis illustrates the benefits described above.

J. ANY POTENTIAL DETRIMENTS FOR NPPA FROM THE PROPOSED AMALGAMATION

129 From NPPA's perspective, a combination may entail execution risk which could distract from delivery of NPPA's published roadmap and ongoing work to support the migration of BECS transactions which is our core strategy and is not impacted by this amalgamation.

130 To some degree, this risk is mitigated by the focus in the Roadmap on delivery of committed capability (Prescribed Services) however there may be executional, cultural and/or integrational challenges that impact on NPPA's ability to deliver on its strategy and goals relative to the status quo.

131 From NPPA's perspective, some people have observed that the amalgamation is a less 'pure' model than that which was set out in the original proposal[27] to establish the NPP (i.e. that NPPA runs underlying infrastructure and that products are developed separately by other organisations, as Overlay Services). However:

(a) this has occurred anyway given NPPA's decision (outlined in paragraph 56-57) to develop NPP Business Services in parallel with supporting Overlay Services proposed by outside proponents; and

[27] Please see **Tab 5** of **Exhibit AL-2**.

(b) all of NPP capabilities, including use of core capabilities like Single Credit Transfers and also Business Services like the Mandated Payments Service will remain available for use by any outside party, as described in paragraph 118.

132 There is potential for redundancies in duplicated / shared services functions and potentially some executive rationalisation. Outside executives, redundancies or staff reductions are unlikely.

K. DESCRIPTION OF WHAT NPPA WOULD LIKELY DO IF THE AMALGAMATION DOES NOT PROCEED

133 Absent the proposed amalgamation, NPPA would continue its existing strategy, unchanged.

134 Our focus would be on implementation of the core Business Services set out in our published NPP Roadmap, principally to deliver:

(a) Category Purpose Code business service in April 2021, which is designed to support specific payment types, namely payroll, tax, superannuation and e-invoicing payments.

(b) The MPS business service from end 2021, which will enable customers to authorise third parties to initiate payments from their bank accounts using the NPP. The MPS will support the migration of Direct Debit arrangements from BECS to the NPP, as well as a range of different use cases including merchant-initiated ecommerce and in app payments, subscription and recurring payments, and to support third party payment initiation for account-to-account payments, in line with the Australian Government's recent Review into Future Directions for the Consumer Data Right and its focus on payment initiation.

(c) The NPP International Payments business service from end 2022, which is a scheme agnostic business service that enables the NPP to be used to send payments to the ultimate beneficiary or customer over the NPP as the inbound domestic leg of the cross-border payment process.

135 Beyond this, as set out above, a key focus will be on supporting the processing of bulk payments and migration of existing volumes from Direct Entry / BECS to the NPP.

136 The NPP access framework will remain the same, including through the provision of payment initiation services to a range of third party organisations, either indirectly (sponsored by an NPP Participant, Identified Institution, or a Connected Institution) or directly as Connected Institution. NPPA has indicated publicly on a number of occasions and most recently in a submission to the Treasury Review into Payments Regulation[28], that if the Government acts on recommendations

[28] Please see **Tab 6** of **Exhibit AL-2**.

of a number of inquiries[29], to create an additional license option analogous to an e-money licence, then NPP stands ready to support these changes when they are introduced and consider how this new licence would fit within the existing NPP access framework.

137 NPPA will continue to operate on a non-profit maximising utility basis. Its cost base is largely fixed, regardless of volumes processed. It is projected to recover a largely flat revenue profile in order to meet those fixed costs, as well as fund ongoing investment in the platform's central capabilities, which are expected to be relatively minimal. Accordingly, as NPP transaction volumes continue to increase, we expect that the NPP wholesale transaction price which is charged by NPPA to all NPP participants for each transaction, regardless of volume (and without any interchange fees), will continue to fall.

Signature on behalf of NPP Australia Limited by

Name of witness	Adrian Lovney, CEO of NPP Australia Limited
Date of signature	16 March 2021

[29] Please see Financial System Inquiry Final Report (2014), at https://treasury.gov.au/sites/default/files/2019-03/p2014-FSI-01Final-Report.pdf; Productivity Commission Inquiry into Competition in the Australian Financial System (2018), at https://www.pc.gov.au/inquiries/completed/financial-system/report/financial-system.pdf; Council of Financial Regulators report into Stored Value Facilities (201, at https://www.cfr.gov.au/publications/policy-statements-and-other-reports/2020/regulation-of-stored-value-facilities-in-australia/pdf/report.pdf.

Strategic Review of Innovation in the Payments System: Conclusions

JUNE 2012

Contents

ISBN 978-0-9872589-7-7 (Online)

1. Overview

This document sets out the conclusions of the Reserve Bank's Strategic Review of Innovation in the Payments System. The Strategic Review was announced in May 2010, with the objective of identifying areas in which innovation in the Australian payments system could be fostered through more effective cooperation between stakeholders and regulators. The focus of the Strategic Review is medium-term, looking at possible gaps in the Australian payments system that might need to be filled through innovation over a time horizon of five to ten years.

The conduct of this Review does not imply that there is a lack of innovation in payments *per se* in Australia. Indeed, some significant innovations are currently underway and it seems likely that customer-facing innovations will have a very significant impact on the payments market over the next few years. As has been stated on a number of occasions during the course of this Review, the Reserve Bank's focus is on areas of system-wide or cooperative innovation, where decisions are not just in the hands of a single player. Innovations of this nature have proved difficult to achieve. While a significant concern in its own right, the difficulty of achieving cooperative innovation also constrains the innovative solutions that can be built upon common systems by individual players on a proprietary basis. Therefore addressing these issues has the potential to unlock significant future innovation, resulting in ongoing improvements to the efficiency of the payments system.

The conclusions outline a change in approach by the Payments System Board in relation to payments innovation. In recognition that there are impediments to the payments industry collectively delivering solutions that would be valued by businesses and consumers, the Board intends to be more proactive in setting out strategic objectives for the payments system, that is, its expectations for the services that the payments system should be able to offer in the future. The Board believes that this will help to overcome some of the coordination problems that have been evident in the payments system over the years. The paper sets some initial strategic objectives: same-day settlement of Direct Entry (DE) payments; early progress towards real-time retail payments; availability of payment systems out of normal banking hours; the ability to transmit additional remittance data with payments; and the ability more easily to address payments.[1] While not wishing to dictate how the strategic objectives are met, the paper also outlines the Board's thinking on a possible approach to architecture for providing real-time payments.

The Bank envisages an ongoing role in relation to innovation. In particular, processes flowing from the Strategic Review will require significant dialogue over the coming months and years. Most importantly, the Board proposes that there be regular and ongoing engagement between it and the industry on strategic objectives and other industry issues. In order to facilitate this, it proposes that the Bank work with the industry

1 'Real-time retail payments' in this paper refers to 'credit transfers' that can be initiated by the payer and provide funds availability to the payee in real time. There are existing systems (in particular for card payments) that provide real-time authorisation of retail 'debit transfers', but these are largely only available for payments to merchants and funds availability might lag significantly.

on constituting an enhanced industry coordination body that would engage directly with the Payments System Board.

This paper is the fourth issued during the course of this Review. It follows *Strategic Review of Innovation in the Payments System: Issues for Consultation* (Issues for Consultation), the Bank's 2010 Consumer Payments Use Study and *Strategic Review of Innovation in the Payments System: Summary of Consultation* (Summary of Consultation).[2] The Review has drawn extensively on two rounds of public consultation, along with the activities of the BIS Committee on Payment and Settlement Systems (CPSS) Working Group on Innovations in Retail Payments.[3]

The discussion through the course of the Review has tended to be divided into consideration of: specific potential gaps in the payments system; architecture arrangements appropriate to fill the gaps identified; and industry governance arrangements to underpin future innovation. Sections (3, 4 and 5) of this paper follow those themes. Before addressing those issues, however, Section 2 focuses on the relationship between innovation and the Board's mandate. Section 6 summarises the conclusions and outlines the next steps.

2 See Reserve Bank of Australia (2011), *Strategic Review of Innovation in the Payments System: Issues for Consultation*, June, available at <http://www.rba.gov.au/publications/consultations/201106-strategic-review-innovation/issues/pdf/201106-strategic-review-innovation-issues.pdf>; Bagnall J, S Chong and K Smith (2011), 'Strategic Review of Innovation in the Payments System: Results of the Reserve Bank of Australia's 2010 Consumer Payments Use Study,' June, available at <http://www.rba.gov.au/publications/consultations/201106-strategic-review-innovation/pdf/201106-strategic-review-innovation-results.pdf>; Reserve Bank of Australia (2012), *Strategic Review of Innovation in the Payments System: Summary of Consultation*, February, available at <http://www.rba.gov.au/payments-system/reforms/strategic-review-innovation/summary-consultation/pdf/summary-consultation-2012.pdf>.

3 Australia participates in the Working Group on Innovations in Retail Payments, which issued a report, 'Innovations in Retail Payments', in May 2012.

2. Innovation and Efficiency

The conclusions of the Strategic Review represent a change in direction for the Payments System Board in relation to innovation. While the Board has sought to help shape industry developments in a number of areas over the years, it has not sought to play any formal role in respect of innovation. This has reflected an assumption that innovation is best driven by market forces. In deciding to take a more active role, the Board is guided by two factors. First, it is satisfied that there are some market failures that may prevent innovation in the payments system. In other words, market forces might not be sufficient to produce some types of innovation that are in the public interest. Second, it believes that innovation is important to its mandate, that is: controlling risk; promoting efficiency and promoting competition in the market for payment services.[4]

The market failures that can hold back innovation were discussed in both 'Strategic Review of Innovation in the Payments System: Issues for Consultation' and 'Strategic Review of Innovation in the Payments System: Summary of Consultation'. In large part they consist of coordination problems that make it difficult for industry players to agree to implement an innovation that requires collective effort to succeed. It is also possible that existing commercial arrangements might make it difficult to build a business case, for instance because new services will attract business away from existing profitable business streams.

Regardless of any market failures, the Board would not have undertaken this Review had it not considered there to be a strong link between innovation and its mandate. Innovation can potentially benefit competition and the management of risks, but its most obvious benefits are in terms of efficiency. Several related concepts of efficiency are relevant, but this Review is principally focused on allocative efficiency, which refers to the characteristic that goods and services are produced so as to best match consumers' needs, taking into account their relative costs, and dynamic efficiency, reflecting the need for firms to make timely changes to production methods and products/services in response to changes in consumer tastes and in productive opportunities.[5]

It is the Board's view that the market failures noted above have meant that decisions about the payment services provided by the industry have not sufficiently accounted for some key factors valued by end users. For consumers, the availability of alternative or improved payment services might result in greater welfare through, for instance, greater convenience, savings in time, or certainty about the availability of funds. For a business, benefits would typically flow from greater efficiencies in their own systems arising from more appropriate payment options and improved cash flow associated with more timely availability of funds. For instance, significant use continues to be made of cheques, which can be very costly for businesses to process. If greater resources were directed towards electronic payment methods that better provided the features of cheques, business payment costs – particularly in industries that rely heavily on cheques – could be reduced significantly.

4 Consistent with the overall stability of the financial system. *Reserve Bank Act 1959*, section 10B.

5 Independent Committee of Inquiry (Hilmer Committee) (1993), *National Competition Policy*, Australian Government Publishing Service, Canberra.

While greater efficiency is expected to be the primary outcome of the Review, the Board believes that the approach to innovation should at all times be tested against competition considerations. Industry-wide innovations should to the extent possible provide fair and open access to potential participants and proprietary innovation should not be used as a tool for the exercise of market power. The Board believes that some of the innovations discussed in this paper have the potential to provide a more competitive environment in facets of the payments system than has existed in the past. It will seek to ensure that these changes in the environment eventuate.

2.1 Key Attributes of Payment Systems

In its Issues for Consultation paper, the Bank articulated a number of attributes valued by end users of the payments system. These provide an indication of the type of payment system features that have the potential to provide efficiency gains as discussed above.

Attributes valued by end users include the following.

(i) Timeliness

Timeliness has at least two elements. In some cases, such as emergency government payments, the timing of the availability of funds to the recipient is critical. In other cases, such as point-of-sale or online purchases, it is important that the merchant has immediate confirmation that the payment has been authorised and funds will be received, even if they will not be available until some later time. With this knowledge the transaction can be completed and goods or services supplied. This is an existing capability among a number of retail payment instruments.

(ii) Accessibility

Ideally, everyone who needs to make and receive payments should have ready access to the payments system. This includes the ability to access the payments system when and where required and to be able to make payments to whomever required. Innovations over recent years have dramatically improved access, with first telephone, then internet banking, and more recently mobile banking and payments. Another element of accessibility is the availability of accounts through which payments can be made and received. Australia has a highly banked population, which means that access to financial institution-based payment methods is ubiquitous.

(iii) Ease of use

Ease of use can reflect factors such as the number of steps in the payment process, the amount of information that must be provided (such as account and BSB numbers), and the process by which it is provided (for instance by manual entry or by use of a card). These might not simply be issues of convenience; they might also contribute to errors that can be costly to correct and can discourage use.

(iv) Ease of integration with other processes

Payments are often made as part of a process that requires some form of information exchange and reconciliation. Payment systems should be able to integrate efficiently with these processes. Key examples are the capacity of payment systems to carry additional information relevant to the payment and the ability of payment messages to be easily integrated with accounting and other business systems.

(v) Safety and reliability

End users of a payment system need to have confidence that the system will be available when expected and that payments will reach the intended recipient at the time promised. They also need to be confident that the system is secure, so that using it will not expose them to future losses as a result of information being fraudulently obtained.

For any given set of attributes, the payment service should be provided at the lowest resource cost to the system as a whole. Pricing arrangements should be such as to encourage cost-effective deployment of resources in this sense.

The Issues for Consultation paper also identified low and transparent prices among the attributes valued by end users. This does not necessarily contribute to efficiency, however. Given the two-sided nature of payment systems, prices are often skewed in favour of the party with the greatest decision-making power. For instance, the price faced by a cardholder for a credit card transaction tends to be very low or negative and does not reflect the resource costs of providing the payment. In this case consumers' decision-making might not lead to the most efficient use of resources.

While the attributes above can enhance welfare, the Board does not wish to suggest that they need to be provided in equal measure (or indeed at all) by each system. A system that could provide all of the above attributes may well be prohibitively expensive. Rather, if an end user of the payments system has a demand for a particular attribute, the Board believes that attribute ought to be available in at least one system. It is also possible that the attributes will be available in varying degrees in different systems, such that an end user might be able to trade off attributes, for instance balancing the speed of funds availability against the quantity of data that can be carried. Accordingly, end users should have access to a menu of payment options (including at different costs) that will allow them to best meet their particular needs. The ability to do this is a measure of the efficiency of the payments system.

3. Potential Gaps in the Payments System

With the above discussion as background, the Board has identified several areas where it considers there to be existing or potential gaps that need to be addressed for the payments system to continue to adequately meet the needs of end users over the medium term. These are set out in this section. In most cases, these gaps are not new; they have been well known and understood by the payments industry for some time. The task for the Board and the industry is now to find ways in which they can be addressed.

3.1 Real-time Payments

The ability of individuals, government agencies and businesses to make retail payments, with the recipient having visibility and use of those funds in near to real time, is an objective that seems likely to become more pressing. Indeed, one of the key trends identified by the CPSS Working Group on Innovations in Retail Payments was an increased focus globally on speeding up payment processing through faster settlement or payment initiation.[6]

The capacity for real-time retail payments could be used by government agencies to make emergency payments, by individuals to make personal payments and potentially by businesses to make better use of cash balances. Some financial institutions have recently been promoting various elements of real-time payments, including the capacity to make real-time mobile payments to customers of the same bank. To the extent that this is valued by customers, it makes sense that this type of functionality should be available across financial institutions. Some institutions are also now promoting the faster availability of funds to merchants.

The Summary of Consultation paper dealt with the various elements that contribute to real-time payments. These are set out below.

(i) Timing of clearing

Clearing is the exchange of payment instructions between payment system participants. The timing of this activity is important and varies depending on the payment instrument used. In the DE system, payment instructions are batched and exchanged in bulk files between system participants at established intervals. Currently this occurs five times a day, although the largest share of payments occurs late in the day and is processed overnight. These discrete intervals prevent the timely crediting/debiting of funds because the recipient financial institution (for a direct credit) is unaware of the payment until the files are exchanged. Card payment systems, however, are based on real-time clearing, with separate messages exchanged for each payment. Payment instructions are exchanged between the merchant's bank and the cardholder's

6 Bank for International Settlements Committee on Payment and Settlement Systems (2012), 'Innovations in Retail Payments, Report of the Working Group on Innovations in Retail Payments', May.

bank in real-time, confirming that funds or sufficient credit are available before a message is returned to authorise the payment.

(ii) Timing of funds availability in banks' systems

The receipt of payment instructions does not necessarily dictate the timing of funds availability to the recipient of the payment. Historically, funds have not been available until the following business day, although with improvements in financial institutions' systems, within-day availability is becoming more common and a point of competition between institutions. The time it takes the sending institution to submit a payment instruction to another institution is clearly also an important factor.

(iii) Timing of settlement

Traditionally, the availability of funds to the recipient has in many cases been linked to the settlement of funds between financial institutions. The latter has historically occurred on the business day following payment clearing, so that interbank settlement and funds availability were often closely linked in time. With the trend towards within-day availability of funds, funds availability is moving ahead of interbank settlement, meaning that some financial institutions are providing credit to the funds recipient until interbank settlement occurs. This introduces a risk that the paying institution does not settle, or does not settle on time, even though the funds have already been credited to the receiving institution's customers. This risk is most relevant to the DE system, where some high-value payments are sent in preference to using real-time gross settlement (RTGS).

There can also be a lag between interbank settlement and funds availability for the customer. For instance, even in the existing high-value RTGS system, there can be significant disparities in the delay between interbank settlement and funds availability to the customer, with no industry obligation to make funds available earlier than the next day. Lags of this type could reduce the effectiveness of a system that allowed faster interbank settlement of real-time retail transactions.

Given these different aspects of payment timing, there are various ways in which faster retail payments can occur. One partial approach being explored in Australia at the moment is the settlement of DE files when they are exchanged.[7] This would mean that funds could be made available to the recipient soon after the exchange (if the institutions' systems are capable), without the institution taking on credit risk. The industry is currently working towards settling three of the five daily file exchanges in this way, though this does not cover the bulk of the value processed through the DE system. The Board believes that same-day settlement should be extended to all DE exchanges. However, even if settlement occurs with each exchange and funds are made available to the customer immediately, there would typically still be a delay of some hours between initiation of the payment and funds availability because payment instructions are exchanged in batches. Real-time clearing of payment instructions is a necessary condition for real-time payments.

The approach taken in some other systems, including the Faster Payments Service in the United Kingdom, is to provide real-time payments via a combination of real-time clearing, several intraday settlements and the provision of credit by receiving institutions between settlement periods.

7 The DE system is the system used predominantly for the exchange of batch or bulk payment files. This may include salary, welfare or dividend credits or direct debits for bill payments. Internet banking transfers are typically also processed through the DE system. Files are exchanged between institutions five times per day (or less frequently, depending on whether an institution uses an agent for file exchanges with payment system participants), with interbank settlement currently occurring the following morning.

Box A
Overseas Systems for Achieving Timely Retail Payments

A number of retail payment systems have been introduced in recent years (or existing systems reformed) to allow funds to be accessed in a more timely fashion by recipients, in some cases within minutes, if not seconds.

Some systems have facilitated this by making funds available before interbank settlement. Typically, the system will also introduce measures to mitigate interbank credit risk. For example, the UK's Faster Payments Service (FPS), Japan's Zengin system and Korea's Electronic Banking System use net debit caps, which limit each participant's net debit position during a clearing session, and have loss-sharing arrangements backed by collateral. Some systems, such as the FPS and South Africa's Real-time Clearing (RTC) system, place upper limits on the value of individual transactions.

Another means of achieving more timely payments has been to increase the frequency of interbank settlements. In systems that do not provide funds before interbank settlement, such as India's National Electronic Funds Transfer system, more frequent interbank settlement gives recipients faster access to transferred funds. In systems that provide funds before interbank settlement, such as the FPS, more frequent settlement reduces the extent to which interbank credit risk can accumulate. In addition, some countries, such as Mexico and Switzerland, use their high-value interbank payment system to process retail payments. In these systems, recipients have very fast access to transferred funds without interbank credit risk.

3.2 Payments Out of Hours

As noted above, it is desirable that the payments system be available when and where needed by users. There is little doubt that accessibility has increased greatly in Australia over recent decades, starting with the introduction of ATMs and more widespread availability of card payments in the 1970s and 1980s. In 1997, BPAY provided consumers with a means of paying bills out of normal banking hours, initially by phone, and more recently internet banking has enabled consumers to relatively easily initiate BPAY and 'pay anyone' payments at any time of day. Some card payments can easily be made from a consumer's home via the internet, albeit with a trade-off in security. The widespread adoption of smartphones means that constraints on the physical location where electronic transactions can be initiated have also been eased.

In the Board's view, the one area of accessibility that is clearly lagging is the availability of low-value payment systems out of hours, particularly during weekends and public holidays. Elements of some systems continue to operate during these times; for instance, the clearing of card payments continues to operate, consumers can initiate 'pay anyone' or BPAY payments via online or phone banking, and of course ATMs continue to operate. However, the systems used for the exchange of non-card payment instructions between institutions do not generally operate on weekends, meaning that no DE files are exchanged between banks and no interbank settlement occurs. Banks' accounting systems also do not generally recognise weekends for account posting purposes. Together, these factors mean that the recipient of a DE payment initiated after a bank's cut-off time on a Friday night might not receive those funds until Tuesday. The same might be true for a merchant accepting a payment via eftpos on a Friday night. These delays are of course longer during long weekends.

Some financial institutions have recently begun to settle funds to merchants seven days a week for eftpos transactions. While this is a positive development for merchants, as discussed in the previous section, it is only possible through the provision of credit, given that interbank settlement does not occur until later. This implies an increase, albeit modest, in risk. It also has implications for competition because some participants in the payments system do not have a balance sheet that would allow them to easily extend credit.

The Board considers that this situation is out of step with broader developments in our society and economy, where more and more services are expected to be available seven days a week. Such trends are likely to continue and the retail payments system should be able to support them. The posting of DE payments ought to be possible over weekends and public holidays and merchants' access to the proceeds of card payments would sensibly also be available. Of course any real-time retail payments system, as discussed in the previous section, would be expected to be available continuously. While these types of outcomes have been achieved overseas without requiring interbank settlement during weekends, the Board's view is any solution should be competitively neutral. The Reserve Bank will enhance its RTGS system – the Reserve Bank Information and Transfer System (RITS) – to extend interbank settlement capability as required to support these initiatives.

Some submissions in response to the Issues for Consultation paper have outlined a number of complexities that might result from extended operation of payments systems, including for instance the effect on available maintenance and housekeeping times for financial institutions. These and no doubt other issues would need to be worked through with the industry, but the Board does not anticipate any insurmountable constraints on achieving this objective.

Box B
Extended Availability of Payment Systems

Some real-time retail payment systems, such as the UK's Faster Payments Service (FPS), South Africa's Real-time Clearing (RTC) system, Korea's Electronic Banking System (EBS) and Canada's Interac e-Transfer system, can be used to initiate transactions and make funds available to the recipient 24 hours a day. In these systems, recipients can access funds from transactions whether or not the interbank settlement system is operating. As discussed in Box A, systems use a variety of risk-management techniques to manage interbank credit risk, including net debit caps and transaction limits. The RTC system has an additional safeguard of applying lower transaction limits when the interbank settlement system is not operating.

3.3 Transmission of Data with Payments

The Board considers that providing the capacity to carry additional remittance information with payments could result in a significant improvement to business efficiency. This aligns with the 'ease of integration' attribute above.

As discussed in earlier documents from the Strategic Review, this issue is most readily applicable to the DE system, which is the principal business payment system, although there is no reason that other systems could not seek to meet a similar need. DE messages can currently carry a maximum of 18 characters of additional remittance data with the payment message. This is insufficient for many business purposes, and can also be a constraint for personal use. Businesses might for instance wish to incorporate detailed information about an invoice, for example an indication of which items on the invoice are being paid.

In the absence of a solution to this issue, businesses use other payment methods, predominantly cheques, because they can be accompanied by an unlimited quantity of data in paper form. Alternatively, many businesses separate the payment and the remittance information and these must be reconciled at some cost at a later time.

Potential solutions to allow provision of basic remittance information with payments are set out below. One is to adopt payment messages that allow additional data to be incorporated. ISO 20022 message standards, which provide the flexibility to incorporate a significant quantity of data, are being adopted in many countries around the world and there is a general presumption that they would be considered for any new system. The Australian Payments Clearing Association (APCA) has set out a schema for use with domestic systems.

A second option is to handle remittance data separately, but provide a short reference to those data in the message itself, so it can be accessed by the message recipient. This has the advantage that very large quantities of data or other information, such as copies of invoices (i.e. beyond basic remittance information) can also be handled without placing additional loads on the payments system or requiring financial institutions to store and forward this bulky information.

A key problem faced by the Australian system is the starting point. The DE system is very well established, inexpensive and ingrained in business systems. Altering the system to carry additional remittance data could be expensive for both financial institutions and businesses alike, but the additional functionality provided would be of benefit for only a subset of payments. Several approaches for DE payments are possible:

- Incorporating references in the existing 18 character reference field to an external location where a larger quantity of data (potentially over and above basic remittance information) can be stored. This is minimally disruptive and is already being provided on a proprietary basis for some types of payments.
- Establishing of a separate system/clearing stream that would use ISO 20022 messages containing fields for basic remittance information, over and above the basic 18 characters available through the existing DE system. Requirements for larger amounts of remittance information (e.g. copies of invoices) would need to be met by use of external information warehouses.
- Providing a service that could translate between existing DE messages and an ISO message standard incorporating additional data.

These options are not mutually exclusive and given entrenched use of DE, it is probable that progress on this matter may require elements of each, with significant consideration to be given to the migration strategy. The barriers to innovation are typically lower when participants and users can opt-in at a time that suits their needs, although this might make it more difficult to exploit network effects. Staggered migration would be possible in each case, but complexity would be increased by the need for system users to know which parties are capable of sending and receiving enhanced remittance information. Migration to a new ISO 20022 payment message standard would be assisted by provision of a translation service.

An alternative or complementary approach might be to provide the richer data capabilities as part of a new real-time retail payment system. The DE system would continue to service payments that are sensibly batched and require less remittance information. As noted later in this paper, it will be important to maintain investment in this important payment system.

Box C
ISO 20022 Overseas

ISO 20022 messages are increasingly being adopted in retail payment systems overseas. The European Payments Council uses ISO 20022 messages for the Single European Payments Area (SEPA) project; it will be required for all direct debit and credit transfer systems in the coming years as a part of regulations imposed by European legislators. ISO 20022 messages have been an option in Japan's Zengin system since November 2011. Canada, Singapore, Sweden and Switzerland, amongst others, are considering the use of ISO 20022 in upgrading existing retail systems or as the basis for new systems. The International Payments Framework Association is using ISO 20022 to support interoperability of retail payment systems to initiate cross-border payments.

3.4 Addressing of Payments

A key element determining the ease of use of a payment system is the process by which the payee's details are provided by the payer. Currently, in order for a payment to be made into a bank account, the payee's BSB number and account number must be provided. In many cases, individuals will not remember these details themselves and in other cases individuals are reluctant to provide them because they are concerned that they might somehow be used fraudulently. The need to correctly enter up to 15 digits is a further problem. Errors are easily made and the consequences can be uncertain. It is likely that these concerns are the reason that some people are reluctant to make electronic payments and have resulted in significant costs in dealing with payments that have been made incorrectly. The Board therefore believes that an easier means of addressing payments could improve the efficiency of the payments system. It may also have a by-product of increasing competition in the provision of financial services to the extent that it makes it easier for customers to switch accounts between financial institutions.

While other solutions might be possible, one approach to simplifying addressing is to use an identifier – for instance a phone number – that can be associated in a database with a person's full account details. Such a database would most likely be held centrally, although conceptually it could be replicated across multiple financial institutions. There are precedents for both approaches in phone carrier switching arrangements, but the use of a central database associated with a hub is likely to be more efficient. Security considerations would be very important in the design and operation of any account identifier system.

In broad terms the BPAY system uses an approach similar to that above to allow payment to billers via a six digit biller code. The collapsed MAMBO project would have extended this approach to a much wider range of users.

Box D
Addressing Payments in Other Countries

A number of other countries have implemented systems for easier addressing of payments between bank accounts. For instance, VocaLink is constructing a central database (expected to be completed by the end of 2012) to allow UK consumers who are registered to the service to use mobile phone numbers to address person-to-person payments through the Faster Payments Service or LINK. In the US, clearXchange (a joint venture between several banks) allows person-to-person payments from existing bank accounts at participating institutions using only the recipient's mobile phone number or email address; funds move through the automated clearinghouse system. In India, the Interbank Mobile Payment Service uses a unique identifier, similar to a BPAY code, to link a customer's bank account number to their mobile phone number to facilitate payments through a mobile application or SMS.

3.5 The Way Forward

The Payments System Board considers that the payments industry should be aspiring to address the above four areas over the coming years. It therefore believes that finding solutions to the above gaps should form the basis of an initial set of industry strategic objectives. This will be discussed further in Section 5.

3.6 Other Issues

Many other issues have been discussed during the course of the Strategic Review. Not all can be addressed here and the fact that many have not been does not mean that these are not of interest to the Board. It is to be hoped that the processes established as a result of this Review will provide an avenue to address some of these issues in the future if they become pressing.

There were, however, three issues that had some prominence during the Review, for which no specific additional action by the Bank is proposed – cheques, standards and mobile payments. The Board's conclusions on these issues are set out briefly below.

3.6.1 Cheques

The Board's consideration of cheques has occurred in parallel with an industry debate on the future of cheques. This debate has covered approaches to declining cheque use that range from naming a date when cheque clearing would cease to making cheque processing more efficient so that the system is sustainable at lower cheque volumes. The debate has moved relatively quickly and the industry is actively pursuing the latter course, along with measures to promote adoption of electronic alternatives to cheques. Details are provided in 'The Decline of Cheques: Building a Bridge to the Digital Economy', published by APCA in May 2012. The Board supports this approach given that cheques currently provide some features that are not well replicated in electronic systems, such as ease of addressing. The Board believes that the initiatives discussed in this paper will help electronic payments to bridge that gap.

3.6.2 Standards

The adoption of international standards is beneficial to efficiency through the compatibility and interoperability it provides. Standards can cover a number of areas, but the main focus during the Review has been message standards, and in particular the ISO 20022 framework being increasingly adopted internationally. The Board believes that there is now widespread acceptance that any new system should be based on the ISO 20022 framework and supports this presumption.

As discussed in Section 4, the Reserve Bank could provide functionality that may assist migration of DE payments to an ISO 20022 compliant standard.

3.6.3 Mobile payments

The previous papers discussed different models of mobile payments, postulating that in Australia mobile internet and near-field communication (NFC) would be the main channels used for retail payments. While the industry has yet to coalesce around a specific model for providing NFC-based payments, no strong case has been made to the Bank that any intervention is appropriate.

Mobile internet payments are likely to take many paths, with some innovative offerings that provide a much richer interaction between the merchant and the customer already starting to emerge. The Board's key focus is to seek to ensure that the underlying infrastructure of the payments system best supports future innovative products. This includes providing the capacity for real-time retail payments, the transmission of larger quantities of data, and systems for simplifying addressing of payments.

3.7 A Note on MAMBO

The approach taken in this paper will inevitably draw comparisons with 'Project MAMBO' which was being developed by the major banks and BPAY until mid 2011. MAMBO had the potential to offer a number of features that have been supported in this document. That does not necessarily mean that MAMBO was the 'right' solution nor that the banks were mistaken in withdrawing from the project. It does however illustrate the difficulties with cooperative innovation and building a commercial model that appeals to all players for a major investment project. It is quite possible that benefits similar to those delivered by MAMBO might have been provided at less cost if delivered in a different way, perhaps by different systems. It is also possible that a different business model might be required, or perhaps that such central services are best provided as a utility, rather than on a commercial basis.

4. Payments System Architecture

Payments system architecture is the set of physical and logical structures that allow institutions to exchange payment instructions, initiate settlement and perform any additional functions associated with a payment. Payments system architecture is of interest to this Review for two reasons. First, it is relevant to how well and how easily the types of gaps identified in the previous section can be addressed. Second, some forms of architecture appear to be more conducive to innovation than others.

Traditionally Australian payment systems, such as Direct Entry, ATMs and eftpos, have been thought of as bilateral, with physical bilateral lines between pairs of participants, bilateral agreements about how messages are secured, transmitted and processed through those lines, and bilateral business agreements to exchange a given type of payment and potentially also pricing arrangements. By contrast, many systems around the world (and some operating in Australia) operate via a central hub, with all messages passing via the hub to the recipient. This is more efficient, as a new entrant needs only to connect to the hub, rather than establishing separate connections to each individual participant – a task that increases with the size of the industry.

Recently the distinctions between these models have been blurring as internet protocol (IP) technology allows communication to multiple counterparties via a single connection to a network. A recent example of this was the implementation of the industry Community of Interest Network (COIN) in Australia. While this reduced the number of physical network connections (from one for each partner, to one set for the COIN), the overhead of separate bilateral system connections (e.g. file transfer protocols, naming conventions, security connections etc.) between all participants remains. Business arrangements also need to be agreed, so governance becomes relevant. These elements could be agreed bilaterally, standardised through industry agreement, or governed by a central entity.

The Summary of Consultation paper identified three possible roles the Bank sees for centralised architecture in Australia:

- **Simplifying connections.** The greater the extent to which physical, logical and business arrangements are centralised, the simpler will be access for new participants and the better the environment for competition and innovation.
- **Enabling additional processing functions, to provide more sophisticated payment products or greater interoperability.** A hub could perform functions as varied as: splitting and distributing bulk files; conversion between message formats; fraud detection; the association of identifiers with account details (to facilitate easier addressing of payments or account switching); or holding data centrally that can be referenced in payment messages.
- **Facilitating real-time, or near real-time settlement of retail transactions.** Real-time or near real-time settlement of retail transactions would likely require centralised architecture to process large volumes of payments for settlement in RITS.

The Board believes that there should be a general presumption in favour of establishing more centralised systems when the opportunity arises, particularly in the establishment of new systems. However, for the purposes of the current Review its focus is on any architecture solutions that are necessary to address the gaps identified in the previous section. The Board considers that the possibility of advances is most apparent in two areas – the DE system and real-time payments.

4.1 Direct Entry Arrangements

The DE system is the key system for most business payments, providing bulk payments, such as salaries and regular bill payments, along with one-off payments. The system is well-established and inexpensive, but in most cases has attracted little investment in upkeep over the years.

Submissions to the Strategic Review have typically recognised the case for addressing the gaps identified in the preceding section and many have focused on the role the DE system would play in doing so. A number of submissions suggested that the DE system would not be the right starting point and that an entirely new system, dubbed DE2, was needed. They argued that this would be the least disruptive approach to both system participants and businesses, and would allow those businesses that had a need for new services to access them.

The Board concurs that addressing some of the gaps discussed above would require the establishment of a new system, as discussed in the next section, but it also believes that there is scope to enhance the services that can be offered by the existing DE system. The architecture that has been developed by the Reserve Bank to link the COIN with the SWIFT network for the exchange of bulk files means that all participants exchanging files link to the Reserve Bank. The Reserve Bank is considering enhancements to this 'Low Value Clearing Service' (LVCS) to perform additional 'hub' functions, including those that would allow the DE system to better meet some of the gaps identified above. For instance, the system could in the future be capable of accepting a single file that contains payments to be cleared with multiple institutions; the LVCS could also split and sort this into individual files for exchange and generate settlement instructions to RITS. If a new ISO 20022 message standard was adopted, the Bank would provide a translation service that converts ISO 20022 messages to the existing DE standard and vice versa. This has the potential to allow progressive migration to richer standards, reducing the cost of migration. Consideration would need to be given to how this migration could be managed, for both system participants and end users.

There would be potential over time for the Reserve Bank to deliver further processing functions for bulk files, as appropriate.

One issue that has been the subject of some discussion of late is the potential for same-day settlement of DE files. The industry is currently working towards same day settlement for the first three file exchanges each day. This does not cover the majority of the value processed through the system. In the Board's view, the industry should move expeditiously to same day settlement of all five exchanges. This will reduce risk and allow end users to receive access to funds without the need for an extension of credit.

4.2 Real-time Payments

The Board considers that enhancements to the DE system could deliver important benefits for the payments system at a relatively modest cost. However, this solution is only appropriate for bulk files, which by their nature are exchanged in relatively low volumes and are not time critical (e.g. payroll payments). The Board believes that an adequate solution for real-time payments will require a new system, based on real-time clearing of payment instructions. To complement this, the Reserve Bank is prepared to contemplate establishing a system for real-time settlement of retail transactions.

As discussed in Section 3, real-time payments require at a minimum real-time clearing, the capability for real-time posting of funds by institutions, and the ability for participants to provide credit. The latter constraint can be removed if real-time settlement is available. As noted in section 3, the Reserve Bank is prepared to extend interbank settlement hours as required to support payment system innovation.

The Board believes that the critical element of real-time messaging should logically be provided via a payments messaging hub ('payments hub'), which could readily accommodate a large number of participants in an efficient manner. Importantly, a hub would also be able to provide additional processing services, including holding a database of account identifiers and potentially accommodating remittance data. Ideally, the governance arrangements for such a system would provide open access and allow decisions about the design and operation of the system to be made in an efficient manner.

The Reserve Bank believes that such a system could be linked to a system providing real-time settlement of retail transactions. The ability to do so would remove the need for participants to provide credit in order to provide funds in real-time to end users. This implies a reduction in settlement risk for participants compared with a deferred settlement system. A second benefit of the removal of the need to provide credit would be to facilitate participation by entities that would not be in a position to provide credit.

A real-time retail *settlement* system would be established as a separate module of RITS, receiving settlement instructions from the *payment* hub, which would process individual payment instructions from financial institutions. The system might settle using liquidity reserved by institutions for retail settlements, with exchange settlement account balances and the funds available for retail settlements updated periodically. This system would be available for the same hours of operation as the message hub.

There are potentially a number of ways that a payments hub or hubs could be delivered, which might encourage competition and innovation in different ways. A single hub could be provided, either as a commercial entity or as a utility, or multiple hubs could be provided commercially, linking to the settlement hub and competing with one another. The Board considers that universal access by account holders should be an important principle underpinning the system. Therefore, if multiple hubs were provided, this would need to occur in a way that provided interoperability. The Board's presumption is that a single hub would be most efficient.

For a single hub, the objective would be to provide open access to the hub's core functions at a reasonable cost. Participants would then be able to compete over the services that can be offered to end users through a variety of delivery channels. The hub could potentially support several different payment systems, all achieving real-time settlement. While it would be desirable for a basic credit transfer message to be available to all customers, the hub could potentially accept multiple message types to support different types of activities, provided that some core elements were present. This means that more specialised payment systems could also make use of the hub.

A single hub could be run on a commercial basis or as a utility. As suggested in one submission, a commercial entity might be more responsive to development opportunities over time, but might be inclined to exercise market power if it became successful. It is also possible that the establishment costs and the need to achieve sufficient network size to be viable might make the business case for a commercial entity difficult. This suggests Reserve Bank ownership and operation as one possible model. A hybrid approach suggested in some submissions is for the Reserve Bank to initially establish the system, which could subsequently be transferred to a private entity once it reached sufficient scale. The Board's preliminary view is that a hub of this type would be best operated as a utility, owned either by the industry or the Reserve Bank (with appropriate mechanisms for regulation and industry consultation, respectively). This provides the greatest opportunity for vigorous competition between financial institutions/payment providers over the services that can be offered to end users. Recent history suggests that this is where the commercial drivers for innovation are strongest. It would nonetheless be important under such an approach to put in place systems to ensure that the central architecture continued to evolve and innovate as required.

The Payments System Board recognises that the cost of establishing a payments hub and settlement hub may be significant and that expenditure by individual financial institutions would be required in addition to this to implement real-time payments. This needs to be considered in establishing a process and timetable for achieving real-time payments. The Board is also aware that consideration will need to be given to processes for detecting and preventing fraud, money laundering and terrorist financing given that these processes have the potential to compromise the speed of payment processing.

In summary, the Payments System Board believes that the payments industry should be aiming to provide a system of real-time retail payments within the next several years. A logical extension at some point would be the capacity to associate identifiers with account numbers for easier addressing of payments. Further, the Board's view is that the system would best be provided by the establishment of real-time payment and settlement hubs. Not only would this place Australia at the leading edge of retail payments, but it is likely in itself to promote significant further proprietary innovation, using the capabilities provided by the system.

A settlement hub would need to be provided by the Reserve Bank, but the Board has an open mind about how a payments hub would be provided. Accordingly, it is seeking views on how real-time retail payments should best be delivered. However, the Board does not wish to see Australia lag significantly behind in the provision of real-time retail payments and therefore will provide the industry with a relatively short window to consider the issue. It is seeking industry views by the end of August and would like to be in a position to have a clear path forward later in 2012. An attachment to this paper sets out a possible model for a real-time retail payment system provided via a hub, along with some indicative timelines.

The Board does not see the establishment of a system for real-time payments as eliminating the need for DE payments to be settled in a more timely fashion. The DE system is of pivotal importance for business payments and it is important that its users are able to harness the economic benefits associated with more timely payments. Ongoing investment is also required to ensure its continuing reliability and utility for users.

5. Payments System Governance

Most concerns regarding the governance of the payments system centre on two main issues. First, how can public interest objectives be taken into account when industry decision-making rests in the hands of commercial entities? Second, how can the coordination problems that inevitably hamper cooperation between industry participants be overcome, while ensuring that cooperation does not discourage new entry and competition?

Over the course of the Strategic Review, the Board has come to the view that these issues cannot solely be overcome from within the industry. In order to achieve public interest outcomes, the Board believes that some external guidance is required and that this guidance would most appropriately come from the Board itself. This approach suggests a fundamental change in the Board's relationship with the industry. This would involve the Board making clear its public interest objectives at a more detailed level than has previously been the case. Additionally, this process should appropriately involve a more direct ongoing engagement between the Board and the industry in order to better establish a common understanding and purpose.

The Board proposes three related initiatives to improve payments system governance. First, the Board proposes to set high-level strategic objectives for the industry, which will help to create a shared goal and to allow the industry to allocate its resources with greater certainty. This approach can only be expected to deal with a small number of high-level issues. It will therefore be important to ensure that industry coordination and governance arrangements are adequate to both take up strategic objectives identified by the Board and to deal with the large number of other cooperative decisions that need to be addressed by the industry. The Board's second proposal is therefore to encourage the constitution of an enhanced industry coordination body that is suitable to both interact with the Payments System Board on behalf of the industry and to provide cooperative agreement on issues that would not normally be taken up by the Board. Third, the Board proposes to establish a framework for more direct interaction between this industry body and the Board itself.

These issues are dealt with below.

5.1 Setting High-level Strategic Objectives

Industry coordination arrangements appear to have difficulty achieving major shifts in strategic approach. Few of the major innovations in the Australian payments system can be put down to a collective decision by the industry. In some cases change has occurred via participants pursuing proprietary projects, which are eventually made interoperable – for instance the introduction of ATMs. Alternatively, some external impetus, including at times intervention by the Reserve Bank, has spurred change. A number of parties echoed this point to the Bank during consultation. It appears that for a number of reasons discussed in the Issues for Consultation paper, it is difficult to garner collective support for change in a timely fashion.[8]

The Board's principal focus is on finding ways to overcome problems with coordination on high-level strategic issues. Based on the suggestions put during consultation, the Board has focused on two possible elements – a 'road map' set out by the Board on the future direction of the industry or a separate high-level decision-making or advisory body to help determine industry direction.

On the latter, some submissions to the Review suggested the formation of a council of senior-level representatives to act as custodian of an innovation road map and to provide strategic direction.[9] The expectation would be that members would be of a sufficiently senior level so as to be able to take a broad strategic view and to commit resources as appropriate. Such a body would try to reflect the views of a broad range of stakeholders. The Board's view is that having the right mix and breadth of high-level representation on a payments body could give some greater strategic direction for the industry than is currently the case. However, even a body of this nature is likely to have difficulty overcoming the fundamental conflicts underlying industry decision-making, given that the costs and benefits of any initiative are likely to fall unevenly; a clear business case might not exist for individual players; and priorities and investment cycles are unlikely to align. Most importantly, it is not clear how the public interest would be given priority in such a forum. The inclusion of end users in decision-making could bring alternative views to the table, but would make collective decisions even more difficult. It is difficult to see how such a body could be successful without an independent party such as the Reserve Bank playing a strong role in guiding the agenda of the body.

An approach that recognises these shortfalls and places the role of the Board and consideration of the public interest at the centre is appropriate. For this reason, the Board favours the setting of high-level strategic objectives by the Board itself, based on the Board's assessment of the public interest. Many submissions suggested that the Board set a road map for the industry in order to help individual players to prioritise their activities and plan their allocation of resources over the medium term. The Board sees considerable merit in this approach, given its capacity to break through at least some of the coordination problems discussed above and provide confidence that industry direction is consistent with the public interest. This would be likely to reduce the costs of innovation and increase efficiency in the payments system.

The implementation of this type of approach needs to take account of the nature of the Payments System Board. The Board is a policy body, not a technical body. Accordingly, its role is making judgements about the public interest, including matters of safety, efficiency and competition in the payments system. The Board therefore believes that its role should normally be to set high-level objectives for the payments system, but the onus should be on the industry to determine how those objectives are met in the most efficient way. Accordingly, the Board would not be establishing a detailed road map, but indicating the final destination, which could be reached by a number of alternative paths, determined by the industry. The Board will nonetheless be prepared to provide more detailed guidance where it considers it necessary in order for strategic objectives to be achieved in a timely and appropriate manner.

8 Similar concerns have arisen overseas, for instance this has been identified as a factor in the decision by the European Commission to regulate direct entry systems – see European Commission (2012), 'Establishing Technical Requirements for Credit Transfers and Direct Debits in Euros and Amending Regulation (EC) No 924/2009', December – and in delays in implementing mobile payments in the United Kingdom – see Cave M (2012), 'Independent Review of Governance and Performance of the Payments Council 2009-11', January.

9 See, for instance, ANZ (2011), 'Strategic Review of Innovation in the Payments System: Issues for Consideration', ANZ Sumbission to the Reserve Bank of Australia, August. Available at <http://www.rba.gov.au/payments-system/reforms/strategic-review-innovation/submissions/201106-strategic-review-innovation/index.html>.

Over time it will be important for the Board to establish a clearly-articulated framework for setting strategic objectives for the payments system, including the general areas in which they are appropriate and criteria that those objectives must meet. The Board will work on this framework at coming meetings. In the meantime, the Board is of the view that the initial set of objectives for the payments system should reflect the gaps identified during this Strategic Review (see box).

Box E
Initial Strategic Objectives

The Payments System Board plans to outline strategic objectives for the payments system in order to establish a shared vision of the shape of the payments system in years to come. The strategic objectives will reflect the Board's assessment of the public interest. Based on its consultations over the course of the Strategic Review, the Board is proposing the following as the initial strategic objectives for the payments system.

- All Direct Entry payments should be settled on the day payment instructions are exchanged by the end of 2013.
- There should be the capacity for businesses and consumers to make payments in real time, with close to immediate funds availability to the recipient, by the end of 2016.
- There should be the ability to make and receive low-value payments outside normal banking hours by the end of 2016. This would include availability of the Direct Entry system and any real-time system. Ideally it would also involve the capacity for the settlement of card payment receipts during weekends and public holidays, so that receipts can be posted to merchants without generating interbank credit risk.
- Businesses and consumers should have the capacity to send more complete remittance information with payments by the end of 2016.
- A system for more easily addressing retail payments to any recipient should be available. To the extent that this is provided by a new real-time system, it should be available by the end of 2017. This does not rule out earlier availability via other solutions.

The Board is seeking initial feedback on these strategic objectives in the coming months, as outlined in 'Next Steps' at the end of this paper.

5.1.1 Setting and monitoring strategic objectives

It would not be appropriate for the Board to determine industry strategic objectives in isolation, nor would it be appropriate for the Board to take no interest in how the industry chooses to meet the strategic objectives. This suggests a need for ongoing dialogue and consultation between the Bank, the industry and other interested parties. The Board's preferred approach is to inform the setting of objectives by a consultative process that allows the Bank and the Board to hear and weigh all points of view. Consultation with an industry body would be part of this process. Once again, a timetable and broad approach would be determined before the process is next entered into. The Board anticipates that a formal process of setting objectives would occur every three years.

A second element of interaction would be engagement with the industry after strategic objectives have been proposed. The release of proposed strategic objectives by the Board could be expected to initiate fairly intensive industry discussions on the approach to meeting those objectives. In the short term, it would be appropriate for the industry to provide some initial feedback to the Bank on those objectives, the timetable identified by the Board, and, if not the approach to meeting the objectives, then the process by which this would be determined. This might occur within the two to three months following the announcement of the objectives. Subsequently, the Board would wish to hear a well-articulated approach to meeting the objectives, along with the key milestones. Finally, during the implementation, the Board would wish to receive timely updates on progress towards those milestones. At each stage the Board might provide feedback to the industry on whether it thought the response was appropriate. The Board anticipates that this would form part of a more formal structure for engagement with the industry in the future.

As discussed below, the Board would like to see enhanced industry coordination arrangements, which would facilitate more direct engagement between the Board and the industry on these issues. However, dialogue on the initial strategic objectives will need to progress before those enhancements have been put in place. In the first instance, the Board encourages the industry to engage collectively with the Bank, through APCA or another grouping, but is also prepared for interested parties to engage with the Bank separately.

While the Board is optimistic that the approach outlined above is likely to lead to better cooperative outcomes, it acknowledges that there is a possibility that the industry will still not be able to reach agreement on a solution in every case. Given that the strategic objectives determined by the Board are matters that the Board considers to be in the public interest, it would then need to consider whether there is a case for meeting the objectives by other means. For instance, it might seek to establish infrastructure itself, or use its powers under the *Payment Systems (Regulation) Act 1998* to require that the objectives be met. In doing so, the Board would of course need to follow the processes required by the legislation, including public consultation and assessment of policies against the criteria set out in the Act.

5.2 Enhanced Industry Self-governance

In the framework envisaged by the Board, industry-level governance will be important for two reasons. As discussed above, strong engagement between the industry and the Board will be crucial to identifying and achieving strategic objectives. In addition, while identification of strategic objectives is expected to help in overcoming the challenges of both incorporating public interest considerations in industry decision-making, and achieving coordination among disparate parties, those objectives will only cover a subset of issues where industry coordination is required. There will continue to be many other issues that are important, but not of the same strategic nature, that need to be coordinated at an industry level. If anything, the range of decisions open to this approach is potentially wider than those currently decided cooperatively and some of the decisions made cooperatively could benefit from a broader perspective. The Board is therefore proposing that an enhanced industry coordination body be constituted.

Currently the main body for industry coordination is APCA. While APCA's genesis is in governing the cooperative clearing and settlement arrangements (currently cash, paper, consumer electronic, bulk electronic and high value), it has been becoming increasingly clear that needs for coordination are broader. For instance, card schemes, online payment schemes and ATM deployers are significant players in the retail payments system, but are not generally decision-makers within APCA. The separation between clearing streams and coordination needs may increase over time as independent payment schemes play a greater role and settlement potentially becomes more separated from APCA streams.

In recent years, APCA has sought greater industry-wide coordination, for instance through the Australian Payments Forum, while the card schemes are becoming more conscious of the benefits of coordinating over security. APCA has also recently made public its proposals for new governance arrangements that would broaden membership. The Board welcomes these efforts, but considers that they should be built upon to encourage the broadest possible participation in, and coverage of, industry coordination arrangements. The Board supports constituting an industry-wide coordination body, building on APCA's arrangements, that is capable of dealing with the full range of cooperative issues that arise in the payments system, as well as being suitable for representing the industry directly in discussions with the Payments System Board (see below). The need to deal with a range of different issues suggests the body would need to operate through a number of subcommittees, similar to the existing APCA structure, but with a peak committee that has representation at a sufficiently senior level to take ownership of strategic issues and to engage directly on policy issues with the Payments System Board. These arrangements would also need to be able to take genuine account of end-users' views.

The Board proposes that the Reserve Bank work with the industry to constitute enhanced industry coordination arrangements, suitable to enable more direct engagement between the Payments System Board and the industry. Some additional views on aspects of the structure of self-governance arrangements are presented below.

Box F
Overseas Developments on Industry-level Governance

Payments system governance is also receiving a significant amount of attention in a number of overseas jurisdictions.

- The Canadian Task Force for the Payment System Review has proposed a new governance and regulatory framework for the Canadian payments system. The Task Force proposes to establish an industry self-governing organisation (SGO), supported by legislative amendments, with responsibility for industry-level governance and strategic direction. Membership of the SGO will be mandatory for all payment service providers, networks and others in the payments chain. Members will be bound to the decisions of the SGO. A public oversight body (POB), reporting to the Minister of Finance, is proposed to protect the public interest by overseeing and assessing the SGO, and exercising regulatory powers if the SGO does not function effectively.
- The European Commission (EC) has begun consultation – as part of a broader consultation on the card, internet and mobile payments markets – into governance of the industry and the Single European Payments Area (SEPA) initiative, and the efficacy of the European Payments Council (the industry body responsible for payment system coordination and decision-making). The SEPA Council, established and co-chaired by the EC and the European Central Bank to bring together the providers and users of payments, is also undertaking a review. Although both of these initiatives are still preliminary, one proposal is to give the SEPA Council the responsibility for setting strategic guidance, priorities and timeframes for the payments system.
- The UK Government is considering undertaking a consultation on payments system governance and regulation to bring the UK Payments Council (the industry body responsible for payments system strategy and governance) under public oversight. This follows a report by the Treasury Select Committee into the Payments Council and its approach to cheques, which recommended a number of changes to the Payments Council, including that it be overseen by the Financial Conduct Authority.

5.2.2 Structure, governance and powers of the industry body

A number of important questions about industry governance arose during consultation for the Review. These included:

- What are the appropriate representation and decision-making arrangements for an industry body?
- Should an industry body have greater powers to compel participants to adhere to its decisions?
- How should the need for an industry body to make cooperative decisions be balanced with competition law issues?

In relation to representation and decision-making, the Board believes that significant steps towards better cooperative outcomes, taking account of the public interest, will flow from the setting of strategic objectives and the formation of an enhanced industry body which is able to interact directly with the Board. It does not seek, at this stage, to dictate specific details of decision-making arrangements. It nonetheless suggests that the following criteria would be important in the design of governance arrangements for any enhanced industry coordination body:

- The body should have a clearly stated obligation to consider both the interests of the industry and the public interest.
- It should be representative of those that have a genuine stake in the outcomes and not dominated by any class of participants. End users' views should be represented either explicitly or through independent directors. Given the changing nature of the industry, the appropriateness of representation should be reviewed periodically.
- The coordinating body should be small enough to be effective.
- A strong role for independent directors should be provided.
- Representatives at the peak level should be sufficiently senior to promote a strategic approach.

The Board is conscious that coordination in the payments industry has often been hostage to the lowest common denominator or the slowest mover. The Board believes that setting strategic objectives will help to overcome this constraint in respect of the areas that the Board chooses to take up. The question remains whether the industry body itself should have some formal recognition of its powers so that it can compel compliance by participants that might otherwise hold up desirable reforms. There are equivalents of this overseas, for instance in Canada, where the Canadian Payments Association can compel participants under the *Canadian Payments Act 1980*. The Irish Payment Service Organisation and the Payments Association of South Africa also have formal legal recognition. In other cases, powers to compel are contractually based.

The Board believes that members should join the industry body on the understanding that they would be tied to the decisions of that body. While there would be a strong presumption that stakeholders would be members and therefore tied to the body's decisions, the Board does not see a need for the body's powers to be supported by legislation. The Payments System Board of course has powers to regulate on matters that are in the public interest, supported by the appropriate checks and balances, including accountability to the Parliament.

The Board notes the suggestion that it be able to provide greater legal certainty to cooperative decisions by the industry that are in the public interest, without regulation. Some decisions otherwise may be counter to elements of the *Competition and Consumer Act 2010* (CCA). This highlights complications of payments system competition falling under the auspices of both the Payments System Board and the Australian Competition and Consumer Commission (ACCC) – something that is recognised in the MOU between the two.

The intention of the legislators in enacting the Payment Systems (Regulation) Act was that industry-based solutions should be preferred to regulation.[10] This has often resulted in the Bank encouraging the industry to voluntarily take action to address concerns in a particular area. However, some cooperative actions taken in response may nonetheless be counter to provisions of the CCA. As it stands, there are two possible means of giving an agreement of this type legal certainty. The industry can seek authorisation from the ACCC, which it will grant if it considers the agreement to provide a net public benefit. Alternatively, legal certainty can be provided where the Reserve Bank regulates; for instance, section 15A of the Payment Systems Regulation Act provides relief from Part IV of the CCA for actions taken in accordance with an Access Regime set by the Reserve Bank.[11]

The former approach means that the industry may need to deal with multiple regulators in relation to a single issue. Regulation by the Bank can avoid the need for authorisation by the ACCC and so provide a single regulatory process, but regulation where a voluntary agreement might have been possible is counter to the intent of the Payment Systems (Regulation) Act. The Board considers that this issue would benefit from further discussion with the government.

5.3 Payments System Board Engagement with the Industry

The Board believes that fostering cooperative innovation of the type discussed in this paper will require a constructive partnership between the Payments System Board and the industry. As discussed above, the Board believes that ongoing liaison, feedback and reporting will be important in working towards implementation of the strategic objectives. However, it also believes that greater direct interaction between it and the industry is warranted in general. This is a point that has been raised by a number of parties, both in the context of the Strategic Review and elsewhere.

Should a suitable industry body be constituted, the Board proposes to engage directly with that body, both on the setting and implementation of strategic objectives and the more regular activities of the industry body. In the case of the latter, it would be appropriate for the industry body to: report on its activities; seek input from the Board on priorities; report on issues on which the industry has not been able to reach agreement; and make recommendations to the Board on areas where it considers regulatory change may be appropriate. In turn, the Board would use this as input to its own deliberations; provide feedback as appropriate; and indicate to the industry body issues that it thinks should be on the industry body's agenda.

The Board does not believe that progress on addressing the strategic objectives should wait for the process of reforming governance to be completed. There therefore needs to be continued engagement between the industry and the Bank during this interim period. The Board does not wish to dictate how this should occur; key players will need to decide whether they wish to act through APCA or by some other means. Longer term, the Board is hopeful that an enhanced industry body will have a clear mandate to engage with the Board on these issues on an ongoing basis.

10 See Payments System (Regulation) Bill 1998, Explanatory Memorandum.

11 By 'specifying' and 'authorising' for the purposes of subparagraph 51(1)(a)(i) of the Competition and Consumer Act actions by a participant in a designated payment system that are in accordance with an Access Regime. Subparagraph 51(1)(a)(i) requires that anything specified and specifically authorised by an Act must be disregarded in deciding whether a person has contravened Part III of the Act.

6. Summary of Conclusions and Next Steps

The Board's proposed approach following the Strategic Review of Innovation is summarised below.

1. The Board will establish high-level strategic objectives which it believes the payments system should be able to meet by a specified time.

Every three years the Board will establish new or revised strategic objectives for the payments system, or confirm existing ones. Strategic objectives will cover the services that are provided by the payments system and potentially some of the characteristics of individual systems, for instance relating to access or interoperability. The Board will establish objectives by consulting extensively with stakeholders, both privately and through a public consultation process. As with the process that has occurred during the Strategic Review, it will take account of developments overseas. The Board will review progress towards meeting current objectives annually.

In general, the Board does not see its role as dictating the means by which the strategic objectives are met. It considers that the industry is best placed to determine how it does so in the most efficient manner. The Board, however, has an interest in ensuring that the objectives will be met to its satisfaction in a timely manner.

The Board will set objectives that it considers to be in the public interest. If it is not satisfied that they will be met otherwise, it will consider using other means, including the Reserve Bank's powers under the Payment Systems (Regulation) Act (subject to the tests and processes required by the Act), or the provision of infrastructure by the Reserve Bank itself.

To be successful, these arrangements will require considerable interaction between the Bank and the industry. The Bank is seeking an initial industry response to the strategic objectives by end August, including feedback on the timetable identified by the Board and possible approaches to meeting the objectives, in particular real-time retail payments. In future, such a dialogue should occur largely with an enhanced industry body. At this stage, given that governance arrangements have not been settled, the Board encourages the industry to engage collectively with the Bank, through APCA or another grouping, but is also prepared for interested parties to engage with the Bank separately. The Board would like to have a clear path forward identified later in 2012.

2. The first set of strategic objectives for the payments system will reflect the gaps identified by the Board during the Strategic Review.

The strategic objectives are presented in Box E on page 20. In summary the payments system should be able to provide:

- same-day settlement of all DE payments
- the ability to make real-time retail payments

- the ability to make and receive low-value payments (Direct Entry, real-time payments and crediting of card payment receipts) outside normal banking hours
- the ability to send more complete remittance information with payments
- the ability to address payments in a relatively simple way.

While these objectives need not be available through all payment systems, they should be readily available among a menu of payment services offered by different payment systems across accounts at all financial institutions. The Board recognises that the challenges in each are different and may need to proceed on different timelines. The Board's preliminary view is that same-day settlement of all direct entry payments should be available by the end of 2013. The capacity to carry additional data with payments, make and receive payments out of hours, and provide real-time payments (with real-time funds availability) should be available by end 2016. To the extent that simpler addressing of payments is provided via a new real-time system, it should be available by the end of 2017. This does not rule out earlier availability via other solutions.

The Board is prepared to consider adjusting these dates as part of its initial engagement with the industry on its strategic objectives. It is possible that these capabilities could be delivered in less time and the Board encourages the industry to strive to do so.

3. While the Board intends to let the industry determine the approach to meeting strategic objectives, it sees merit in the establishment of hub-based architecture for providing real-time payments, including a real-time settlement hub provided by the Reserve Bank.

The Board sees a system providing real-time payments as key to further innovation in the retail payments system. Such a system should be as open as possible, implying that the costs of new players joining should not rise significantly with the number of participants. It should also be capable of providing additional processing services. Finally, the Bank believes that there is a case for settling these transactions in real time so that real-time payments do not rely on credit provision. All these points suggest the adoption of a hub-based solution.

The Board recognises that there are potentially significant costs involved in a new system, risks around any commercial model, and the potential for the exercise of monopoly power. It therefore does not rule out the possibility that a commercial model is not optimal and that such a system would need to be established by the Reserve Bank.

The Bank is seeking industry feedback by end August on its preferred approach to real-time payments and the model for delivery. Next steps will depend on the outcome of that process. Should the Bank determine that the best approach is for it to provide the architecture itself, it will consult with the industry on key requirements and capabilities for a real-time payments hub solution, with a view to the possible initiation of a tender process from mid 2013. Further details on a possible approach are provided in an attachment to this paper.

4. The Board recommends a review of industry coordination, with a view to constituting an enhanced industry body with which the Board will engage more directly.

The Board proposes that the Reserve Bank convene discussions with stakeholders on constituting an enhanced industry body. The body would have broad industry coverage and would be responsible for industry coordination, as well as being the principal voice of the industry in liaison with the Reserve Bank and the Payments System Board, including in respect of the strategic objectives outlined above.

The Board considers that the governance arrangements for such a body should include the following features:

- The body should have a clearly stated obligation to consider both the interests of the industry and the public interest.
- It should be representative of those that have a genuine stake in the outcomes and not dominated by any class of participants. End users should be represented either explicitly or through independent directors.
- The body should be small enough to be effective.
- A strong role for independent directors should be provided.
- Representatives at the peak level should be sufficiently senior to promote a strategic approach.

Next Steps

Over the coming months the Bank will engage with stakeholders on the approach to constituting an enhanced industry coordination body that will engage with the Payments System Board on innovation and other matters.

The Bank is seeking input on the strategic objectives and timelines identified in this paper. In particular it is seeking input on the approach to the provision of real-time retail payments. This dialogue can begin immediately, but the Bank would like to receive views both on the strategic objectives and on the delivery of real-time payments no later than end August. As noted above, the industry is encouraged to engage collectively with the Bank, through APCA or another grouping, but the Bank is also prepared to engage with interested parties separately.

The Bank is happy to receive initial written submissions or to meet with interested parties in person. Written submissions should be addressed to:

Head of Payments Policy Department
Reserve Bank of Australia
GPO Box 3947
Sydney NSW 2001

or

pysubmissions@rba.gov.au.

The Bank will publish written submissions on its website at the request of the submitter.

A Model for Real-time Retail Payment and Settlement Hubs

As discussed in 'Summary of Conclusions and Next Steps', the Board believes that the Australian payments system ought to be in a position to deliver real-time retail payments in the coming years and it sees considerable merit in this functionality being delivered by a hub. This attachment seeks to flesh out a model for providing real-time retail payments via payment and settlement hubs and proposes a timeline.

The characteristics of a real-time retail payments hub would be as follows:

- initially providing credit transfers, with future capability for debits, future-dated payments and other payment types
- payment messages based on ISO 20022 standards
- messages capable of carrying additional remittance information
- resilient connectivity to all deposit-taking institutions
- the receiving bank to provide real-time funds availability – required by the end of the first year of operation
- the sender (payer) to have confirmation of the funds destination before committing a payment
- the sender (payer) to receive confirmation that the payment has been made into a valid recipient account
- 24 x 7 resilient operation with high levels of security
- future capability for use of customer identifiers (e.g. mobile phone number) for ease of addressing payments and to assist in account switching
- open access for financial institutions and payment service providers; that is, potentially accessible to consumer and business customers of all authorised deposit-taking institutions (ADIs) offering retail transaction banking
- settlement of each payment in central bank funds (through an enhanced 'fast' settlement service in RITS)
- support for a range of secure payment channels, including the use of mobile devices

As discussed in Section 4, there are different ways in which a hub providing real-time retail payments could be delivered. The following proposes a timeline based on the Reserve Bank, at least initially, owning and governing the system. Timelines might be longer with industry ownership if there is an initial need to establish ownership and governance arrangements:

- Reserve Bank to consult with the industry on key requirements and capabilities for a real-time payments hub solution, with conclusions available by the first quarter of 2013
- a tender process for construction of the payments hub commencing around mid 2013, with selection made by end 2013

- industry connectivity requirements available by mid 2014
- the Reserve Bank to develop the capability for RITS to process 'high speed and high volume' settlements by end 2014
- a real-time retail payments hub to be available by end 2014 for external testing by ADIs
- all ADIs (that offer transactional banking services) to have the ability to at least receive payments from the new hub (possibly via a service provider) by end 2015
- ADIs using this service to develop the capability to provide real-time funds availability following settlement by the end of 2016.

New Payments Platform Roadmap October 2020

Enhancing the platform's capabilities

30 October 2020

NPP AUSTRALIA LIMITED
ABN: 68 601 428 737

The New Payments Platform

The New Payments Platform **(NPP)** is designed to support a 24/7 modern, digital economy. It provides a fast, flexible and data-rich payments system that enables Australian consumers, businesses and government agencies to make real-time account to account payments.

Speed	Always on	Data enriched	Simpler addressing
Real-time movement of funds and immediate funds availability.	Always available, processing payments 24 hours a day, seven days a week, 365 days a year with no cut off times.	Extensive data capabilities with the ability to carry additonal data with the payment using ISO 20022 message structure.	An easy-to-remember identifier (a PayID) which is linked to an underlying bank account. Also provides confimation of payee.

> Australia has arguably the most advanced real-time payments system in the world. That is the digital infrastructure through our new payments platform that enables people to get paid instantaneously. Not seven days, not two days, within seconds.
>
> **The Hon Scott Morrison MP, Prime Minister of Australia**
> Announcing the Government's Digital Business Plan to drive Australia's economic recovery, 29 September 2020

NPP Australia is committed to ongoing investment to extend and enhance the capability of the platform to meet the needs of the wider payments ecosystem.

This document outlines the future capability development planned for the platform from 2020 through to 2023.

NPP snapshot – October 2020

Take up and usage of the platform continues to grow.

Platform Reach

72 million accounts

Almost all retail transaction bank accounts (with a few exceptions) are now enabled for NPP payment services with 72 million accountholders able to make and/or receive NPP payments.

This number continues to grow as existing financial institutions continue to rollout capability to their customers and new institutions come on board.

In the last 12 months, approximately 6 million accounts have been enabled for NPP payments and over 1.5 - 2 million more accounts are scheduled to be enabled in 2021.

The platform is now processing an average of 1.7 million NPP payments worth an average of more than $5 billion each day. Transaction volume has grown 99% YOY in terms of number of transactions and 142% in the value of transactions (since last August).

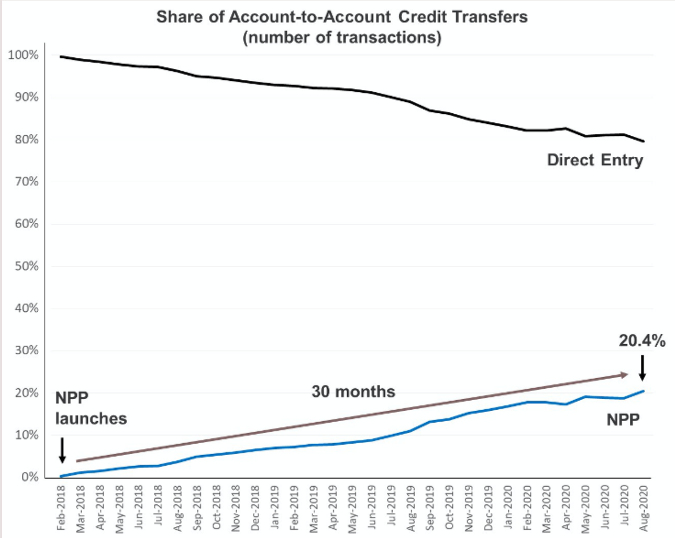
The platform has processed over $1 trillion[1] in payments since going live and the largest single transaction settled on the platform so far is $19.8 billion.

Transaction Volumes

1.7 m payments/day

1. This includes payments between different government agencies which are not reported in the RBA's C06-1 hist schedule.

More than 20% of account-to-account credit payments are now done via the NPP.



Source: RBA C06-1 hist schedule

Most single payments ("pay anyone" payments) made by individuals, businesses or government, previously sent via the bulk electronic clearing system (BECS Direct Entry) are being automatically routed by financial institutions over the NPP.

NPP payment services are now widely available to Australian retail customers and the number of businesses and corporates using the platform is growing. Businesses are replacing their RTGS payments with NPP payments and some individual business payments are now occurring via the NPP.

1 in 3 **NPP transactions involves a payment to or from a business.**

An increasing number of organisations are using the NPP, ranging from new neobanks, payment service providers, cross-border remittance companies and cryptocurrency exchanges, fintechs, corporates and government agencies. The NPP has also helped the Australian Government respond to the COVID-19 pandemic by supporting real-time payments to government agencies charged with delivering policies and programs related to the crisis.

> Increasing real-time payment adoption rates and continual development and evolution of real-time infrastructures around the globe speak to the staying power of real-time and indicate the true potential that is just beginning to emerge. Australia's New Payments Platform is one example.
>
> **Raja Gopalakrishnan, Executive Vice President, Global Real-time Payments, FIS**

Bringing down transaction costs	NPP Australia operates as an economically self-sustaining entity, recovering its operating costs via wholesale unit transaction costs levied on its shareholders. A key strategic imperative is to make the NPP a low cost digital payment option for consumers, businesses and corporates. As transaction volumes grow, the NPP wholesale transaction cost continues to decline – and is now below 10 cents (as of September 2020).
Access to the NPP **100+** participating organisations	NPP's access framework has a range of access options, both direct and indirect, suitable for ADIs and non ADIs[2]. Over 100 banks, credit unions, building societies and fintechs[3] are connected to the NPP, 11 directly and over 90 indirectly. This includes five non-bank organisations who have chosen to connect indirectly to offer NPP payment services to their customer base. More organisations are expected to come on board in the next 12 months. The NPP has been intentionally designed to be pro-access, encouraging broad participation across the payments ecosystem, while maintaining safeguards needed for a real-time payments system and ensuring the ongoing protection of consumers.

> NPP is probably the greatest change to the Australia landscape in payments for 30 or 40 years.
>
> **Institutional Banking employee, Major Australian Bank**

2. For more information, see https://nppa.com.au/the-platform/accessing-the-platform/ For information on which organisations are offering connectivity services to the NPP see https://nppa.com.au/connectivity-services/ 3. See https://www.nppa.com.au/find-an-institution/ for information on who is participating in the NPP.

Growing use of PayID

The use of PayID is growing, with customer adoption driven by convenience and small businesses choosing to offer it as a low-cost digital option for receiving payments from their customers.

5m+

PayIDs registered

There are now over 5.4 million registered PayIDs. This number has increased by 36% since the start of this year, with an average of 150,000 PayID registrations added every month.

For users, PayID offers speed and convenience and has brought a whole new level of convenience to online banking and has made transferring money easier, faster and more straightforward[4].

"It takes away the stress of splitting bills"

"I don't have to chase someone to pay me!"

"It's a game changer"

PayID users are highly engaged: 45% of users use PayID at least once a week to send and/ or receive payments.

PayID is commonly used for a range of scenarios:

- splitting dinner bills
- buying and selling second-hand goods
- splitting shared house expenses
- repaying people for purchases made
- organising group activities

PayID is also increasingly being used by small businesses as a low cost digital payments option.

PayID is a simple and cost-effective way for small businesses to receive payments from customers in real-time. A diverse range of small businesses such as restaurants and cafes, hairdressers, charities and services like mobile dog washing are increasingly offering PayID as a payment option to customers.

During the COVID-19 crisis, small businesses have had to pivot quickly to use remote, contactless forms of payment and a number have turned to PayID as an option.

Benefits for businesses:

- Low cost payment option
- Better cash flow – funds received in less than a minute, 24x7
- Quick and easy to set up
- More reconciliation information with up to 280 characters
- Mobile and always accessible

> There is no faster way for a customer to pay than via the NPP - and PayID makes that process even simpler. All that's needed is an email or phone number to get started.
>
> **Christian Westerlind Wigstrom, CEO of Monoova**

4.NPP Australia PayID research May-July 2020

Making a difference to people's lives every day

The NPP is being used in a variety of ways to deliver real benefits to consumers.

Urgent financial assistance

Services Australia

The NPP is enabling instant financial assistance to people every day of the year. For example, **Services Australia** is using the NPP to distribute real-time emergency assistance, during and outside of normal business hours, during times of need such as last summer's bushfires. Between September 2019 and February 2020, Services Australia distributed millions of payments to people affected by the fires. Using the NPP, many of these payments were in people's bank accounts within minutes[5].

Promoting financial wellbeing

Earnd is providing employees with access to their pay immediately when they need it. With the intention of promoting employees financial wellbeing, Earnd enables employees to access their pay in real-time without a charge to the employee. Employers have also benefited in the form of increased employee engagement, retention and overall wellbeing, reduced absenteeism and other pain points associated with financial stress.

> We started this business with the core mission of supporting employees' financial wellbeing in a measurable way. We fundamentally believe that people have a right to access their pay as soon as they finish a day's work and at no cost to them. Without the NPP this would not be possible.
>
> **Brad Joffe, General Manager of Earnd Australia**

Making share trading accessible

Superhero is an online share trading platform, making investing in shares more affordable and accessible to a broader segment of the population. Customers can invest with as little as $100 and pay a flat fee of just $5 on all share trades. Customers can set up their account in just minutes transferring funds into their Superhero Wallet from their bank account by making a payment to Superhero's registered PayID.

> With the NPP having launched to the public a few months before we did, Up was in the fortunate position of having a fast and modern platform to deliver our next-generation payment experience on top of. Using the NPP, new customers were able to instantly fund their Up account and be spending within just a few minutes of downloading the app. Fast forward a couple of years and Upsider's simply take it as a given that paying their mates or moving money to other accounts happens in the blink of an eye!
>
> **Anson Parker, Head of Product, Up**

Supporting Australia's drive to digital

The NPP delivers benefits beyond just speed of payment. By enabling digital processes, which can deliver back-office efficiencies and cost savings to Australian businesses and government agencies, the NPP is well positioned to support the Government's drive to digital for the Australian business community.

In addition to the real-time movement of funds, the platform provides real-time confirmation of a payment – so businesses and corporates know immediately whether or not a payment has been successful. Organisations can also get real-time access to enhanced data and reporting via APIs which can be used for automated reconciliation.

A number of payment service providers are offering API driven payment solutions for businesses, including real-time account payables and receivables functionality.

5. See Services Australia Annual Report 2019-20

Automating workflows and payment processes

Assembly Payments has partnered with organisations in a variety of sectors to help them manage complex administrative tasks and payment flows by combining the features of the NPP with their ability to maximise workflow customisation.

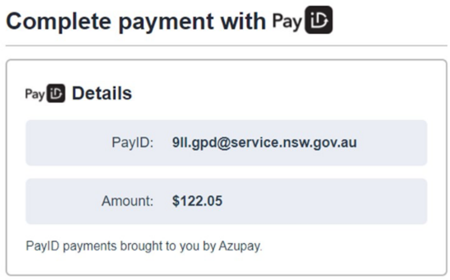
Their use of flexible API technology to access the benefits of the NPP has resulted in customisable automated solutions that deliver valuable efficiency gains and proposition enhancements in sectors including proptech, remittance, cryptocurrency exchange, fintech and other types of B2B platform.

Online property platform Managed App has for instance been able to customise and automate endless payment workflows for rental payments and bills between landlords, tenants and tradespeople, making the most of process efficiencies by automating collections and reconciliation.

> Automating things in real time is a financial technologies company's dream. From anti-fraud, identity management, reconciling to accounts, matching payments - it all needs to be done in real-time. For us, that's what makes the NPP cool. It's about way more than moving the money.
>
> **Tim Dickinson. Co-CEO, Assembly Payments**

Enabling C2B payments

Australian fintech **Azupay** launched its 'AzupayID' service in May this year when the NSW Government commenced offering it as a payment option for registrations through the Department of Planning, National Parks, Ministry of Health, Liquor and Gaming, with further plans to offer it for Roads and Maritime Services (Transport for NSW).



AzupayID works by creating a unique, single-use PayID at the time of payment, which automatically includes merchant information such as the amount and a description. Whether manually entering the PayID or scanning a QR Code, the payment is made using funds directly from the customer's account, without the need to input additional information for real-time reconciliation.

> Organisations such as government agencies, utilities and retailers are drawn to the security, speed and reconciliation benefits, as well as the low cost and ease of implementation. Easy-to-use APIs means they can optimise payment processes in just a matter of days.
>
> **John Murphy, CEO of Azupay**

Matching real-time payments with fast reconciliation

Monoova uses the NPP to offer businesses real-time account payables and receivables functionality including immediate payment notifications and automatic reconciliation via a single API integration.

For many businesses, without a way of reconciling transactions as fast as they come in, the value of real-time receivables is drastically reduced. So Monoova developed Automatcher, a solution which issues large numbers of unique, repeat-use PayIDs in the form of emails (e.g. John.Smith@utility.com.au). The business then assigns these PayIDs to each of their customers as a payment option at the bottom of bills and in their apps. When a payment is made, Monoova sends a detailed notification to the business informing them that funds have been received from that customer.

Monoova is seeing interest in this solution from a range of different businesses from utilities, business-financing companies, online marketplaces and personal finance apps.

> In addition to receiving the funds in real-time, businesses benefit from automated real-time reporting of fully reconciled transactions straight into their back-office systems. That generates real process efficiencies and savings.
>
> **Christian Westerlind Wigstrom, CEO of Monoova**

Enabling real-time disbursements

SPLIT PAYMENTS

Payments provider **Split Payments** has combined the NPP's speed and data capabilities with Split's enterprise 'payout tool' to enable businesses to disburse payments in real time.

Split Payments has partnered with A2B Australia Limited, industry leaders in personal transport to enable real time payments to more than 40,000 taxi drivers across Australia.

Rather than waiting until the next business day to receive fares into their bank account, taxi drivers can now be paid any day of the year, including weekends and public holidays. This is a significant benefit to drivers who are essentially running their own micro business and incur expenses, such as petrol, during each shift, and often operate over weekends and public holidays. A2B also benefits by accessing real-time data to reconcile these pay-outs as they occur.

> This is a game changer for the personal transport industry. Not only is this a ground-breaking solution that provides drivers greater control and faster access to their earnings, it also delivers A2B significant efficiencies for their organisation."
>
> **Matthew Cheers, Co-Founder, Split Payments**

> Taxi drivers work on weekends and public holidays. For the first time, they will receive their earnings into their bank accounts on weekends as well as public holidays, leveraging the New Payments Platform, powered by Split Payments and A2B Australia,
>
> **Ali Yaseen, National Business Manager - New Payments, A2B Australia Limited**

As participating financial institutions and third-party payment providers roll out NPP payment services, more and more businesses are benefiting from real-time payments from their customers, real-time payment validation and automated reconciliation.

NPP Roadmap October 2020

NPP Australia is enhancing the capability of the platform to meet the needs of participating financial institutions, payment providers and payment system users, whether for P2P payments or more complex B2B payments.

The inaugural NPP Roadmap in October 2019 set out a range of plans by NPP Australia to develop business services that can be used by all parties in the payments ecosystem.

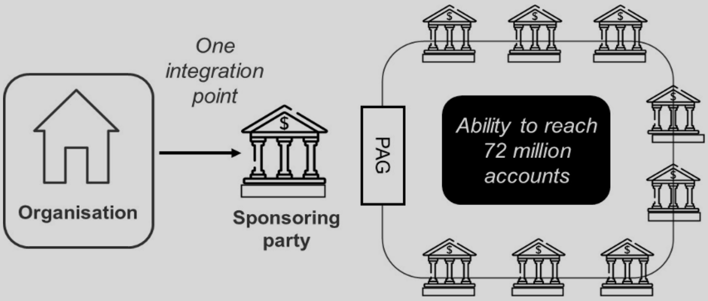
In extending the NPP Roadmap for 2020, NPP Australia has taken into consideration broader industry changes underway, including the migration of the High Value Clearing Stream (HVCS) to ISO 20022 (sponsored by the RBA) and SWIFT's MT migration to ISO20022. Many NPP participating financial institutions have their own roadmaps and priorities in terms of capability that they are planning on making available to their customers, such as APIs or the ability to process bulk payment files via the NPP. Further, as a result of COVID-19, financial institutions, like most organisations, have had to redeploy resources and funds to focus on specific activities in response to the pandemic.

The NPP Roadmap October 2020 continues the capability commitments contained in the 2019 roadmap and incorporates some additional activity which is primarily focused on reducing regulatory risk and helping address financial crime in relation to international payments. These capabilities will be delivered as NPP business services.

NPP Roadmap October 2020:

The capability development contained in the NPP Roadmap will meet the needs of many third parties, including fintechs, businesses, corporates, service providers and government. It will drive competition and innovation 'at the edges'.

Business Services



NPP business services have their own set of rules that define how the different payment messages are processed between participating financial institutions.

Third parties can use these business services in a variety of ways and incorporate them into their own product and service offerings outside of the platform. This requires just one commercial relationship with an NPP participating financial institution. Payment messages sent via that one financial institution can reach all of the 72 million available accounts on the NPP.

Osko BY BPAY

BPAY Group continues to develop the Osko overlay services on NPP. Anyone interested in obtaining further details should contact BPAY Group directly.

Data-rich message standards

The NPP uses the ISO 20022 messaging format which carries richer data than the 18 characters currently available for Direct Entry payments. With more than 1,400 structured data fields available, additional data can be carried end-to-end together with the payment or potentially with embedded references to documents hosted elsewhere.

The ability to carry additional data delivers considerable utility for the broader Australian economy (including corporates, small and medium sized businesses and government). Payments on the NPP today typically carry a small amount of unstructured data. To support the structured data capabilities of the platform, NPP Australia has developed message usage guidelines for specific payment types, namely payroll, tax, superannuation and e-Invoicing payments.

These message guidelines define the use of category purpose codes to identify these payment types and specify certain data elements that should be included in the payment message. This ensures a consistent and standardised approach to the treatment of data for these payments and end-to-end transmission from Payer through to Payee. This development is intended to support the growth of business use and commercial payment volumes on the platform.

Further information on the NPP message guidelines can be found on the NPP Australia website[6].

Benefits of NPP data capabilities:

- More business automation
- Improved reconciliation
- Enriched reporting
- Prevention of financial crime

6. See https://www.nppa.com.au/the-platform/iso-20022-message-usage/

Implementation by April 2021

Mandatory for all NPP participating financial institutions

All NPP participating financial institutions are obliged to receive NPP payment messages formatted with additional defined data elements for payroll, tax, superannuation and e-Invoicing, guaranteeing the required network effect for those wanting to send these messages.

The initial timeframe for implementation of these payment messages was December 2020. However, due to the resource impacts of COVID-19 upon financial institutions, NPP Australia has extended the implementation date to **April 2021.**

Financial institutions can choose whether or not to support ***sending*** these payment message types according to the needs of their customer base and their individual commercial offerings.

> Bravura Solutions is excited to be working with NPP Australia and industry participants on opportunities to use the NPP for superannuation payments. We see real benefits for members from NPP capabilities such as real-time payments for pension payments and claims, verification of bank accounts using PayID, and the use of PayID and the Mandated Payments Service to facilitate member personal contributions. As a leading provider of software solutions for the wealth management industry, Bravura is committed to bringing these benefits to life for our customers.
>
> **Michelle Lusty, Head of Sonata Product APAC, Bravura Solutions**

Various market participants, such as technology solution providers, payroll providers and superannuation gateways, are looking to incorporate the use of the NPP into their future offerings:

Oban Enterprise Solutions has developed a Banking Gateway that is intended to enable near real-time matching of money and data for SuperStream superannuation payments leveraging the NPP[7]. The Gateway aims to eliminate the lag that currently exists between matching money and data and automates what is a highly manual process. Oban's Banking Gateway links accounting and ledger systems directly to the Banking system using ISO 20022 messages, enabling bank statements and payments to move from overnight batch files to event driven near real-time processing.

Enabling e-Invoicing

The adoption of eInvoicing in Australia is an area of focus for the Australian Government. The Prime Minister recently announced as part of his Digital Business Plan that e-Invoicing will be mandated by 1 July 2022 for all Commonwealth government agencies to encourage adoption by businesses who deal with government.

NPP Australia has been working with industry on how the NPP can support e-Invoicing and ensure interoperability with PEPPOL, the framework adopted for e-Invoicing by the ATO, to deliver an integrated payments experience[8].

Enabling third party payment initiation

In October 2019, NPP Australia announced the Mandated Payments Service[9] **(MPS)** capability which will enable customers to authorise third parties to initiate payments from their bank accounts using the NPP. This capability is the most frequently requested capability that NPP Australia hears from the market.

> The MPS is an essential piece of the Australian fintech puzzle. The ability to have rules-based authorisation for third parties to access your funds - in real time - will underpin financial services innovation for years to come.
>
> **Samuel Brooks, Chief Technology Officer, Block8**

7. https://www.obansolutions.com.au/banking_gateway
8. See https://nppa.com.au/einvoicing-and-the-npp/
9. Mandated Payments Service is an industry working title. Work is currently underway to determine a market facing name and identity for the service

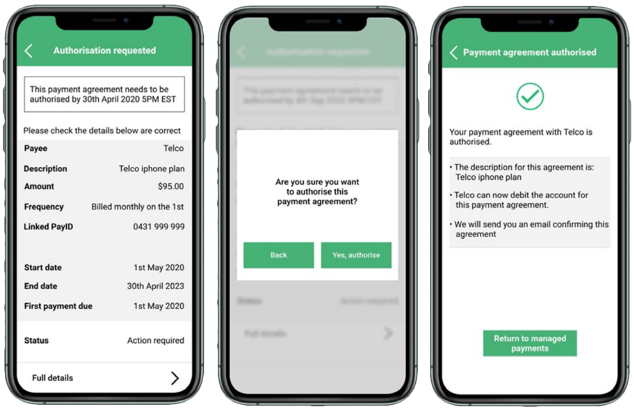
The MPS has been intentionally designed to support a broad range of use cases and different payment initiation scenarios:

- Scheduled, recurring payments
- Subscription services
- Service providers e.g. payroll, accounting
- Event or trigger based e.g. einvoicing or smart contracts
- Ecommerce payments
- In-app payments
- In-store payments
- One-off payments

Supported use cases range from a better alternative to current direct debit payments to merchant initiated ecommerce and in app payments, 'on behalf of' payment services offered by third parties, e.g. a cloud accounting software provider authorised by a corporate banking customer to manage their finance functions such as payroll, and various fintech applications.

Customers will be able to use their bank account to fund other payment options, such digital wallets and BNPL services, by providing their authorisation to set up their bank account 'on file' for frequent or recurring payments.

> The Mandated Payments Service capability will open up new payment services for in-store retail. It will create the opportunity for retailers and fintechs alike to create new, exciting and more efficient customer experiences. Retailers are likely to be interested in using the MPS to support their omnichannel offerings such as Click & Collect, particularly in the new COVID19 world we now live in. Other benefits for retailers include potential cost savings, improvements to cashflow, decreased risks with real-time settlement and more seamless payments processes.
>
> **Luke Fuller, Head of SME & Alternative Payments, Quest Payment Systems**



Customer authorisation is at the core of the MPS capability.

Customers provide their explicit authorisation for payments to be initiated from their account by a specified third party, in advance of any payments being processed.

Customer authorisation is likely to occur within a customer's banking channel which benefits from the bank's secure authentication practices, which are in place today.

This authorisation is recorded with the creation of a digital payment arrangement or 'mandate' and stored centrally in a secure database managed by NPP Australia.

> Straight away, I love the idea of how simple it is to change and stop, that can be a real pain with direct debits.
>
> **Customer feedback, NPP Australia Research, July 2020**

- Visibility of arrangements
- Control over accounts
- Move between accounts and banks
- More digital, user friendly experience
- Use PayID to setup instead of BSB/ account numbers

The MPS enables a digital and seamless customer experience.

Customers can digitally view, modify and manage the authorisations that they have established on their account. Customers will be able to more easily move their payment arrangements from one bank account to an account at a different financial institution.

This increases the visibility and control that customers have over these various payment arrangements, resolving significant pain points seen today.

Customer feedback has been very positive[10]

"So much easier, and there's no need to give [the merchant] bank details when you use PayID"

"Seeing them all lined up, that's great"

"It's like a direct debit but with no fuss"

"Direct debits have stopped me moving banks before – this makes it feel like it could be a lot easier"

"It would give me peace of mind to know when [payments] are coming out, because I can keep track of everything"

"Anything like this that makes banking easier is a positive in my view"

We are really excited about the possibilities that MPS offers. We think that the MPS will usher in the changes that 'direct debits' desperately needed for so long. We are most excited about using the MPS to bring 'bank-native' functions to our existing product to benefit both businesses and their payers.

Simone Joyce, Managing Director, Paypa Plane, Fintech

The MPS will deliver other tangible benefits to users of the capability such as real-time confirmation of funds availability and confirmation that payment has been made, which enables third parties to deliver services immediately (for example dispatching goods in an ecommerce scenario or delivering services subject to an ongoing subscription).

- Real-time customer account validation
- Real-time funds availability check
- Real-time payment outcomes and confirmation
- Notification of changes to arrangements
- Centralised storage of payment arrangements
- Data-rich with multiple data fields available
- Use of APIs supporting more digitised and efficient processes

Quotes from potential MPS Users

"People will be surprised by the capability, what a great customer experience."

"Thinking of the day we can turn direct debit off."

"[MPS] minimises the risk of unauthorised claims by giving the payer bank visibility of the customer authorisation and mandate."

"For direct debits now, we have 2 full time staff working on it because of the manual entry process, scanning, storage etc."

"Receiving the notification is very important (to us)."

"[NPP MPS] will make a number of pain points disappear."

Real-time payments and the Mandated Payments Service are likely to be a significant part of our business in future given our focus on recurring payments.

Mike O'Halloran, Head of Product, Bambora

10. NPP Australia research May-July 2020

Initiating payments from 100+ financial institutions

via 1 access point

Third parties that want to use the NPP to initiate payments using the MPS will have a range of access options[11]. Options include the ability to connect directly without the need for an ADI licence (see Connected Institution below).

A key feature of the MPS is that third parties wanting to initiate payments only require **one** access point to the NPP infrastructure. This one access point will enable payments to be initiated, with the customer's authorisation, from any one of the 72 million NPP enabled accounts.

This is an important difference from other markets, such as the UK, which have introduced third party payment initiation requiring third parties to integrate with each financial institution where their customers hold accounts.

The approach adopted by the MPS removes the need for additional intermediaries to sit between third parties and accounts held at multiple financial institutions, which has positive commercial implications.

Non ADI access option: Connected Institution

A Connected Institution connects to the NPP infrastructure directly by installing an NPP payment gateway in their own environment to send payment initiation and other non-value messages. A Connected Institution is also able to offer MPS services to their clients.

Given a Connected Institution is directly connected to the NPP, there are certain technical requirements in becoming a Connected Institution including resilience, availability, and security related[12].

As Connected Institutions are not involved in the clearing and settlement of NPP payment messages and they do not themselves hold funding accounts, they do not need to be an ADI.

- **Connects directly to the NPP**
- **Do not need to be an ADI**
- **Is the party authorised to initiate payments from the customer's account**
- **Can offer MPS services to third parties**
- **Sends payment initiation requests directly to the customer's bank**
- **Charged wholesale transaction costs**

> The promise of MPS is to bring the power and utility of direct debit payments into the 21st century, as well as enabling new payments innovation in the Australian ecosystem. Global Payments Australia is looking forward to enhancing our comprehensive suite of payment options with new NPP and MPS options, as we believe the power of combining technology with the customer at its heart is the key to our economy's success.
>
> **Mark Healy, Managing Director, Global Payments**

MPS will deliver customer authorised, third party payment initiation – similar to 'write access' under the Consumer Data Right - for real-time, account-to-account payments[13], without requiring any additional build or investment by the 100+ financial institutions participating in the NPP today.

With a comprehensive rules framework, liability model and robust governance, the MPS supports third party payment initiation in a safe and secure manner via one access point. Processes and controls ensure ongoing consumer protection including data protection and privacy.

The MPS also leverages existing features and protections operating within the NPP today, specifically fraud prevention, liability allocation and risk management processes.

With a broad, comprehensive and scalable solution for third party payment initiation, MPS will play an important role in enabling further competition and innovation in the market.

Enabling write access under CDR

11. For more information on access options see https://nppa.com.au/the-platform/accessing-the-platform/
12. For more information see Connected Institution eligibility criteria and admissions process
13. As distinct from payments which may be initiated using card rails which are also attached to accounts

We know that when the bank account is presented as a way to pay, a high percentage of people prefer it across a range of industries and use cases, and that's in its current form. With the NPP's MPS, especially when used in conjunction with Open Banking data, it completely opens up the Australian payments landscape. With a slick payer experience, real time verification of credentials, and real time funds capture, everything for a business collecting B2C or B2B payments improves. Cost, acquisition conversion, churn risk, fraud, and the effectiveness of how the business runs it's operations. We're excited about the launch of MPS, and. we believe that there will be a strong use case for merchants and payers to prioritise real time payments via a Bank Account.

Luke Fossett, Head of Sales, Australia and New Zealand, GoCardless

Implementation by December 2021

Mandatory for all NPP participating financial institutions

The MPS is a multi-year programme of work requiring central capability build as well as significant change to financial institutions' existing back office processes, systems and channels. The programme is now in Build phase and progressing well towards implementation.

All NPP participating financial institutions are required to implement elements of this capability by **December 2021** that will enable their customers to authorise new payment arrangements and for the financial institutions to be able to process the associated payments.

With this in place, it is anticipated that financial institutions will begin to rollout payment initiation services, including to third parties via API's, in early 2022.

We are pleased to see the new opportunities that the MPS will bring for our members. One of the key areas our payments-focused members have identified for growth is interacting with the NPP - we are looking forward to seeing those opportunities develop.

Simone Joyce, Chair, FinTech Australia

Further information on the MPS is available on the NPP Australia website and more detail will be available as the programme progresses.

Supporting international payments

In 2019, NPP Australia created a scheme agnostic business service to support international payments via enhanced infrastructure and an associated rules framework. This enables Australian banks and international payment service providers to send these payments to the ultimate beneficiary or customer over the NPP as the final leg of an international payment coming into Australia.

The data richness of the NPP payment message enables the inclusion of additional data when processing an international payment which is not possible today using the Direct Entry system. Data such as the full legal account name of the sender and additional identifiers such as date of birth can be carried from the country of origination all the way through to the receiving bank in Australia. This allows the receiving bank (as the bank of the ultimate payment beneficiary) to perform necessary due diligence and screening of the payment to meet their regulatory obligations.

However, with this opportunity comes additional risk for financial crime given the payments are processed in real-time. Therefore, the NPP international payments business service has certain additional requirements to how NPP payments are processed today[14]:

a. NPP payments to a domestic recipient need to be separately identified as an international payment; and

b. Specific data fields – like the full legal account name of the sender, date of birth, and other details – need to be transmitted from end to end to allow the receiving bank (as the ultimate beneficiary's bank) to conduct any necessary screening.

14. NPP Regulations, v7.0_20 May 2020

Currently the NPP international payments business service is an optional service that NPP participating financial institutions can opt into. This is likely to occur when financial institutions have completed the additional work required to enable the necessary screening of these payments. We anticipate some financial institutions will join the international payments business service over the next 12 months.

NPP Australia is also exploring with participating financial institutions how PayID can be used in the processing of an international payment to an Australian customer rather than having to use BSB and account numbers. This is similar to developments occurring in other overseas markets.

> The International Payments Business Service can't come soon enough. Today all Australians and businesses have to wait hours, or even days to receive money transfers from overseas. The ability to receive money instantly over the NPP will remove the stress of delayed payments.
>
> **Tim Cameron, Country Manager, Australia and New Zealand, TransferWise**

Implementation by December 2022

Mandatory for all NPP participating financial institutions

In order to create the network effect required for the capability to be useful, all NPP participating financial institutions are obliged to join the international payments business service and receive inbound international payments via the NPP by **December 2022** as part of the platform's annual infrastructure release. This requirement has been designated as a mandatory compliance requirement coming into effect in **April 2023**.

This timing has been chosen to allow time for NPP participating financial institutions to complete the technical and back office work required for them to meet their regulatory obligations and ensure they have the right capabilities and processes in place to support real-time international payments. Part of the rationale for selecting this date was also the timing of the planned HVCS ISO20022 upgrade project sponsored by the RBA that is planned to occur at the end of 2022[15].

Extending API capabilities

Third parties who want to use the NPP's capabilities are primarily interested in API connectivity.

NPP API Framework

In 2018, NPP Australia released its API Framework which defines the key technical approach and mandatory data attributes for NPP APIs, aligned to ISO 20022 standards, including sample RESTful APIs in JSON format[16]. This API framework is intended to drive inter-operability, standardisation, and consistency in the development of NPP APIs.

NPP API Sandbox

NPP Australia, in collaboration with SWIFT, offers third parties access to an API sandbox as an independent environment where they can build and test their NPP-based prototypes and solutions, using the NPP API Framework and sample APIs. The sandbox currently has approximately 250 registered users.

To support the delivery of the MPS capability, NPP Australia will be extending the NPP API framework (version 5.0) to include sample APIs that support key MPS functions, such as mandate verification, mandate maintenance and mandate event notification APIs. NPP Australia will also update the API sandbox to include these sample MPS APIs, enabling third parties to test these APIs in a sandbox environment.

15. ISO 20022 Migration for the Australian Payments System – Conclusion Paper, RBA, February 2020
16. See https://www.nppa.com.au/the-platform/api-framework-and-sandbox/

NPP API framework version 5.0: April 2021

Optional for NPP participating financial institutions

We anticipate seeing a number of NPP participating financial institutions making their APIs available in the market over the next 12 months or continuing to extend out their existing API capabilities (NPP Australia itself is not exposing APIs for use on the NPP). In most cases, we expect these APIs to be consistent with the NPP API framework.

Greater availability of NPP APIs by participating financial institutions will provide more fintechs, corporates and businesses with the ability to utilise the NPP and its capabilities.

Capability development by participating financial institutions

In addition to capability being developed centrally by NPP Australia, individual participating financial institutions continue to develop and extend NPP capabilities to their customers according to their respective business priorities and timings. A number of NPP participating financial institutions are working with their business and corporate customers to migrate payments from RTGS and direct credit payments from BECS onto the NPP and to deploy capabilities that enable third parties to utilise the NPP.

Enabling government payments

AUSTRALIA

The Reserve Bank, who provides payment services to many Government agencies, is continuing to work with its Australian Government agency customers to migrate payments to the NPP. Priority is being given to those use cases that address current gaps or pain points that the NPP will resolve. The work involves generating customer payment instructions directly from back-office systems leveraging industry standard APIs and where appropriate ISO20022 bulk payment instructions.

Supporting bulk payments

NPP participating financial institutions are looking to support the processing of bulk payments on the NPP, with a view to closing down the Direct Entry system at some point in the future[17].
In contrast to account to account payments made using Direct Entry (which are settled in batches, several times during the day or the next business day), payments made by the NPP move value in real-time between bank accounts, are available 24/7/365 and can carry more data.

A number of existing Direct Entry payments which use the 18 characters available can be migrated directly over to the NPP in their current form. Work has been completed to support migrating these payments across to the NPP in a standardised manner including mapping Direct Entry file formats to NPP messages, developing generic message formats and sample Batch Payment APIs for bulk payment processing[18].

In preparation for being able to send bulk or unattended payments, individual financial institutions need to:

- Work with their customers to determine how files are submitted, e.g. host to host, API, existing bulk files, etc.
- Develop debulking capabilities/file translation services to be able to 'debulk' a bulk file into individual NPP payments
- Make any required adjustments to existing back office operational processes
- Ensure transmission of data through to their customers for reporting and reconciliation purposes (which could be done utilising existing customer reporting formats)

Individual financial institutions will determine when the ability to support bulk payments will be extended to their clients.

NPP Australia will continue to seek feedback from the market to understand where further assistance or activity is required in order to support the migration of specific payments over to the NPP.

17. See, for example, https://www.auspaynet.com.au/insights/consultations/future-state

18. Version 3.0 of the NPP API framework which incorporated additional sample APIs to support batch payments, including payment confirmation and the ability to get details of payments made via a batch process See https://nppa.com.au/wp-content/uploads/2019/11/NPP-API-Framework-v3.0_28-Nov-2019-1.pdf

Offering enhanced reporting

A number of NPP participating financial institutions are offering enhanced reporting to their customers via ISO 20022 CAMT.053 (transaction reporting) messages, APIs or enhanced CSV file formats. These formats allow for more complete NPP data to be made available to business and corporate customers, providing for opportunities to improve the reconciliation process.

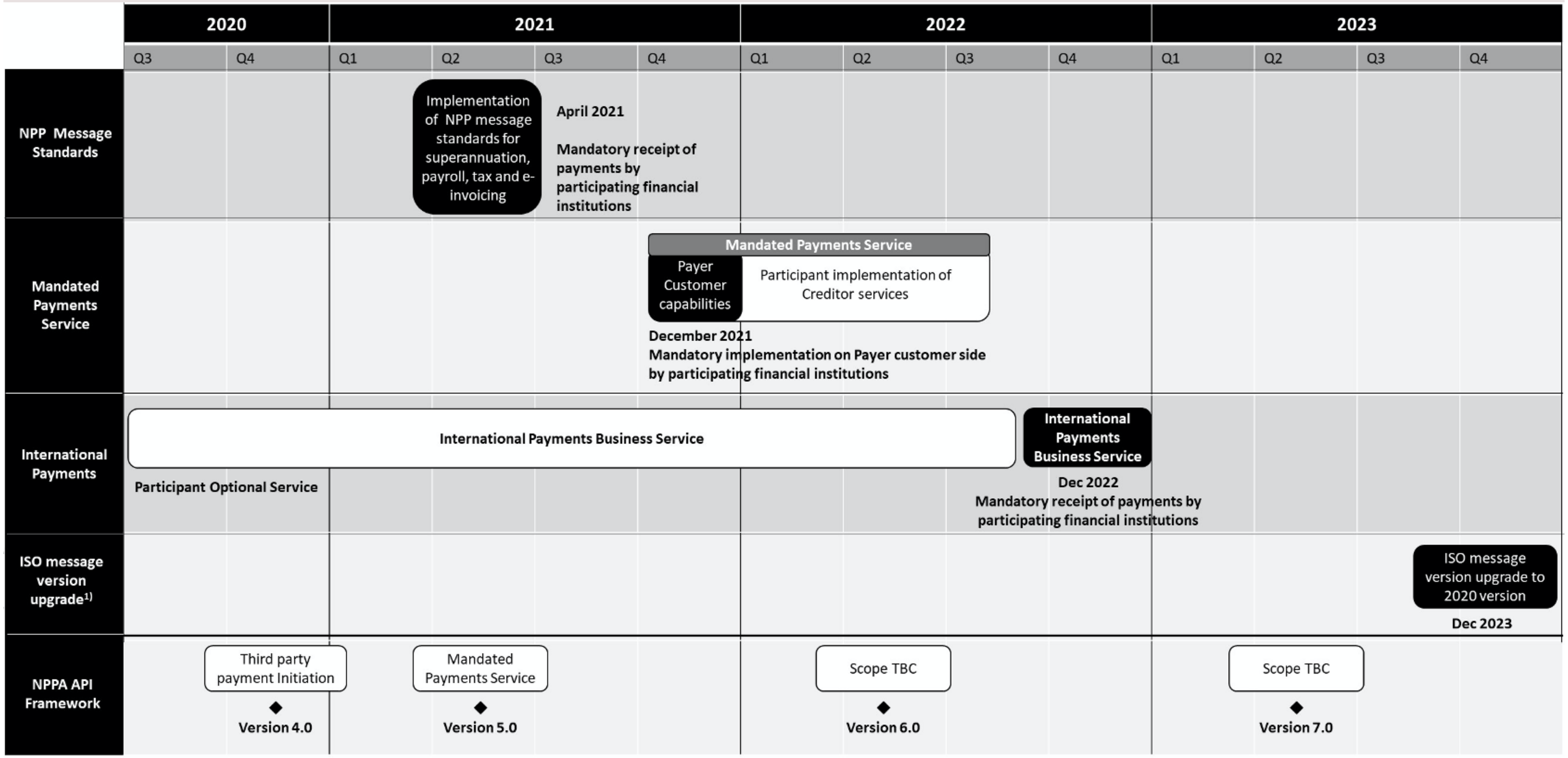
> We can provide data to customers using APIs in real-time to retrieve data. This provides a real opportunity for [corporate] customers to realise efficiency benefits.
>
> **Major Australian Bank**

Organisations who are interested in understanding how they can best leverage the platform's capabilities should consult with their financial institution or payments provider to understand what NPP services they are offering and their plans for future capability development.

For further information, please visit www.nppa.com.au or email info@nppa.com.au.

NPP Roadmap October 2020

New Payments Platform



1) The version of ISO 20022 being used by the NPP will be upgraded from the 2015 version to the 2020 version for clearing, settlement and investigation messages

Mandatory | Optional

NPP Fast Facts

100+
Participating Financial Institutions
(including subsidiaries/sub-brands)

72 million
NPP reachable accounts (can make and/or receive NPP payments)

1.7 million +
Average daily NPP transactions

$5 billion
Average daily value of NPP payments

5.4 million
Number of registered PayIDs

Pay iD

New Payments Platform

$19.8 billion
Largest single transaction across the NPP

20%+ share
Of all account to account credit payments

$1 trillion+
Total cumulative value of NPP payments since launch

As of 26 October 2020

About New Payments Platform Australia (NPP Australia)

Utility payments infrastructure
Operating as non-profit maximising utility payments infrastructure, the NPP is owned by 13 shareholders[19] (both large and small financial institutions and including the Reserve Bank of Australia) for and on behalf of the Australian payments industry. NPP Australia is a public company established to oversee the development and operation of the NPP.

Open access philosophy
NPP's access framework has a range of access methods, balancing broad participation while maintaining safeguards needed for a real-time payment system, and ensuring the ongoing protection of consumers. A number of specialist wholesale payment service providers, banks, and non-bank fintechs provide access to third parties. Availability of APIs is increasing which will also support NPP access.

Operates on a cost recovery basis
NPP Australia operates on the guiding principle of being economically self-sustaining aiming to recover its operating costs with wholesale unit transaction costs levied on NPP Australia's shareholders. The same unit transaction cost is applied to all shareholders equally regardless of volume. As volumes increase on the platform, the wholesale unit transaction cost will decrease.

NPP Australia governance
The NPP Australia Board has 12 voting Directors including three independent Directors and the RBA. Each Director has one vote – and collectively the Directors appointed by the four major banks have only one-third of the votes. Decisions regarding access, pricing and other governance related matters are determined by the independent Directors and NPP Australia management.

19. Current shareholders: Australia and New Zealand Banking Corporation, Australian Settlements Limited, Bendigo and Adelaide Bank Limited, Citigroup Pty Ltd, Commonwealth Bank of Australia, Cuscal Limited, HSBC Bank Australia Limited, Indue Limited, ING Australia, Macquarie Bank Limited, National Australia Bank Limited, Reserve Bank of Australia and Westpac Banking Corporation.

30 October 2020

NPP AUSTRALIA LIMITED
ABN: 68 601 428 737

New Payments Platform

NPP Functionality and Access Consultation: Conclusions Paper

June 2019

Contents

ISBN 978-0-6483604-4-5 (Online)

1. Introduction

1.1 Background

The New Payments Platform (NPP), launched in February 2018, is a fast retail payments system developed by a consortium of 13 financial institutions, including the Reserve Bank. The NPP provides the clearing and settlement infrastructure through which financial institutions can provide their household, business and government customers with the ability to make fast, versatile and data-rich payments on a 24/7 basis. Utilising the Fast Settlement Service (FSS) provided by the Reserve Bank, payments through the NPP are settled between financial institutions in real-time, which enables financial institutions to provide immediate funds availability to payment recipients.

This report presents the conclusions from a public consultation on NPP access and functionality that the Reserve Bank has undertaken with input and assistance from the Australian Competition and Consumer Commission (ACCC). The consultation was undertaken for three main reasons. First, the Reserve Bank had committed to reviewing the operation of the NPP sometime after its launch. The 2017 Annual Report of the Payments System Board noted that 'at some point after the NPP is operational, it will be appropriate for the Payments System Board to assess how well the strategic objectives [that prompted the development of the NPP] have been met'.[1]

Second, the Productivity Commission's 2018 report into competition in the Australian financial system raised some concerns and made recommendations about the NPP.[2] For example, the Commission expressed concerns that the role of the incumbent financial institutions in the governance structure of NPPA could give rise to conflicts of interest that may impede access for new entrants and undermine competition. Among other things, the report recommended that:

- the Payments System Board should impose an access regime on the NPP, to ensure widespread access of both financial system providers and consumers
- the ACCC and the Payments System Board should investigate different ways to improve the functionality of the NPP to promote competition.

Finally, the Reserve Bank and the ACCC were aware that some entities had expressed concerns (some of which were covered in the Productivity Commission's report) that the services offered through the NPP, or the ways of accessing the NPP, did not meet their needs. For example, some businesses had expressed a desire to undertake 'pull payments', such as direct debits, a service that is not yet available through the NPP. In other cases, entities had argued that the requirements to become a direct participant in the NPP were unnecessarily burdensome.

1 Payments System Board (2017), 'Annual Report', August, p. 40.
2 Productivity Commission (2018), 'Competition in the Australian Financial System', Inquiry Report No. 89, June, available at <https://www.pc.gov.au/inquiries/completed/financial-system/report>.

1.2 The Role of the Reserve Bank

The Reserve Bank is the principal regulator of the Australian payments system. Under the *Reserve Bank Act 1959*, the Payments System Board is responsible for determining the Bank's payments system policy. The Board is required to do this in a way that will best contribute to controlling risk in the financial system; promoting the efficiency of the payments system; and promoting competition in the market for payment services. The Bank has a number of powers to pursue these goals, including the ability to 'designate' a payment system as being subject to its regulation and then to impose standards and/or an access regime on that system or on participants in that system if warranted on public interest grounds. The Bank's Payments Policy Department advises the Payments System Board in the discharge of these responsibilities.

Aside from its interest in the NPP from a policy perspective, the Reserve Bank was involved in the development of the NPP and plays a number of roles in the ongoing operation and governance of the NPP:

- The Bank is one of the 13 financial institutions that funded the development of the NPP and is a shareholder of NPP Australia Limited (NPPA), a public company that owns and operates the NPP.
- The Bank is a direct participant in the NPP in its capacity as a transactional banker to the Australian Government and its Departments and agencies. The Bank provides NPP services to its government clients, including the ability to make real-time payments and collect public monies via NPP payments to government accounts. These services are provided by the Reserve Bank's Banking Department. The Bank does not offer any banking or related services, including NPP-related services, to the public or non-government commercial entities.
- The Bank built and operates the FSS, which provides real-time settlement of NPP transactions between financial institutions on a 24/7 basis. The Bank's Payments Settlements Department has responsibility for this function. Settlement services are provided to NPP participants under a contractual arrangement with the Bank.
- In recognition of the importance of the FSS to the operation of the NPP, the NPPA Shareholders' Agreement gives the Bank the right to appoint a director to the Board of NPPA. The Bank has exercised this right and appointed the Head of its Payments Settlements Department as a director of NPPA.

Given the duties of the Bank as regulator of the payments system and its involvement in the NPP from an operational perspective, the Payments System Board has approved internal governance arrangements for the Bank's involvement with the NPP to ensure consistency with the Board's policy objectives and to manage any potential conflicts of interest. These arrangements, which cover issues such as information sharing and the role of the RBA-appointed director of NPPA, are set out in a Memorandum of Understanding (MOU) between the Bank and NPPA.[3]

The consultation on NPP access and functionality was conducted by the Bank's Payments Policy Department under the auspices of the Payments System Board. It was conducted independently of those parts of the Bank that are involved in the operation of the NPP and in a manner that is consistent with the arrangements set out in the Bank/NPPA MOU.

3 See: https://www.rba.gov.au/payments-and-infrastructure/payments-system-regulation/npp-mou.html

1.3 The Role of the ACCC

The ACCC is an independent statutory authority that administers the *Competition and Consumer Act 2010* and other Acts. It works to promote effective competition and fair trading in the market place to benefit consumers, business and the community, and efficiency in the delivery of certain infrastructure services.

As the competition regulator, the ACCC has expertise with competition issues including the exercise of market power, problems caused by market structures, and developing regulatory solutions. In the ACCC's experience, competitive pressure in a market generally promotes lower prices, increased efficiencies and innovation, and better quality services. The ACCC has publicly and strongly advocated the need for competitive market structures and appropriate regulatory frameworks, relating specifically to access and pricing, to be in place for infrastructure with monopoly characteristics, such as the NPP. Several areas of the ACCC deal with issues relating to financial services, including its recently formed Financial Services Competition Branch. Its Infrastructure Regulation Division and Adjudication Branch also regularly deal with issues relating to financial services.

In this consultation, the ACCC provided input and assistance to the Bank on access issues, and participated in consultation meetings with stakeholders. The ACCC supports the conclusions reached by the Bank in this report and notes the vital importance of monitoring and future review of the issues raised by industry. The ACCC agrees that issues raised in this consultation need to be addressed and considers that these issues are likely to be addressed through the changes recommended by this report. Accordingly, the ACCC agrees with the report's conclusion not to recommend the imposition of an access regime on the NPP at this time.

However, the ACCC considers it is important that the report's recommendations are implemented as per the dates specified in this report, or earlier if practicable. It supports the recommendation for NPPA to respond to the report with its plans for action, and the Reserve Bank's commitment to monitor progress towards implementation.

The ACCC also considers that reviewing the effectiveness of these recommendations in addressing stated issues is essential, and that regulation and an access regime should remain an option if stated issues remain. The ACCC therefore supports the view that the Bank (with the ACCC's involvement) will commence a further review of access and functionality issues (and the need for regulation) by end July 2021.

In April 2017, the ACCC authorised several of the provisions of the NPP rules relating to the rights of NPPA to suspend and terminate NPP membership, membership eligibility criteria and the obligation to settle payments via the Reserve Bank's Fast Settlement Service.[4] These provisions may have otherwise breached certain of the competition provisions under the *Competition and Consumer Act 2010*, because they involve agreements between businesses which may be considered to be competitors. The ACCC can grant authorisation if it is satisfied that the likely public benefits outweigh the likely public detriments. If certain of the authorised provisions require amendment as a result of

4 See: ACCC (2017), 'Determination – Applications for authorisation lodged by NPP Australia Limited in respect of certain provisions of the New Payments Platform Regulations', 5 April, available at: https://www.accc.gov.au/system/files/public-registers/documents/D17%2B43242.pdf. The suspension and termination provisions were authorised for a period of five years, while the provisions on eligibility requirements and settlement obligations were authorised for perpetuity.

changes made in response to this document, NPPA may need to seek a variation to the authorisation from the ACCC.

1.4 The Consultation Process

The Reserve Bank published a consultation document in October 2018 that provided the background and motivation for the consultation and invited feedback from stakeholders on issues relating to the functionality and access arrangements for the NPP.[5] In particular, the consultation invited views on whether the various ways of accessing the NPP, and their associated technical and other eligibility requirements, are adequate for different business models, or whether other forms of access or eligibility requirements may be justified. In total, the Bank received 19 written submissions to the consultation from a range of stakeholders including payments companies, banks, technology and financial industry bodies, fintechs, consultants, an academic and some members of the public.[6] NPPA provided a written submission. Between February and March, the Reserve Bank and the ACCC held 17 meetings with stakeholders in Melbourne and Sydney, including with most of those who provided written submissions. The Bank and the ACCC also consulted with the Australian Securities and Investments Commission (ASIC) and the Australian Prudential Regulation Authority (APRA).

1.5 Recommendations

This report makes a number of recommendations, which are listed below for convenience. The Bank believes that if these recommendations are fully implemented by NPPA and its participants, this should address the issues and policy concerns covered in this report. The Bank will, with the assistance of the ACCC, conduct another review commencing no later than July 2021. This review could take place earlier if the Bank becomes aware of significant issues or concerns regarding NPP access or functionality. If the Bank assesses that there has been insufficient progress in addressing the recommendations made in this report, it will closely consider the case for regulation via standards mandating functionality or an access regime imposed on the NPP and its participants.

Functionality and Overlay Services

- NPP participants should prioritise the roll-out of NPP services to their entire customer base and address any functionality gaps that currently exist in their customer offerings.
- Starting no later than end September 2019, NPPA should periodically publish a roadmap of the additional NPP functionality it has agreed to develop and the expected time period over which it will be delivered. The roadmap should be updated at least semi-annually.
- By end December 2019, NPPA should introduce a power for its Board to mandate that specified NPP core capabilities must be supported by NPP participants within a specific period of time, with an enforceable sanctions regime (including possible financial penalties) to apply if participants do not comply.
- By end September 2019, NPPA should publish its process for assessing potential overlay services, including how confidential information on the plans of potential overlay service providers will be controlled and the respective roles and responsibilities of the NPPA management, independent directors and the broader NPPA Board in approving overlay services.

5 See RBA (2018), '[New Payments Platform Functionality and Access: Consultation](#)', October 2018.
6 Non-confidential submissions are available here: https://www.rba.gov.au/payments-and-infrastructure/new-payments-platform/submissions/

Access to the NPP

The ADI Requirement for Participants

- Direct access to the NPP should be open to a range of payments services providers. NPPA should assess and report on options for amending the NPP Regulations, and other arrangements, to allow for an entity that is not an ADI to potentially become an NPP Participant. The participation of non-ADIs would be subject to requirements appropriately tailored and calibrated to the key risk and operational considerations essential for participation in the NPP. NPPA should:
  - by end October 2019, submit to the Bank and the ACCC an assessment of options for revised participation requirements for non-ADI participants
  - by end March 2020, implement any revised participation requirements for non-ADI participants.

The Shareholding Requirement for Participants

- By end December 2019, NPPA should introduce more gradation into the shareholding requirement by creating at least one additional lower band, so that subscription requirements can be more closely tied to an entity's size or expected contribution to NPP transaction volumes.
- By end December 2019, NPPA should establish an access route for direct participation that is based either on acquiring shares in instalments or on periodic subscription or membership fees, rather than the upfront purchase of shares.
- By end December 2019, NPPA should consider allowing NPP participant applicants that did not exist when the NPPA was being developed to subscribe to a lower amount of shares than usual.

NPPA Governance

- NPPA should appoint a third independent director by end September 2019.
- By end December 2019, NPPA should review its arrangements for applications for access as a participant, connected institution or overlay service provider. Where an application has been rejected by the NPPA Board, or by NPPA management during its initial assessment, the applicant should be able to ask for a review of the decision by an Evaluation Panel. The Evaluation Panel should be comprised of three independent directors and two independent external experts appointed by the three independent directors. The Panel should have the binding power to overturn the earlier denial of an application if it decides that the applicant has met all of the eligibility requirements and also the power to ask NPPA to review the access criteria if it believes the criteria impose unreasonable conditions.
- At least once a year, NPPA should publish a report of the number of applications for access that it received during the preceding year, the outcomes of those applications, and a summary of the key reasons in cases where applications were ultimately not supported by the NPPA Board. The first report should cover the financial year ending June 2019.
- NPPA should notify the Reserve Bank's Payments Policy Department within one week whenever an application for access to the NPP (as a participant or connected institution) is not supported by NPPA's Board.

NPP Transaction Fees

- From its first pricing review after July 2019, NPPA should publish data on its wholesale transaction pricing. Prior to the introduction of full cost-recovery pricing, NPPA should publish the wholesale transaction fee that would be implied by full cost-recovery pricing. Following the introduction of full cost-recovery pricing, it should publish its wholesale transaction fee and the methodology it has used to determine that fee.

2. The Development and Initial Operations of the NPP

The NPP is a fast retail payments system, developed over more than five years from inception to launch. It was developed to address a number of gaps in Australia's retail payments system that the Reserve Bank had identified in the conclusions to its 2010–2012 *Strategic Review of Innovation in the Payments System*. The development of the NPP was a major, and costly, project for the industry that involved significant cooperation between the 13 initial participating financial institutions, including the Reserve Bank. In addition to building the NPP itself, the participant banks had to develop and upgrade their internal systems to support the platform, including to allow posting to customer accounts in real time, and the Reserve Bank had to build a new real-time settlement system for retail payments. Since its public launch in February 2018, payment volumes through the NPP have been growing steadily as participants have progressively rolled out fast payment services to their customers, though the speed at which some banks have enabled NPP services for their customers has been somewhat slower than was initially expected.

2.1 Development of the NPP[7]

In 2010 the Payments System Board initiated the *Strategic Review of Innovation in the Payments System*. This was motivated by growing evidence that the payment services provided to end-users in Australia were falling behind the services available to end-users in many other countries. The objective of the Review was to identify areas in which innovation in the Australian payments system could be improved through more effective cooperation between stakeholders and regulators.

From 2010 to 2012, the Reserve Bank consulted with the payments industry and other key stakeholders and assessed the degree of payment system innovation in Australia and overseas. The Bank found that collaborative innovation, where institutions work together to improve the underlying payments system infrastructure, had proved difficult in Australia. The Bank also found that this difficulty was affecting the ability of financial institutions to innovate and provide new and better payments services to their customers. Accordingly, the Bank concluded that there were market failures preventing, or significantly delaying, certain types of cooperative innovation that would be in the public interest.

In the conclusions to the Review, published in mid-2012, the Bank identified a number of specific gaps in the payments system that it anticipated would become increasingly problematic in the years to come.[8] To help overcome industry coordination failures, the Bank decided to set strategic objectives for the payments system and encourage the industry to find the best ways to meet them. Reflecting

7 The material in this section draws on Richards T (2018), 'An update on Australia's New Payments Platform', Speech to the Chicago Payments Symposium, 3 October and Richards T (2014), 'The Path to Innovation in Payments Infrastructure in Australia', Speech to the Chicago Payments Symposium, 26 September.

8 See RBA (2012), 'Strategic Review of Innovation in the Payments System: Conclusions', June.

the functionality gaps identified in the Review, the Bank initially set a number of strategic objectives that were likely to require the industry to build a new payment system. These objectives were to provide end-users of the payments system with:

- the ability to make real-time retail (or low-value) payments – that is, payments where the recipient has visibility and use of the funds in seconds rather than hours or days
- the ability to make and receive retail payments outside of normal banking hours – ideally on a 24/7 basis
- the ability to send more complete remittance information with payments than is available in the 18 characters that can be transmitted with a Direct Entry payment – ideally using the more flexible and modern ISO 20022 international messaging standard
- the ability to address payments in a relatively simple way, such as to an email address or a phone number – rather than using Bank-State-Branch (BSB) and account numbers which require the sender to correctly enter up to 15 digits.

The Australian Payments Network, the payments industry association, coordinated the industry's response to the conclusions from the Review.[9] A Real-Time Payments Committee composed of industry representatives was established to prepare a detailed proposal for a new payments infrastructure, later named the New Payments Platform, which could meet the strategic objectives that had been set by the Bank. This proposal was presented to, and subsequently endorsed by, the Payments System Board in February 2013, eight months after the release of the conclusions paper from the Review. Following this, the industry established a Steering Committee to take the project forward and invited the Reserve Bank to contribute two representatives, one representing its policy function and one from its settlements infrastructure area.

The industry contracted KPMG to manage the project and, during the next year and a half, worked on project planning, the development of business requirements and the tenders for service providers. Financial institutions were then invited to subscribe as shareholders of NPP Australia Limited (NPPA), a new company established to operate the NPP as a mutually-owned utility infrastructure. In December 2014, a consortium of 13 institutions, including the Reserve Bank, agreed to fund the build and operation of the infrastructure to support the NPP and became NPPA's founding shareholders. SWIFT was soon after contracted by NPPA to build the NPP's Basic Infrastructure and BPAY was selected to build the platform's first overlay service (see below).

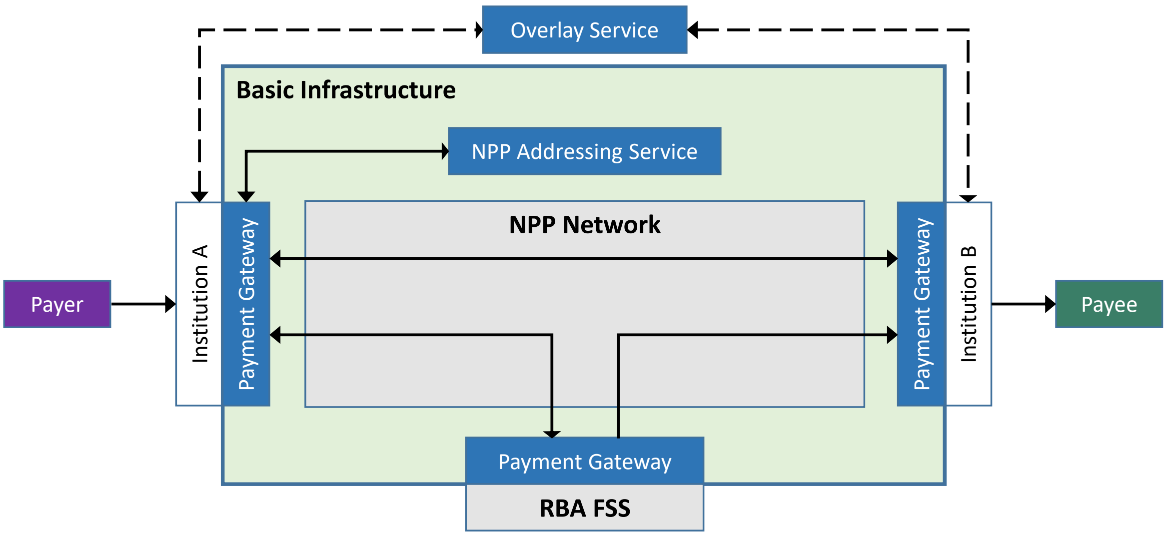
Parallel with the industry's work to build the NPP, the Reserve Bank worked to build the Fast Settlement Service (FSS), which would enable the settlement of individual NPP transactions in real time across Exchange Settlement Accounts (ESAs) that financial institutions hold at the Bank. In addition to building the settlement infrastructure, the Bank had to upgrade its processes and physical infrastructure to support the 24/7 operations required for the NPP. Since transactions are settled in the FSS overnight and on weekends, when the interbank cash market is closed, the Bank also worked with NPP participants to put in place suitable liquidity mechanisms to support the smooth operation of the NPP.

9 The Australian Payments Network was at the time known as the Australian Payments Clearing Association (APCA).

2.2 NPP Architecture[10]

The NPP is a distributed system that has two main components: the NPP 'Basic Infrastructure' and the Reserve Bank's FSS (Figure 1).

Figure 1: NPP Infrastructure and Payment Processing



Source: RBA

The NPP Basic Infrastructure (BI) is an industry utility owned by NPPA and operated by SWIFT under a long-term contract with NPPA. It includes a new domestic SWIFT messaging network connecting participants to each other and to the FSS. Participants connect via payment gateways, which route ISO 20022-format messages between themselves and the FSS.[11] Notably, the BI is a distributed network with no central message switch, which enhances the resilience of the system. The payment gateways are located within each participant's data centres and each participant is responsible for their safe and reliable operation.

The BI also includes an Addressing Service, which is a centralised database where participants can register a customer's transaction account and link it to an identifier or 'alias' called a PayID, which may be a phone number, email address or Australian Business Number. Instead of having to key in a BSB and account number, payers are able to direct their payments to the more easily remembered PayID of the payee that has been registered in the Addressing Service. The platform provides confirmation of the payee's legal account name to the payer prior to the payment being authorised, to further reduce the risk of misdirected payments.

The FSS is a separate service of RITS, which is the Reserve Bank's existing real-time gross settlement (RTGS) system for large-value payments. The FSS facilitates the real-time, irrevocable and unconditional settlement of each NPP payment across the ESAs of the relevant NPP participants. There is no netting or batching and payments are settled line-by-line in real time. As a result, payee

10 A more detailed description of the structure of the NPP can be found in Rush A and R Louw (2018), 'The New Payments Platform and Fast Settlement Service', RBA Bulletin, September.

11 ISO 20022 is a global and open standard for payment messaging that supports a range of message types and a large amount of both structured and unstructured data.

financial institutions can make funds available to the recipient customer immediately, without incurring settlement or credit risk.

'Overlay services' are another important aspect of the NPP structure. These will be commercial payment services that leverage the BI and the ability to make real-time, data-rich and easily addressed payments. They may be simple rule-books that set standards for how participants handle certain payments (e.g. speed of posting, what data travels with the payment and what the end-user customer experience is), or they may be more complex payment solutions that involve new message types and interactions with external entities or databases. The first overlay service that launched alongside the NPP was developed by BPAY and is branded as Osko. This is a basic person-to-person credit transfer ('push payment') service with the ability to include up to 280 characters of data that participants make available to their customers via their existing internet and/or mobile banking channels.[12] The Osko service includes specific rules relating to the end-user experience, including obligations on how quickly funds must be posted to the payee's account and informing users of the status of the payment.

The layered architecture of the NPP was designed to promote competition and innovation in the development of overlay services without the need to make frequent or significant technical changes to the BI. NPP participants can choose to subscribe to particular overlay services according to the needs of their customers or other commercial interests. While the Osko service was developed so that there would be a compelling reason to use the NPP when it launched, the expectation was that additional overlay services would be developed over time that may be tailored to particular payment use cases or customer needs. In fact, when the NPP was being developed, there was agreement between participants that BPAY would eventually extend the capabilities of Osko. The intention was to provide 'request-to-pay' functionality and the ability to send a document (such as a PDF) with a payment, services that are likely to be particularly useful for businesses.[13] However, as discussed further below, these services are yet to be delivered and no other overlay services have been developed as yet.

2.3 Access to the NPP

Most end-users of payment services, such as households, businesses and government entities, will access NPP functionality (i.e. the ability to send and receive payments) through services provided on a commercial basis by the financial institutions where they maintain their accounts. The NPP was specifically designed to be 'open access' and support participation from a range of businesses across the payments ecosystem wanting to offer NPP services to their customers. NPPA's constitution states that an objective of NPPA is to 'operate the NPP in a manner that promotes the public interest', including by 'facilitating fair access to the NPP as mutually owned utility infrastructure' and 'ensuring ongoing investment in the NPP to meet the changing needs of financial institutions and users of the Australian payments system.'

12 BPAY was selected in 2014 to develop the first overlay service for the NPP as a result of a competitive tender process that was managed by the NPP project manager, KPMG.

13 In this context, 'request-to-pay' functionality refers to the ability of an entity to send a payment request to a payer through the NPP, which the payer could then choose to accept to automatically execute a credit transfer from their account to the payee's account. This functionality would be similar to the current direct debit functionality, except that the payer would need to approve each payment request. This service may be particularly useful for a business wanting to use the NPP to send a notification to its customers of a pending invoice with a request to pay and provide a convenient way for the customer to pay through the NPP.

There are a number of ways that entities can access the central infrastructure, which cater for different business models and objectives. NPPA has established graduated and risk-based eligibility criteria that apply to each access method, which aim to balance the desire to encourage participation against the need to maintain the safety and security of the real-time payments infrastructure.[14] There are four ways that businesses can connect to the NPP:

- **Direct participants** connect to the NPP directly using their own NPP payment gateway. They are required to be licensed as an authorised deposit-taking institution (ADI) or restricted ADI (RADI) by APRA and meet any associated prudential and operational standards imposed by APRA. They must hold an ESA at the Reserve Bank and become a shareholder (and subscribe to shares) in NPPA. They must also meet various technical requirements set by NPPA for establishing and operating an NPP payment gateway. The decision to admit a new participant is ultimately a decision of the NPPA Board, but the Board has provided delegations to NPPA management for a large part of the assessment of new applications. In addition to being able to clear and settle payments through the NPP, direct participants can offer indirect connectivity to the NPP for other entities. Currently, there are nine direct participants – the four major banks, Macquarie Bank, the Reserve Bank (via its Banking Department) and three 'aggregators' (Cuscal, ASL and Indue) that provide connectivity for a range of indirect participants and identified institutions.[15]
- **Indirect participants** connect to the NPP using a direct participant's NPP payment gateway, but otherwise have the same capabilities as direct participants. Indirect participants are also required to be an ADI (or RADI), hold an ESA at the Reserve Bank, and become shareholders in NPPA. This type of access may suit, for example, a smaller bank that does not need or want to operate its own payment gateway. There are currently two indirect participants, Bendigo and Adelaide Bank and ING Australia.
- **Identified institutions** connect to the NPP indirectly via a direct participant's NPP payment gateway. Identified institutions are able to offer their customers NPP payment services, with the payments cleared and settled on behalf of the identified institution by the sponsoring direct participant (which may, for example, be a specialist 'aggregator'). A commercial arrangement is required between the sponsoring NPP participant and the identified institution, but NPPA does not have any role in connecting identified institutions. Identified institutions are not required to be an ADI (or RADI), be a shareholder in NPPA, or hold an ESA at the Reserve Bank (they rely on the sponsoring participant's ESA for settlement). In practice, almost all identified institutions to date have been ADIs – as of May 2019, 68 smaller banks, credit unions and building societies have obtained connections to the NPP as identified institutions. One non-ADI entity providing payment services, Assembly Payments, has also been connected in this way.

14 The process for connecting to the NPP and associated eligibility requirements are provided in the NPP Regulations available on NPPA's website at: https://www.nppa.com.au/the-company/governance/

15 Aggregators specialise in providing wholesale payment services to other institutions (i.e. they have no end retail customers of their own). Their business model is to provide access to different payment clearing streams for smaller entities; some of them also provide payment products and services such as ATM access, card scheme sponsorship and fraud prevention and management. Aggregators help to promote competition in the payments industry by providing the technology, licensing and operational capabilities that might otherwise be too expensive for smaller entities to establish on their own.

- **Connected institutions** will connect to the NPP using their own payment gateway and are able to send payment initiation and other non-value messages through the NPP.[16] Because they are not involved in the clearing and settlement of payments, they are not required to be an ADI (or RADI) or hold an ESA at the Reserve Bank, but they need to be financially solvent and comply with the same technical requirements for operating a payment gateway as for direct participants. This type of access may suit entities that are not ADIs but would benefit from operating their own payment gateways to submit a high volume of payment initiation messages directly into the NPP rather than via their financial institution's normal customer channels; such an arrangement might suit payroll processors, share registries, retailers or other large corporates. So far there are no connected institutions but NPPA has indicated that it is in discussions with a number of interested parties.

Table 1: NPP Access Eligibility Criteria

	Direct Participant	Indirect Participant	Identified Institution	Connected Institution
Shareholder of NPPA	✔	✔	✕	✕
Licensed by APRA as an ADI (or RADI)	✔	✔	✕	✕
Hold an ESA at the Reserve Bank	✔	✔	✕	✕
Connect via own payment gateway	✔	✕	✕	✔
Connect via third-party payment gateway	✕	✔	✔	✕

Source: NPPA

Entities can also apply to NPPA to become an overlay service provider. Any organisation can apply as long as it can demonstrate a sound business plan backed by the required expertise to deliver their proposed product or service. Overlay service providers will offer their product or service to NPP participants and identified institutions on a commercial basis to make available to their customers.

2.4 NPP Roll-out and Initial Operations

The NPP was launched for public use on 13 February 2018 after becoming operational for industry 'live proving' in November 2017. Initially, 61 institutions were connected as participants or identified institutions, with this number having since increased to 80 institutions (Table 2). Notably, this includes 68 smaller financial institutions and one non-bank payment provider that access the NPP through the services of an aggregator or other sponsoring participant (as identified institutions), without the need to directly connect to the NPP's BI and operate their own payment gateways.

16 A payment initiation message is one that would be sent to an NPP Participant seeking the initiation of a payment from a specified account, with the payer's authorisation. They could be used, for example, by a Connected Institution to instruct a payment from its own account or from the account of a third party, such as a customer. The clearing and settlement of that payment would then be effected by separate 'value' messages exchanged between NPP Participants and the FSS. Other non-value messages would include those used to look up a PayID in the Addressing Service or to request the status of a payment.

Table 2: Number of Active NPP Participants and Identified Institutions

Date	Participants*	Identified Institutions	Total
February 2018	10	51	61
August 2018	10	62	72
February 2019	11	66	77
May 2019	11	69	80

* Of the 13 participants that funded the development of the NPP, 2 are yet to connect
Source: NPPA

As would be expected with any new payment system, financial institutions have taken a staged approach to their roll-out of end-user NPP services, gradually introducing different functionality, channels and customer segments. For example, several of the major banks prioritised retail customers over business customers and some banks have prioritised mobile banking access over internet banking access. Some banks also launched their service with restricted functionality, such as the ability to only make payments to registered PayIDs (as opposed to also to BSBs and account numbers), or with relatively low payment value limits. The different approaches banks have taken to roll out their services may have been partly aimed at managing risk and allowing them to fine-tune their systems and processes. In other cases, however, the slow roll-out reflected an insufficient level of systems work or internal preparation in the lead-up to launch. In particular, some of the major banks appear to have underestimated the complexity of integrating the NPP with their own systems and the investment required to upgrade their core capabilities. As a result, while the NPP roll-out was always intended to be gradual, it has been slower and more uneven than was initially expected.

This has contributed to delays in the development of planned overlay services extending NPP functionality to include the ability to send a document with a payment and the ability to make and receive payment requests. These extensions to BPAY's Osko service were initially expected to be operational shortly after the NPP's launch but there is still no decision on launch and it is unlikely that they could be available before about late 2020.

The Reserve Bank has expressed its disappointment with the slow roll-out of NPP services and functionality on a number of occasions. For example, in November 2018, the Governor noted that:

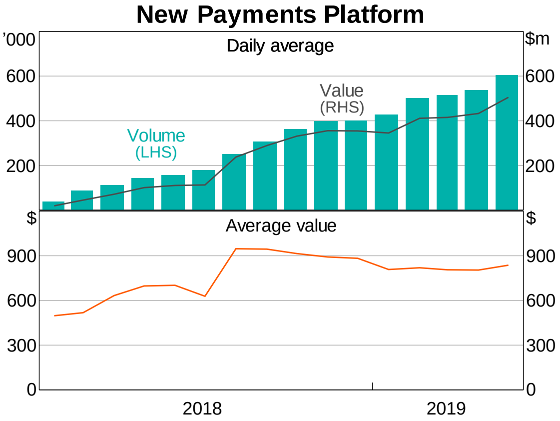
> It was originally anticipated that these two overlay services [request to pay and pay with document] would be up and running not long after the NPP launch. Unfortunately, this timeline has slipped. A number of the major banks have also been slower than was originally expected to roll out NPP functionality to their entire customer bases. This is in contrast to the capability offered by smaller financial institutions, which from Day 1 were able to provide their customers with NPP services. Given the slow pace of roll-out by the banks, and the prospect of delays for additional overlay services, I recently wrote to the major banks on behalf of the Payments System Board seeking updated timelines and a commitment that these timelines will be satisfied. It is important that these commitments are met.[17]

Notwithstanding the slow roll-out, the number of end-users with access to fast payments and the number and value of transactions through the platform have been growing steadily. As of end April, there were more than 55 million Australian bank accounts accessible via the NPP (estimated at about 85 per cent of all accounts that will eventually be reachable) and around 2.8 million PayIDs had been

17 Lowe P (2018), 'A Journey Towards a Near Cashless Payments System', Speech at the 2018 Australian Payment Summit, November.

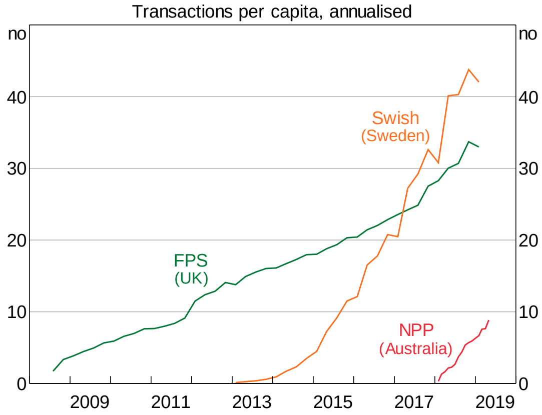
registered. The platform is now processing an average of around 600,000 payments worth $500 million each day, with an average transaction value of around $800 (Graph 1).[18] While these transaction amounts are still very low compared with other retail payment systems in Australia, the adoption of the NPP is proceeding at least as quickly as occurred for some comparable fast-payment systems that were launched in other countries (Graph 2).

Graph 1
New Payments Platform



Source: RBA

Graph 2
Use of Fast Payments Systems



Sources: FPSL; Getswish; National statistics agencies; NPPA

18 Data on NPP transactions are contained in RBA Statistical Tables C6 and C6.1.

3. Functionality and Overlay Services

As noted earlier, with the exception of corporate entities connecting as either identified or connected institutions, end-users (including households, businesses and government entities) access NPP functionality through the services offered by their financial institutions. These services are provided on a commercial basis and there are no requirements on what NPP services financial institutions must provide. As with any banking product, however, one would expect there to be competitive pressure on financial institutions to provide the services that are valued by their customers.

At this point, Osko is the only overlay service available on the NPP – it provides basic account-to-account fast payment functionality through the mobile and internet banking applications of NPP-connected institutions. However, as was noted earlier, BPAY is planning to expand Osko's services to include the ability to send a document with a payment and the ability to make and receive payment requests. The design of the NPP envisaged that, over time, a range of other overlay services, developed by different parties, would utilise the NPP to offer payment solutions tailored to particular contexts and addressing a range of other customer needs. NPP participants will have the option of subscribing to these overlay services if they wish to provide them to their customers.

NPPA is also working to enhance the 'native' capabilities of the NPP by building additional services and capabilities as part of the core infrastructure. These capabilities, such as a planned 'consent and mandate service' (see Box A: The NPP's Evolving Functionality), could provide functionality that might alternatively be provided by an overlay service. In other cases, the enhanced native capabilities could be used to improve the functionality of, or make it easier to develop, overlay services.

The consultation sought stakeholder views on the current functionality of the NPP, whether it was meeting their needs and what functionality gaps may exist. This chapter summarises the stakeholder feedback received in relation to NPP functionality and overlay services and provides an assessment and a number of recommendations.

3.1 Issues and stakeholder views

In the written submissions and consultation meetings, there were a range of views on NPP functionality. Some stakeholders (mainly NPPA and NPP participants) highlighted the capabilities the NPP already offers or that are being developed. Other stakeholders (mainly corporates, payment service providers and fintechs) were critical of the current functionality and the services offered by NPP participants to their customers.

Some stakeholders expressed disappointment that they did not have access to fast payments functionality because their financial institutions had not yet rolled out these services to all customers. In particular, as some participants prioritised the roll-out of their NPP services to retail customers, many business and corporate customers had faced, and in some cases were continuing to face, delays in having NPP functionality enabled for their accounts.

One submission suggested that the slow roll-out of NPP services may have exacerbated some of the concerns relating to access to the platform (discussed in Chapter 4). For example, entities that were not receiving the NPP services they wanted from their financial institution may have felt compelled to connect to the NPP themselves, but then encountered the various eligibility requirements. Stakeholders suggested that the slow roll-out of NPP services was also undermining the positive network effects that come from broad account reach, resulting in disappointing user experiences with the platform and acting as a disincentive for entities to invest in developing overlay services.

Some submissions to the consultation also expressed disappointment about the current inability to make direct debits ('pull payments') through the NPP. This appeared to be a particular issue for businesses wanting to use the NPP to facilitate recurring payments from their customers. A number of stakeholders expressed doubts about the commitment of the NPP participants to deliver on the additional BPAY overlay services (payment-with-document and request-to-pay) despite these being seen as providing useful functionality, particularly for businesses and government.

The Productivity Commission, in its 2018 report on Competition in the Australian Financial System, also had concerns regarding functionality, which prompted it to recommend that the ACCC and the Payments System Board investigate different ways to improve the functionality of the NPP as a way to promote competition and innovation. The Commission argued that the initial 'push' payments offered by the NPP were a very limited use of its potential functionality, which should also include the ability to set up recurring and 'pull' payments. It also suggested investigating the feasibility of expanding the use of PayIDs to different payment types, including recurring payments, which it believed would make it easier for customers to switch bank accounts, thereby promoting competition.

A number of stakeholders, particularly fintechs, highlighted the need to facilitate greater use of application programming interfaces (APIs). In this context, APIs are software protocols published by a bank, which third-party systems can use to communicate in a standardised and secure way with that bank's systems to access NPP functionality.[19] While NPPA has developed an API framework (see Box A), some stakeholders called on NPP participants to make APIs available as soon as possible for third parties to use to initiate, confirm and query NPP payments, rather than going through participants' regular internet or mobile banking channels.

Some stakeholders raised concerns about the challenges of deploying overlay services on the NPP, arguing that this could discourage innovation and constrain future functionality. One specific concern was that an overlay service would need to be supported by all or most NPP participants to be viable, and that it would be a costly and time consuming process for a prospective overlay service provider to bilaterally negotiate with each participant. In this context, it was suggested that BPAY had an advantage in implementing Osko because it is owned by the major banks, which are also the largest shareholders of NPPA. Another concern was that a prospective overlay service provider would have to expose its business plan and intellectual property to NPPA in the process of applying to be an overlay provider, and that this information could be accessed by their potential competitors on the Board of NPPA who are involved in assessing overlay services. It was suggested that concerns such as these have made some entities reluctant to engage directly with NPPA on establishing new overlay services. Suggestions put forward to address these concerns included having an NPPA Board committee of independent directors involved in assessing new overlay services and for NPPA to clarify how access to information on new overlay services would be controlled in order to deal with potential conflicts of interest.

19 Open APIs are also being developed in the context of Australia's open banking regime as a way for third parties to access customer data held in bank systems.

The Productivity Commission has also raised concerns about overlay service providers that are not NPP participants being at a competitive disadvantage relative to NPP participants that offer overlay services because of a lack of access to valuable transaction-level data. It recommended that all NPP participants that use an overlay service be required to share de-identified transaction-level data from that service with the overlay service provider. However, this issue of access to data on transactions going through overlay services was not raised by stakeholders during the Bank's consultation.

In its submission to the consultation, NPPA argued that the NPP currently has extensive capabilities that meet many organisations' business needs and use cases. The NPP presently offers real-time movement of funds on a 24/7 basis, extensive data capabilities, and simpler addressing via the PayID service. One stakeholder, which is also an NPP participant, argued that the NPP's current functionality meets all of the objectives that were identified by the Bank in its 2012 Strategic Review of Innovation. Moreover, NPPA and a number of NPP participants emphasised that a range of additional functionality is being developed or is planned to further extend the capabilities of the NPP (see Box A). They highlighted a central 'consent and mandate service', which will store payment authorisations by consumers and businesses and enable the platform to support recurring payments, providing an alternative to the current direct debit options provided by the Direct Entry system and supporting competition by making it easier to move payment authorisations from one financial institution to another.

Box A: The NPP's Evolving Functionality

As discussed earlier, the NPP was designed to operate as a distributed layered architecture. The Basic Infrastructure (BI) comprises a network of payment gateways, hosted by participants, as well as a central Addressing Service. By contrast, overlay services are products, services or schemes that use and extend the core capabilities of the BI in a customised way to provide value-added payment services or processes.

Over the past year, NPPA has identified a number of opportunities to take a coordinating role in providing additional functionality through the BI. By developing native NPP capability, such as defined payment message data elements, which could be used by participants or built upon and commercialised by an overlay service provider, NPPA intends to optimise the utility of the BI. This would enable participants and others to meet the needs of a range of end users without necessarily relying on a dedicated overlay service to do so.

NPPA has an ambitious agenda for extending the functionality of, and increasing transaction volumes through, the NPP. Some of its more noteworthy plans include:

- Extending its API framework
- Quick response (QR) code standards[20]
- Consent and mandate service
- Data and message usage guidelines
- Third-party payment initiation.

20 A QR code is a two-dimensional barcode that contains information such as the price of the item to which it is attached.

API framework and sandbox

NPPA announced the NPP API framework in September 2018. The framework provides guidance on the design of APIs for the NPP. It establishes the recommended technical approach for APIs and mandatory data elements, removing the need for participants and third-party service providers to build customised APIs. NPPA does not mandate use of the API framework; however, it is encouraged as a way to increase consistency and interoperability between APIs offered by different providers.

The first version of the framework contains three sample APIs that could be used by authorised third parties to: (i) look up a PayID in the Addressing Service, (ii) send a payment initiation request, and (iii) confirm that a payment has been completed. The second version of the framework, released in May 2019, will extend the sample APIs to different NPP functions: (i) cancelling a payment, (ii) requesting the return of a payment, (iii) notification of a payment, and (iv) notification of the return of a payment. NPPA intends to further extend the API framework over time.

To encourage use of the API framework, NPPA and SWIFT have established an API sandbox: a secure, cloud-based facility, for developers to test API solutions for the NPP in an independent environment. This capability will extend over time in line with the API framework and will be enhanced to become more dynamic in nature.

Initially, the range of API solutions offered by participants is likely to vary due to the staged approach taken in individual NPP roll-outs. Importantly, it is NPP participants (or identified institutions) who must provide the API services for their customers to access the NPP, not NPPA itself.

QR code standards

NPPA released a standard for the use of QR codes to generate NPP payment messages in June 2019. The NPP standard is based on the widely used EMVCo QR code specifications and defines the mandatory data elements that are required for NPP payments initiated by a QR code. The standard can be used for both static and dynamic QR codes. This capability has potential application in a range of use cases including bill payment, invoices, e-commerce and even point-of-sale payments.

Consent and mandate service

NPPA is planning a consent and mandate service (CMS) to facilitate the creation and secure centralised storage of standing payment authorisations given by consumer and business customers of different financial institutions. For example, the CMS could be used to store pre-authorisations for regular bill payments, such as rent or utility payments. The CMS will enable the NPP to be used for a range of additional payment types, including recurring payments and third-party initiated payments, and will give customers more visibility and control of their payment authorisations. The CMS will allow the NPP to be used as an alternative to the direct debit system. It will support third-party payment initiation and 'on-behalf-of' payment functionality for use by a range of third-party payment service providers including payroll service providers. NPPA has made an assessment that the broad range of potential applications make it more efficient for the CMS to be provided through the BI as native capability, similar to the Addressing Service. It is expected that the CMS will make it easier for customers to switch banks by allowing them to manage their payment authorisations and link them to a new bank account.

Message usage guidelines

The NPP was designed using the ISO 20022 standard for payment messaging, which can carry much richer information than the 18 characters available for direct entry payments. In addition to the payment instruction, the standard provides for a clearing message to contain more than 1,400 data fields.

NPPA has identified payroll, superannuation and pay-as-you-go (PAYG) tax instalments as areas that are likely to benefit from additional data being carried with the payment in a structured manner. These high-volume payments are often initiated from businesses' accounting or payroll systems and received by the ATO and superannuation funds, without manual processing. The carriage of structured data with these payment types ensures that they are processed efficiently. NPPA began consulting with industry stakeholders on the development of industry-specific message usage guidelines in early 2019 with the aim of releasing these message usage guidelines later this year.

These guidelines differ from an overlay service in that they do not set a posting standard or define the end-user experience. However, the guidelines are likely to enable use of the NPP for payroll, superannuation or PAYG tax instalments without the need for a specific overlay service designed for these payment types. However, an overlay service provider would have the option of building on top of these message usage guidelines developed by NPPA and incorporating them into its own product or service offering. NPPA has indicated that it also intends to develop message usage guidelines for e-invoicing and insurance payments at a later date.

Third-party payment initiation

While the NPP has to date only been used for credit or 'push' payment messages, another payment message within the ISO 20022 standard is the 'payment initiation' message. Using payment initiation messages, an authorised third party can initiate a payment on behalf of customers of a financial institution or request payments to be made by a customer. The NPP was designed to support payment initiation messages; however, these messages were not certified or tested in the lead-up to the initial launch, and are not currently being used by participants across the BI (although some participants are offering payment initiation messages to customers outside of the BI). The full implementation of payment initiation messages will enable the NPP to cater for a wide range of use cases, such as authorised service providers initiating payroll, superannuation, tax or invoice payments on behalf of their business customers, or as an alternative to the existing direct debit system.

Enabling third-party payment initiation has the potential to substantially increase transaction volumes on the NPP. Customer authorisations will be able to be managed centrally through the planned CMS or bilaterally through arrangements between participants or third parties. The CMS will provide customers with control over their payment authorisations and permit authorised third parties, via APIs, to manage customer authorisations to which they are a party. NPPA's assessment is that the implementation of payment initiation messages with CMS-managed customer authorisations would effectively enable authorised third-party payment initiation on customers' accounts; this would correspond to 'write access' to customer accounts, and could be an element of the future evolution of Open Banking in Australia.

3.2 Assessment

The central infrastructure of the NPP is now providing functionality that has largely filled the gaps identified in the Bank's 2010–12 Strategic Review of Innovation. In particular, the ability to send and receive retail payments in real-time on a 24/7 basis, with immediate funds availability to the payee, richer data and the ability to address payments using the PayID service is a significant enhancement to Australia's retail payment system.

However, the slow roll-out of NPP services by some larger banks has been disappointing and overall NPP volumes have grown more slowly than was initially hoped. While it was always expected that financial institutions connected to the NPP would roll out customer services according to their own schedules and priorities, this roll-out has occurred more slowly than anticipated. While the major banks have now largely completed the roll-out of NPP services to their retail customers, the roll-outs to business and corporate customers are ongoing and some banks have yet to provide NPP services to their subsidiary brands. This stands in contrast to many of the smaller institutions, which connected to the NPP via the aggregators and were able to provide NPP services to their entire customer bases at (or quite soon after) the NPP launch.

In addition, even where NPP services have been enabled, some major banks still have significant functionality gaps in terms of the ways that payments can be initiated or the limits that are placed on payment amounts. The incomplete reach of the NPP and the partial functionality offered by some of the major banks has disappointed end-users that have been keen to utilise the NPP and has also likely delayed the development of new services that would extend the NPP's capabilities.

The delays experienced by some of the major banks point to the complexity of their internal systems, the fact that they have many other projects underway, and the challenges for security and operational reliability of moving to real-time and 24/7 payments. Some of the banks appear to have significantly underestimated or underfunded their internal projects in this regard and there may also have been insufficient oversight of projects by senior executives and boards of financial institutions. Given that there remains significant work to be done to realise the full potential of the NPP, the Bank will be continuing to push the major banks to prioritise the roll-out of services to their customers and ensure that significant functionality gaps are addressed as quickly as possible.

As discussed in Box A, NPPA is working on an ambitious agenda to enhance the native capabilities of the platform. In addition, BPAY is still planning to extend the capabilities of Osko to allow a document to be attached to a payment and to send and receive payment requests, though progress here depends on the NPP participants being in a position to commit to the additional work that is required to deliver these services. The Bank strongly supports the development of these planned capabilities and believes that if they are fully implemented they could address many of the functionality needs that were raised by stakeholders in the consultation. While the Bank does not wish to dictate how these capabilities should be delivered from a technical perspective, we believe that NPPA and its participants should publicly commit to a roadmap for when they will be made available to end-users and to periodically update this roadmap over time.

However, while a roadmap will assist, the experience to date highlights the risk that delays in the projects of particular participants may threaten the delivery or launch of some of this additional functionality. Here, it may be useful to draw on practices of some other payment systems where the scheme operator has the power to mandate certain action or behaviour by participants; this is common in the card systems, for example. Accordingly, the Bank believes the NPPA Board should have the power to mandate that changes to the central infrastructure or native capabilities of the NPP must be supported by participants within a specific timeframe, backed up by an enforceable sanctions framework (including possible financial penalties) for participants that do not comply. We are recommending that NPPA introduce such a mandate framework by the end of 2019 and that it be used to support the timely delivery of agreed functionality. Ultimately, if additional functionality were not delivered within a reasonable period of time, the Bank could consider a regulatory approach to require the NPPA and/or its participants to provide specific functionality if it was deemed to be in the public interest to do so and was consistent with the Bank's mandate to promote competition and efficiency and control risk in the payments system.

Regarding the role of overlay services in the NPP, the consultation revealed some misunderstandings on the part of some stakeholders. The Bank notes that many fintechs and other entities that have expressed interest in becoming overlay service providers might actually be able to implement their business models using NPP functionality provided by an existing bank relationship or alternatively as an identified institution. That said, to help promote competition and innovation, the Bank believes it is important that there are no unnecessary barriers to creating overlay services. In this context, the Bank notes the concerns some stakeholders raised about sharing confidential information with NPPA, which might be seen by participants that have interests in competing overlay services. The Bank believes NPPA should put in place procedures that address these concerns. These should clarify how confidential information will be handled during the application process and the role of NPPA management and potentially the independent directors, versus the broader NPPA Board, in approving overlay services. As regards suggestions by some stakeholders that all participants must be required to subscribe to NPP overlay services, the Bank does not see a case for such a mandate. Instead, the presumption should be that participants will subscribe to an overlay service because they see value in it, just as they can choose to offer any other service that delivers value to their customers.

Recommendations:

- NPP participants should prioritise the roll-out of NPP services to their entire customer base and address any functionality gaps that currently exist in their customer offerings.
- Starting no later than end September 2019, NPPA should periodically publish a roadmap of the additional NPP functionality it has agreed to develop and the expected time period over which it will be delivered. The roadmap should be updated at least semi-annually.
- By end December 2019, NPPA should introduce a power for its Board to mandate that specified NPP core capabilities must be supported by NPP participants within a specific period of time, with an enforceable sanctions regime (including possible financial penalties) to apply if participants do not comply.
- By end September 2019, NPPA should publish its process for assessing potential overlay services, including how confidential information on the plans of potential overlay service providers will be controlled and the respective roles and responsibilities of the NPPA management, independent directors and the broader NPPA Board in approving overlay services.

4. Access to the NPP

The arrangements for how entities connect to the NPP has been another focus of this consultation. As was discussed in Chapter 2, the NPP was designed to facilitate a number of different types of access to the central infrastructure to cater for different business models, with risk-based eligibility criteria applying to each. The eligibility criteria and the process by which NPPA assesses and determines applications to participate are set out in the NPP Regulations, which are published on NPPA's website.

From one perspective, the NPP's access arrangements would appear to be working quite well considering that a large number of entities are already connected to the platform, including 68 smaller ADIs that are indirectly connected via aggregators or other participants and successfully providing NPP services to their customers. Moreover, it could be argued that indirect access to the NPP is all that most financial institutions need, given they can access the same functionality and avoid the costs and complexity associated with being a direct participant. The model in which there is a relatively small group of direct participants providing access to a larger number of indirectly connected entities is common in other payment systems, such as the Bulk Electronic Clearing System (BECS). This reflects that it is usually the most efficient and secure way to structure access to network infrastructure. The latter is particularly important in the case of a real-time payments system like the NPP, where there are significant operational, security and financial risks that need to be managed.

However, there will be cases where indirect access to the NPP is not available to an entity or where it does not meet its needs. For example, there may be competitive reasons why an entity does not wish to rely on another financial institution to provide it with NPP connectivity. In addition, there are an increasing number of entities providing specialised payment services that may not be eligible to become ADIs because they do not take deposits or make loans. It is therefore important that the eligibility criteria and associated governance arrangements for determining participation strike the right balance between promoting open access and protecting the safety and integrity of the platform.

It is in this context that the consultation sought stakeholder views on whether the various ways of accessing the NPP and the associated technical and other eligibility requirements were adequate for different business models, or whether other forms of access or eligibility requirements may be justified. The feedback received from stakeholders can be grouped into four broad areas: the requirement for NPP participants to be ADIs licensed by APRA; the requirement for new participants to become shareholders and subscribe to shares in NPPA; NPPA's governance arrangements for access decisions; and the structure and transparency of NPP transaction fees and how this influences access decisions. This chapter summarises this stakeholder feedback and provides the Bank's assessment and a number of recommendations.

4.1 The ADI Requirement for Participants

The NPP Regulations stipulate that to be an NPP participant, an entity must be an ADI licensed and regulated by APRA.[21] ADIs are subject to extensive prudential requirements and oversight by APRA including in relation to capital, liquidity, business continuity management, financial and regulatory reporting, governance and risk management. Entities that have a conditional ADI licence from APRA (such as providers of purchased payment facilities) or a restricted ADI licence (RADI) under APRA's new licensing regime are also eligible to apply for participation in the NPP.

4.1.1 Issues and stakeholder views

A number of stakeholders, particularly some fintechs, viewed the ADI requirement as an excessive and unnecessary barrier to entry that undermines competition. They argued that entities providing specialised payment services may not qualify for an ADI licence given the nature of their business and so were effectively blocked from becoming NPP participants. And even if an entity could structure its business in a way that might qualify it to become an ADI, the process of obtaining an ADI licence was seen as costly and time consuming, with significant ongoing compliance and reporting obligations that impose a substantial burden.

Stakeholders observed that non-ADIs with an ESA are able to become Tier 1 (clearing and settlement) participants in the Bulk Electronic Clearing System (BECS) for direct entry payments that is administered by AusPayNet. They also observed that it is possible for non-ADIs that are providers of third-party payment services to obtain an ESA with the Reserve Bank.[22] Stakeholders argued that if it was possible for non-ADIs to obtain an ESA and become Tier 1 members of BECS, then it should also be possible for them to become direct participants in the NPP.

Stakeholders generally accepted that NPP participants should be subject to appropriate standards of risk management and operational capability. Some stakeholders considered that holding an Australian Financial Services (AFS) licence administered by ASIC should be sufficient regulatory status for direct participation in the NPP, though they did not address the issue of whether ASIC's regulatory requirements and the obligations imposed on AFS licensees could address all the concerns that motivate NPPA's ADI requirement.

The Productivity Commission also raised concerns about the ADI requirement in its 2018 report. It observed that from a practical perspective, an entity technically only needed an ESA to participate in the NPP (to settle payments) and that the Reserve Bank does not require an entity to be an ADI to hold an ESA. The Commission argued that, in addition to lowering barriers to entry, allowing ESA holders to participate in the NPP could mean payment providers are not reliant on their competitors to operate. It recommended that, as part of an access regime imposed on the NPP, the Payments System Board should allow payments providers that hold an ESA to connect to the NPP as participants without the need for them to be ADIs.

NPPA explained that the requirement for an NPP participant to be an ADI was considered necessary to ensure prudential safeguards for the platform, and suggested that this was in line with well-established international standards for payment systems, such as the CPMI-IOSCO Principles for

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21 See NPP Regulations, Part 4.2 Eligibility – all NPP participants. Any entity carrying out 'banking business' as defined in the *Banking Act 1959*, is required to be licensed as an ADI by APRA.

22 See Bulk Electronic Clearing System (CS2) Regulations, Part 4 Membership as a Framework Participant.

Financial Market Infrastructures (PFMI).[23] NPPA particularly noted that ADIs are required to meet an extensive range of prudential requirements, including with respect to operational and IT security risk management, are required to hold capital against losses, and are subject to rigorous ongoing oversight and supervision by APRA. NPPA argued that entities that are not ADIs, and therefore not prudentially supervised by APRA, would not provide the required level of counterparty assurance and comfort to NPPA and NPP participants. In particular, there is no assurance that these entities would have the technical and operational capability to perform the required NPP functions and to manage data security and fraud risks and meet associated liabilities. NPPA has also noted that it is a small organisation without the resources to conduct the extensive assessments of new applicants that it believes are necessary to protect the integrity and stability of the platform, and therefore relies on the prudential oversight by APRA to provide this assurance.

NPPA also noted that it is possible for non-ADIs to access the NPP without being reliant on competitors. In particular, there are a large number of entities that have accessed the NPP as identified institutions using the services of three aggregators – Cuscal, ASL and Indue – which specialise in providing wholesale payment services to other entities and do not compete in the retail market. Notwithstanding this, in a confidential submission, one stakeholder indicated that it had struggled to maintain banking relationships because of the nature of its business and claimed it had also encountered difficulties negotiating indirect NPP access with the aggregators. This entity wished to become a direct participant in the NPP so that it could ensure reliable access to the payments system and was not dependent on other entities, which could withdraw access at any time.

The Productivity Commission and some other stakeholders noted that there is a regulatory regime for non-bank payment providers in the United Kingdom that has facilitated the direct connection of these entities to the UK's Faster Payments Service, the UK's equivalent of the NPP.[24] The Commission had suggested that the Payments System Board should consider developing a regulatory regime for non-ADI specialist payment providers in Australia. NPPA indicated that if there was a regulatory regime for non-ADI payment providers in Australia it would consider amending its eligibility criteria to allow these entities to apply to be participants in the NPP.

4.1.2 Assessment

The security and resilience of the NPP is of paramount importance to promote confidence in the system. It is therefore reasonable to expect that NPP participants, which are directly connected to each other and involved in the real-time clearing and settlement of payments through the NPP, should meet minimum standards of operational and IT security risk management. While APRA's prudential oversight of ADIs provides a high degree of assurance in this regard, the Bank is not convinced that this should be a prerequisite to participate in the NPP. There may be entities that are

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23 See BIS and IOSCO (2012), '[Principles for Financial Market Infrastructures]', April. Principle 18 of the PFMI, which deals with access and participation requirements, recommends that FMIs (including payment systems) 'should have objective, risk-based, and publicly disclosed criteria for participation, which permit fair and open access.' The PFMI do not stipulate that direct participants in payment systems should always be prudentially regulated entities. Instead, they advise that 'if an FMI admits non-regulated entities, it should take into account any additional risks that may arise from their participation and design its participation requirements and risk-management controls accordingly.'

24 A settlement account at the Bank of England is required to directly connect to the UK Faster Payments Service. Following a policy change by the Bank of England in July 2017, non-bank payments and e-money institutions may apply for a settlement account, following authorisation by the UK Financial Conduct Authority under the *Payment Services Regulations 2017*.

ineligible to become ADIs because of the nature of their business (e.g. because they are specialised payment providers and do not take deposits or make loans). However, they might still be able to meet reasonable and relevant technical, operational and risk management requirements to participate in the NPP. It would seem an unsatisfactory outcome if these entities had to restructure their business to obtain an ADI licence just so that they could become an NPP participant. Instead, there should be other ways NPPA can get the level of counterparty assurance and comfort it desires without relying on the existence of an ADI licence and APRA's prudential supervision.

While some stakeholders suggested that holding an AFS licence should be sufficient to become a participant in the NPP, the Bank notes that the obligations imposed on AFS licensees are primarily designed to address consumer and investor protection issues rather than the specific concerns associated with participation in a payments system like the NPP. Accordingly, merely holding an AFS licence is unlikely to provide the kind of assurances that NPPA and existing NPP participants might reasonably be seeking from new participants.

In regard to the suggestion of a new regulatory regime for non-ADI specialist payment providers in Australia, the Bank observes that this is not realistic in the near term, given that it would require significant policy development and consultation, and then legislative change. However, the Bank is intending to explore such a regime, together with the other agencies in the Council of Financial Regulators.

As noted earlier, some stakeholders argued that if non-ADIs can become Tier 1 participants in BECS, they should be able to become NPP participants as well.[25] However, it is important to note that BECS and the NPP are very different payment systems, subject to different risks, and so it may be appropriate for them to have different participation requirements.[26] Moreover, there have not been any formal applications from non-ADIs to be Tier 1 participants of BECS yet so it is not possible to assess how the requirements for non-ADI participation in BECS have worked in practice.

Given these various considerations, the Bank is recommending that NPPA should consider revising its participation requirements to allow non-ADIs to become participants. The participation of non-ADIs could be subject to a specific set of risk management, operational, financial or other requirements that are tailored to, and commensurate with, the specific risks that NPPA and its participants are seeking to manage. For example, participation in the NPP might be related to holding an ESA at the Reserve Bank. The participation requirements for non-ADIs would be publicly disclosed along with guidance on how applicants can demonstrate that they meet the various requirements. This might, for example, include the possibility that an applicant could provide an assessment of its risk management and operational capabilities from a suitably qualified and independent third party, such as a professional advisory firm.

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25 The requirement for Tier 1 BECS participants to be ADIs was removed in 2015 to allow specialist payments providers to participate. To ensure the integrity of the system, prospective Tier 1 participants that are not ADIs are subject to some restrictions and need to meet additional assurance and reporting requirements. The removal of the ADI requirement followed a decision of the Payments System Board in 2014 to vary the Access Regimes applying to the designated MasterCard and Visa systems in Australia and the removal of the specialist credit card institution framework, administered by APRA. For more details see RBA (2014), 'Payment Card Access Regimes: Conclusions', March.

26 For example, BECS is a deferred settlement system, while NPP uses real-time settlement – settlement risks are lower in the NPP, but risks associated with fraud, IT security and other operational issues are likely to be higher because of the real-time settlement.

Recommendations:

- Direct access to the NPP should be open to a range of payments services providers. NPPA should assess and report on options for amending the NPP Regulations, and other arrangements, to allow for an entity that is not an ADI to potentially become an NPP Participant. The participation of non-ADIs would be subject to requirements appropriately tailored and calibrated to the key risk and operational considerations essential for participation in the NPP. NPPA should:
  - by end October 2019, submit to the Bank and the ACCC an assessment of options for revised participation requirements for non-ADI participants
  - by end March 2020, implement any revised participation requirements for non-ADI participants.

4.2 The Shareholding Requirement for Participants

The NPP Regulations currently state that to be an NPP participant, an applicant must become a shareholder and subscribe to shares in NPPA.[27] The amount of shares a participant would be required to subscribe to is determined by the shareholder 'governance band' – high, medium or low – they are allocated to. This allocation would be determined by the NPPA Board taking into consideration the applicant's significance in the Australian payments system and likely significance to the NPP.[28] For at least the first two years of the NPP's operation, there is a requirement that new participants subscribe to the same amount of shares as the initial participants in the same governance band. An applicant allocated to the lowest band would currently be required to purchase around $2 million of NPPA shares.[29]

The governance bands are also relevant to the appointment of directors. High-band shareholders (currently the major banks) each have the right to appoint one Director, while medium- and low-band shareholders may together elect up to four Directors. NPPA's Constitution allows for the payment of dividends on shares, but NPPA has stated that there is no intention of paying dividends in the foreseeable future. Instead, it expects any profits the NPP generates to be reinvested to build additional functionality and extend the capabilities of the platform. The Constitution also prescribes that shareholders may not transfer their shares, except to a related entity. Shareholders can choose to redeem their shares, but only at a nominal redemption value of $0.01 per share (compared with an issue price of $1,000 per share).

4.2.1 Issues and stakeholder views

A number of stakeholders argued that the requirement to become a shareholder of NPPA and to subscribe to shares was a barrier to entry for start-ups and other firms that have limited capital and

27 See NPP Regulations, Part 4.7 Application to become an NPP Participant or Connected Institution.

28 Currently there are 4 high-band shareholders (the major banks), 7 medium-band shareholders (including the RBA); and 2 low-band shareholders. The initial contributions of the four major banks represented about 75 per cent of NPPA's capital, but the intention is that this shareholding could be reduced to 70 per cent as new participants join.

29 There is also an application fee payable to NPPA. It is important to note that there are also a range of other costs a new participant would incur in connecting to the NPP, including those associated with provisioning, installing and testing the NPP componentry and integrating it with the participant's internal systems as well as uplifting capabilities required to process payments in a real-time environment such as fraud detection and prevention capabilities. These costs are likely to be significantly higher than the shareholding requirement.

are trying to grow their business. They argued that the amount of the contribution was disproportionately high compared with the contributions required to directly connect to fast payment systems in other countries, such as the United Kingdom.[30] Stakeholders also argued that since NPPA shares are not expected to pay dividends, are not transferable and cannot be meaningfully redeemed, they are more like a membership fee than an investment in shares. They found it particularly problematic that an entity that decided to no longer be a participant would not receive any funds from its shareholding.

NPPA stated that the requirement to subscribe for shares reflected the design of the NPP as a mutually-owned industry infrastructure, where having a dispersed ownership would help ensure the NPP is operated and evolves to meet the needs of its participants and their customers. It noted that new participants would bring capital that would enable NPPA to fund the continuing development of core capabilities and investment in future functionality, which would drive further innovation. Other NPP participants noted that the capital contribution was justified given the commercial benefit a participant gets from being a direct clearing and settlement participant and the fact that they are also able to offer indirect connectivity to other entities.

NPPA indicated that over time there may be scope to reduce the subscription levels for new participants as growth in operating revenues becomes sufficient to meet future investment needs. The cost of membership might eventually be expected to fall towards the direct and indirect costs of establishing connectivity. The NPPA Shareholders' Agreement states that the requirement for new participants to contribute the same level of funding as existing participants would be reviewed by NPPA's Board after two years of operation.

4.2.2 Assessment

The Reserve Bank was involved in the challenging industry discussions in late 2014 that culminated in the agreement to fund NPPA and sign the contract with SWIFT to build and operate the NPP. Based on this experience, the Bank considers that an initial requirement regarding capital contributions was necessary to ensure that the project was funded. In particular, if entities had been given the option to wait until the NPP was already built and operating and then become a participant without contributing any capital, there would have been little or no incentive for them to fund the development of the NPP in the first place. To overcome this problem, it was deemed necessary to stipulate in the NPPA Shareholders' Agreement that, at least for the first two years, any new participants would need to subscribe for shares at the same level as initial participants of comparable size.

There are a few arguments that could be made for a continuation of the current requirement regarding capital contributions for new shareholders. First, NPPA has ongoing capital and financing needs, especially (as discussed in Section 4.4) given that transaction volumes remain well below the levels that would allow full cost-recovery pricing that will encourage migration of payments from other payment systems. Second, there is an issue of fairness for those entities, such as the aggregators, that contributed funds to build the NPP on the basis that they would be able to benefit from their investment by providing third-party agency services once it launched. These entities would be competitively disadvantaged if other entities providing third-party agency services were able to

30 For example, one stakeholder indicated that there was no shareholding requirement to join the UK's Faster Payments Service as a direct participant but there were some upfront fees to the scheme operator for implementation and testing. The scheme operator was also said to charge ongoing fees.

join the NPP soon after it launched without contributing any capital. Third, given that so many entities have obtained indirect access to the NPP as identified institutions, with no shareholding contribution, the requirement that participants are shareholders does not appear to have been a significant barrier to access.

While these arguments may justify a continuing shareholding requirement in the short term, they need to be balanced against the potential harm caused by any reduction in competition and innovation that the shareholding requirement may create in the longer term. This may be most relevant in the case of smaller entities that perceive a particular need to be a participant rather than to connect indirectly, and for which the minimum capital contribution of $2 million would be a very significant amount. There is also an argument that newer entities, which did not exist at the time of the initial funding decision and so did not have the opportunity to sign up at that time, should not be unduly restricted by a shareholding requirement that was largely designed to incentivise institutions to agree to fund the NPP in late 2014.

On balance, the Bank believes NPPA should review its current shareholding requirement and introduce more gradation, at least in the lower band, so that subscription requirements can be more closely tied to an entity's size or expected contribution to NPP transaction volumes. It should also establish an access route for direct participation that is based either on acquiring shares in instalments or on periodic subscription fees (without becoming a shareholder), rather than an upfront purchase of shares. This access route would be set on an economically neutral basis, which would make NPPA indifferent between receiving capital instalments, periodic fees or the existing upfront contribution. As part of the review, NPPA should give consideration to allowing entities that did not exist when the NPP was being built to join at a lower subscription level than entities that did exist when the NPP was being built and chose not to contribute. Following its review, NPPA should publicly disclose its share subscription requirements so that entities can make informed decisions about their access options.

Recommendations:

- By end December 2019, NPPA should introduce more gradation into the shareholding requirement by creating at least one additional lower band, so that subscription requirements can be more closely tied to an entity's size or expected contribution to NPP transaction volumes.
- By end December 2019, NPPA should establish an access route for direct participation that is based either on acquiring shares in instalments or on periodic subscription or membership fees, rather than the upfront purchase of shares.
- By end December 2019, NPPA should consider allowing NPP participant applicants that did not exist when the NPPA was being developed to subscribe to a lower amount of shares than usual.

4.3 NPPA Governance

NPPA's Board is responsible for its corporate governance. The company currently has 12 directors, including the CEO. There are two independent directors, one of which is the Chair.[31] Each of the four major banks and the Reserve Bank are able to appoint a director. The other four directors are elected by the remaining small and mid-size shareholders of NPPA.[32] Each Board director has one vote except for the CEO who is a non-voting director.

The requirements and process for an entity to become either a participant, connected institution or an overlay service provider are contained in the NPP Regulations and allow a role for the NPPA Board in the determination of applications.[33] However, the Regulations state that the Board shall accept, subject to any conditions it considers reasonably appropriate, each new applicant that satisfies the company's technical and other eligibility requirements. They also allow for an applicant to request that a sub-committee of the Board review any determination by the Board that an applicant does not meet the relevant eligibility requirements. In practice, the process of assessing applications against the eligibility criteria is carried out by NPPA's management under a delegation of authority to the CEO. The NPPA Board would as a final step be asked to approve an application once it has been assessed by NPPA management as meeting the eligibility criteria.

4.3.1 Issues and stakeholder views

Some stakeholders expressed concerns about the governance of the NPP in relation to how access is determined. They worried that eight of the twelve NPPA directors are appointed by ADIs that may have incentives to restrict new entrants from access to the NPP for competitive reasons. There is a perception among fintechs that the Board is dominated by directors that represent the interests of the incumbent banks. One submission noted that there is no independent appeal mechanism if an application to be a participant or connected institution is refused. Another submission suggested that to overcome the potential for conflicts of interest to influence access decisions, the Payments System Board should be responsible for assessing applications for participation in the NPP.

Some of these views echoed concerns raised by the Productivity Commission in its 2018 report into Competition in the Australian Financial System. The Commission noted that a 'model that requires new competitors to be accepted by incumbents can reasonably be expected to involve conflicts of interest.'[34] While the NPP Regulations specify a mechanism for unsuccessful applicants to appeal the decision, the review is not undertaken by an independent party but by a subcommittee of the Board. The Commission suggested that it could be difficult to discern whether an applicant was denied access on the basis of risk considerations or because it was considered a competitive threat to the existing NPP participants.

In its submission, NPPA highlighted that its constitutional objectives are to operate the NPP in a manner that promotes the public interest, including by 'facilitating fair access to the NPP as mutually owned utility infrastructure.' In this context, 'facilitating fair access' is interpreted by NPPA as an

31 According to Article 10.7 of NPPA's Constitution, independent directors are personally and professionally independent of NPPA members and related bodies corporate of members.

32 The current directors of NPPA are listed here: https://www.nppa.com.au/the-company/board-and-leadership-team/

33 NPP Regulations, Part 4 (available at: https://www.nppa.com.au/the-company/governance/)

34 Productivity Commission (2018), *Competition in the Australian Financial System*, Inquiry Report No. 89, page 508.

obligation of NPPA to enable access to the NPP on non-discriminatory terms.[35] Reflecting this, NPPA noted that its governance arrangements have been deliberately structured to promote access and avoid and manage any potential conflicts of interest. For example, the Board has delegated to NPPA management the initial assessment of new applications for participation and though it is expected that the Board would be involved in the final determination, the NPP Regulations require the Board to accept an applicant that meets all of the technical and other eligibility requirements. NPPA also made the point that as a network infrastructure with mainly fixed costs of operation, it is in the interests of all participants to grow the network and build volume in order to bring transaction fees down.

NPPA also noted that a number of governance arrangements have been put in place to counterbalance the influence of the major banks. Whereas the major banks have contributed around 75 per cent of the capital of NPPA, they appoint only four of the NPPA's 11 voting directors and voting rights of directors are equal, rather than proportional to shareholdings (unlike in some other payment systems). Board decisions require the support of at least two-thirds of directors present and at least eight directors must be present for a Board meeting to proceed. Some NPP participants also noted that the Board has two independent directors and one director appointed by the Reserve Bank, which do not represent any particular commercial interests. In any case, NPPA noted that its directors have fiduciary obligations under the *Corporations Act 2001* to act in the best interests of the company, to avoid conflicts of interest, and to disclose and manage any conflicts if they arise.

4.3.2 Assessment

The Reserve Bank considers that it is reasonable to expect that the shareholders that made substantial investments to build the NPP should have a right to be represented on the Board. We note that the major banks do not have a majority of the votes on NPPA's Board, despite owning a majority of the shares. There are currently two independent directors (including an independent chair) and a director appointed by the Reserve Bank under its power to do so, granted in recognition of the importance of the FSS to the operation of the NPP.

The possibility that incumbents might keep out new entrants appears to be only hypothetical at this stage – the Bank is not aware that any access applications have been denied, let alone unfairly influenced by NPPA's governance structure. However, this is in an environment where the current ADI and shareholding requirements may have prevented a number of potential applicants. In any case, there is a widespread perception that NPPA's Board is dominated by the incumbent banks, and that there may be conflicts of interest that could hamper access for new entrants. Therefore, to strengthen the governance of NPPA, ensure that the Board represents a broader range of perspectives, and reduce the influence of incumbent financial institutions, the Bank believes NPPA should appoint a third independent director. We note that the NPPA Shareholders' Agreement was amended in 2018 to accommodate the appointment by the company of a third independent director, but no such appointment has been made as yet.

The Bank also believes it is important to ensure that there is an independent review mechanism for access decisions for prospective participants, connected institutions and overlay service providers. This will require a stronger governance arrangement than the current Board subcommittee specified in the NPP Regulations. Therefore, we are recommending that, where an applicant wishes to have a

35 NPPA (2018), Post-draft Submission to the Productivity Commission Inquiry into Competition in the Australian Financial System, 29 March 2018, Schedule 1, page 3 (available at : https://www.pc.gov.au/__data/assets/pdf_file/0007/226762/subdr122-financial-system.pdf)

Board access decision reviewed, the review should be by a panel comprised of three independent Board members (possibly including the RBA-appointed director) and two independent external payments experts (to be selected by the independent directors). The panel should have the binding power to overturn the earlier denial of an application if the applicant is deemed by the panel to have met all of NPPA's published eligibility requirements. In addition to considering appeals from decisions of the Board, the panel should also have a role assessing applications directly (that is, without going via the full Board) where NPPA management does not assess the applicant as having met the eligibility criteria. The panel should also have the power to ask NPPA to review the access criteria if it believes the criteria impose unreasonable conditions.

The Bank further believes that transparency about NPP access decisions is in the public interest and would help stakeholders form accurate perceptions about NPPA's governance. Therefore, the Bank is recommending that at least once a year (possibly in its annual report), NPPA publish the number of participant and connected institution applications it received during the preceding year and the outcomes of those applications, including a summary of the key reasons (de-identified as necessary) in cases where applications were not supported by the Board. In addition, NPPA should inform the Reserve Bank's Payments Policy Department whenever an application for access has been rejected by the NPPA Board. This will ensure there is timely and independent oversight of NPPA access decisions and an opportunity for the Bank to raise concerns if the decision is not considered to be in the public interest.

The Bank believes these steps to strengthen the governance of NPPA access decisions will provide greater confidence to potential new entrants that access decisions will be fair, objective and not biased by any competitive considerations of existing NPP participants.

Recommendations:

- NPPA should appoint a third independent director by end September 2019.
- By end December 2019, NPPA should review its arrangements for applications for access as a participant, connected institution or overlay service provider. Where an application has been rejected by the NPPA Board, or by NPPA management during its initial assessment, the applicant should be able to ask for a review of the decision by an Evaluation Panel. The Evaluation Panel should be comprised of three independent directors and two independent external experts appointed by the three independent directors. The Panel should have the binding power to overturn the earlier denial of an application if it decides that the applicant has met all of the eligibility requirements and also the power to ask NPPA to review the access criteria if it believes the criteria impose unreasonable conditions.
- At least once a year, NPPA should publish a report of the number of applications for access that it received during the preceding year, the outcomes of those applications, and a summary of the key reasons in cases where applications were ultimately not supported by the NPPA Board. The first report should cover the financial year ending June 2019.
- NPPA should notify the Reserve Bank's Payments Policy Department within one week whenever an application for access to the NPP (as a participant or connected institution) is not supported by NPPA's Board.

4.4 NPP Transaction Fees

There are broadly two types of NPP transaction fees.[36] The first are 'wholesale' fees that NPPA charges its participants. These are fixed fees (in cents rather than percentage terms) per transaction sent through the NPP, and are the same for all participants. These fees are intended to be NPPA's main source of revenue to cover its operating costs, the largest part of which is the fees charged by SWIFT to operate the NPP network. To date, the wholesale transaction fees set by NPPA have not been made public. The second type of fees can be considered 'retail' and includes transaction fees that aggregators and other participants charge sponsored entities for processing NPP transactions and the fees that financial institutions charge their end-customers for making NPP payments. Retail fees are determined by commercial arrangements between financial institutions and their customers, not by NPPA.

4.4.1 Issues and stakeholder views

A number of submissions expressed concerns about the various transactions fees involved in using the NPP and the influence they can have on decisions to access and use the platform. The main concern relating to the wholesale fees charged by NPPA was that they are not publicly disclosed. This lack of transparency was seen as making it difficult for entities considering becoming identified institutions to evaluate whether they were getting a fair deal from the aggregators or other participants offering to sponsor them. In addition, it was argued that the lack of transparency made it difficult to evaluate whether it was preferable to invest in becoming a participant and pay the wholesale transaction fee or to connect indirectly (with a much lower upfront cost) as an identified institution and pay what was likely to be a higher 'retail' transaction fee levied by the sponsoring participant. More generally, stakeholders viewed the lack of transparency about NPPA's fee-setting policies as making it difficult to formulate business plans and negotiate access without directly engaging with NPPA.

Stakeholders noted that NPPA's wholesale fees were intended to be set on a cost-recovery basis. However, there were concerns that the transaction fees charged by aggregators and other participants providing sponsored access could include large mark-ups, making it difficult for identified institutions to provide competitive NPP services to their own customers. Consequently, a few submissions recommended that the transaction fees charged to non-NPP shareholders should be regulated by the Payments System Board. Underlying these concerns seems to be a view that there is insufficient competition in the market for providing third-party access.

In its 2018 report, the Productivity Commission suggested that the Payments System Board should review whether NPPA's wholesale fees were being set on a purely cost-recovery basis and intervene to regulate if the fees were deemed excessive. Regarding 'retail' transaction fees, the Commission was also concerned about the potential for participants to extract excessive fees from identified institutions in a way that could undermine competition. The Commission suggested that the Payments System Board should review the transaction fees charged by NPPA and by sponsoring participants as part of an access regime for the NPP.

36 In addition, there is a fee capped at 1 cent that the Reserve Bank charges for each transaction settled through the FSS, split equally between the payer's and payee's institutions, and BPAY charges fees for Osko transactions. NPPA may also levy other fees, including for use of the Addressing Service and annual administration fees, as described in NPP Regulation 3.1(c).

NPPA noted that, consistent with its constitutional objective to operate the NPP as a 'mutually-owned utility', the intention is for the company to be an 'economically self-sustaining entity' rather than profit-maximising and that there are no plans to pay dividends to shareholders or repay capital contributions. Wholesale transaction fees paid by participants are expected to be NPPA's sole source of operating revenue, and the medium-term intention is that the fee will be set at a level that, based on expected transaction volumes, will cover NPPA's operating costs and any needed investment in the platform. NPPA argued that it is in its commercial interest to maximise transaction volumes across the platform and keep the wholesale transaction fee low to be competitive with alternative payment methods.

However, NPPA noted that transaction volumes are still at a level well below what is expected in the medium term so that if the wholesale fee were being set on a full cost-recovery basis, it would be quite high, which would be a disincentive to use the platform. Accordingly, the wholesale fee has so far been set well below the full cost-recovery level and shareholders have been asked to make additional contributions to cover the shortfall in NPPA's operating costs. NPPA indicated that, to date, the wholesale fee has not been published because it does not provide an accurate measure of what it costs a participant to provide NPP transactions for its customers. Once transaction volumes have increased to a level where full cost-recovery pricing is occurring, NPPA management said it would likely recommend to its Board that the wholesale NPP fee be published.

4.4.2 Assessment

There appears to be significant confusion and some unjustified suspicion among stakeholders about NPPA's pricing and revenues, which may be undermining confidence in the competitiveness of third-party access services and making it harder for entities to determine the best way to interact with the NPP. The confusion largely arises because NPP's wholesale transaction fees are not published, meaning potential users lack insight into the inherent costs of using the platform and a benchmark to compare 'retail' transaction prices. However, as NPPA has noted, the current wholesale transaction fee set by NPPA's management is not an accurate measure of the overall costs faced by participants in facilitating NPP payments. As an indication, using the operating costs NPPA reported in its latest annual report (for 2017/18) and average annualised transaction volumes in the six months to March, would imply a wholesale transaction fee on a cost-recovery basis of around 20 cents per transaction. This is significantly higher than the wholesale transaction fees that apply in other retail payment systems such as BECS, and so it has not been in NPPA's competitive interest to levy such a fee when it is seeking to grow transaction volumes. Instead, the wholesale fee has been set at a significantly lower level and NPPA's shareholders have been asked to make additional contributions to cover NPPA's operating costs.

In principle, the Bank agrees with stakeholders that more transparency about the wholesale transaction fee would be in the public interest, especially given the intention for NPP to be operated as a non-profit maximising utility infrastructure. Publication of the wholesale fees could help potential identified institutions evaluate the pricing offered by sponsoring participants. End-users would also be able to better understand the underlying costs that influence the prices financial institutions charge their customers for NPP services. Therefore, the Bank is recommending that, once it moves to cost-recovery transaction pricing, NPPA begins publishing its wholesale transaction fee and the methodology for determining it. In the meantime, it may be useful for NPPA to clarify in its Annual Report what the implied break-even wholesale transaction fee would have been, so that the market has better visibility of the full cost of NPP transactions to participants, based on current volumes.

In relation to pricing of NPP transactions to sponsored entities, the Bank believes this is a commercial matter for individual entities providing NPP services and their customers. There are several NPP participants – initially just the three specialist aggregators but now also some of the major banks – that compete to provide indirect access for entities (ADI or non-ADI) that wish to connect to the NPP. It is reasonable to expect that the fees – including transaction fees – these entities charge sponsored entities are subject to competitive pricing and the Bank has not been made aware of any pricing outcomes that would suggest insufficient competition. Therefore, the Bank does not see a case at this time for monitoring or regulation of the fees that NPP participants charge sponsored entities. Publication of the wholesale transaction fee should promote competitive pricing for NPP sponsorship, particularly if the barriers to direct NPP participation are also lowered, as recommended elsewhere in this report.

Similarly, the Bank believes that pricing of NPP services to households and businesses is a commercial matter for the financial institutions providing those services. So far, there has been a range of experience in how financial institutions are pricing their NPP services, with most institutions choosing to charge their business customers for NPP transactions but not their household customers. As noted earlier, there are 80 financial institutions currently providing NPP services to end-users and that number is expected to grow. The pricing of NPP services to end-users will be subject to competitive pressures and the Bank does not see a role for itself in regulating such prices.

Recommendations:

- From its first pricing review after July 2019, NPPA should publish data on its wholesale transaction pricing. Prior to the introduction of full cost-recovery pricing, NPPA should publish the wholesale transaction fee that would be implied by full cost-recovery pricing. Following the introduction of full cost-recovery pricing, it should publish its wholesale transaction fee and the methodology it has used to determine that fee.

5. Conclusion

The Reserve Bank, with support and input from the ACCC, has undertaken a public consultation on the functionality of, and access to, the NPP. The overall conclusion from this consultation is that the NPP is enabling new payments functionality that largely addresses the gaps identified by the Bank in its 2012 Strategic Review of Innovation. The Bank agrees with stakeholders that pointed out that much of the perception about lack of functionality and access difficulties is related to the slow roll-out of the NPP by some of its participants. It is now over a year since the NPP was launched and some major banks are still in the process of making NPP payments available to customer segments. Given that payment systems are networks that often require a critical mass, the slow progress within some participants has delayed the development of some of the planned 'central' functionality – for example, no decision has yet been made regarding the request-to-pay and payment-with-document overlay services. The slower than expected roll-outs by some participants appears to reflect the complexity of their systems and underestimation of the degree of investment needed to meet delivery timeframes.

The slow and uneven roll-out of NPP services has been disappointing and the Bank will continue to push participants to prioritise their development of NPP services. To overcome possible coordination issues amongst participants in the development of new capabilities, the Bank is recommending that NPPA's Board introduces a power for it to mandate that specified NPP core capabilities must be supported by participants within a specific period of time, with a sanctions regime to apply if participants do not comply. However, if this approach is not sufficient the Bank will consider the merits of a regulatory solution to ensure that NPP functionality meets the evolving needs of users of the payments system. Having said that, the Bank recognises that NPPA has an ambitious development agenda that if fully implemented would likely address most of the functionality issues raised during the consultation. In addition, it should also be acknowledged that, despite the delays, there are now 80 institutions connected to the NPP and providing fast payment services to their customers and use of the platform is continuing to grow.

Stakeholders have identified a number of access issues that could present potential barriers for new participants, such as the current requirements that new participants are ADIs and must make a material capital contribution. A few stakeholders in the consultation argued that designation and an access regime imposed by the Payments System Board would be the best approach to manage these potential issues. In particular, they felt that it was essential that access to the NPP be managed independently of the direct participants who may have perceived or actual conflicts of interest. The Productivity Commission also recommended an access regime for the NPP in its 2018 report on Competition in the Australian Financial System. In contrast, NPPA, some of the NPP participants and some other stakeholders argued that the current access framework is working well, pointing in particular to the large number of entities that have indirectly connected as identified institutions. They would prefer that the NPP be given sufficient time to demonstrate that it promotes open access and competition in payments before an access regime is considered. They felt that the current risk-based framework strikes a balance between open access and protecting the security of the payments infrastructure and the data within it.

The Reserve Bank agrees that the access issues discussed in this report, if left unaddressed, could raise policy concerns. Accordingly, the Bank has made a number of recommendations for NPPA to take action in relation to requirements for participation in the NPP, the required capital contribution for participation and the governance arrangements involving the NPPA Board. The Bank considers that it is reasonable to give NPPA and its participants the opportunity to act on these recommendations before considering the imposition of specific regulation. The Bank will be monitoring progress on these recommendations closely and will continue to liaise with potential entrants to ensure that the operation of the NPP is consistent with the promotion of competition and efficiency in the payments system.

The Bank is requesting that NPPA provide a public written response to the recommendations in this report by end July 2019, explaining how it intends to implement the recommendations and over what time period. The Bank will then seek regular updates from NPPA on its progress in addressing the recommendations.

The Bank will, with the assistance of the ACCC, conduct another review of NPP functionality and access issues commencing no later than July 2021. This review could take place earlier if the Bank becomes aware of significant issues or concerns regarding NPP access or functionality. If the Bank assesses that there has been insufficient progress in addressing the recommendations made in this report, it will closely consider the case for regulation via an access regime or standards imposed on the NPP and its participants.

Abbreviations

ACCC	Australian Competition and Consumer Commission
ADI	Authorised deposit-taking institution
AFS	Australian Financial Services
APCA	Australian Payments Clearing Association
API	Application programming interface
APRA	Australian Prudential Regulation Authority
ASIC	Australian Securities and Investments Commission
ASL	Australian Settlements Limited
ATO	Australian Taxation Office
AusPayNet	Australian Payments Network
BECS	Bulk Electronic Clearing System
BI	Basic Infrastructure
BSB	Bank-State-Branch
CEO	Chief Executive Officer
CMS	Consent and mandate service
CPMI	Committee on Payments and Market Infrastructures
ESA	Exchange Settlement Account
FMI	Financial market infrastructure
FPS	UK Faster Payments Service
FSS	Fast Settlement Service
IOSCO	International Organization of Securities Commissions
ISO	International Organization for Standardization
IT	Information technology
MOU	Memorandum of understanding
NPP	New Payments Platform
NPPA	NPP Australia Limited
PAYG	Pay as you go
PFMI	*Principles for Financial Market Infrastructures*
RADI	Restricted authorised deposit-taking institution
RBA	Reserve Bank of Australia
RITS	Reserve Bank Information and Transfer System
RTGS	Real-time gross settlement
SWIFT	Society for Worldwide Interbank Financial Telecommunication

Review of Retail Payments Regulation: Issues Paper

November 2019

Contents

ISBN 978-0-6483604-7-6 (Online)

1. Introduction

1.1 Background to this Review

Following the 1996–97 Wallis Inquiry, the Reserve Bank of Australia (the Bank) was given new regulatory powers with respect to the payments system and a new Board, the Payments System Board (the Board), was created to oversee the exercise of those powers. The Bank's powers are to be directed towards controlling risk in the financial system, promoting the efficiency of the payments system and promoting competition in the market for payment services, consistent with the overall stability of the financial system. In the early 2000s, the Bank introduced some reforms to credit and then debit card systems. These reforms have subsequently been reviewed periodically, with the most recent wide-ranging review taking place over 2015–16.

Card payments are now the most frequently used payment method in Australia. In 2018/19, Australians made 10 billion debit and credit card payments for a total value of $678 billion. This equates to an average of 395 payments per year and $26,800 for each Australian resident. Cards are increasingly being used for smaller value transactions where consumers once used to mainly use cash, with the average value of card transactions falling from $103 in 2009 to $66 in 2019.

Most of the costs of card payments are paid initially as merchant service fees by merchants, who then in turn will pass those costs on to consumers, either directly (through surcharges) or indirectly (through pricing of goods and services generally). In 2018/19, total merchant fees on card payments in Australia were $4.3 billion.

Two recent inquiries – one by the Productivity Commission, another by the Black Economy Taskforce (BETF) – made some recommendations relevant to the Bank's payments regulations. More generally, developments in technology, new entrants and innovation in payments have altered the retail payments landscape. In response to these developments, the Bank is undertaking a holistic review of the regulatory framework for card payments.

This Issues Paper is the first stage in the review process. It summarises relevant developments since 2015–16 and identifies some potential issues for the review. Key questions for stakeholders are included in Section 3 and collated in the Appendix. While some of the issues identified are directly relevant to the Bank's card payments regulation, the review is intended to be broader-ranging and to consider whether there are any gaps in the payments system that should be addressed, as well as whether there are any regulatory issues arising outside of the narrower topic of card payments. Stakeholders are encouraged to provide written submissions on these issues, and to raise any other payments issues that they think the Bank should consider as part of this review.

The Bank will review written submissions received and will endeavour to meet with stakeholders to discuss their submissions in more detail. If it emerges that in the Board's view a consultation on policy actions is in the public interest, the Bank will release a follow-up paper with detailed proposals for reform.

2. Developments in Retail Payments

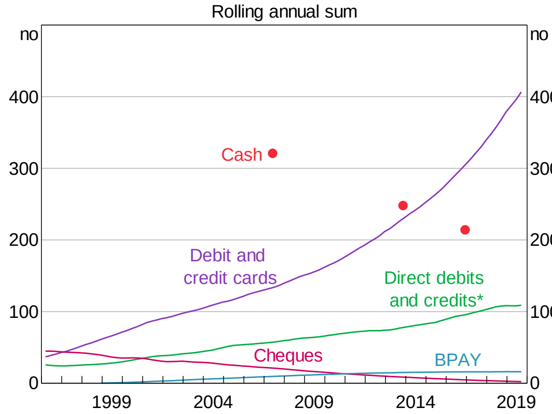
2.1 The Payments Landscape

Over the past two decades, the Australian retail payments system has moved from one where the dominant payment methods were cash and cheques to one where electronic payment methods are near-ubiquitous. In particular, there has been strong growth in the use of card payments, as well as in the use of the direct entry system and BPAY (Graph 1). The use of the New Payments Platform (NPP) has also increased markedly since its launch in February 2018 (Graph 2).

Graph 1

Transactions per Capita

Rolling annual sum



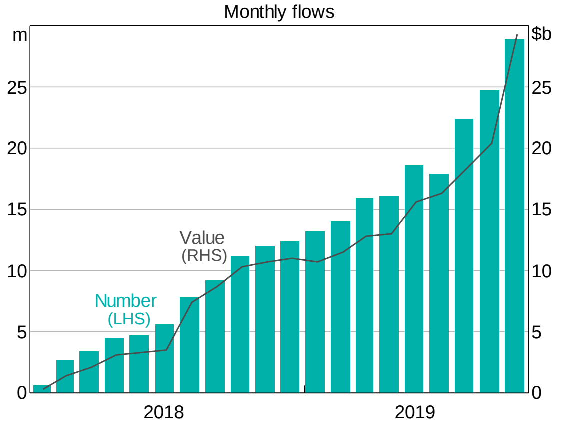
* Data prior to May 2018 have been adjusted to account for some double counting in the originally reported data.

Sources: ABS; AusPayNet; BPAY; Colmar Brunton; Ipsos; RBA; Roy Morgan Research

Graph 2

New Payments Platform

Monthly flows



Source: RBA

Over recent years, new technologies have had a significant impact on the payments market. The widespread adoption of mobile phones has seen the launch of digital wallets like Apple Pay, Samsung Pay and Android Pay, and a consortium of banks in Australia have established a real-time payments application called 'Beem It'. 'Buy now, pay later' (BNPL) services have also emerged, with very strong recent growth in their use. These innovations have all generally relied on existing payment rails for clearing and settlement of transactions – i.e. supplementing existing card payment methods with new features, channels or business models.

While they have not been widely used to make payments, the emergence of crypto-tokens has caused policymakers to review their potential implications. These include recent proposals for so-called 'global stablecoins', which are currently being assessed by policymakers in many countries and in international groups such as the Financial Stability Board and the Financial Action Task Force. A number of central banks have also been considering policy issues relating to the possible issuance of central bank digital currencies (CBDC). Among these have been the People's Bank of China, which has periodically indicated that it is considering CBDC issues, and Sweden's Riksbank, which has been assessing the case for an 'e-krona' in light of a rapid reduction in the use and holding of cash.

The role of cash in Australia has not declined to the extent observed in Sweden. Unlike in Sweden where cash outstanding is declining, in Australia it has continued to rise and as a share of GDP is as high as it has been in many decades. But the 2016 iteration of the Bank's triennial Consumer

Payments Survey (CPS) showed that cash was used in 37 per cent of the number of transactions, down from around 70 per cent in the 2007 survey (Graph 1). The Bank conducted another CPS during October 2019 and expects to publish the results in the first half of 2020. This will provide an update on the day-to-day use of cash and of how the use of other payment methods is changing. A number of jurisdictions have given some consideration to the impacts of declines in the use of cash and whether there are any policy issues that arise in relation to access to cash, in particular for groups in society that rely on it more heavily. The Bank will continue to monitor issues relating to access to cash.

As part of a longer-term trend, more payments are taking place online or remotely compared with face-to-face. In part, this reflects the way that purchasing habits have changed, with more shopping taking place online. Another contributing factor is the growth of online subscription services and in-app payments (e.g. where payment details are provided once and then stored – typically in tokenised form – for future use).

Other countries have seen a rise in mobile payments using quick-response (QR) code technology. To date, the most prominent use case for QR code payments in Australia has been a growing number of retailers using them to facilitate payments from tourists from China, where take-up of QR-code based mobile payments has been extensive. While the number of use cases is growing, the limited use of QR code payments in Australia to date largely reflects the very wide use of card payments and near-ubiquity of payment terminals that accept contactless payments using near-field communication (NFC) technology.

2.2 The Bank's Regulations and the 2015–16 Review

Under the *Payment Systems (Regulation) Act 1998* (PSRA), the Bank can designate payment systems, and establish standards and access regimes for designated systems. To date, the Bank has designated nine card payment systems:

- the Mastercard and Visa credit card systems and the American Express companion card system
- the eftpos, Debit Mastercard and Visa Debit systems
- the eftpos, Mastercard and Visa prepaid card systems.

The Bank has determined three standards under the PSRA. Two of these regulate interchange fees and net payments to card issuers (one relating to credit card systems, the other relating to debit and prepaid card systems). A third standard applies to all nine designated systems and regulates certain aspects relating to merchant pricing, precluding card schemes from applying 'no-surcharge' rules. Some background on interchange fees and surcharging is set out in 'Box A: Interchange Fees and Surcharging: Key Concepts'.

The Bank has also established access regimes under the PSRA applying to the designated Mastercard and Visa credit card systems. These require those systems to have in place transparent eligibility and assessment criteria for scheme membership and to report information about membership and applications to the Bank. These criteria should not discriminate between entities or classes of entity, except to the extent reasonably required to assess and address the risks arising to the scheme or its participants, merchants or cardholders.[1]

Over 2015–16, the Bank conducted a comprehensive review of the regulatory framework for card payments, guided by the Board's mandate to promote competition and efficiency in the payments system. This Review concluded in May 2016 with the release of a conclusions paper and the publication of new surcharging and interchange standards.[2]

The revised surcharging standard, which sought to address issues around excessive surcharging, took effect for large merchants in September 2016 and for small merchants in September 2017. The standard preserves the right of merchants to surcharge but ensures that consumers using payment cards from designated systems cannot be surcharged in excess of a merchant's cost of acceptance for that card system. Additionally, from June 2017, acquirers and payment facilitators have been required to provide merchants with easy-to-understand information on the cost of acceptance for each designated scheme that would help them in decisions regarding surcharging. These reforms work in conjunction with legislation passed by the Government in 2016 that banned excessive surcharges and provided the Australian Competition and Consumer Commission (ACCC) with enforcement powers.

Following discussions with the Bank, several schemes that were not formally captured by the Bank's new standard modified their surcharging rules in line with the Bank's standard. American Express and Diners Club updated their undertakings to the Bank in relation to 'no-surcharge' rules, while UnionPay International provided new undertakings to the Bank. PayPal removed its 'no-surcharge' rule in Australia and introduced provisions in its merchant terms and conditions aimed at preventing merchants from surcharging above their costs of acceptance.

The revised interchange standards came into effect in July 2017. Under these standards, the weighted-average interchange fee benchmark for debit cards was reduced from 12 cents to 8 cents, and applies jointly to debit and prepaid cards in each designated scheme. The weighted-average benchmark for credit cards was maintained at 0.50 per cent. These weighted-average benchmarks are now supplemented by ceilings on individual interchange rates: 0.80 per cent for credit; and 15 cents, or 0.20 per cent if the interchange fee is specified in percentage terms, for debit and prepaid. To prevent interchange fees drifting upwards in the manner that they have previously, compliance with the benchmark is now assessed quarterly, based on transactions in the preceding four quarters, rather than every three years.

The interchange standards also included new provisions relating to 'net compensation'. To prevent circumvention of the interchange fee caps and benchmarks, the standards contain a requirement that issuers may not receive 'net compensation' from a scheme in relation to card transactions. This requirement is intended to limit the possibility that schemes may use payments and other incentives to issuers (funded by higher scheme fees on acquirers) to effectively replicate interchange fee payments. In 2018–19, the Bank conducted a consultation on the operation of the net compensation provisions and made some changes aimed at clarifying and improving their operation.

1 The Board has also determined an access regime applying to the ATM system and most recently reviewed this at its August 2019 meeting. Members agreed that while the policy case for an access regime may not be as strong as when it was introduced a decade ago, it could still serve a useful purpose in promoting fair access to the ATM industry. In particular, it could help promote the evolution of the industry in a way that supports the efficient and sustainable provision of ATM services across the country. Having taken account of the views of stakeholders, the Board agreed to retain the ATM access regime in its current form, with another review to take place in 2–3 years.

2 See Reserve Bank of Australia (2016a).

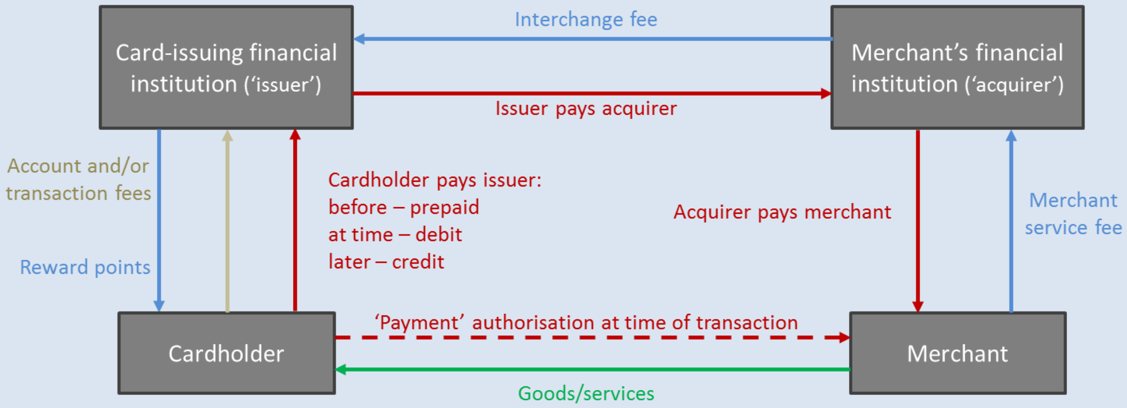
Box A: Interchange Fees and Surcharging: Key Concepts

Interchange fees

An interchange fee is a fee charged by the financial institution on one side of a payment transaction to the financial institution on the other side of the transaction. They are most commonly seen in card transactions, although can arise in other payment methods.

A typical card transaction (Figure 1) involves four parties – the cardholder, the cardholder's financial institution (the issuer), the merchant and the merchant's financial institution (the acquirer). For most card transactions, the interchange fee is paid by the acquirer to the issuer. Interchange fees can have important implications for the prevalence and acceptance of different cards as well as the relative costs faced by consumers and merchants. In contrast to normal markets for goods and services, competition in payment card networks can actually drive fees higher.

Figure 1: Stylised Flows in a Card Transaction



Financial institutions typically charge fees to their customers for payment services. Cardholders are charged by their financial institution in a variety of ways. This typically includes monthly account-keeping fees for debit cards and annual fees for credit cards plus interest on borrowings that are not repaid by a specified due date.

Merchants receiving payments are also typically charged by their financial institutions. The fees paid by merchants usually depend on the payment method. For card payments, merchants are usually charged a 'merchant service fee' for every card payment they accept. Some merchants are also charged a fee by their financial institution to rent a terminal to accept cards.

In contrast, interchange fees are paid between financial institutions and are present in many, but not all, card systems. Interchange fees are often not transparent; cardholders and merchants do not typically see them. But they have an impact on the fees that cardholders and merchants pay.

When a card payment is made, interchange fees are paid by the merchant's financial institution to the cardholder's financial institution. This has two effects. First, the merchant's financial institution will charge the merchant for the cost of providing it with the acceptance service plus the fee that it must pay to the card issuer (the interchange fee). The higher the interchange fee the merchant's financial institution must pay, the more the merchant will have to pay to accept a card payment. Second, since the card issuer is receiving a fee from the merchant's financial institution every time its card is used, it does not need to charge its customer – the cardholder – as much. The higher the interchange fee, therefore, the less the cardholder has to pay. In effect, the merchant is meeting some of the card issuer's costs which can then be used to subsidise the cardholder. Indeed, with rewards programs, the cardholder may actually be paid to use his/her card for transactions and competition tends to involve offering incentives for a consumer to hold and use a particular network's cards. A network that increases the interchange fee paid by the merchant's financial institution to the cardholder's financial institution enables the latter to pay more generous incentives, and can increase use of its cards.

However, the competitive response from other networks is typically to increase interchange rates.

That is, competition in well-established payment card networks can lead to the counterintuitive result of *increasing* the price of payment services to merchants (and thereby leading to higher retail prices for consumers). This phenomenon has been most clearly observed in the US credit card market, which has not been subject to any regulation. Prior to the Bank's reforms this had also occurred to an extent in the Australian credit card market, with average interchange rates in the MasterCard and Visa systems tending to rise.

When one compares the incentives for cardholders and merchants and for their financial institutions the implications of the interchange flows described above are clear. Other things equal – in particular assuming no regulatory intervention and no surcharging by merchants to offset the differences in their costs – cardholders will have a preference to use a card from a network where larger interchange payments flow to the card-issuing financial institution, while merchants will prefer to receive cards from a network with lower interchange fees (or fees flowing in the opposite direction). In circumstances where multiple card networks are widely accepted by merchants (as in Australia and many other developed countries), the consumer typically decides which means of payment is tendered and used in a transaction. Given this, financial institutions will have an incentive to issue cards from networks where interchange fees flow from the merchant's financial institution to the cardholder's financial institution, and competition may lead networks to increase the size of such fees. The generosity of cardholder rewards programs will rise, as will the cost of payments to merchants.

Interchange fees may be appropriate in some circumstances, particularly in the establishment of new systems where they may be necessary to rebalance costs between the sides of the market and ensure that both sides of a market have an incentive to participate. However, the major card schemes are mature systems, and regulators in many countries have reached the judgement that their cards are 'must take' methods of payments – that is, that merchants have little choice but to accept their cards. In practice, with interchange fees being used to incentivise issuers to issue cards from a particular scheme and cardholders to use that card, the tendency has been for competition between mature card schemes to drive up interchange fees and costs to merchants, with adverse effects on the efficiency of the payments system.

Since the early 2000s, the Bank has had in place weighted-average interchange fee benchmarks to constrain the potential for interchange fees to distort efficient payment choices and to underpin a fall in the overall resource cost of payments. Further reforms following the 2015-16 Review imposed maximum caps on interchange fees, as a way of addressing some large differences that had emerged between interchange fees that were being paid by small merchants and the lower 'strategic' rates applying to larger merchants

Surcharging

Merchants face a range of costs when they accept payments. In some cases, merchants might wish to charge a different price to a consumer depending on what type of payment method they use. A surcharge on a particular payment type or types helps the merchant send a signal to a customer that some payment methods are more or less costly for them. Card schemes in the 1990s in Australia had in place 'no-surcharge' rules that prevented merchants from doing this. The effect of this was that customers using low-cost payment methods were effectively cross-subsidising the payment choices of customers who elected to pay with high-cost cards.

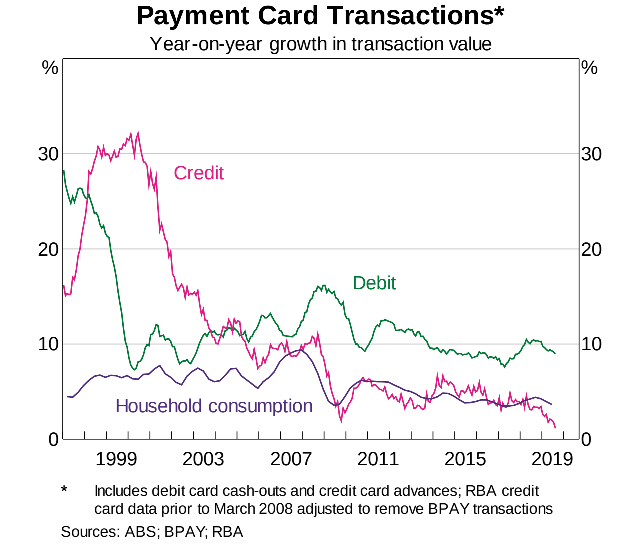
The Bank's initial reforms required card schemes to remove these 'no-surcharge' rules, enabling merchants to pass on the cost of card transactions if they wished, resulting in improvements in price signals to cardholders. The right of merchants to surcharge for expensive payment methods is important for payments system efficiency and helps to hold down the cost of goods and services to consumers generally.

While most merchants tended to either not take up the option of surcharging, or applied surcharges at percentage rates that reflected their acceptance costs, some concerns emerged about possible cases of excessive surcharging by some merchants, and a tendency towards the 'blending' of surcharges for higher- and lower-cost schemes. In response, new powers were given to the ACCC in 2016 to investigate and take action against excessive surcharges, and this was supported by the Bank defining the concept of a ‘permitted cost of acceptance’ in its surcharging standard, in terms of the merchant’s average cost of acceptance for each scheme. Merchants are provided with annual and monthly information by their financial institutions so that they are readily able to calculate their cost of acceptance.

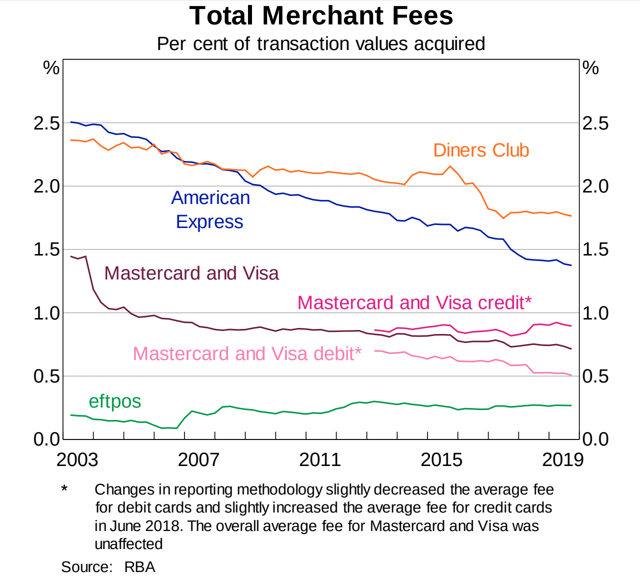
The effects of reform in Australia

Card payments have continued to grow strongly in Australia since the initial implementation of the Bank’s reforms in 2003 (Graph 3). Furthermore, data on merchant service fees indicate that interchange fee regulation and surcharging have led to overall lower costs for merchants in accepting card payments (Graph 4). Australia now has a relatively low-cost payments system by international standards, most notably compared with the United States (Graph 5).[3]

Graph 3

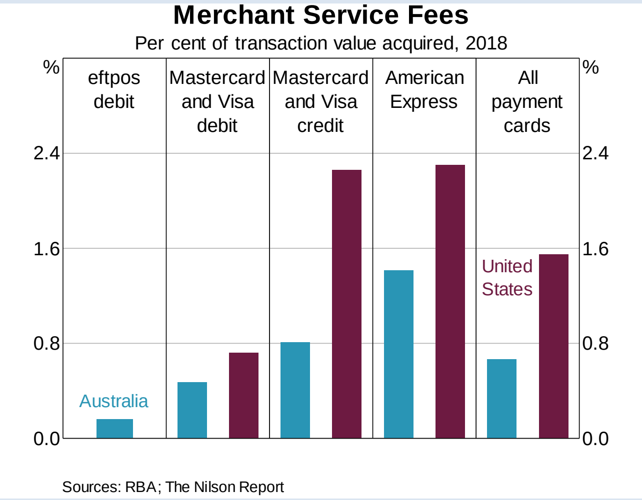


Graph 4



3	See also Stewart *et al* (2014).

Graph 5



2.3 Other Recent Regulatory Developments

Since the 2015–16 Review, the Bank has been involved in a number of other regulatory activities in relation to retail payments systems:

- In late 2016, the Bank undertook a public consultation in response to concerns about possible restrictions on the ability of card issuers and mobile wallet providers to provision both networks on dual-network debit cards (DNDCs) for use by cardholders. Such restrictions could have the effect of reducing competition and efficiency in the payments system. Following discussion with industry participants through the consultation process, the Bank received commitments from relevant participants addressing its concerns (see Section 3.2.1).
- In 2018–19, the Bank, with input and assistance from the ACCC, consulted on the functionality of, and access to, the NPP, concluding with a report in June 2019. The report found that the NPP was enabling payments functionality consistent with its aims of addressing key gaps in the payments system. However, the report noted the slow and uneven roll-out of NPP services by some of the major banks, and identified that this had likely affected the development of new functionality and contributed to stakeholder concerns about access to the NPP. The report made a number of recommendations aimed at promoting the timely roll-out of NPP services and development of new functionality, as well as some recommendations on access issues, balancing the potential competition benefits from more open access against the need to maintain safety and security in a real-time payments platform. NPP Australia has responded to the recommendations arising from the report and has published a roadmap of plans to extend the NPP's capabilities, including the development of messaging to support third-party payment initiation and a 'mandated payments service' to support recurring and debit-like payments.
- The Bank has chaired a working group of the Council of Financial Regulators (CFR) that has been reviewing Australia's regulatory framework for stored-value facilities (SVFs). SVFs encompass a range of facilities in which prepaid funds can be used to make payments. In October 2019, the CFR provided a report to the Treasurer, recommending the streamlining of regulatory responsibilities and providing greater flexibility in the regime.

In the past five years, a range of other jurisdictions have undertaken reforms to aspects of their retail payments regulation; these are summarised in 'Box B: Retail Payments Reforms in Other Jurisdictions'.

Box B: Retail Payments Reforms in Other Jurisdictions

Since the 2015–16 Review, a range of developments in retail payments regulation have occurred in other jurisdictions. These included some new reforms as well as changes to existing regulations. Much of the regulatory focus has been on interchange fees and surcharging rules in card payment systems, although some countries have also begun to consider issues such as competition in acquiring and mobile wallets.

In the case of interchange fees and merchant service fees, tables compiled by the Federal Reserve Bank of Kansas City list 44 jurisdictions as having undertaken action or initiated investigations to date (Hayashi and Maniff 2019). Of these, 18 jurisdictions have taken regulatory action within the past four years.

Where countries have initiated retail payments regulation, this has mostly been to establish rules for interchange fees in credit and/or debit card systems. Some have taken an approach similar to the Bank's reforms that were introduced in the early 2000s and which aimed to promote competition and efficiency in the payments system. A number of jurisdictions have referenced the Australian reforms as influencing their approach.

The European Union (EU) brought a comprehensive package of regulatory reforms for retail payments into effect in December 2015, aiming to create a single EU market for card payments. Under these reforms, interchange fees have been capped at 0.3 per cent for credit card transactions and 0.2 per cent for debit cards. The EC argued that these caps were consistent with the 'merchant indifference test' and would promote competition by giving consumers greater choice of payment methods and service providers.[4] Three-party schemes and commercial cards are exempted from the regulation, on the basis that they do not compete directly with retail payment instruments.[5] A review by the European Commission (EC) of the impact and appropriateness of the interchange fee regulation is expected to conclude in mid-2020.

The EU interchange fee rules apply in all countries within the European Economic Area (EEA). However, member states are provided with some scope for national discretion. For example, the United Kingdom decided to apply a weighted-average fee cap of 0.2 per cent for domestic debit card transactions, rather than the 0.2 per cent per-transaction cap. The UK government considered that percentage-based caps would result in higher interchange fees for many UK merchants, since the majority of fees for debit card payments in the UK are capped at a fixed value amount.

A 2018 amendment to the EU interchange fee regulation requires the structural and legal separation of payment card schemes and processing entities. This is intended to enhance competition by reducing the disadvantage faced by independent payment processing entities. Following the new legislation, Visa Europe has split its scheme and processing entities into separate business units.

More recently, the EC has obtained legally binding commitments from Mastercard and Visa regarding inter-regional interchange fees. Under these commitments, the interchange fees on card-present transactions made in the EEA using consumer debit and credit cards issued outside the EEA will also be capped at 0.2 and 0.3 per cent of transaction value, respectively. Caps of 1.15 per cent for debit and 1.50 per cent for credit card payments will apply for online transactions. The commitments, which will come into effect in December 2019, were intended to avoid 'anti-competitively increased prices for European retailers accepting payments from cards issued outside the EEA', which 'in turn lead to higher prices for consumer goods and services'.[6]

4 The merchant indifference test is the proposition that interchange fees be set at a level that results in a cost of card acceptance that makes the typical merchant indifferent between accepting a card payment and other widely used forms of payment. For further details, see Rochet and Tirole (2011) and European Commission (2013).

5 Three-party scheme cards issued through a licensee, agent or co-branding partner are not exempt from the regulation.

6 See European Commission (2019).

In Canada, Mastercard and Visa voluntarily reduced their weighted-average interchange fees for all credit and debit cards in 2015 under the *Code of Conduct for the Credit and Debit Card Industry in Canada*. Following further discussions with the Department of Finance, the major card networks have committed to reduce the average annual interchange rates by an additional 10 basis points to 1.4 per cent on all cards. This will take effect in 2020 for a period of five years. American Express has separately also agreed to support the objectives of the Code of Conduct through bilateral rate agreements with third-party issuers and transparent merchant service fees.

In recent years, 'no-surcharge' and 'honour-all-cards' rules have also come under increased scrutiny by central banks and other authorities. The Federal Reserve Bank of Kansas City lists 37 jurisdictions as having taken action in relation to surcharges and discounts. Surcharging is permitted in some countries, including Canada and the United States, though it is generally subject to caps associated with consumer protection rights. In contrast, some jurisdictions have prohibited surcharging, either with a policy aim of increasing price certainty and comparability for consumers (such as in the EU and the UK) or to promote the use of card payments (as in India).

The EU banned surcharging on payment methods whose interchange fees are capped under regulation as part of the revised Payment Services Directive (PSD2), which came into force in 2018. According to the EC, regulated interchange fees are capped at a sufficiently low level that surcharging is no longer justified. The UK has extended the ban on surcharging to all non-commercial payment methods, including cards issued by three-party schemes, PayPal and digital wallets. This was intended to level the playing field between payment instruments and increase price transparency for consumers.

In contrast, Visa and Mastercard modified their no-surcharge rules in Canada following a class action settlement with Canadian merchants. Merchants are now allowed to levy surcharges under certain circumstances, although maximum surcharge caps and disclosure requirements apply.

In addition, some regulators have considered policy issues arising from mobile wallets. While, the PSD2 in Europe and the Canadian Code of Conduct have to date mainly focused on consumer privacy and data protection aspects of mobile wallets, the UK has begun to also consider competition issues. The UK Payment Systems Regulator (PSR) conducted an industry consultation to better understand the contactless mobile payments sector and examine the impact of Apple's restriction on access to the NFC chip in Apple devices, which impinges on the ability of other providers to install their own applications for contactless mobile payments. In 2018, the PSR concluded that there had not yet been any damage to innovation that required regulatory action, but said it intended to keep the mobile payment sector under observation.[7] In September 2019, the EC initiated an informal investigation into Apple's NFC restriction, seeking information from market participants about any potential anti-competitive behaviour and abusive conduct. Competition issues involving Apple Pay have also arisen in Switzerland.

The PSR is also undertaking a review of card-acquiring services, and in particular whether the changes in interchange and scheme fees in the UK have flowed through to the payment costs faced by merchants. A report on the interim conclusions is expected to be published in Q1 2020.

7 See Payment Systems Regulator (2018).

3. Issues for the Review

3.1 Strategic Issues in the Retail Payments System

During 2010–12, the Board conducted a Strategic Review of Innovation in the Payments System. The Review sought to identify areas in which innovation in the Australian payments system might be improved through more effective cooperation between stakeholders and regulators and to identify possible gaps in the Australian payments system that might need to be filled over the medium term. The outcomes from this Review included the implementation of same-day settlement for direct entry transactions, the formation of the Australian Payments Council, and the development of the NPP.

Among the gaps identified were the ability of end-users of the payments system to:

- make real-time payments
- send more complete remittance information with payments
- address payments in a relatively simple way
- make and receive payments outside normal business hours.

These particular gaps were addressed by the implementation of the NPP, although certain functionality gaps remain for some end-users, reflecting delays in the roll-out of NPP services by some banks. As noted in Section 2.3, the Bank, in collaboration with the ACCC, consulted on functionality and access issues with the NPP during 2018–19.

Drawing on the experience of the 2010–12 Review, the Board considers that it would be useful for the current review to provide an opportunity for stakeholders to identify whether there are further functionality gaps in the retail payments system or broader strategic issues that should be addressed, either in this review or independently of it.[8] Without limiting responses by stakeholders, these could include:

- the future role of cash. A significant proportion of the population still rely heavily on cash for their daily payment needs. Furthermore, demand for Australia's banknotes is strong and growing, and the evidence suggests it is mostly geared toward legitimate (if non transactional) uses.[9] Accordingly, cash is likely to play a significant role in the economy for some time to come, which underlines the need for the Bank to invest in keeping banknotes secure from counterfeiting. However, the declining role of cash in household and business transactions is likely to raise some important public policy questions over the next few years. One such issue may relate to maintaining adequate access to cash in the event of a significant contraction in the ATM network or in the provision of other cash services. The Bank invites stakeholders' views on any particular cash-related issues relevant to this review.

8 The industry association Australian Payments Network (AusPayNet) is currently undertaking an industry consultation on the future state of Australian payments; the outcomes of that consultation may be relevant to the broader landscape issues raised in this paper.

9 See Wakefield and Finlay (2019).

- the future of the cheques system. Given the continuing decline in the use of cheques, and the fixed costs involved in the operation of any payment system, it is likely that it will be appropriate at some point for the industry to wind up the cheque system, as long as suitable alternative payment methods are available.
- the future of the direct entry system. Current direct entry arrangements are low-cost, efficient, widely used, and volumes continue to grow (in contrast to the cheques system). However, at some point it may be appropriate to consider whether the enhanced functionality of more modern arrangements (such as the NPP) offer benefits that would justify migration of remaining payments going through the direct entry system. Such a migration will not be under consideration as part of this review, but the Bank would be interested in industry views on the longer-term strategic issues that might arise here.
- capabilities around and management of automated and recurring payments, in particular arrangements for management of direct debits. End-users have periodically noted to the Bank that cancellation or redirection of direct debit and other automated payment arrangements is not always straightforward.
- the impact of new technologies and new entrants. In general, regulation should aim to be technology-neutral and not prevent competition emerging from new players. In some cases, actions taken by regulators may encourage developments in technology (such as support for industry-led initiatives to reduce fraud), or promote access by new entrants (such as establishing access regimes for ATM and card systems). The Bank would be interested in stakeholder views on whether there are aspects of current regulation that should be modified or re-examined in the light of new technology, new players or new business models.
- closed-loop systems and stored-value systems and the role that they play in the payments system, including where they access card or other payment rails, and where they establish their own processes and/or infrastructure. Noting that the Council of Financial Regulators has recently reported to the Government with recommendations regarding stored-value facilities, the Bank would be interested in stakeholder views on regulatory or policy issues arising from closed-loop and other types of stored-value systems, including on whether there are potential approaches to licensing and regulation of non-financial institution payments service providers that would be in the public interest.
- the resilience of the retail payments system. The Board has noted evidence of an increase in retail payment disruptions and stressed the importance of having reliable electronic payment services, especially given the declining use of cash. It endorsed the Bank working with the industry and the Australian Prudential Regulation Authority to develop a standard set of operational performance statistics to be disclosed by individual institutions.
- the increasing importance of cross-border payments, which are typically slower, more costly and more opaque than domestic payments. Retail payments are increasingly crossing borders – for example, businesses providing services to foreign clients or buying supplies from abroad, and individuals sending money overseas or making online purchases from foreign retailers. Some of the additional costs and processing time may partly reflect the additional risks and complexities that need to be managed, but it may be useful to consider whether there are specific efficiency or competition issues that could be addressed.
- the roles played by the range of domestic-focused schemes and frameworks in Australia. As well as the cooperative frameworks managed by AusPayNet for a range of clearing streams and the real-time payments infrastructure managed by NPP Australia, there are domestic schemes for bill

payments (BPAY) and debit card transactions (eftpos). There has been a tendency for consolidation of domestic arrangements in some other countries; for example, in the UK, Pay.UK has been established to manage a range of domestic systems and schemes that have been brought together in the New Payments Architecture. The Board invites views from stakeholders on any challenges posed by the various domestic schemes and frameworks in Australia and any changes or consolidation that might be worth considering.

- whether there are opportunities for the use of regulatory technology ('regtech') in the Bank's regulatory regime, including whether compliance obligations can be streamlined or made more efficient by the use of regtech.
- possible issuance of an electronic form of banknotes (an eAUD or CBDC for household use). The Bank, like most other central banks, does not consider that there is currently a strong case for this, though it will continue to monitor and review relevant developments. The Board is interested in stakeholder views on CBDC and the issues that it raises, including: whether there would be demand for such an instrument given the electronic payment services already available to households; the extent to which it might contribute to a more resilient or competitive payment system; possible effects on financial stability and financial intermediation; and the implications for the current review.
- whether there are any policy issues particularly relevant to this review that arise from the prospective issuance of 'global stablecoins'. The Bank notes that Bank staff are engaging closely with other Australian regulators and agencies on this topic, and are also participating in international groups that are examining potential regulatory and policy issues.

Q1: What major recent or prospective developments in the broader payments industry are particularly relevant to this review? More specifically, are there any gaps in functionality available to end users or any shortcomings in industry governance or operating arrangements that require regulation or coordinated industry action?

Q2: Are there aspects of retail payments regulation that lead to market distortions or that create opportunities for regulatory arbitrage? If so, what options should be considered as a means of addressing these? Are there gaps in the regulatory regime that need to be addressed or any elements where regulation is no longer required?

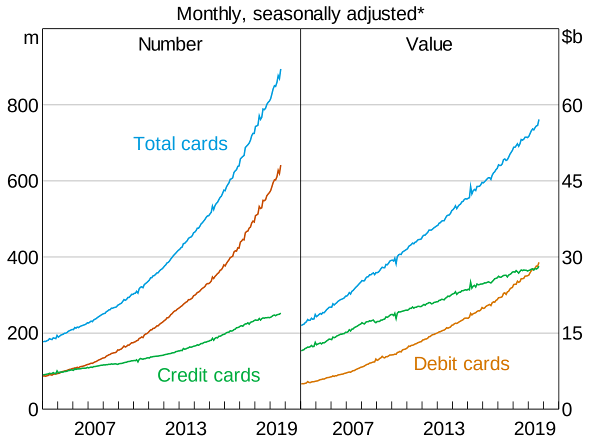
Q3: Are there barriers to innovation and/or competition that may affect the costs of or provision of electronic payments and should be addressed in this review?

3.2 Competition in the Cards Market

3.2.1 Dual-network debit cards and least-cost routing

As Australians have shifted away from cash and cheques, card payments have grown rapidly. Most of the rapid growth in card payments has occurred in debit cards (Graph 6), and the debit card has emerged as the most frequently used payment method in Australia. Over recent years, the Board has considered a number of issues relating to competition in the debit card market, most notably around dual-network debit cards (DNDCs).[10]

Graph 6
Card Purchases



* Changes in reporting methodology in March 2008 and May 2018
Source: RBA

Around 90 per cent of debit cards issued in Australia are DNDCs, which allow a domestic point-of-sale payment to be processed via either eftpos or one of the other debit schemes (Debit Mastercard or Visa Debit); to date, however, online or foreign transactions have only been feasible via an international scheme. A payment made using a DNDC typically draws on the same deposit account regardless of which debit card scheme processes the transaction. The three schemes also offer similar protections to the cardholder in relation to fraudulent and disputed transactions. However, from a merchant's perspective, the cost of accepting a debit card payment can vary depending on which of the three networks processes the transaction. For most merchants, payments via eftpos can be significantly cheaper for them to accept than payments via the international schemes (Graph 4 and Graph 7).[11]

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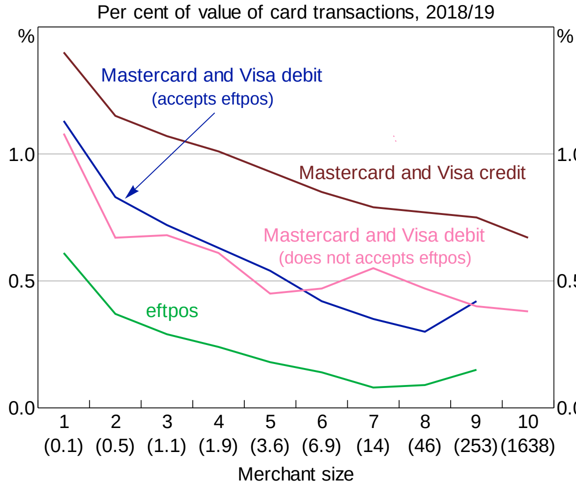
10 The Bank is also aware of an issue involving DNDCs, in particular involving purchases at Australian retailers using Chinese-issued cards which enable transactions to be processed by either the UnionPay network or by Visa or Mastercard. Some Australian merchants have suggested that the use of the UnionPay network would result in lower costs for both the Australian merchant and the foreign cardholder but that they have not been provided with the capability to process transactions in this way.

11 Graph 7 shows the average costs of acceptance for a sample of almost 672,000 merchant accounts, divided into deciles based on the value of annual card transactions. Each decile contains 10 per cent of total transaction values. The size of some merchants in the sample may be understated since individual locations within chains or franchises may receive separate statements. The absence of observations for eftpos for the tenth decile suggests that all of the 31 merchant accounts in this group are billers or online-only merchants (with a single merchant account).

Graph 7
Average Cost of Acceptance by Merchant Size*



* Merchants ranked in value deciles, with average annual value of card transactions ($m) in parentheses

Sources: Acquirers; RBA

When a cardholder inserts their DNDC into a terminal to make a payment, they are asked to select the debit card scheme to process the transaction (for example, by pressing CHQ or SAV for eftpos and CR for Debit Mastercard or Visa Debit). By contrast, if the cardholder makes a contactless ('tap-and-go') payment, the default is for the transaction to be automatically routed to the network which has been programmed as the default network by the issuing financial institution. Until around 2016, contactless payments were only available through the two international networks, which completed their rollout of contactless cards around 2012, and those networks were the default. However, with ePAL having completed its rollout of contactless functionality, contactless payments can now also go through the eftpos network.[12] This raises the possibility of least-cost routing (LCR), whereby merchants might choose to route contactless transactions via whichever of the two networks on the card costs them less to accept. This can help merchants reduce their payment costs, and also increases competitive pressure between the debit schemes, with greater incentives for them to lower their fees.[13]

The Bank has supported the issuance of DNDCs because they are convenient for users and can contribute to competition and efficiency in the payments system. In particular, they enable competition between networks at the point of sale, facilitating both consumer and merchant choice. Merchants have also favoured the continued issuance of DNDCs because they can help hold down payment costs if they allow the possibility of steering consumers to use a less expensive network. Recently, given that eftpos is a significantly lower-cost network on average, many merchants have expressed interest in getting access to LCR, to reverse the increase in payment costs that occurred with the shift to contactless transactions and the international schemes. The issuance of DNDCs and the provision of LCR functionality have also been supported in reports by the BETF and the Productivity Commission, and in the Government's responses to those reports.

However, over the past decade, disputes have arisen regularly between schemes regarding DNDCs. For example, over 2010–13, disputes arose over a number of issues including: international scheme rules that required the provision of commercially sensitive data about one network to a competitor network; the imposition of fees by one network on another network's transactions; and the

12 The domestic eftpos payment scheme (or network) is governed by eftpos Australia Payments Limited (ePAL).

13 LCR functionality can be made available to merchants by acquirers incorporating it in their terminals, often through a remote software update. Regardless of whether a merchant uses LCR, cardholders would still have the option to select a particular debit network by inserting their card in the terminal and making a selection rather than tapping.

placement of network brands on cards. Fresh disputes arose in 2016 as ePAL was seeking to have some of its issuers begin provisioning and tokenising DNDCs in mobile wallets to enable mobile payments. More recently, there have been concerns about the potential for international schemes to discourage merchants from adopting LCR by increasing the interchange fees that apply to a merchant's credit card transactions if it implemented LCR for debit card transactions.

For financial institutions, there may not be strong incentives for the continued issuance of DNDCs and the provision of LCR. For card issuers, there may be incentives to negotiate exclusive single-network contracts with a scheme that offers higher average interchange fees and large upfront financial incentives. In addition, issuers may wish to avoid the extra costs associated with supporting a second network on a card, especially as new technologies lead to a rapid pace of change in card issuance. For example, some smaller issuers have recently indicated to the Bank that it is costly for them to maintain two networks on their debit cards and to carry out largely duplicative activities such as regular upgrades of cards to the standards of both schemes (for example, in chip compliance) and investment to enable both scheme networks in mobile wallets. Indeed, when issuers have introduced new functionality – such as enabling Apple Pay for cardholders – they have often done so first for an international scheme, with no firm plans for also enabling eftpos.

As payment costs rose with the strong growth in tap-and-go payments through the middle of this decade, merchant groups were actively calling on acquirers to provide LCR. However, the industry only began to consider providing LCR following pressure from the Bank and from the review of Australia's four major banks by the House of Representatives Standing Committee on Economics in 2017.[14] While a few smaller acquirers began offering LCR in 2018, progress by the major banks and other acquirers was slower, with the four major banks launching their LCR functionality only between March and July 2019. There are some key differences in the LCR capabilities offered by different acquirers, with some not yet offering a version that maximises merchant savings by enabling routing based on transaction size and payment network. In addition, for some acquirers, LCR is not yet available on all the payment terminals they support. Perhaps most importantly, some of the major banks are currently only offering LCR for merchants – typically larger ones – which are on interchange-plus pricing contracts. None of the major banks has taken advantage of the ability to implement LCR 'in the background' as a way to offer improved pricing for smaller and medium-sized merchants on 'simple merchant plans'.[15]

As LCR functionality has been gradually rolled out, schemes have responded with lower interchange rates for merchants that might be considering adopting LCR (Graph 8). However, there are several factors which may be limiting the overall downward pressure on merchant payment costs. First, lower interchange rates for some debit card transactions have been accompanied by increases in rates on other types of cards and/or transactions, in some cases for segments of the market where LCR is not an option. Second, the Bank has continued to hear concerns that merchants may lose access to favourable strategic rates on credit transactions if they adopt LCR for debit transactions. Third, there appears to have been only limited competitive response in the form of lower scheme fees (discussed below), which also affect payment costs to merchants and where the international schemes appear to remain more expensive than eftpos.

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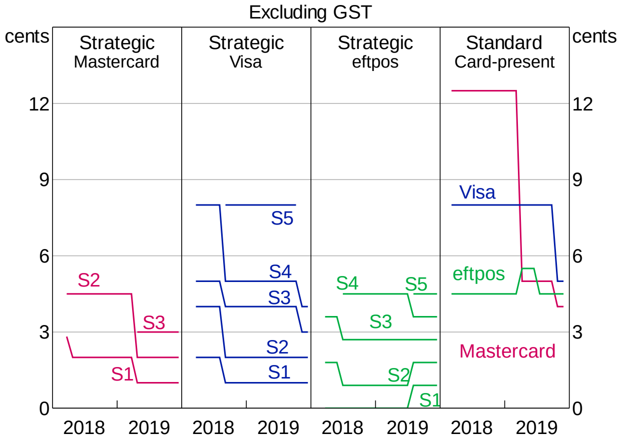
14 See House of Representatives Standing Committee on Economics (2017) and Reserve Bank of Australia (2017).

15 A typical simple merchant plan has a fixed monthly fee which covers a certain value of transactions (for example, around $30 for up to around $1,500 of transactions, or $60 for up to $3,000) within a month, with the merchant then paying a fixed percentage fee (often around 1.5 per cent) for any additional transactions. Such plans typically do not differentiate between debit or credit card transactions or between transactions of different schemes. That is, a merchant will be paying the same percentage rate for transactions that may have very different costs (in terms of interchange and scheme fees) to the acquirer.

Graph 8
Debit Card Interchange Rates



Sources: eftpos; Mastercard; Visa

The Bank has made a number of interventions over the past decade or so that serve as background for the two consultation questions at the end of this section:

- In August 2013, the Board accepted undertakings from the three debit networks that were intended to safeguard the rights of Australian issuers to maintain existing dual-network arrangements in the contactless environment.[16] The three networks committed: to work constructively to allow issuers to include applications from two networks on the same card and chip; not to prevent merchants from exercising choice in the networks they accept, in both the contact and contactless environments; and not to prevent merchants from exercising their own transaction routing priorities when there are two contactless debit applications on one card.
- In 2016–17, the Bank undertook a public consultation in response to concerns about possible restrictions on the ability of card issuers and mobile wallet providers to enable both networks on DNDCs for use on a mobile device.[17] Following discussion with industry, the Bank received commitments from the relevant parties that they would not take any steps that would prevent the use of both networks on DNDCs in mobile wallets. These commitments were shared with industry participants, with the expectation that they should facilitate greater choice and convenience in the payment options available to card holders through mobile devices and improve the ability of merchants to encourage the use of lower-cost payment methods.
- During 2017–18, the Board considered the case for mandating LCR, given the slow pace of industry progress in providing LCR functionality. In May 2018, with commitments made by the major acquirers, the Board determined that a standard was not required, but asked the staff to closely monitor developments. The Board has also stressed that the benefits to competition from LCR should not be prevented by issuers removing networks from DNDCs. In addition, given concerns from some merchants that the international card schemes might respond to a merchant's decision to implement LCR for debit card transactions by increasing the interchange fees that apply to that merchant's credit card transactions, the Bank sought assurances from the three schemes that they would not respond to LCR in ways that would limit competitive pressure in the debit card market. The Bank has been monitoring developments in this regard.

16 See Reserve Bank of Australia (2013).
17 See Reserve Bank of Australia (2016b).

For this review, the Bank is interested in stakeholder views on some particular issues regarding DNDCs and LCR.

First, the Bank is interested in views on the availability and functioning of LCR to date. The Bank notes that LCR is bringing down payment costs for some types of merchants and transactions, but that payment costs for other merchants may have risen as schemes have increased some interchange fees. The Bank also notes that acquirers typically have not taken advantage of the potential cost savings from LCR to offer more competitive 'simple merchant plans' to their smaller merchants (e.g. offering a greater value of transactions for a fixed monthly payment, or a lower monthly payment for a fixed value of transactions). This raises the question of whether additional, possibly regulatory, actions might be warranted regarding LCR to enhance competition in the debit card market. Options could potentially include consideration of measures such as requiring that acquirers explicitly offer all merchants the option of LCR for DNDC transactions and that schemes publish explicit criteria for any preferred or strategic interchange fees and that any such criteria not be related to acceptance decisions relating to other payment systems.

Second, the Bank is interested in views on some broader issues regarding DNDCs. The DNDC, which enables the possibility of the merchant being able to choose the routing of a transaction, is an attractive payment instrument from a competition and efficiency perspective. Looking ahead, however, 'cards' seem increasingly likely to be electronic payment credentials that are pushed out electronically to digital devices such as phones and wearables, as opposed to pieces of plastic that are mailed out in the post. The functionality offered by a card will no longer be largely fixed for the several years between issuance of physical cards, but will be able to be changed regularly reflecting innovation by schemes, issuers, mobile phone operators and others. Policy interventions to encourage dual-network provisioning in this world will likely become more challenging and disputes such as have occurred over contactless payments, mobile provisioning and tokenisation are likely to be frequent.

If incentives offered by the international schemes to issuers were to lead to the issuance of single-network international scheme cards, LCR would no longer be feasible on these cards, and the decline in the market share of eftpos seen over the past decade would likely continue. With less prospect of LCR, it is likely that there would be an increase in payment costs to merchants. In such an environment where single-network debit cards were becoming the main type of card issued, the Bank would likely need to assess the impact on competition and efficiency in the debit card system.

One possible policy response to any upward pressure on payment costs would be a reconsideration of the level of the interchange benchmark for debit cards. An alternative could be to set separate interchange fee benchmarks for single-network cards and DNDCs. Issuers might be incentivised to issue DNDCs if the interchange cap for transactions on DNDCs with full functionality to enable LCR were higher than for single-network card transactions. Another possibility might be regulatory actions to facilitate the entry of new schemes that could compete more aggressively to be the low-cost scheme on DNDCs. This might include consideration of the effect of the current long-term exclusivity arrangements between issuers and international schemes, which may hinder the entrance of competitor schemes. Alternatively, to the extent that the slow roll-out of LCR reflects the lukewarm support for eftpos from its members, it may be worth considering whether the governance of ePAL needs to be strengthened.

Another policy option might be explicit regulatory action regarding the issuance of DNDCs. For example, the approach taken in the 'Durbin amendment' in the United States obliges all issuers with over US$10 billion in assets to have two unaffiliated networks on a debit card, to enable merchant choice of routing. Such an approach would support LCR, and could help maintain downward pressure on interchange and scheme fees. To be effective, however, it might have to be supported by regulation covering online and mobile payments (e.g. where card credentials are tokenised) that ensured that both networks remained accessible to merchants as the industry shifts away from physical cards to digital credentials. Consideration of regulation would also have to address the role of BINs in DNDC transactions.[18] There would also have to be consideration of the current issuance of eftpos-only ('proprietary') cards, which the international schemes have objected to.[19] The Bank notes that there appears to be limited evidence available as to how effective the Durbin amendment has been in facilitating LCR, especially as regards some of the challenges posed by mobile and remote payments, tokenisation, etc.

Q4: How do stakeholders assess the functioning to date of least-cost routing (LCR) of contactless debit card payments? Do additional steps need to be taken regarding LCR to enhance competition and efficiency in the debit card market?

Q5: Have recent and prospective developments in technology changed the case for promoting the continued issuance of dual-network debit cards? What policy actions might be needed to promote competition and efficiency in an environment where single-network cards were more prominent? Alternatively, would it be desirable to mandate (or incentivise through interchange caps) that all debit cards issued enable at least two unaffiliated/competing networks?

3.2.2 Competition in card acquiring

The reforms implemented by the Bank and the ACCC as part of the 2015–16 Review have served to improve the information available to merchants about their payment costs. Acquirers and payment facilitators are now required to provide merchants with monthly and annual statements that clearly set out their average cost of acceptance for each of the card payment systems regulated by the Bank. This greater transparency of payment costs should make it easier for merchants to seek quotes from other providers and to negotiate with their existing acquirers. Greater competition in the acquiring market should exert downward pressure on payment costs, and consequently the prices paid by households for goods and services.

While market forces are likely to result in competition for the payment flows of large merchants, the Board has on a number of occasions noted its concerns about whether the needs of smaller merchants are being sufficiently met by acquirers. This concern has been reinforced by the recent experience with LCR. For example, as discussed above, the Bank is not aware of any evidence that any of the major banks have yet taken advantage of LCR to offer lower-cost payment plans to smaller merchants.

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18 The BIN or Bank Identification Number (sometimes also referred to as an Issuer Identification Number or IIN) on a DNDC is the initial 6 digits of the (typically) 16-digit card number or Primary Account Number (PAN). Allocation of BINs and keeping a register of this allocation is done by the American Bankers Association. The BIN can be used to identify the financial institution issuing the card and the scheme it is issued under. To date, DNDCs have carried a single BIN and PAN that has enabled transactions via two schemes; the international schemes have, however, sometimes asserted rights over DNDCs where the BIN has been allocated to them. Looking forward, it may be feasible for DNDCs to have dual PANs, which might reduce the scope for disputes between schemes; indeed, it is noteworthy that when DNDCs are tokenised by different schemes, two tokens are created. However, requiring the industry to move to dual BIN and PAN arrangements would likely require additional investment by issuers and acquirers, including potentially modifying the way in which LCR is undertaken.

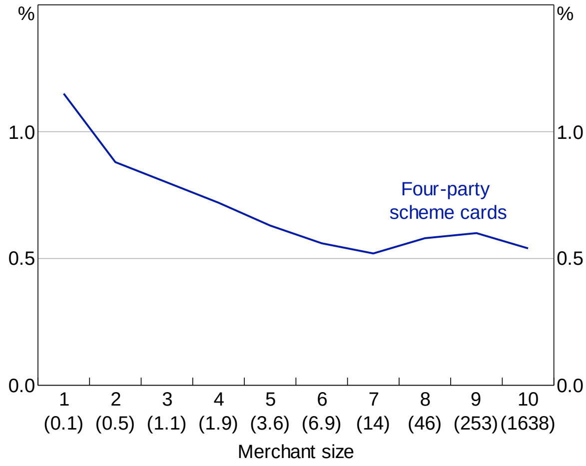
19 The international schemes argue that the continued issuance of eftpos-only cards, which do not facilitate LCR, represents an undue advantage for ePAL. It would of course be possible for there to be issuance of cards with eftpos as first-priority network and an international scheme as the second-priority network for domestic use. The Bank would be interested in information as to whether there are any international scheme rules or policies that would prevent or discourage this option.

Data collected by the Bank provide confirmation that smaller merchants tend to pay significantly higher merchant service fees than larger merchants (Graph 9). In 2018/19, the average cost of acceptance for four-party scheme cards was around 1.5 per cent for merchants with annual card transactions of less than $100,000 (over 40 per cent of all merchants), and 0.9 per cent for merchants with annual transactions of between $100,000 and $1 million. In contrast, merchants with annual card transactions of more than $10 million faced average acceptance costs of less than 0.6 per cent.

Graph 9

Average Cost of Acceptance by Merchant Size*

Per cent of value of card transactions, 2018/19



* Merchants ranked in value deciles, with average annual value of card transactions ($m) in parentheses

Sources: Acquirers; RBA

Interchange fees may account for part of the differences in merchant service fees. Larger merchants are more likely to benefit from favourable strategic rates or particular industry rates. However, the effect of interchange rates on average merchant service fees is likely to be smaller than it was prior to the regulatory changes in the 2015–16 Review, which had the effect of significantly lowering the gaps between the strategic rates offered to large merchants and the high interchange rates on premium and corporate cards that fell disproportionately on smaller merchants.

Rather, the higher cost of acquiring services for small firms is likely to be more a reflection of the costs and margins charged by acquirers than of the interchange (or scheme fee) component set by card schemes. To some extent, this may be justified by economies of scale and the fact that the fixed costs of providing services to a small merchant will be spread over a smaller volume of transactions. However, the pricing of simple merchant plans offered by the major banks suggests that some other factors may also be involved. The marginal cost of additional transactions in these plans is typically around 1.5 per cent, well above the likely marginal cost of interchange and scheme fees, and implying a margin much larger than that typically paid by merchants on interchange-plus contracts. The Bank will be gathering further information around fee and margin arrangements as part of this review.

This suggests there may be some impediments to competition in the acquiring market for smaller merchants. One of these impediments may be the relatively higher barriers to switching faced by smaller merchants. The costs of searching for and switching to an alternative payment facilitator, for example, are more likely to outweigh the benefits for a merchant with low transaction volumes. This would be compounded if acquiring services for small merchants are bundled into broader business banking packages. Smaller merchants may be less familiar with some of the technical aspects of payments, and have fewer resources available to help understand the complexities of interchange fees, scheme fees and the like. More broadly, smaller merchants may have less negotiating power in relationships with their acquirers, and may be less likely to choose, or be offered, plans that would minimise their payment costs.

Impediments to competition in the acquiring market may also arise if there are barriers to entry or expansion. Since the modification of the access regimes for the international schemes in January 2015, a number of new acquirers have become participants in the card schemes. However, the acquiring market continues to be dominated by a small number of large institutions, with the four major banks acquiring more than 90 per cent of the value of four-party card transactions. New entrants offering innovative technology could also face barriers to entry, for example if there were problems in the process for certifying 'non-standard' card acceptance products for use in the Australian market.[20]

The Bank is interested in stakeholder views regarding the degree of competition in the acquiring market and any possible policy action that could address shortcomings in competition. This may include consideration of policies that: reduce barriers to entry and innovation in the acquiring market; further enhance the transparency of merchant payment costs (for example breaking down total fees into the components attributable to interchange fees, scheme fees and acquirer margins); and otherwise facilitate merchants' ability to compare and switch acquirers. Similar issues are currently being considered by the UK PSR in its review of card acquiring services.

Q6: Is there a case for further policy action to enhance competition in the provision of acquiring services to merchants? If so, what form could this action take?

3.2.3 Scheme fees

Scheme fees are per-transaction fees payable by both acquirers and issuers to card schemes for services that they provide. Scheme fees, like interchange fees, directly affect costs faced by merchants in accepting card payments. However, while schemes publish their schedules of interchange fees, there is far less transparency around scheme fees. The Bank understands that the international schemes have schedules of hundreds, if not thousands, of individual fees but these are not published. The fee schedules are usually a combination of global and domestic fees. Listed fee schedules may be subject to bank-specific rebates or discounts to encourage card issuance and exclusivity arrangements.

The Bank has previously considered issues relating to greater transparency of scheme fees. The 2007-08 Review raised the prospect that the level of scheme fees be made available to all merchants as a means of increasing competitive tension in merchant service fee pricing. In particular, merchants that wished to would be able to back out acquirer margins using scheme and interchange fees, and rely on this information to negotiate for lower merchant costs from their acquirers. Following that Review, the Bank considered some possible mechanisms for scheme fee transparency, but did not proceed with specific regulatory action.

It may be timely to revisit the issue of scheme fee transparency as part of this review. With the declining use of cash and cheques, card payments represent an increasing share of household payments. In addition, information from some stakeholders suggests that scheme fees on acquirers and issuers have been growing over time and represent an increasing proportion of merchant service

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20 AusPayNet has engaged with industry via its Issuers and Acquirers Community, aiming to provide a more effective process for adoption of card acceptance solutions that use different technology. See Australian Payments Network (2019).

fees. Accordingly, the Bank invites stakeholder views as to whether it would be in the public interest to have greater transparency over scheme fees. There could be a number of potential benefits to greater transparency including:

- greater transparency to merchants on this significant component of payment costs, which may enable more informed negotiations with acquirers and more informed decisions on transaction routing
- greater transparency to the Bank regarding possible circumvention of interchange regulation through payments to issuers
- information that may be relevant to understanding the degree of competition in electronic payments.

Q7: Is there a case for greater transparency in scheme fee arrangements, including their effect on payment costs? If so, what form should this take?

3.2.4 Access regimes

In 2015, the Bank varied the access regimes initially imposed in 2004 on the Mastercard and Visa credit card schemes. These variations provided greater flexibility for the card schemes to broaden membership beyond existing participants. The variations required the schemes to publish transparent eligibility and assessment criteria, the maximum time they will take to assess an application, and also obliged the schemes to report information about membership approvals and applications to the Bank.

The revised access regimes appear to be working effectively. Both schemes have admitted new participants in each year since the 2015 variations came into effect, and have met their publication and reporting requirements. Where processing of applications has in some cases been outside of the timeframes published on schemes' websites, this has been attributed to applicants sometimes taking additional time to provide information in relation to scheme assessment criteria. The Bank has received very few complaints from would-be participants regarding delays in access applications, but would be interested in hearing the views of stakeholders.

Q8: Are the existing access regimes working effectively?

3.2.5 Digital wallets and mobile payment applications

In recent years, technology firms including Apple, Google and Samsung have launched digital wallets for use in their respective mobile platforms. These digital wallets store electronic representations of payment cards, tokenised to protect the card number, that can be used to make contactless payments at the point-of-sale using the communication capabilities of the mobile device. Payments are processed using the card scheme network the payment card was issued under. While not all card issuers in the Australian market currently support each digital wallet, many card issuers, including some smaller banks, credit unions and building societies support one or more digital wallets.

Mobile platforms and handset manufacturers may have rules relating to access to different aspects of the functionality in their devices. Google's Android has supported third-party use of NFC functionality, including for payment applications, since 2013. By contrast, until recently (for example, to allow NFC capability for scanning ePassport data), Apple prevented third-party use of NFC functionality in the iPhone, and it still does not provide access for third parties to create their own payment applications that directly use NFC functionality. In July 2016, this was the subject of an application to the ACCC by three of the major banks and one other bank. In particular, the four banks sought authorisation to negotiate collectively with Apple regarding access to the iPhone's embedded NFC controller and the Apple App Store, in order to provide their own digital wallets with embedded access to the NFC without relying on Apple Pay. In March 2017, the ACCC denied the application on the basis that the likely benefits from providing banks with access to the iPhone's NFC functionality did not outweigh the likely detriments.[21] At the time of the ACCC decision, only one of the four major banks and a number of smaller institutions using an aggregator had enabled their cardholders to use Apple Pay; currently more than 80 financial institutions, including three of the four major banks, have enabled Apple Pay.

Given the growing importance of mobile devices and digital wallets in card transactions, the Bank would be interested in receiving information from stakeholders on the additional functionality and benefits provided, as well as the costs involved. The Bank would also be interested in stakeholder views on any issues related to access to such platforms. In particular, this could include views on whether new entrants have appropriate access to digital wallets and if a broadening in third-party access to NFC functionality (with appropriate security) could have benefits for competition and efficiency in the market for digital wallets (this issue is reportedly also being given some consideration in Europe – see 'Box B: Retail Payments Reforms in Other Jurisdictions').

Another type of digital wallet technology that has emerged in other jurisdictions, but has to date not gained widespread use in Australia, is QR-code based payment technology. The most prominent cases are Alipay and WeChat Pay, the Chinese mobile payment applications that have gained a large share of the payments market in China. These companies have been able to fill gaps in the Chinese market, capitalising on their large user networks – in online, retail and social messaging channels – and making use of QR code technology to make payments more convenient. In China, QR codes have provided a cost-effective way for merchants to accept electronic payments in an environment where many of them were previously unable to do so, largely because of a lack of access to card payment terminals.

NPP Australia, the operator of the NPP, Australia's fast retail payments system, has recently published a QR code standard for use of QR codes on the NPP. This standard is based on the global EMVCo QR code specification and, while not mandatory, is aimed at standardising NPP QR code payments and promoting interoperability. Additionally, the payments industry association AusPayNet is currently considering incorporating the EMVCo QR code specification (or aspects of it) into the industry rules that govern participation in various clearing streams in Australia, such as cards and the bulk electronic clearing system. AusPayNet is also investigating industry appetite to create a single QR code interface, similar to the Singapore QR Code developed by the Monetary Authority of Singapore.

While these types of mobile payment applications are not widely used in Australia, the Bank understands that there are now a number of merchants accepting QR-code based payments. The Bank would be interested in receiving information from stakeholders about the current extent of their use, any future proposed adoption of QR-code based payments, and any potential policy issues they raise.

Q9: What are the implications of the growing importance of mobile devices and digital platforms for the retail payments system in Australia? Are there issues that arise for the Bank's regulatory regime for card payments or that are relevant to competition, efficiency and risk?

21 See Bendigo and Adelaide Bank & Ors (2016).

3.3 Interchange and Net Compensation Regulation

3.3.1 Interchange fees

Two recent Government-commissioned reports have made recommendations in relation to interchange fees. The final report of the BETF recommended that the Bank should consider whether there are further actions that it could take to put downward pressure on interchange fees.[22] The BETF considered that there was little justification for the imposition of significant interchange fees in mature card systems, and suggested that the Bank consider overseas experience, in particular the EU reforms that set hard interchange caps for both debit and credit card consumer transactions. More recently, in its 2018 Inquiry into Competition in the Australian Financial System, the Productivity Commission recommended that the Bank should completely ban interchange fees (see 'Box C: 2018 Productivity Commission Recommendations').[23]

Box C: 2018 Productivity Commission Recommendations

The final report of the Productivity Commission's Inquiry into Competition in the Australian Financial System made two recommendations relating to interchange fees:

Recommendation 17.1: The Payments System Board should introduce a ban on card payment interchange fees. Any other fees should be made transparent and published.

Recommendation 17.2: The ACCC, with input from the Payments System Board, should investigate:

- whether current or recommended interchange fee regulation favours three-party card schemes and, if such a distortion exists, whether it is significant enough to require further regulatory intervention; and
- if further regulatory intervention is desirable, the nature of such intervention, including, but not limited to, the possibility of regulating merchant service fees as an adjunct to the interchange fee ban.

The Commission's recommendations on interchange fees focused on the cost of payments and possible ways of getting consumers to take account of (or internalise) the cost of different payment instruments in their choice of payment methods.

Different payment methods have different costs – for example credit cards are more expensive (both in total resource costs and in the cost to merchants) than debit cards, and other forms of electronic payments (BPAY or direct entry) may be lower cost than debit cards. However, the Commission noted that consumers rarely directly face the full cost of their decision to use a particular type of card, which can distort their choice of payment method towards cards. Most merchants feel obliged to accept the widely used card schemes because if they do not, they might lose business to competitors who do accept them. The Commission argued that this resulted in an imbalance which gives card schemes and card issuers the opportunity and incentive to grow the network by competing on the value to cardholders – such as rewards – rather than the costs to merchants. It argued that schemes set interchange fees to subsidise issuers providing benefits to cardholders, with the effect of raising the cost of payments to merchants. It noted that merchants could offset this by surcharging those who pay with cards, but most merchants do not feel able to do so because of competitive pressure. As a result, merchants pass on the cost of interchange to all customers through higher product prices, creating a cross-subsidy from those who pay with low-cost payment methods to those who pay with

22 See Recommendation 3.3, Black Economy Taskforce (2017).

23 See Recommendation 17.1, Productivity Commission (2018).

higher-cost payment methods such as credit cards that offer rewards.

The Commission argued that for mature card systems there is little justification for schemes to have centrally-set interchange fees to rebalance the costs and benefits of cardholders and issuers on one side of the market and merchants and acquirers on the other. It noted that removing interchange fees would not prevent issuers and acquirers from passing on their costs to their consumer and merchant customers. For example, cardholders receiving the benefits of rewards and interest-free credit could pay issuers for these benefits. Merchants would continue (as currently) to pay their acquirers for transaction processing, terminal rental, etc.

The Commission argued that there would be a number of benefits from setting interchange fees to zero. These would include a more transparent and efficient payments system, where cardholders faced price signals associated with their payment choices. There would be more discipline on card issuers and schemes to focus on the cost of their transactions, and a reduction in the focus on rewards and other incentives to subsidise card payments. Merchant service fees for card payments would fall and it was likely that there would be a reduction in costs of the payments system overall. The Commission expressed scepticism regarding claims that a reduction in interchange fees would result in a reduction in innovation in card payments and that it would not result in lower prices of goods and services to consumers.

However, the Commission noted some consequences of a ban on interchange fees. It noted that the Bank would have to monitor payments between card schemes and banks to ensure that these were not used to replicate the effect of an interchange payment between issuing and acquiring banks. It also noted the possibility that a ban would result in an advantage to three-party schemes, which are not subject to interchange regulation. Accordingly, it recommended that the ACCC and the Bank should study the impact on competitive neutrality of three-party schemes to determine whether additional regulation was required, including the possibility of regulation of the merchant service fees charged by three-party card schemes.

One possible consequence of further lowering the interchange fee benchmarks would be that it could provide a competitive advantage to three-party schemes, which are not subject to interchange fee regulation and may therefore have more scope to offer rewards to cardholders to incentivise take-up and use of their cards, funded by higher merchant fees. If this were the case, then it is possible that any near-term lowering of payment costs from a reduction in the weighted-average benchmark for credit card transactions could be offset in the longer-term by a shift towards more expensive three-party cards. However, the Bank notes that the indirect effects on three-party merchant service fees of earlier regulatory changes involving interchange fees and surcharging appear to have been at least as large as the more direct effects on merchant service fees on four-party credit transactions (Graph 4). This suggests that there have been competitive constraints on the ability of three-party schemes to expand their market share at the expense of the four-party schemes that are subject to interchange regulation. Moreover, to the extent three-party schemes were able to obtain a competitive advantage from a further lowering of the credit card interchange benchmark, there may be regulatory responses the Bank could consider to improve the efficiency of the payments system. One option, as suggested by the Productivity Commission, would be for the Bank to regulate merchant service fees charged by the three-party schemes. The Bank would be interested in stakeholder views on the effects a further reduction in interchange fees on credit cards might have on competition between three- and four-party schemes, and what regulatory options might be considered to address this.

In addition to the issues outlined above, stakeholders may also wish to comment on other issues relating to interchange fees, including the following:

- The effects of the changes to interchange regulation stemming from the 2015–16 Review. The most noteworthy changes include the reduction in the weighted-average debit benchmark from 12 cents to 8 cents per transaction, and the imposition of caps on individual interchange fees (80 basis points for credit and 15 cents or 20 basis points for debit).
- Developments in debit interchange strategies in response to LCR, in particular in relation to the strategies of the international schemes, which have traditionally set their schedules to keep weighted-average interchange fees close to the benchmark; by contrast, average interchange fees in the eftpos system have (since 2012) always been well below the benchmark. For the international schemes, recent reductions in interchange fees for some categories have typically been accompanied by increases in other categories, implying increases in payment costs for some merchants.
- Implications of the ongoing fall in the average value of card transactions, especially for debit. The average transaction value for debit cards is now around $48, down from $69 in 2009 and $56 at the time that the Board took the decision to lower the weighted-average benchmark for debit and prepaid from 12 cents to 8 cents. For some low-value debit transactions that are subject to cents-based interchange fees, the interchange fee payable on a debit transaction may be significantly higher than if a credit card had been used.
- The issuance of premium international scheme debit cards, which represent a small but growing share of transaction volumes. These cards may provide benefits such as cashback or fee-free foreign transactions. They are more expensive for merchants given that interchange fees for these cards are set at the maximum level permitted by the standard. Where these cards provide certain additional benefits to cardholders when used in one network rather than another, cardholders may not be indifferent as to the routing of their transactions; stakeholders are invited to comment whether it should be for merchants to disclose the use of LCR or for issuers of these cards to advise their cardholders to make proactive choices regarding network selection.
- Issues regarding compliance with the weighted-average benchmarks. Following the 2015–16 Review, the compliance cycle is now quarterly, as opposed to three-yearly (or whenever schemes undertook a voluntary reset). When the Bank was consulting on this change in 2016, the international schemes argued that frequent resets of their interchange schedules were costly for the industry to implement. While the international schemes have the option of setting interchange fee schedules conservatively to avoid exceeding the benchmark and limit the frequency of mandatory resets, they have not done so; resets for credit card interchange fees have been required at almost every compliance date. The Bank is interested in views from merchants, acquirers and issuers as to the cost of these frequent resets of interchange fee schedules and on any alternative approaches that might involve lower costs but would be effective in keeping interchange rates from drifting above the benchmarks.
- On a technical matter, reversals, credits, and chargebacks are currently excluded from the definition of transactions for the purposes of the interchange standards. An alternative approach would be to define transactions as net of reversals, credits and chargebacks. At the margin, this would slightly lower the overall level of interchange fees permissible under the Bank's standards. The Bank notes that there is now a wider range of transaction types that are processed as credits or reversals and would be interested in views of stakeholders as to the costs and benefits of alternative approaches to the definition of transactions.

Finally, the Bank is interested in views on whether interchange regulation should be extended to foreign-issued cards used to make payments in Australia. Interchange fees on transactions on foreign-issued cards are significantly higher than those on domestic cards. There are currently no restrictions on the interchange fees levied on these transactions, and schemes are not required to publish inter-regional interchange fee schedules. Payments made using foreign-issued cards at Australian merchants as a share of card payments – both in person and online – have increased over the past decade. In the 2015–16 Review, the Board decided not to bring transactions on foreign-issued cards into the regulatory framework, but indicated that it would continue to watch developments in this area. As noted earlier, in 2019, the EU accepted legally binding commitments from Mastercard and Visa to reduce their inter-regional interchange fees to or below caps set by the EC,[24] to refrain from circumventing the caps, and to publish inter-regional interchange fees. It is estimated that the voluntary commitments by the schemes would reduce interchange fees on foreign-issued cards used in the EEA by 40 per cent on average.

Q10: Is there a case for a further lowering of the credit or debit interchange benchmarks or any change in the way they are applied?

Q11: Should regulation of interchange be extended to inter-regional interchange fees (i.e. interchange fees applying to transactions in Australia using foreign-issued cards)? What is the typical cost of transactions on foreign-issued cards, and how much of this is attributable to interchange fees?

Q12: Is there a case for applying regulation to three-party card systems? What form could this take?

3.3.2 Net compensation

In 2018–19, the Bank conducted a limited-scope review of the interchange standards, focusing on clarifying and improving the operation of the net compensation provisions. The resulting variations that came into effect on 1 July appear to be broadly operating as intended, and the Bank is not proposing to revisit these issues in detail in this review. However, the Bank would welcome stakeholder views on other issues related to compliance with the net compensation provision.

The interchange standards prohibit issuers from receiving net compensation from a scheme, but do not prohibit schemes from paying net compensation to its issuers. Thus, the substantive obligation to comply with the net compensation provision rests with issuers. While the schemes have not objected to providing certifications of their compliance with the net compensation provision to date, the absence of a substantive obligation on schemes may limit the enforcement options in relation to any breaches of the provision. This raises the possibility of schemes offering large incentives to potential issuers to enter into an issuing agreement without consequence to the scheme should these incentives amount to net compensation. The Bank is therefore interested in stakeholder views on whether a substantive obligation regarding net compensation should also be imposed on schemes.

24 The caps set for card-present transactions are the same as those for intra-regional transactions, while the schemes were afforded a higher cap for card-not-present transactions.

The Bank is also interested in stakeholder views regarding what actions the Bank should take, or should have the power to take, following any breach of the net compensation provision (under current legislation or through a change to legislation). Issuers and schemes report on their net compensation position soon after the end of each financial year. In the event of a breach, options might include:

- for marginal breaches, no action if this was justified on materiality grounds
- issuance of a direction requiring a true-up/true-down of the excess compensation (effectively, a repayment of the amount by the issuer to the scheme or downward adjustment to an accrued entitlement of the issuer)
- issuance of a direction that has the effect of lowering the net compensation threshold in the following year by the amount of the breach
- a reduction in the interchange benchmark for a future period (say, by expressing the amount of the previous year's breach as a percentage of relevant transaction values and reducing the benchmark by some multiple of the resulting number of basis points) – the reduction in the benchmark could potentially be applied just to the relevant issuer or to a scheme broadly (i.e. across all issuers in that scheme)
- acceptance of a voluntary undertaking from an issuer to take actions addressing the breach
- sanctions as discussed in section 3.5.

A relevant consideration in relation to some of these options is whether they may effectively reward a scheme for a breach. This might be the case with a requirement to 'undo' the breach by repayment or adjustment to an accrued entitlement or lowering the effective net compensation threshold.

Q13: Is the revised net compensation provision in the interchange standards working effectively?

Q14: What enforcement mechanisms would strengthen observance of the net compensation provision?

3.4 Surcharging

The revised surcharging framework put in place following the 2015–16 Review preserved the right of merchants to surcharge for more expensive payment methods but required surcharges in designated card systems to be more closely linked to the cost of acceptance.[25] It was also accompanied by changes to the *Competition and Consumer Act 2010* that provided the ACCC with investigation and enforcement powers to take action in cases where merchants might be surcharging excessively.[26]

As a result of these changes, there have been a few significant enforcement actions taken by the ACCC. In addition, the revised framework has required reductions in surcharges by some prominent large merchants where there had previously been concerns about surcharging practices. For example, the two large domestic airlines had previously imposed fixed-dollar surcharges on domestic airfares. While these amounts may not have been excessive in terms of the overall amount of revenue raised, they were clearly above the airlines' cost of acceptance for lower-value fares. Following the 2015–16

25 Following discussions with the Bank, several payment schemes that are not formally captured by the Bank's surcharging standard – American Express, Diners Club, UnionPay and PayPal – agreed to modify their surcharging rules in a manner consistent with the standard.

26 See Dark et al (2018).

Review, the airlines changed their surcharges to be percentage-based. Furthermore, as the cost of card acceptance has fallen for the airlines, no doubt partly reflecting the changes to interchange regulation in the 2015–16 Review, the airlines have further reduced their surcharges. For example, in September 2016 Qantas replaced its fixed-dollar surcharges of $7 for credit cards and $2.50 for debit cards with a 1.3 per cent surcharge for credit/charge cards and a 0.6 per cent surcharge for debit/prepaid cards, with caps of $11 for domestic and trans-Tasman flights and $70 for international flights. Since then, it has reduced these percentage rates to 1.03 per cent for credit cards and 0.36 per cent for debit cards. The result has been a very significant reduction in the surcharges applying to lower-value air fares.

While the Bank's preliminary assessment is that the revised surcharging framework has been functioning well, the Bank invites stakeholders' views, including on any possible modifications. In addition, the Bank is interested in stakeholder views on two specific issues.

First, the Bank is aware of a few merchants that are applying differential surcharges for cards within a system, though this is not explicitly contemplated in the surcharging standard. In particular, they are applying different surcharges to domestic- and foreign-issued four-party credit cards, in line with the (significantly different) acceptance costs of the two types of cards. The Bank's view is that this is consistent with the intent of the standard, providing that the surcharge rates are each set no higher than the respective costs of acceptance. In addition, the Bank is aware of merchants that are interested in surcharging standard and premium four-party credit cards differently. The Bank is interested in stakeholder views as to whether it would be desirable to explicitly provide for the possibility of such differential surcharging, subject to no excessive surcharging for any type of transactions.

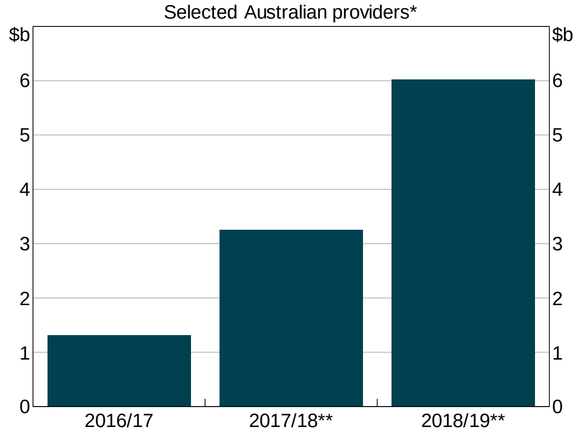
Second, the Bank would be interested in stakeholders providing information regarding the observance of the requirement in Clause 6.3 of the surcharging standard, relating to the provision of BIN lists by schemes or acquirers allowing for the electronic identification of different card types. In particular, as payment cards are tokenised for digital payments, the Bank considers it is important that merchants continue to have access to information on tokenised BINs so they will have the ability to identify whether a card is a credit, debit or prepaid card. Without such lists of BINs, merchants that choose to surcharge could be at risk of ACCC enforcement action due to inaccurate information about the card type.

The Bank is also interested in stakeholder views regarding the growth in the use of buy-now, pay-later (BNPL) services. These are services in which customers are able to purchase goods or services but defer payment via low- or zero-interest instalments to the BNPL provider, typically over 1–2 months. While arrangements vary, some of the prominent BNPL providers have models whereby the service is 'free' for consumers if payments are made on time, with merchants charged a relatively high per-transaction fee for accepting the payment. Customers typically make instalment payments to the BNPL provider using a debit or credit card.

These services have become widely accepted by merchants in a number of retail segments, both online and in person. Data from several large BNPL providers indicates that the value of BNPL transactions has grown considerably in the past few years (Graph 10). The number of providers and products in the BNPL sector has also expanded during this period.

Graph 10

BNPL Payments Processed



* Includes services offered by Afterpay, FlexiGroup and Zip Co

** Afterpay includes both Australia and New Zealand payments

Sources: Afterpay; FlexiGroup; Zip Co

From a consumer perspective, the popularity of BNPL services may relate to their convenience and availability as a potentially lower-cost form of consumer credit. There are indications that BNPL services are used more intensively by certain segments of the population, particularly younger people, who may not have a credit card. For merchants, it has been argued that BNPL services may facilitate increased sales as well as provide additional benefits – for example, as merchants are paid upfront by the BNPL provider, they do not bear the risk of fraud or customer non-payment.

Stakeholders such as smaller businesses have observed that the cost of accepting BNPL payments – in terms of the fees paid by the merchant to the provider – is often in the range of 3–6 per cent and is generally higher than the cost of accepting other electronic payment methods such as cards. Most BNPL providers also have rules that prevent merchants from levying a surcharge on the customer to recover those fees.[27] This may increase the overall cost of accepting payments for merchants that feel compelled to offer BNPL services as a payment option for competitive reasons, but are unable to recoup the merchant fees from the customers that directly benefit from the service.

The Bank has long been of the view that the right to apply a surcharge on more expensive payment methods plays an important role in signalling the costs of different ways of making payments to consumers. If a business chooses to apply a surcharge to recover the cost of accepting more expensive payment methods, it is able to encourage customers to consider making the payment using a cheaper option. The possibility that a consumer may choose to pay with a lower-cost option when presented with a surcharge also helps put competitive pressure on the pricing policies of payment providers, indirectly lowering merchants' payments costs. By helping keep merchants' costs down, the right to apply a surcharge means that businesses can offer a lower total price for goods and services to all of their customers.

27 An example of a merchant that does apply a surcharge on BNPL payments is Jetstar, which applies a payment surcharge of 1.5 per cent on Afterpay transactions. Similarly, Tigerair applies a fee of 1.25 per cent of transaction value plus 15 cents for customers using Zip Pay.

The Bank is interested in stakeholder views on the no-surcharge rules of some BNPL providers. An issue for the Bank is that, unlike card schemes, BNPL providers typically have no-surcharge rules to prevent merchants from recovering the cost of acceptance from consumers via a surcharge.[28] Accordingly, merchants that accept both cards and BNPL payments are permitted to apply a surcharge to recover the cost of accepting a traditional card payment but are unable to recoup the cost of accepting a more expensive BNPL payment funded by a provider that may receive its repayments through a debit or credit card. The Bank notes in this regard that it would take a negative view of any arrangements where a currently regulated card scheme used a BNPL structure to try to re-establish no-surcharge rules.

Stakeholders may wish to provide information on some of the following questions:

- How do merchants and other stakeholders view the benefits and services that BNPL models provide?
- How do the costs of payments received through BNPL services compare with the cost of traditional card payments?
- Has the recent entry of additional BNPL providers influenced merchant fees for BNPL services?
- Do all BNPL providers have binding no-surcharge rules or are merchants able to negotiate on these?
- Are some BNPL services viewed as 'must take' payment methods for particular market segments or transaction types; that is, do merchants feel that they cannot refuse to accept BNPL for fear of losing business?

Q15: Is the surcharging framework working well? Are there any changes that should be considered?

Q16: Is there a case for policymakers to require that BNPL providers remove any no-surcharge rules, consistent with earlier actions in regard to card systems that applied such rules?

3.5 Regulation and Enforcement

Compliance with the Bank's standards and access regimes is generally effectively observed by schemes and payments system participants (e.g. interchange schedule resets occur within the time required where a scheme is above an interchange benchmark). Industry participants are also usually willing to provide data and information to the Bank without it having to resort to use of its formal information gathering powers under section 26 of the PSRA. However, the net compensation provisions – which are more complex than some other aspects of the Bank's standards – have led the Bank to give some recent consideration to what powers it would have available in the event of a significant breach of a standard or access regime.

Where the Bank considers that a participant in a designated system has failed to comply with an access regime or standard, the Bank has a power under section 21 of the PSRA to give a direction to the participant to take or refrain from specified action as the Bank considers appropriate having

28 The issue of surcharges for BNPL transactions was briefly referenced in Australian Securities and Investments Commission (2018): 'Given existing surcharges for some credit card transactions, merchants may in the future seek to introduce surcharges for buy now pay later arrangements. The implications of this would need to be considered.' ASIC noted that the BNPL providers focused on in its report are not regulated under the *National Consumer Credit Protection Act 2009*, as they either do not charge consumers for providing the credit, or they only include charges for credit that amount to an upfront fee or a periodic fee that is fixed and is less than specified amounts.

regard to the failure to comply with the standard. Any direction must be consistent with any applicable regulation prescribed by the Bank (e.g. any other part of a relevant standard or access regime). The Bank may impose a timeframe by or within which a direction is to be complied with. If a participant fails to comply with, or otherwise contravenes the direction, then it commits an offence, and is subject to a penalty of 50 penalty units (currently equivalent to around $10,500) per day until the failure is remedied or the direction is revoked.[29] The penalty for failing to comply with a direction is substantially lower than for offences under other legislation relating to the financial sector[30] – and potentially means that the deterrence effect of the Bank's powers here is limited. This raises the question as to whether it might be desirable for the Bank to be given some additional regulatory powers or mechanisms:

- For example, whether the Bank should be able to establish and enforce penalties or remedial actions under, or for failure to comply with, a standard or access regime, rather than relying solely on a directions power and sanctions for failure to comply with a direction.
- Whether the size of potential fines under the PSRA should be increased.
- Whether other mechanisms should be available to the Bank to provide a broader range of effective regulatory tools, e.g. the ability to accept court-enforceable undertakings from payment system participants, including system administrators.

Q17: Are there potential enhancements to the Bank's regulatory powers and enforcement mechanisms that could improve the effectiveness of retail payments regulation?

3.5.1 American Express Companion Card designation

The American Express Companion Card system was designated in October 2015, and Standards No.1 and No.3 of 2016 apply to it. As a result of the net compensation provisions, the four major banks have elected to cease offering companion cards. The Bank expects to revoke this designation in light of the cessation of these arrangements.

29 For bodies corporate, a court may impose a fine of up to five times this amount (i.e. up to $52,500).

30 For example, contraventions of Part IV of the *Competition and Consumer Act 2010*, which deals with anti-competitive practices, can lead to a penalty for a corporation that is the greater of: $10 million; three times the value that is 'reasonably attributable' to the benefit obtained as a result of the breach; or 10 per cent of the corporation's annual turnover in the 12 months preceding the breach.

4. Next Steps

The Board is seeking views from interested parties on the issues raised in this Paper. Written submissions on the issues discussed in Section 3 should be provided by no later than 31 January 2020, and should be sent to:

Head of Payments Policy Department
Reserve Bank of Australia
GPO Box 3947
Sydney NSW 2001

or

pysubmissions@rba.gov.au

The Board also invites stakeholders to raise other issues relevant to the payments system for inclusion in the review. The Bank will consider any other issues raised by stakeholders and will determine whether these should fall within the scope of the review. The Bank expects to publish a follow-up paper in mid 2020.

Submissions provided by email should be in a separate document, in Word or equivalent format. Submissions in PDF format must be accompanied by a version in an accessible format such as .rtf or .doc.

All submissions will be published on the Bank's website, unless it is specifically requested that the Bank treat the whole or any part of a submission as confidential. In the normal course of events, those making submissions will be provided with an opportunity to discuss their submission with the Bank.

Privacy

Unless requested otherwise, published submissions will include contact details and any other personal information contained in those documents. For information about the Bank's collection of personal information and approach to privacy, please refer to the Personal Information Collection Notice for Website Visitors and the Bank's Privacy Policy.

References

Australian Payments Network (2019), 'Process for Considering Non-Standard Technologies at the Point of Interaction', January. Available at <https://auspaynet.com.au/sites/default/files/2019-02/Process-for-considering-non-standard-technologies_Schedule_1-of-AnnexureG_Effective-1-January-2019_2.pdf>.

Australian Securities and Investments Commission (2018), 'Review of buy now pay later arrangements', November. Available at <https://asic.gov.au/regulatory-resources/find-a-document/reports/rep-600-review-of-buy-now-pay-later-arrangements/>.

Bendigo and Adelaide Bank & Ors (2016), *A91546 & A91547*, 26 July. Available at <https://www.accc.gov.au/public-registers/authorisations-and-notifications-registers/authorisations-register/bendigo-and-adelaide-bank-ors-authorisation-a91546-a91547>.

Black Economy Taskforce (2017), 'Final Report', October. Available at <https://treasury.gov.au/sites/default/files/2019-03/Black-Economy-Taskforce_Final-Report.pdf>.

Dark C, C Fisher, K McBey and E Tellez (2018), 'Payment Surcharges: Economics, Regulation and Enforcement', RBA *Bulletin*, December.

European Commission (2013), 'Proposal for a Regulation of the European Parliament and the Council on interchange fees for card-based payment transactions', 24 July. Available at <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013PC0550&from=EN>.

European Commission (2019), 'Antitrust: Commission accepts commitments by Mastercard and Visa to cut inter-regional interchange fees', 29 April. Available at <https://europa.eu/rapid/press-release_IP-19-2311_en.htm>.

Hayashi F and JL Maniff (2019), 'Public Authority Involvement in Payment Card Markets: Various Countries – August 2019 Update' *Payments System Research Department, Federal Reserve Bank of Kansas.*, August. Available at <https://www.kansascityfed.org/~/media/files/publicat/psr/dataset/pub-auth_payments_var_countries_august2019.pdf>.

House of Representatives Standing Committee on Economics (2017), 'Review of the Four Major Banks (Third Report)', 7 December. Available at <https://www.aph.gov.au/Parliamentary_Business/Committees/House/Economics/FourMajorBanksReview3/Report>.

Payment Systems Regulator (2018), 'Contactless mobile payments', A PSR Report, July. Available at <Contactless mobile payments>.

Productivity Commission (2018), 'Competition in the Australian Financial System', Inquiry Report No. 89, 29 June. Available at <https://www.pc.gov.au/inquiries/completed/financial-system/report/financial-system-overview.pdf>.

Reserve Bank of Australia (2013), 'Dual-network Debit Cards', Media Release No 2013-16, 21 August. Available at <https://www.rba.gov.au/media-releases/2013/mr-13-16.html>.

Reserve Bank of Australia (2016a), 'Review of Card Payments Regulation', *Conclusions Paper*, May.

Reserve Bank of Australia (2016b), *Dual-Network Cards and Mobile Wallet Technology*, December.

Reserve Bank of Australia (2017), 'Payments System Board Update: November 2017 Meeting', Media Release No 2017-24, 17 November. Available at <https://www.rba.gov.au/media-releases/2017/mr-17-24.html>.

Rochet J-C and J Tirole (2011), 'Must-take cards: Merchant discounts and avoided costs', *Journal of the European Economic Association*, 9(3), pp 462–495.

Stewart C, I Chan, C Ossolinski, D Halperin and P Ryan (2014), 'The Evolution of Payment Costs in Australia', RBA Research Discussion Paper No 14.

Wakefield M and R Finlay (2018), 'Understanding Demand for Australia's Banknotes', RBA *Bulletin*, December.

Appendix A: Questions for Stakeholders

The Bank is seeking submissions on the issues discussed in this paper, including stakeholder views on some or all the following specific questions.

Q1: What major recent or prospective developments in the broader payments industry are particularly relevant to this review? More specifically, are there any gaps in functionality available to end users or any shortcomings in industry governance or operating arrangements that require regulation or coordinated industry action?

Q2: Are there aspects of retail payments regulation that lead to market distortions or that create opportunities for regulatory arbitrage? If so, what options should be considered as a means of addressing these? Are there gaps in the regulatory regime that need to be addressed or any elements where regulation is no longer required?

Q3: Are there barriers to innovation and/or competition that may affect the costs of or provision of electronic payments and should be addressed in this review?

Q4: How do stakeholders assess the functioning to date of least-cost routing (LCR) of contactless debit card payments? Do additional steps need to be taken regarding LCR to enhance competition and efficiency in the debit card market?

Q5: Have recent and prospective developments in technology changed the case for promoting the continued issuance of dual-network debit cards? What policy actions might be needed to promote competition and efficiency in an environment where single-network cards were more prominent? Alternatively, would it be desirable to mandate (or incentivise through interchange caps) that all debit cards issued enable at least two unaffiliated/competing networks?

Q6: Is there a case for further policy action to enhance competition in the provision of acquiring services to merchants? If so, what form could this action take?

Q7: Is there a case for greater transparency in scheme fee arrangements, including their effect on payment costs? If so, what form should this take?

Q8: Are the existing access regimes working effectively?

Q9: What are the implications of the growing importance of mobile devices and digital platforms for the retail payments system in Australia? Are there issues that arise for the Bank's regulatory regime for card payments or that are relevant to competition, efficiency and risk?

Q10: Is there a case for a further lowering of the credit or debit interchange benchmarks or any change in the way they are applied?

Q11: Should regulation of interchange be extended to inter-regional interchange fees (i.e. interchange fees applying to transactions in Australia using foreign-issued cards)? What is the typical cost of transactions on foreign-issued cards, and how much of this is attributable to interchange fees?

Q12: Is there a case for applying regulation to three-party card systems? What form could this take?

Q13: Is the revised net compensation provision in the interchange standards working effectively?

Q14: What enforcement mechanisms would strengthen observance of the net compensation provision?

Q15: Is the surcharging framework working well? Are there any changes that should be considered?

Q16: Is there a case for policymakers to require that BNPL providers remove any no-surcharge rules, consistent with earlier actions in regard to card systems that applied such rules?

Q17: Are there potential enhancements to the Bank's regulatory powers and enforcement mechanisms that could improve the effectiveness of retail payments regulation?

Strategic Review of Innovation in the Payments System

Real-Time Payments Committee
Proposed Way Forward

Contact

Dr Jennifer Fagg

Chairman

Real-Time Payments Committee

Email: lterry@apca.com.au

Level 6, 14 Martin Place

Sydney NSW 2000

Tel: +61 2 9216 4888

Fax: +61 2 9221 8057

Publication

Real-Time Payments Committee
Level 6, 14 Martin Place
GPO Box 4893
Sydney NSW 2001

8 February 2013

Mr Glenn Stevens
Chairman
Payments System Board

Governor
Reserve Bank of Australia

Dr Malcolm Edey
Deputy Chairman
Payments System Board

Assistant Governor (Financial System)
Reserve Bank of Australia

65 Martin Place
SYDNEY NSW 2000

Dear Governor Stevens and Dr Edey,

Real Time Payments – An industry proposal

On behalf of the eight organisations listed on the next page, I am pleased to submit to the Payments System Board the attached revised proposal for developing real-time payments infrastructure in Australia. It replaces an earlier version submitted on 24 December 2012.

This proposal is the result of deliberations of the Real-Time Payments Committee, formed by the Board of the Australian Payments Clearing Association in September 2012, and has had the benefit of detailed discussion with executives of the Reserve Bank.

Pronouncements of the Payments System Board on innovation in the payments system provided the catalyst for this proposal. Nevertheless, the wholehearted engagement of organisations represented around the Committee table shows there is clear commitment to ongoing systemic reform of payments to meet the future needs of the Australian community. There is also recognition that this can only be achieved by sustained collaboration amongst Australian financial institutions.

The members of the Committee look forward to working with members of the Board, and with officers of the Reserve Bank, on improving the Australian payments system.

Yours sincerely,

Jennifer Fagg

Dr Jennifer Fagg
CHAIRMAN

Members of the Real-Time Payments Committee

Dr Jennifer Fagg
Chairman

Mr Philip Chronican
Chief Executive Officer Australia
Australia and New Zealand Banking Group Limited

Mr Greg Devlin
Payments Consultant - Customer Led Connections
Bendigo and Adelaide Bank Limited

Mr Chris Hamilton
Chief Executive Officer
Australian Payments Clearing Association Limited

Ms Alexandra Holcomb
General Manager, Global Transactional Services
Westpac Banking Corporation

Mr Craig Kennedy
Managing Director
Cuscal Limited

Mr John Murphy
General Manager, Global Transaction Banking
Business Banking
National Australia Bank Limited

Mr Scott Southall
Managing Director, Head of Citi Transaction Services Australia & New Zealand
Citigroup Limited

Mr Stuart Woodward
General Manager, Representation, Credit Cards, Payments and Retail Strategy
Retail Banking Services
Commonwealth Bank of Australia Limited

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1. Introduction

The Real-Time Payments Committee was formed in September 2012 to develop a clear way forward for the Australian payments industry on real-time, low value payments.

The catalyst for action was the publication in June 2012 of the Payments System Board's *Strategic Review of Innovation in the Payments System; Conclusions* (Conclusions Paper). In the Conclusions Paper, the Payments System Board (PSB) sets out strategic objectives for the development of Australian real-time low value payments. The Committee is committed to working with the Reserve Bank of Australia (RBA) and the Australian payments industry participants on payment system evolution.

1.1. The initial strategic objectives

The initial strategic objectives established by the PSB and addressed in this proposal are:

- There should be the capacity for businesses and consumers to make payments in real-time, with close to immediate funds availability to the recipient, by the end of 2016.
- There should be the ability to make and receive low-value payments outside normal banking hours by the end of 2016. This would include availability of any real-time system.[1]
- Businesses and consumers should have the capacity to send more complete remittance information with payments by the end of 2016.
- A system for more easily addressing retail payments to any recipient should be available. To the extent that this is provided by a new real-time system, it should be available by the end of 2017. This does not rule out earlier availability via other solutions.

1.2. The Core Criteria

On 22 November 2012, the RBA published a set of Core Criteria against which the Payments System Board will assess proposals for provision of real-time payments. There are Core Criteria relating to the required system functionality *(S1-S15)*, governance of the programme to develop the new system *(G1-G10)* and the ongoing operation of the system once it is established *(O1-O7).* The Committee accepts and adopts the Core Criteria and seeks to respond comprehensively to the Core Criteria in this proposal. References to relevant Core Criteria appear in *(brackets)* throughout the text.

1.3. Scope of the Proposal

This proposal is designed to address the initial strategic objectives listed in Section 1.1 above, and the Core Criteria in full. The proposal does not include the industry work to be undertaken in relation to enhancements to the Direct Entry system, including same day settlement of Direct Entry payments. It also does not include industry and RBA work in relation to enhanced liaison arrangements, as proposed in the Conclusions Paper.

[1] The "out of hours" objective in the Conclusions Paper also refers to direct entry and card payments, which are beyond the scope of this proposal. The RBA recently published its decision to omit from the strategic objective the requirement for low-value payments to be made and received via the direct entry system outside normal business hours (and to review this once a faster payments solution is operational).

2. PSB and Industry Liaison

The governance arrangements for the Real-Time Payments (RTP) Programme will require extensive, ongoing liaison amongst industry, the RBA and the PSB. The Committee envisages that a Programme Steering Committee will coordinate this liaison *(G6)*. This is discussed further in Section 6.1.

As a first step and as a commitment to openness, once the PSB accepts this proposal the Committee intends to publish it in full on the APCA website. The RTP Programme also contemplates the early establishment of a Memorandum of Understanding and a Stakeholder Group open to all ADIs (see Sections 6.1 and 6.3).

The PSB has proposed the development of a new industry body or “Payments Council”. As this proposal develops, industry liaison arrangements may need to be reviewed.

3. Industry Preferred Business Architecture

3.1. Environmental assumptions

In developing its proposal the Committee had regard to analysis and expert opinion on likely future user needs for real-time payments, and on the possible evolution of markets for payment services. Two key assumptions arise:

- There will be a wide diversity of user need for real-time payments. It is likely that future payment systems will provide a real-time experience for end users. Beyond this the needs of particular communities, and particular contexts, are becoming more bespoke and tailored as technology and social networking allow many different kinds of transactions to become automated and remote.
- Payment systems, schemes and services will themselves become more diverse and more competitive over time. Basic utility services like the cheque clearing system are already being replaced by a range of alternatives tailored to particular needs. A corollary is that payment systems and schemes are becoming more commercial and competitively oriented.

These two assumptions underpin the preferred business architecture.

3.2. Separating infrastructure and services

Any new payment system developed through industry collaboration should maximise economies of scale and beneficial network effects. These come from having nearly all payment users accessing the same underlying infrastructure. However, it should also establish the market environment for diverse payment schemes and services to evolve over time and competitively address the changing needs of many different end users.

In order to maximise prospects of meeting these important but competing objectives, the Committee proposes a layered solution consisting of:

- **Basic infrastructure**[2] comprising a clearing utility[3] and linked RBA real-time settlement, which provides the capability to meet the Core Criteria, connect all ADIs, enable fast, flexible payments messaging and allow for the future development of tailored overlay payment services using the infrastructure; **plus**
- **Overlay Services** that use the basic infrastructure through standardised access arrangements to offer payment schemes and services tailored to particular contexts, and particular types of customers. The Committee anticipates that multiple overlay services will develop over time, and may be commercial and competitive in nature. However, to promote early take-up and use of the basic infrastructure, the Committee proposes to encourage the development of an initial "convenience" service as the first overlay service. This will use the basic infrastructure to enable ADIs to offer an attractive, fast consumer payments service to their customers. Other approved schemes, hubs and services[4] that wish to use the basic infrastructure could do so on an equivalent basis to the initial convenience service and it is expected these will evolve independently in the future.

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[2] The basic infrastructure consists of the clearing functions collaboratively developed, owned and operated to provide for the RBA's Core Criteria, including links to the RBA's settlement hub.

[3] The clearing utility is a part of the basic infrastructure and supplies all the required clearing services including communication, switch and addressing services.

[4] Other approved schemes, hubs and services would join the basic infrastructure as an overlay service – see 3.5.5. for more detail about overlay services.

The basic infrastructure should enable any ADI to offer a real-time payment service to its customers, relying on other ADIs to connect to the clearing utility and process valid messages in accordance with its rules. An ADI can choose to join an overlay service in order to provide different or additional services to its customers, but would not need to do so in order to use the basic infrastructure.

3.2.1. Policy rationale for separating infrastructure and services

The basic infrastructure will focus on inter-ADI activity, leaving maximum scope for diverse end user services to develop over and around it. It will not include rules about the way in which ADIs provide commercial services to their customers, or compel ADIs to provide any particular service to their customers.

The Committee believes the layered approach of the basic infrastructure plus overlay services (including the initial convenience service) is a more efficient and effective way to deliver real-time payments in Australia than a single integrated fast payments service.

The Committee agrees with RBA that open access to very fast processing infrastructure is needed to support real-time payments and that the industry should build this collaboratively, and centrally, to minimise cost and risk. The infrastructure will need to impose tight turnaround times on ADIs for message processing.

However, the Committee recognises, as discussed in the assumptions above, that not all payments using the system will be the same: different contexts and different customers need different payment products and services. Variations might relate to types of customer interfaces and access arrangements, timing needs, data richness, complexity, conditionality and integration with underlying transactions, fraud risk, operational risk, marketing and pricing.

Given this diversity of needs, ADIs and payments schemes (both current and future) must be given maximum scope to develop a wide range of new payment products and services to offer their differing customer groups using the same basic infrastructure. The Committee's approach is to encourage both scheme and ADI competition, which in turn is the best means of delivering ongoing innovation.

To achieve this, systemic infrastructure will need to be kept separate from customer-oriented products and services. The basic infrastructure will need to be developed and operated collaboratively and will connect (and bind) all ADIs. However, it must also be possible for products and services to be developed by ADIs acting unilaterally and by ADIs with support from payment schemes that coordinate ADIs and other organisations to deliver attractive payment products and services to different groups of customers.

The Committee anticipates that any approved entity, payment scheme, service or processor can seek to use the basic infrastructure as an Overlay Service (including the initial convenience service) on standard and equitable terms (including timing and pricing) of access.

3.2.2. Key advantages of separating infrastructure and services

The key advantages of layering the business architecture (separating infrastructure and services) are summarised below:

1. **Operational priorities**: The basic infrastructure will be a utility focussed on meeting the common needs of its ADI members, having regard to the public interest *(O3)*. It will offer access to all ADIs and overlay services on standard, equitable terms. The initial convenience service (and other future overlay services) will be focussed on providing particular end users with a service that they find compelling,

to attract activity into the system. It follows that the operator of an overlay service may have different membership and will need to have different strategic orientation and governance and financial structure from the clearing utility.

2. **Encouraging service diversity and competition**: The layered configuration will alter the competitive dynamics of the current payment services market: it will encourage new and improved payment systems and services to develop in the future, while still maximising economies of scale, broad reach and positive network effects. For example, the Core Criteria require the capacity to send more complete remittance information with a payment, but also acknowledge that the data needs of different industry groups will vary *(S4)*. The layered solution provides scope to accommodate this variation in the future. Once the basic infrastructure is in place and linking ADIs together, the marginal cost of providing a new service should be greatly reduced because any new service (appropriately approved) will be able to use the basic infrastructure.
3. **Minimising project risk**: Excluding customer service elements from the basic infrastructure reduces cost, risk and complexity in the core collaborative build.
4. **Open access**: Separating infrastructure and services maximises prospects of universal participation and reduces coordination risks by allowing ADIs maximum flexibility to choose the supporting services and connectivity they need to offer services to their customers. As a practical matter, all ADIs will have to join the basic infrastructure in order to ensure that the capability for real-time payments is delivered; but not all ADIs (from small country mutual ADIs to business-oriented foreign banks) will be able or need to offer the same services to their customers, particularly considering the cost and benefit of doing so. This should be a matter for individual ADIs, having regard to their customers' needs.

3.3. The basic infrastructure

The basic infrastructure will provide open access hub architecture *(S8*), to which all ADIs can connect *(S9)* with the flexibility to support a very wide spectrum of needs. This will maximise economies of scale and network effects. It will also provide an addressing service to support simpler addressing requirements in the Core Criteria *(S5).*

The basic infrastructure will be developed as a new system. This will minimise the risk and impact to the efficient operation of existing payment systems *(S14).* It will also allow the new system to be built for the long term. It should offer the medium-term opportunity, if ADIs so choose, to transition away from existing basic low-value payments infrastructure of cheques and direct entry. This could only occur after the new infrastructure has reached a critical mass of transactions.

3.3.1. Guiding principles for the basic infrastructure

The Committee proposes developing infrastructure that will:

- **Enable innovation at the edge**: ADIs and others will have maximum opportunity and flexibility to competitively innovate and develop new services. The infrastructure will enable but not drive innovation over time *(S15).*
- **Be accessible to all ADIs and other approved entities**: Access arrangements to the basic infrastructure will be provided on a fair and transparent basis.

- **Serve all ADIs, with flexibility and scalability**: The basic infrastructure will need to be available to all ADIs and through them to their customers *(S7)*. All ADIs will be able to connect directly to the basic infrastructure and use it to provide payment services to their customers without having to use any other service that is connected to the basic infrastructure (including the initial convenience service). It must also be built with the objective of supporting as wide a variety of different payment uses as practicable, including some not yet conceived of.
- **Focus on efficiency, not growth**: The mission of the infrastructure is efficient processing *(S8)*, not system growth.
- **Focus on resilience**: The basic infrastructure must meet high levels of reliability and security with comprehensive disaster recovery and business continuity *(S11).*
- **Collaborative functionality**: The basic infrastructure will contain the required collaborative functionality to enable ADIs and other approved entities to offer services to their customers that meet the PSB objectives. Decisions regarding development of functionality within the basic infrastructure will be made on a collaborative basis by the governance structure of the clearing utility *(S15 and O4)*.
- **Focus on platform delivery, not commercial services**: The basic infrastructure's primary focus should be on providing a platform that supports fair and open access, on which other payment services can compete with each other, rather than on competing directly with other payment services *(S8 and S9)*.
- **Service provision**: The capabilities developed within the basic infrastructure to support overlay services (such as the initial convenience service) will be generally available to all overlay services on an equitable basis.

3.3.2. Guiding principle for use of the basic infrastructure

Organisations represented on the Committee intend to work constructively with any institutions who choose to join the basic infrastructure consistent with the initial strategic objectives listed in section 1.1 above, whether or not those institutions also choose to join the initial convenience service.

The Committee also proposes to invite other organisations who become involved in developing the real-time payments infrastructure to adopt these principles.

3.3.3. Core functionality for the basic infrastructure

The Committee proposes the following three core functions of the basic infrastructure:

Core Function 1: By the end of 2016 *(S13)*, the basic infrastructure will offer a capability for ADIs, on a close to 24 by 7 basis *(S6),* to initiate and receive a fast credit transfer using an ISO 20022 message format *(S10)* between customer accounts *(S1)*. ADIs who join will be required to receive credit transfer messages sent to them, but will not be required to initiate credit messages. The rules associated with processing credit messages will have the following characteristics:

- a specified maximum short time for confirmation of a valid payment message or rejection of a payment message by the receiving ADI back to the initiating ADI, so that the initiating ADI can advise its customer *(S1, S2 and S12)*; and

- capacity to include a specified maximum amount of additional unstructured data with the payment in line with APCA's current ISO 20022 Interbank Credit Transfer message *(S4 and S10)*[5].

Core Function 2: By the end of 2016, a separate payment scheme or service (including an initial convenience service) must be able to connect to the clearing utility to coordinate transaction activity amongst ADIs supporting the service (*S9)*.

Core Function 3: By the end of 2017 *(S13)*, an ADI must have the ability to identify an account at another ADI as the destination for a credit transfer using addressing information about the payee other than the account number (such as a mobile phone number). This will allow the payer to be able to confirm the account destination before execution *(S5).*

The Core Functions will be refined during the requirements development phase of the RTP Programme in the first part of 2013. The basic infrastructure will be functionally scalable with the ability to add new capabilities in the future, in accordance with the principles stated in 3.3.1 above *(S15).*

3.3.4. Access and participation

The basic infrastructure is designed to support real-time account to account payment services. Consistent with this, the primary participants are likely to be ADIs and service providers for ADIs and will require both access to an exchange settlement account at the Reserve Bank, and maintenance of transaction accounts on behalf of payers and payees. In addition, commercial hubs, services and schemes will be able to obtain access as overlay services.

Beyond these groups, it is possible that the basic infrastructure could provide access to other approved entities (for example, a large user of payment services). This can be considered as the detailed design of the basic infrastructure develops.

3.3.5. Meeting the Core Criteria in the basic infrastructure

The Committee believes that together Core Function 1, 2 and 3 provide for the RBA's Core Criteria. These core functions will be delivered in full by the basic infrastructure, without recourse to any other service (including the initial convenience service). However, Core Criteria S1, S2 and S12 may be interpreted as requiring the "Fast Payments Solution" to provide specific retail services to end customers, including "…cooperatively honoured prescribed maximum customer response times…"[6]. In the Committee's view this should not be interpreted so as to require the regulatory imposition of specific service requirements for end users.

The basic infrastructure will specify very fast turnaround times for all messaging, so that both Payer's ADI and Payee's ADI can be assured of near real-time processing through the system. All ADIs and overlay services will be obliged by the rules of the clearing utility to deal with each other in near real-time.

However, the Committee believes that the timing of each ADI accounting to its customer (including the payee ADI making funds available to the payee) should not be specified by the basic infrastructure. This should be left to service performance by the ADI having regard to its general law obligations, customer needs and market competitive pressures.

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[5] The Core Criteria require more complete remittance information using the ISO20022 data standard (*S4, S10*). They do not require the initial implementation to meet specialised automation needs of industry groups, but there will need to be capacity to meet these needs in the future.
[6] RBA's Core Criteria S12.

In the Committee's view, this is the best means of promoting flexibility, diversity and innovation in real-time payment services in the long term. For example, a small country credit union may not want to spend scarce member funds to implement real-time funds availability for its customers if they do not demand such a service. Similarly, a foreign bank operating in Australia, serving only international business customers should not be required to deliver real-time funds availability if its customers do not demand it.

With this policy logic in mind, the Committee argues that the intent of criterion S12 (collaborative honouring of prescribed maximum customer response times) is met by the basic infrastructure in that it will allow ADIs to provide this service, but not compel them to do so.

3.4. Initial convenience service

The Committee proposes that the initial convenience service will be developed by end 2016 as one of the first overlay services. The intent is to ensure that a compelling proposition for use of the basic infrastructure is available as soon as possible. The design of this service will depend on its commercial evolution, whether it is provided by an existing payment service or scheme, or developed from scratch. However, the Committee's intention is that it will focus on personal convenience payments, particularly those using mobile channels.

This service will need to offer enough business and operational support for ADIs to deliver an attractive value proposition to their customers. It will need to consider the merits of:

- specific rules relating to end customer service expectations, such as the obligation to post to an account and inform the payee in a very short timeframe;
- inter-ADI commercial arrangements such as incentive or interchange payments;
- technology to support payment products and channels attractive to particular user groups;
- branding, business development and marketing programmes; and
- inter-ADI risk management, fraud prevention and dispute resolution as appropriate for the particular services provided.

The initial convenience service will be open to all ADIs to join as they see fit. However, ADIs will always have the option to initiate and receive real-time payments directly through the basic infrastructure. ADIs will need to establish their own priorities for serving customers. In this way, the initial convenience service can maximise the prospects of early volume flowing through the basic infrastructure without requiring the immediate commercial commitment of all ADIs.

The initial convenience service will have to encourage participation through tailoring its offering to the needs of particular users. In this way, market forces will drive its pricing and service characteristics, and its prospects of success will be assisted by being able to rely on the future availability of the basic infrastructure.

3.4.1. Functions of the initial convenience service

The Committee does not intend for the initial convenience service to provide for any of the Core Criteria. The relationship between the initial convenience service and the basic infrastructure will be one of service provider (the basic infrastructure) and customer (the initial convenience service). In this way, the initial convenience service will rely on the basic infrastructure for:

- connectivity with ADIs,
- clearing message flows; and
- settlement processing (via the RBA settlement hub).

It will not be possible to use the initial convenience service without the basic infrastructure, whereas the basic infrastructure will not rely on the initial convenience service in any way.

The ADIs represented on the Committee intend to work with the selected provider of the new service to ensure they are able to join it as founding participants in a timely manner.

3.5. Description of the preferred business architecture

The proposals above lead to the preferred business architecture illustrated in Figure 1, with the initial convenience service as the first overlay service:

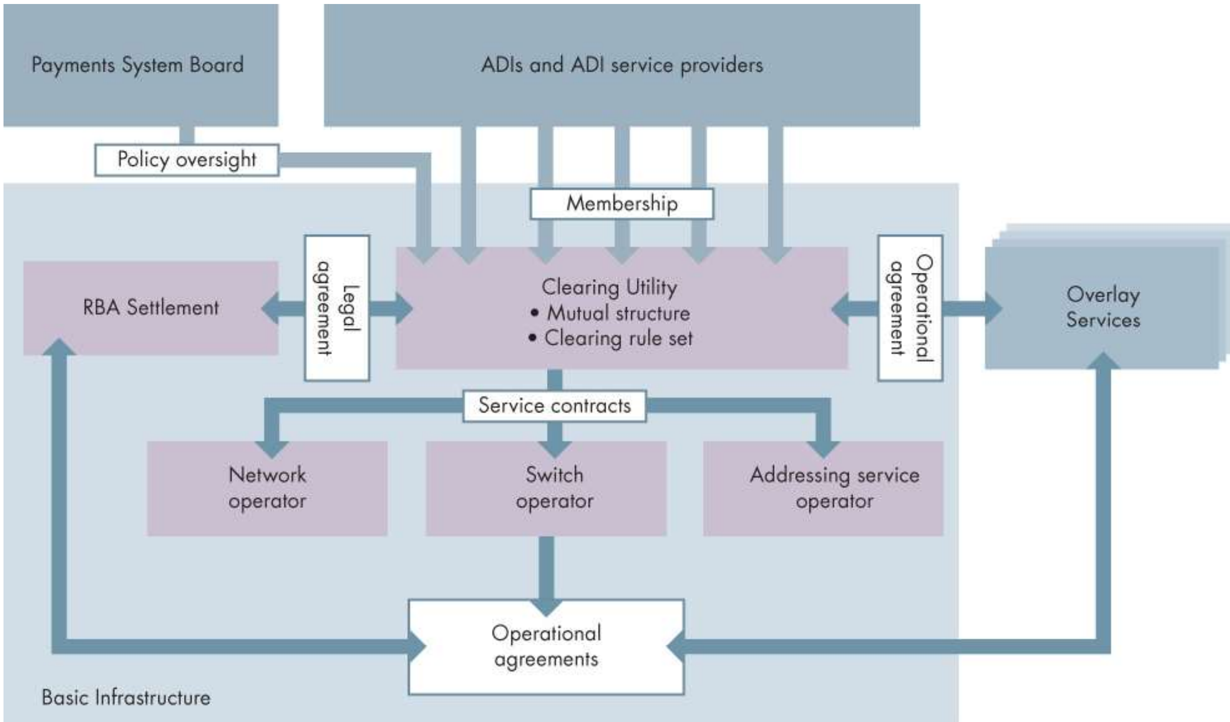


Figure 1. Business Architecture

The basic infrastructure will support all required message flows and associated rules:

- between ADIs and/or ADI service providers;
- between ADIs and the initial convenience service; and
- between ADIs and overlay services.

The detailed business architecture will be reviewed during the initial requirements development and design phase of the RTP Programme. The parties and relationships that make up the preferred business architecture are described below.

3.5.1. Clearing utility

The core of the business architecture is a central clearing utility. This will be owned and governed by a newly-created mutual organisation, referred to in this proposal as Utility Co[7], whose membership consists of ADIs, wholesale payment service providers for smaller ADIs, and any other approved entities in line with section 3.3.4 above. Membership includes:

- **rights** to use clearing and other services provided through the clearing utility *(S9)*; and
- **obligations** to pay fees and comply with the constitution and rules of the clearing utility.

The rules of the clearing utility will constitute a multilateral contract amongst all ADIs as members to support basic and flexible clearing services. The rules would set the obligations between members necessary to provide the Core Functions of the basic infrastructure. This will include all required rules to support the exchange of payment messages (e.g. dispute resolution and mistaken payments), commensurate with existing clearing streams, for example, BECS.

The utility will rely on external service providers for operational services. This will require it to maintain:

- legal arrangements with the RBA to detail settlement of clearing obligations through the RBA's proposed new settlements hub;
- an outsource service contract with a switch operator to deliver clearing services to members;
- an outsource service contract with a network operator to deliver communications network services to members;
- an outsource service contract with an addressing service operator to deliver addressing services to members (see below); and
- an operational agreement with the initial convenience service, subsequent overlay services, and approved entities connecting directly to support their activities. This aims to meet the Core Criteria requirement to provide support for "future approved entities, commercial hubs and schemes" *(S9).*

The clearing utility would provide centralised functionality such as:

- validation, including timing integrity (and appropriate responses) of all message exchanges;
- billing, system administration (e.g. participation management, overlay management), monitoring/alerts, logging and audit trails; and
- enquiry and reporting facilities for all transactions.

Depending on the outcomes of competitive selection processes, a single entity could provide more than one of these services, with corresponding modifications to contractual relationships. Similarly, the final content of the clearing utility rules will depend upon the capabilities and configuration of the selected operator systems.

[7] Utility Co refers to the legal entity, which, once established, will be the owner of the clearing utility.

3.5.2. Switch operator

The clearing switch operator is a service provider of clearing switch services, initially to deliver Core Functions 1 and 2 to ADIs. The switch operator would be selected through a competitive process (see Section 6.11). It would:

- set up and maintain operational interfaces to ADIs and the RBA using the network operator's communications network;
- operate a central clearing switch and all associated technology subject to service level requirements negotiated with the clearing utility and with appropriate performance incentives;
- provide defined operational support for overlay service interfaces (see below);
- maintain operational links to an addressing service as necessary (see below); and
- be subject to periodic service contract review and potential retendering by the clearing utility.

3.5.3. Addressing service

The addressing service delivers Core Function 3 and will include:

- rules and procedures for ADIs to associate customer attributes (possible attributes include mobile phone number, email address, Facebook account etc) with underlying account details;
- mutual obligations on ADIs to maintain customer attributes in the service; and
- rules to allocate risks and responsibilities for addressing privacy, error and fraud, possibly with dispute resolution procedures.

It is intended that the addressing service will be administered by the clearing utility and governed by the clearing utility rules. The clearing utility (or some other party depending on the final architecture) will need to maintain a contractual service relationship with an addressing service operator who will:

- set up and maintain operational interfaces to members possibly using the network operator's communications network or separately;
- operate an addressing service database and all associated technology subject to service level requirements negotiated with the clearing utility and with appropriate performance incentives;
- maintain operational links to the switch service, if necessary (see above); and
- be subject to periodic service contract review and potential retendering by the clearing utility.

3.5.4. Communications network

The communications network provides secure, resilient and scalable communications network linkages to support the connections to the switch services and, if required, the addressing service. This would need to include appropriate connectivity arrangements to suit the common needs of its ADI members, service providers and overlay services *(S9)*. If provided separately from the other services, the clearing utility would need to maintain a contractual service relationship with a network operator.

3.5.5. Overlay services

As part of the basic infrastructure, the clearing utility will provide limited defined services to ADIs. These will be sufficient to allow an ADI to develop its own payment products to offer to its customers, but the utility will not provide the kind of enhanced business and operational support provided by payment schemes such as BPAY and card schemes. Payment services and schemes can provide:

- specific workflow, service agreements, data requirements and technology to support payment products and channels attractive to particular user groups;
- branding, business development, marketing programmes, recommended pricing and commercial incentives; and
- inter-ADI risk management, fraud prevention and dispute resolution tailored to particular payment and transaction types.

The Committee anticipates that ADIs will see value in scheme services such as these for products that use the clearing utility. They may want to use an existing payment scheme to do this, or develop new collaborative or commercial arrangements.

It is proposed that the clearing utility will enable this by recognising and supporting overlay services. An overlay service can be any set of extra obligations and rights in relation to transfers in the clearing utility affecting two or more members. Messages in the clearing utility that are subject to the overlay service would be flagged accordingly, and could only flow between members who have agreed to participate in the overlay service. Participation in any overlay service would be optional for clearing utility members.

An overlay service could be housed within an existing payment scheme or service, or developed collaboratively from scratch by two or more members once the clearing utility commences operation. The clearing utility would recognise any overlay service which was not inconsistent with its own rules and operational processes, and provide operational and technical interfaces to support the overlay service.

3.5.6. RBA settlement

The Committee supports the RBA's ongoing role as settlement service provider. The RTP Programme will include a Settlement Hub Project to enable settlement of each payment from the new infrastructure in central bank funds through the enhanced RITS settlement service *(S3)*.

The business architecture assumption is that the RBA's settlement service will ensure that there is no settlement risk for ADIs, thus providing the ability to make funds available to the recipient in a timely manner without any credit risk exposure.

3.5.7. Standards maintenance

APCA has already established an Australian ISO 20022 standards maintenance framework to support ongoing evolution of the ISO 20022 standard in Australia and ensure alignment with global standards. The first product of the framework was the Australian schema, which is referred to in the Core Criteria. The Committee sees value in continuing with a collaborative standards framework to help align uses of ISO 20022 in Australian payments.

4. Ongoing Ownership, Governance and Funding

This section refers to the business architecture described above, particularly Figure 1. RBA "Ongoing Operation" Core Criteria are relevant *(O1 –O7).*

4.1. Governance and funding of the clearing utility

The Core Criteria require an operational governance body to ensure the secure, efficient and reliable operation of the system *(O2).* The body must have in place effective decision-making processes, independent representation and must take into account the interests of large, medium and smaller ADIs *(O3)*.

4.1.1. Governance

The proposed clearing utility offers a basic clearing service subject to rules that would bind members as a multilateral contract. It must have the capacity to evolve and develop over time in response to the needs of members, but will not operate in a highly competitive marketplace. It needs to be financially self-sustaining (with funding for ongoing re-investment), but need not be commercially oriented. *(O4)*.

A corollary is that business development risk rests primarily with ADIs, who will need to invest firstly to set up the clearing utility, and then to connect to it and comply with its rules.

All these considerations suggest a mutual governance structure for the clearing utility, where members as a community have the primary influence in decision-making *(O2)*. Broadly, influence and investment should be proportional to use of the system. However, decision making arrangements will be such that they don't unfairly favour any one category of member *(O3)*.

These arrangements will include independent representatives on the governance body. The independent representatives should have some rights in the decision making process *(G4)*. The RBA has expressed an interest in having an ongoing role in the governance of the clearing utility in its capacity as owner/operator of the Settlements Hub. The Committee proposes to work with the RBA to determine appropriate arrangements as the clearing utility governance is set up.

Given that initially there is likely to be an absence of competitive constraints, mutual governance is also desirable to avoid the risk of monopolistic behaviour by the clearing utility.

4.1.2. Managing conflicts

It is to be expected that large payments organisations will be involved in governance of the RTP programme and of the clearing utility, and also involved in other industry activities including the initial convenience service and other overlay services. This will require careful management of potential conflicts of interest. Potential inter-organisational conflicts are well understood in the payments industry because of the existing overlap in participation across different payments collaborations. The legal framework for managing conflicts of interest is well developed and includes:

- compliance with company law obligations;
- separation of functions and responsibilities;
- regular and complete disclosures of interest;
- use of independent chairs and other representatives; and
- exclusion from decision-making where a material conflict arises.

4.1.3. Funding

The clearing utility should, in a transparent manner, set and charge all members system fees sufficient to meet all operating costs and develop reserves for capital reinvestment over time at a level mutually agreed *(O4)*. The use of outsource arrangements to the clearing switch operator and addressing service operator will reduce initial and ongoing capital investment, to the extent that the operators can be assured of service fees to reflect their own investment.

The clearing utility would need dedicated management from an early stage of development. Founding members would need to fund the establishment of the clearing utility structure, develop its rules, develop its outsource service level requirements and conduct a fair and rigorous operator selection process.

It is proposed that APCA provide sufficient seed funding through its own membership structure to enable the establishment of the clearing utility governance structure, or Utility Co (anticipated by the end of 2013). The intention is that these funds would be contributed on a mutual, non-profit basis by APCA members. This would be the most efficient way of launching this major industry collaborative project. Once established, members of the clearing utility could take up the burden of funding initial development (with the associated rights and responsibilities).

The initial funding principles should consider how best to encourage early and widespread participation from ADIs, while ensuring that participation is available on standard and equitable terms to all potential participants.

Returns on investment by mutual members will primarily be realised by use of the clearing utility to offer profitable services to customers. Once the clearing utility takes on the project funding burden, it could choose to prescribe a rate of return on direct investment by mutual members, consistent with the operating principle of being financially self-sustaining. This will be a matter for the clearing utility governance to decide.

The initial convenience service is intended to be commercial, competitive, and separate from the clearing utility. It may not be a mutual structure. Principles of capital investment return will be a matter for the operator of the service.

4.2. Pricing principles

The board of the clearing utility will be responsible for setting utility fees. In the Committee's view, operating fees should:

- be mutually set;
- be transparent and fair, and promote access and prevent misuse of market power *(O5)*;
- cover costs associated with service provision, support, maintenance, infrastructure upgrade and future enhancements as mutually agreed (*O4)*; and
- facilitate accurate price signals to those choosing to use the service of the real costs of the service.

The clearing utility would also need to ensure that adequate protections against breaches of relevant competition law are in place for ADI members.

4.3. Operators and operating agreements

The operators — switch, network and addressing service — would need to be selected using an open competitive process based on preset criteria *(G8).* As the selection processes will ensure the best operator(s) are chosen, and the outsource contracts will ensure appropriate service levels, these entities can take any governance form. In the selection process, preference could be given to operations based in Australia *(O7)*. Outsource agreements will be on arms-length, commercial terms for reasonably long periods (say 7-10 years) subject to performance. They should however be subject to review at the end of the term to retain some level of contestability.

Ideally the operators will invest the capital to develop the services and recover investment through activity based service fees. However, it will be important to ensure the operators are properly funded notwithstanding uncertainty as to likely activity levels. It is not clear how the utility will be able to forecast activity levels through the system; it may be necessary for ADIs to commit to minimum activity levels, with fee incentives for reaching or exceeding those levels.

4.4. Policy oversight

As contemplated in the Core Criteria, the clearing utility's governance will expressly allow for ongoing public policy input, both in relation to the public interest and the RBA's role as settlement hub *(O1, O3 and O6)*. There would also need to be a framework for broader stakeholder consultation. This could be managed directly by the clearing utility, for example through white papers or advisory councils, or could be "outsourced" to a future Payments Council to minimise costs.

4.5. Initial convenience service

The initial convenience service is intended to be commercially offered and to compete directly with other payment services. As such, its ownership, governance, funding and pricing should be separate from the clearing utility and dictated by commercial and competitive factors. The Committee intends to conduct market soundings for entities interested in offering an initial convenience service. See Section 6.16.

All overlay services, including the initial convenience service, will rely on the basic infrastructure as described above. The clearing utility would have the power to charge fees to overlay services in a fair, equitable and transparent manner that promotes innovation and competition. Another approach might be to charge payer and/or payee institutions for all payments, including those initiated under any overlay service.

In determining its pricing policy to participants and overlay services, the clearing utility will need to act in a competitively neutral and transparent way, given that participants will compete with each other, and overlay services may compete with each other. Pricing principles will need to be developed as part of the project to set up the clearing utility.

5. Project Outline and Staging

The business architecture is intended to be delivered by the Real-Time Payments Programme (RTP Programme) according to the high-level timetable set out below in Figure 2:

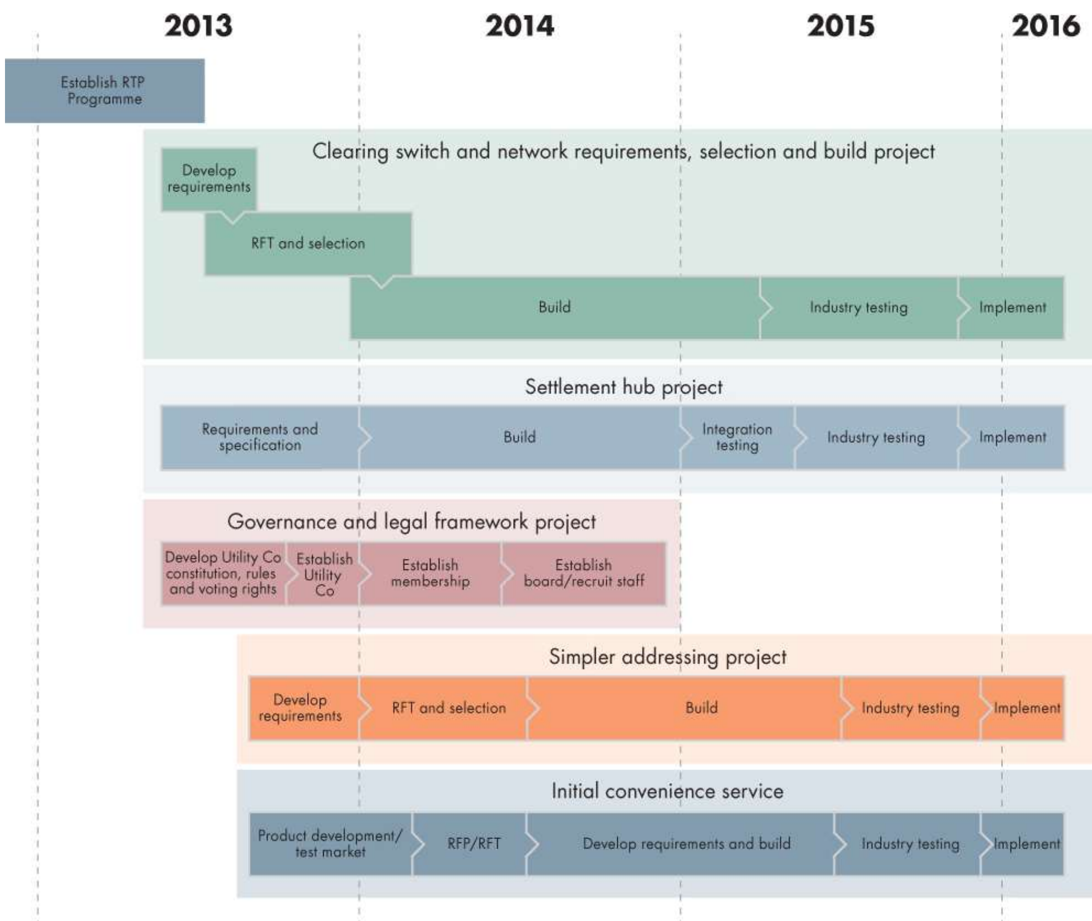


Figure 2. High-level timetable

5.1. Delivery targets

The RTP Programme Steering Committee should be established as soon as possible after acceptance of this proposal by the PSB. The Steering Committee should aim to establish Utility Co, as the operator of the clearing utility, by the end of 2013.

The Core Functions of the basic infrastructure and the initial convenience service are targeted to be available early 2016. The delivery of the basic infrastructure will not be dependent on the delivery of the initial convenience service or any other overlay service.

The basic infrastructure will support a migration period where not all ADIs are connected and can commence live operations following the readiness of connected ADIs.

Detailed plans for these projects will be developed as part of initiation programme phase, and will require sign-off by the RTP Programme Steering Committee.

6. Project Governance

The RTP Programme organisation chart is set out below in Figure 3.

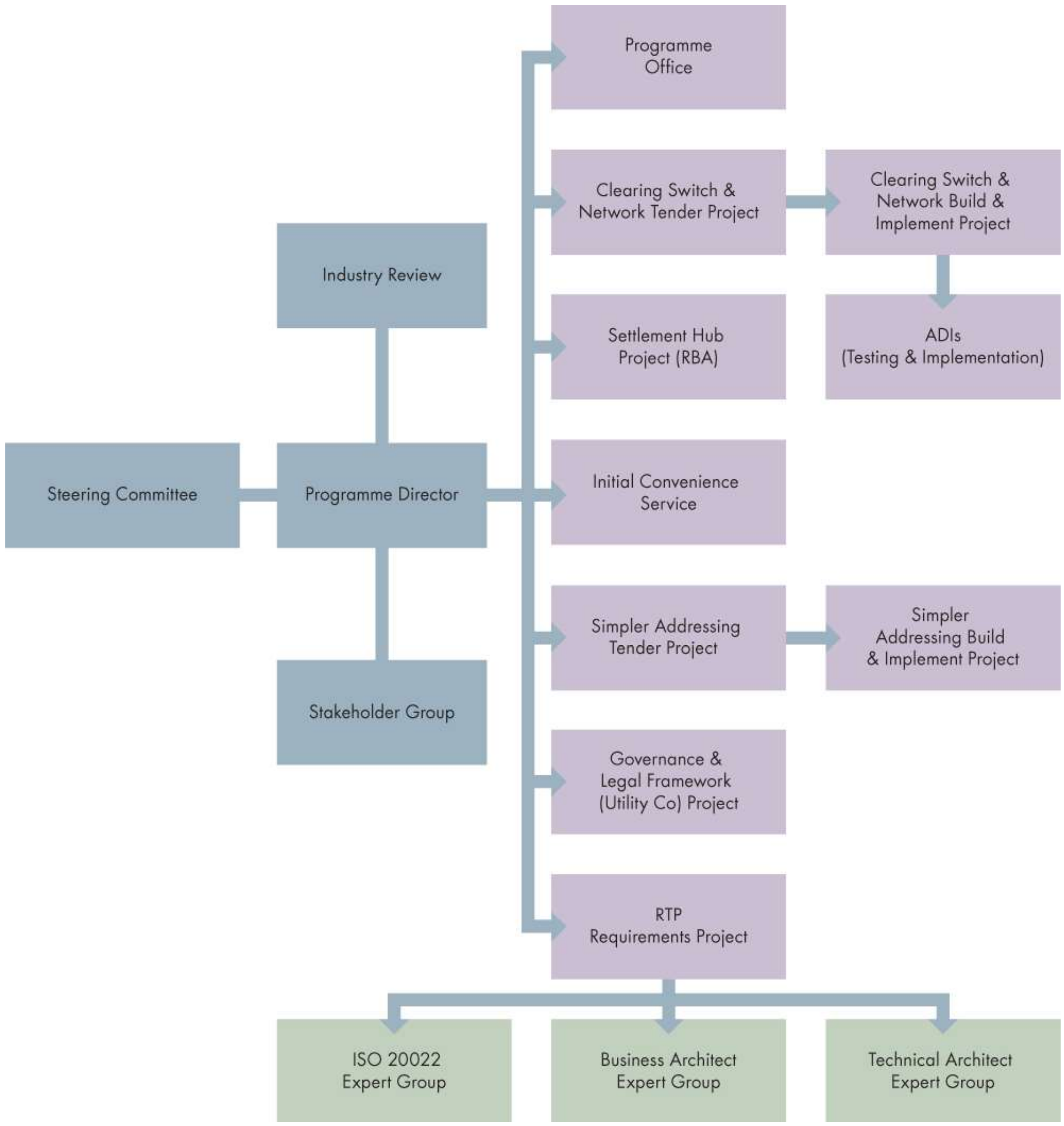


Figure 3. RTP programme organisation chart

6.1. Steering Committee

The RTP Programme will be overseen by a Steering Committee with full decision-making responsibility for the Programme *(G1)*.

The Steering Committee will manage the budget for the RTP Programme, other than the Settlement Project, which is RBA's responsibility.

The Steering Committee will include senior representatives of a cross-section of anticipated users of the basic infrastructure (small, medium, larger ADIs), and have an independent Chair *(G4)*. On this basis it is proposed that the organisation members of the existing RTP Committee, as well as an independent Chair, form the core of the Steering Committee. The Steering Committee should also include two senior executives of the RBA, representing policy and operational (settlements hub) perspectives *(G2 & G5)*, ensuring that the RTP Programme takes into account public interest considerations and representation from other industry stakeholders. The existing terms of reference of the Real-Time Payments Committee, which already refer to public interest considerations, would need to be amended to reflect changed composition and decision-making rights, and to meet the Core Criteria.

Decision making arrangements will be such that they do not unfairly favour any one category of member.

Project success rests on the ongoing commitment of key ADIs and the RBA. Accordingly, the Committee proposes the following staged approach to stakeholder commitment:

Stage 1: Publish the industry proposal once endorsed by the PSB.

Stage 2: Develop a memorandum of understanding (MOU) between ADIs to formalise engagement in the RTP Programme and intent to connect to the clearing utility. Signing the MOU will also provide membership to the Stakeholder Group. Organisations represented on the Steering Committee intend to be the initial signatories.

Stage 3: Once detailed plans are developed and costed, the Steering Committee will seek commitment of funds by ADI members to participate in the clearing utility and fund the RTP Programme, as per an agreed schedule.

6.2. Programme Director and Program Office

6.2.1. Programme Director

The Programme Director will manage the overall RTP Programme reporting to, and being accountable to, the Steering Committee directly.

The Director will, supported directly by the Programme Office, develop a comprehensive programme plan (for the approval of the Steering Committee) that will enunciate the RTP Programme objectives and describe how the Programme will be conducted to meet those objectives. The Programme Director will also be supported and overseen as appropriate by the Industry Review function.

Importantly, the Programme Director will establish and promote relationships with key interested parties such as the RBA Policy area and the proposed Payments Council.

6.2.2. Programme Office

The Programme Office will provide support to the Steering Committee and the Programme Director in execution of the overall RTP Programme. It will be managed by project managers, reporting to the Programme Director, and staffed by programme office resources.

Key functions to be undertaken will include:

1. Overall RTP Programme planning, tracking and status reporting *(G7)*;
2. Clearly identifying roles and responsibilities in relation to the Programme plan;
3. Overall RTP Programme budget and expenditure control;
4. RTP Programme Risk Management;
5. Identifying and addressing conflicts of interest *(G3)*;
6. Support, including secretarial, for the Steering Committee and the Stakeholder Group;
7. Developing and implementing criteria and processes for solution providers *(G8).*
8. Overall RTP Programme communications both internal and external *(G7)*;
9. RTP Programme architecture and design review; and
10. Execution of RTP Programme quality plan, including both internal and external audit (*G10*).

The Committee has determined that the Programme Director and Programme Office should be provided independently from ADIs on an outsourced basis. The intention is to hire a highly professional and skilled organisation to supply the Programme Director and Programme Office and to take responsibility for the delivery of the Programme reporting directly to the Steering Committee. The Steering Committee will set clear objectives and timeframes for delivery and receive regular status reports of progress made. The outsource contract will include key performance criteria to ensure the selected organisation has clear responsibilities in relation to programme progress and success. In the Committee’s view this approach reduces delivery risk as the organisation engaged will have both strong reputational and commercial interest in seeing a successful project through to its conclusion.

6.2.3. External audit

An expert external audit capability, independent from the providers of the Programme Director and Programme Office, will be available to the Steering Committee and there will also be an “Industry Review” function to work closely with the Programme Manager to both assist in delivery and to review progress *(G10)*.

The Committee will undertake a selection process to choose a provider in early 2013 by inviting suitably qualified organisations to tender to APCA for supply of the Programme Director and Programme Office.

6.3. Stakeholder Group

A Stakeholder Group will be established with a representative of each ADI to be connected either directly or indirectly to the basic infrastructure and relevant service providers. The representative will be a senior officer of the ADI with relevant responsibility for their organisation's ability to connect to and to process payments received.

The representative will be the escalation point for the RTP Programme should an ADI provide an adverse status report on its organisation's progress against plan. The representative may be required to provide a report to and/or attend the Steering Committee to provide a full explanation and a rectification report.

A Stakeholder Group forum will be held early in the project to apprise all participants of the Programme objectives and plan, and subsequently at critical Programme milestones (*G7*). Any concerns raised by a Stakeholder will be referred to the Steering Committee by the Programme Director where it cannot be resolved to the satisfaction of the Stakeholder (*G6*).

6.4. Community Liaison

The views of the broader community have been addressed through extensive consultation over the last two years. Further broad community consultation at this stage would delay the project significantly. RBA's close involvement will ensure broader interests are taken into account.

For the future, the Programme should consider appropriate publication and consultation as work proceeds. It is also expected that individual ADIs will work closely with their customers (e.g. end users, merchants, etc.) and their service providers. The Steering Committee will establish a point of contact for interested parties outside the Stakeholder Group at the commencement of the Programme *(G7)*.

6.5. Industry Review

The Industry Review function will provide guidance and support to the Programme Director and will be staffed by industry representatives. The function will have the requisite payment industry skills, experience and knowledge to support the Programme Director in delivery of the RTP Programme's outcomes and to provide guidance in relation to urgent matters. This will include expertise in Stakeholder engagement.

6.6. Real-Time Payments Requirements Project

The Real-Time Payments Requirements project will develop the functional, technical and network requirements for building the infrastructure. It will be headed by a project manager, reporting to the Programme Director, and staffed by business/technical analysts. This group will need to liaise with experts from the relevant ADIs and the RBA in the development of the requirements.

Note. This project could be outsourced.

6.7. Business Architecture Expert Group

The Business Architecture Expert Group will assist the Real-Time Payments Requirements Project in the development of functional requirements for the basic infrastructure build. This group will comprise representatives from ADIs with the necessary expertise.

6.8. Technical Architecture Expert Group

The Technical Architecture Expert Group will assist the Real-Time Payments Requirements Project in the development of technical and network requirements for the basic infrastructure build. This group will comprise representatives from ADIs with the necessary expertise.

6.9. ISO 20022 Standards Expert Group

The ISO 20022 Standards Expert Group will assist the Real-Time Payments Requirements Project in the development of the appropriate ISO 20022 messages to support the basic infrastructure build. This group will comprise representatives from ADI's with the necessary expertise.

6.10. Governance and Legal Framework Project

The Governance and Legal Framework project will develop the MOU, then establish the Utility Co and its governance and operating arrangements, including membership, representation and decision-making rights and funding burden of its membership. It will develop the rule framework for the basic infrastructure — the rights and obligations assumed by participants and the compliance framework applicable to these.

6.11. Clearing Switch & Network Tender Project

The Clearing Switch and Network Tender Project will run a tender process through to selection and contractual sign-up with the clearing switch and network vendor selected. It will be headed by a project manager, reporting to the Programme Director, and staffed by business analysts and legal officers. ADI member resources will be used during the evaluation process.

The selection process will be subject to a fair, transparent and objective process, with appropriate management of conflicts of interest *(G8)*.

The final selection of the clearing switch and network provider will be made by the Steering Committee. The owning or contractual body will be Utility Co, or APCA on a transitional basis depending on the timing of the formation of Utility Co.

Note. This project could be outsourced.

6.12. Clearing Switch & Network Build & Implement Project

The successful vendor for the clearing switch and network build will be required to provide a single contact point (Project Director) to oversee this work and report on progress to the Programme Director *(G9)*.

6.13. Settlement Hub Project (RBA)

The RBA will be required to provide a single contact point (Project Director) to oversee this work and report on progress to the Programme Director.

6.14. Simpler Addressing Tender Project

The Simpler Addressing Tender Project will run a tender process through to selection and contractual sign-up with the simpler addressing vendor selected. It will be headed by a project manager, reporting to the Programme Director, and staffed by business analysts and legal officers. ADI member resources will be used during the evaluation process. The Committee notes that privacy issues related to offering the service will need to be carefully addressed and evaluated by ADIs.

It may be determined that this tender process be merged with the tender process for the clearing switch.

The selection process will be subject to a fair, transparent and objective process, with appropriate management of conflicts of interest *(G8)*.

The final selection of the addressing solution will be made by the Steering Committee. The owning or contractual body will be Utility Co, or APCA on a transitional basis depending on the timing of the formation of Utility Co.

Note. This project could be outsourced.

6.15. Simpler Addressing Build & Implement Project

The successful vendor for the simpler addressing build will be required to provide a single contact point (Project Director) to oversee this work and report on progress to the Programme Director (*G9*).

6.16. Initial Convenience Service Project

The programme governance will not have responsibility for implementing the initial convenience service. Instead, the intention is to invite expressions of interest from service providers and schemes to independently offer an initial convenience service timed to commence at the same time as the basic infrastructure. The role of the RTP Programme will be to coordinate the timing of delivery of the initial convenience service, to be developed separately by the successful tenderer.

It is possible that the Steering Committee may need to consider multiple proposals from different bodies. The provision (build and implement) of this service could be achieved either by ADIs that have opted to be part of the development or by an existing service provider.

Once a plan is agreed with a proposer, the coordination aspects of implementing the selected service will fold in to the overall RTP Programme to ensure a coordinated effort and an efficient use of resources.

While the primary goal of the RTP programme will be delivery of the basic infrastructure, the expectation is to deliver the initial convenience service at the same time in order to maximise early take-up. However, the basic infrastructure is not functionally dependent on the initial convenience service or any other overlay service.
Note. This project could be outsourced.

7. Next Steps

Following the approval of this proposal by the PSB at their February 2013 meeting, the RTP Programme will be launched as quickly as possible. The Committee is already undertaking preparatory work in anticipation of this. Immediate next steps on approval would be:

1. This Proposal to be published on the APCA website;
2. APCA to confirm initial seed funding;
3. The Committee to be reconstituted into the RTP Steering Committee, and a schedule of meetings established (section 6.1);
4. The Steering Committee, supported by APCA management would begin selection of an independent outsource organisation for Programme Director and the Programme Office; and
5. APCA management would develop a Memorandum of Understanding and Terms of Reference for a Stakeholder Group (section 6.1).

New Payments Platform

Secretariat
Payments System Review
The Treasury
Langton Crescent
Parkes ACT 2600

Delivered via email: *PaymentsReview@treasury.gov.au*

NPP Australia's submission to Treasury's Payments System Review

NPP Australia welcomes the opportunity to provide a response to Treasury's Payments System Review into the payments system regulatory architecture. NPP Australia is the company established to oversee the operation of the New Payments Platform (**NPP**), the country's real-time payments infrastructure.

The NPP enables Australian consumers, businesses and government agencies to make and receive data-rich payments in real-time between bank accounts, 24 hours a day, 7 days a week, 365 days of the year. More than 72 million accountholders can now make and receive payments via the NPP, and this number continues to grow. The NPP now processes around 2 million payments a day, or 25% of all account-to-account credit transfers in the market[1].

NPP Australia's perspective on the issue of regulatory architecture of the Australian payments system is that:

1. Overall, the current regulatory architecture is working well and meeting the core objectives of ensuring safety, security and stability in the payments system, whilst also working in the public interest to promote efficiency and competition:
   - Much can be achieved under industry self-regulation and the industry working together to drive change that is in the public interest. The creation of the NPP is an illustration of that in practice.
   - In NPP Australia's experience, driving competition and innovation is not a regulatory issue but rather one of capability deployment and creating the required network effect.
   - The development that will have the biggest impact on driving innovation in real-time account-to-account payments will be the delivery of the NPP's Mandated Payments Service, which will enable third party payment initiation. This capability is the most frequently requested capability that NPP Australia hears from the market.

2. However, there are opportunities to consider improvements and refinements to the current system:
   - There are opportunities to strengthen the RBA's regulation of the payments system by strengthening the Payments System Board and/or by elaborating the government's payments policy expectations of the RBA for areas within the RBA's purview and by elevating the role of Treasury in areas beyond the RBA's remit.
   - The main issue that needs addressing is one of licensing. This issue has been outstanding for some time now and the Stored Value Regulation (SVR) process provides some instructive insights in relation to this issue.
   - There would be benefit in some specific improvements relating to certain payments-related areas that would help remove current sources of friction.
   - Finally, although it does not relate to the payments regulatory framework, given the focus in the Terms of Reference for this Review on the Government's appetite to hasten the rollout of faster, data-rich payments in Australia, then we observe that one way to achieve that outcome would be for the payments industry to set a defined closure date for the BECS system. NPP Australia, among others, will continue to pursue this.

These areas are further elaborated on in the sections below.

[1] Source data: Reserve Bank of Australia's payments data Schedule C06-1 hist

1) Opportunities to enhance the current regulatory architecture

There are many positive attributes about Australia's current payments landscape and regulatory architecture, relative to other jurisdictions. The Reserve Bank of Australia, as the primary payments system regulator, tends to take a thoughtful, balanced and considered approach to their role, consulting broadly with the market to seek the views of a range of diverse stakeholders and signalling actively before making any changes or recommendations.

Introducing any radical change to the current regulatory architecture may introduce undue risks and undermine outcomes, without necessarily delivering a better result. In the view of NPP Australia, any likely upside appears somewhat limited and the preferable course of action may be to consider modifications to the current approach.

The Payments System Board, appointed by Government, is responsible for determining the RBA's payments system policy. NPP Australia would like to suggest some specific recommendations for Treasury to consider in strengthening the Payments System Board:

Recommendation 1:

a) Government could consider appointing Payments System Board representatives with greater levels of payments knowledge, including of contemporary issues, and/or a more frequent cadence of meetings, which could provide more challenge and contestability to the RBA's thinking
b) The use of other non-legislative instruments could be utilised to provide more specific direction about the policy outcomes being sought by Government. For example, a more detailed direction to the RBA, APRA and/or Treasury could be incorporated into the Government's Statement of Expectation process.

Refining the current payments regulatory approach in such a way is consistent with the approach adopted by Parliament and the RBA management of the inflation target. An overall direction about the outcome sought is provided to the RBA, who is then able to determine the best way to deliver that outcome given specific market circumstances.

2) Issue of licensing in the payments system

In contemplating any possible change to the payments regulatory architecture, focus should be on assessing the current licensing regime and addressing gaps that currently exist. The recent Stored Value Regulation (SVR) can provide some instructive insights into this issue.

The NPP was intentionally designed to be 'open access', encouraging broad participation while maintaining safeguards needed for a real-time payments system and the ongoing protection of consumers. The NPP access framework has a range of different access options, allowing for both direct and indirect connectivity. In applying this access framework, NPP Australia has taken the intentional decision to rely on regulatory licensing determined and supervised by the appropriate regulatory authorities. APRA and ASIC, as two regulatory bodies primarily tasked with licensing responsibilities in the market are well resourced and equipped with the systems and powers to perform this role effectively. NPP Australia has neither the resources nor the remit to establish its own licensing approach, nor would doing this make sense, when existing organisations have been established to perform this function. This approach is adopted by most other payment systems internationally.

NPP participation criteria are set on the basis that parties are bound to comply with all relevant laws, including prudential standards, conditions of licences, consumer protection and market conduct laws, AML and CTF requirements and any standards or requirements imposed by the RBA or any other regulator for the effective regulation of the payments system. Eligibility and operating rules are essentially based on risk.

Regulatory oversight of entities providing payment services, particularly prudential supervision, provides a relatively high degree of assurance to NPP Australia and other participating organisations that NPP Participants are able to manage operational, financial, conduct and other risks relevant to participation in the NPP. Hence the requirement that directly connected NPP Participants (who clear and settle NPP payments), be prudentially supervised.

However, the current licensing framework in Australia has a gap between what is required to hold an AFSL licence and what is required to be an ADI regulated entity. Unlike other markets, there is nothing in between these two constructs in the form of some type of e-money licence. In the context of the NPP, this presents an issue for any organisation wanting to connect directly to the NPP and who does not hold an ADI licence.

In comparison, the UK has created a supervised regulatory framework for non-ADI specialist Payment System Providers (PSPs) and these PSPs are permitted to connect directly to the UK Faster Payments Service (under a pre-funded settlement model). While these organisations may not have a banking or ADI licence, they are subject to conduct, licensing and supervision as a class of regulated entity, which does not have a close equivalent in Australia.

This has been the subject of review for a number of years now, as far back as 2014 when it was first raised by the Financial System Inquiry[2] which recommended 'enhanced graduation' of retail payments regulation, but it has taken six years for a recommendation to be published in 2020, with implementation not expected until later this year. This pace of change is too slow, resulting in the regulatory licensing framework not keeping in line with market developments. It should also be noted that any change to the licensing regime requires legislative change and involves multiple parties including the RBA, Treasury, APRA and Government (hence the need for the CFR involvement in the SVR reform).

If the regulatory framework is to adapt to meet the needs of the market as the rate of market change accelerates in the future (which is highly likely), then the process and mechanisms for driving change have to be more efficient. As the payments market evolves, it will be important to ensure that the regulatory licensing regime can adapt as and when required in a timely manner to remain fit for purpose.

Another insight from the SVR process is that it is not immediately clear from the current proposal that it will result in the policy outcome that was initially intended. The reform proposes creating two categories of licensed SVFs – one category prudentially regulated and supervised by APRA and the other to be regulated by ASIC.

Whilst the category of SVFs to be regulated by APRA, as prudentially supervised entities required to meet specific standards and requirements, could be considered a category of non-banks that may be granted direct access to the NPP, it is not clear that implementation of the reform will actually result in a meaningful increase in the number of prudentially regulated entities[3] compared to those already licensed under the current PPF structure.

On the other hand, the proposed requirements for the category of SVFs regulated by ASIC (primarily to comply with the ePayments code and to hold an AFSL license), do not appear to go far enough when considering granting non-banks direct access to a real-time payments system. In NPP Australia's preliminary assessment, for a non-bank seeking to connect directly to the NPP, the proposed category of SVFs regulated by ASIC would not provide sufficient

[2] Financial System Inquiry, Final Report, November 2014, at http://fsi.gov.au/publications/final-report/

[3] Although Box C in the CFR paper on Regulation of Stored Value Facilities in Australia does allude to some potential evolution of APRA's prudential approach which may open up SVR regulation to more parties.

assurance to NPP Australia that the holder has adequate operational risk, financial risk, liquidity and governance controls in place.

These proposed reforms can be contrasted with the e-money licensing approach adopted in both Europe and Singapore, which have established specific standards relating to operational risk, governance and liquidity combined with lighter touch prudential supervision for this category of organisation.

In its access regime, NPP Australia primarily relies upon the Australian regulatory licensing regime and therefore relies on this to evolve in line with market developments. NPP Australia has called for an e-money licence to be created (between an AFSL and an ADI) on four separate occasions in responses to various regulatory reviews[4]. If a new class of regulated entity under the e-money licence is to be created in the market, NPP Australia stands ready to support these changes when they are introduced, as we did previously when APRA created the new class of regulated entity under the Restricted ADI license in March 2018. The NPP access framework is flexible enough or able to be modified to adapt to any changes in the broader licensing regime as that evolves.

Recommendation 2:
While the role of RBA in regulating areas within its regulatory remit is relatively clear, it is unclear how payments policy issues which are beyond the scope of the RBA are dealt with. The experience of SVR regulation suggests that there is a need for an agency to take overall responsibility for driving payments issues which are outside the RBA's mandate – in our view this should most logically be Treasury.

Payment Initiation

Under the NPP access framework, a Connected Institution is an organisation who can connect directly to the NPP for the purposes of sending payment initiation messages[5]. Payment initiation messages, which are essentially only *instructions* for a payment to be made, are inherently less risky than a payment clearing message, which entails the *actual* transfer of value from payer to payee. Payment initiation messages only result in the transfer of value when they are acted upon by an NPP Participant.

The eligibility criteria for NPP Connected Institutions have been developed on the assumption that these parties are not ADIs, nor necessarily AFSL holders, and in this case, NPP Australia would conduct its own assessment (including through reliance on expert third party assessors) of an applicant's competencies and their ability to meet NPP Australia's technical, operating and security requirements.

Similarly, there are opportunities to more closely align future developments in SVR regulation, as well as accreditation under CDR, with the eligibility criteria for NPP Connected Institutions and payment initiation messages.

[4] Productivity Commission 2018, RBA/ACCC Review into NPP Access and Functionality 2018, Senate Inquiry into Fintech 2019, RBA Review into Retail Payments Regulation 2019

[5] As Connected Institutions are not involved in the clearing and settlement of NPP payment messages and they do not themselves hold funding accounts, they do not need to be an ADI. For more information, see options for Accessing the NPP.

3) Opportunities to remove specific sources of friction

Recommendation 3:
In NPP Australia's view, there would be considerable benefit in considering making changes which would help remove some current sources of friction in payments, specifically in the areas of:

a) Sanctions
b) AML/CTF Tipping off provisions
c) Privacy

a) Sanctions

More clarity in general is required with respect to what the obligations of financial institutions are in terms of screening domestic payments in a high volume, real time system. Historically, domestic payments have not been sanctions screened on the basis of both domestic and international guidance (e.g. the ABA Sanctions Guidance, the Wolfsberg Group guidance on screening) which has suggested payments between domestic accounts present a low sanctions risk and that screening is not generally required. However, anecdotally we understand from financial institutions participating in the NPP that more recent advice from AUSTRAC and DFAT is less clear. This lack of guidance and clarity creates confusion, making it difficult for regulated institutions to have a level of comfort around what is expected of them and ensuring an accurate understanding of what their obligations are.

NPP Australia would recommend that consideration be given to moving responsibility for sanctions from DFAT to AUSTRAC as the latter organisation are better resourced and equipped to deal with this issue. It would also be valuable if AUSTRAC had the legislative power to be able to approve guidance issued by private sector bodies, such as the ABA[6]. It may also be useful to consider undertaking a review of which industries and professions need to comply with AUSTRAC reporting legislation as it relates to payments. Solicitors, Accountants and Real Estate agents are some examples of sectors considered under previous Government industry reviews that have not been completely solved for or progressed.

b) AML/CTF Tipping off provisions

It would be useful to consider explicitly exempting the exchange of interbank rejection and information messages (regarding holds and so on) from tipping off provisions of the AML/CTF Act where those messages are necessary to facilitate payments processing.

c) Privacy

In addition, it would be useful to consider explicitly exempting the exchange of PII in interbank payments messages from consent requirements where the PII is required to facilitate compliance with AML/CTF obligations as part of the payment processing flow and where the messages are otherwise subject to privacy and security obligations.

4) Achieving change and public interest objectives under self-regulation

Much can be achieved under industry self-regulation and the industry working together to adopt change that is in the public interest. Both the creation of the NPP and the more recent domestic payments consolidation discussions are illustrations of this in practice.

[6] See https://jmlsg.org.uk/guidance/

In the right circumstances, industry-owned payments companies with a public policy objective can achieve outcomes which are in the public interest. For example:

- In the case of NPP Australia, a series of "pro-access" and transparency measures were adopted without the need for regulatory intervention, such as the NPP access framework, Board composition (where the four major banks have four votes from 12 despite contributing nearly 80% of the capital), publication of Board meeting records, certain decisions being delegated to independent directors and the establishment of a mandatory compliance regime to drive the take-up of certain functionality.
- The development of the NPP international payments business service is an example of the industry coming together to make better use of data to improve cross-border payments and more effectively address issues such as AML and financial crime risks.
- The consolidation of domestic payments companies proposed by industry will build on these features and incorporate further improvements in terms of governance by giving all shareholders equal rights regardless of their size and by enabling shareholding via a nominal capital contribution.

5) Driving innovation and competition – reflections on the NPP experience

The Terms of Reference for this Review poses the question of how to create more productivity-enhancing innovation and competition in the payments systems, including in relation to the pace and manner in which the NPP is being rolled out and enhanced by industry.

The NPP was launched nearly three years ago. Today, more than 72 million accountholders can make and receive payments via the NPP and this number continues to grow. Over 100 banks, credit unions, building societies and fintechs[7] are connected to the NPP, 11 directly and over 90[8] indirectly.

The platform now processes around 2 million payments a day, accounting for 25% of all account-to-account credit transfers in the market. The platform has processed close to $1.5 trillion[9] in payments since going live and the largest single transaction settled on the platform so far is $19.8 billion. Close to 6 million PayIDs have been registered by individuals and businesses wanting to leverage this simpler and faster way to receive payments directly into their bank account.

An increasing number of organisations make and receive NPP payments, ranging from new neobanks, payment service providers, cross-border remittance companies and cryptocurrency exchanges, fintechs, corporates and government agencies. As participating financial institutions and third-party payment providers roll out NPP payment services, more and more businesses are benefiting from real-time payments from their customers, real-time payment validation and automated reconciliation.

Most consumers and businesses want to be able to make payments faster, more efficiently and with certainty. Based on NPP Australia's experience, driving competition and innovation in payments requires the deployment of capability that supports the needs of consumers and businesses, and delivering the required network effect by ensuring enough financial institutions are participating.

NPP Australia is focused on enhancing the capability of the platform to meet the needs of participating financial institutions, payment providers and payment system users, whether for P2P payments or more complex B2B

[7] See https://www.nppa.com.au/find-an-institution/ for more information on who is participating in the NPP
[8] Including subsidiaries and sub-brands
[9] This includes payments between different government agencies which are not reported in the RBA's C06-1 hist schedule

payments. The NPP Roadmap October 2020[10] outlines the plans to further extend the platform's capabilities that can be used by all parties in the payments ecosystem:

These capabilities will be delivered as NPP business services which have their own set of rules that define how the different payment messages are processed between participating financial institutions. Third parties can then use these business services in a variety of ways and incorporate them into their own product and service offerings outside of the platform (i.e. supporting competition and innovation 'at the edges'). We are starting to see examples of this emerge in the market, such as the development of the AzupayID service, Earnd's on-demand pay offering and real time payments receivables and payables solutions being implemented by payment service providers such as Assembly Payments, Monoova and Split Payments[11].

The delivery of the NPP's Mandated Payments Service (MPS) is expected to be instrumental in driving innovation in the payments industry. The MPS will enable customers to authorise third parties to initiate payments from their bank accounts using the NPP. This capability, governed by a rules framework and liability model, will be operated in the public interest by NPP Australia for the benefit of all market participants and is the capability most frequently requested by the market.

The MPS has been intentionally designed to support a broad range of use cases and different payment initiation scenarios including fintech applications and service offerings, merchant initiated ecommerce and in app payments, 'on behalf of' payment services offered by third parties, e.g. a cloud accounting software provider authorised by a corporate banking customer to manage their finance functions such as payroll, and a better alternative to current direct debit payments.

Third parties that want to use the NPP to initiate payments using the MPS will have a range of access options[12]. This includes the option to connect directly without the need for an ADI licence as a Connected Institution. A key feature of the MPS is that third parties that want to initiate payments only require ***one*** access point to the NPP infrastructure. This one access point will enable payments to be initiated, with the customer's authorisation, from any one of the 72 million NPP enabled accounts.

As referenced in the recently released report on the Future Directions for the Consumer Data Right[13], the MPS will deliver customer authorised, third party payment initiation for real-time, account-to-account payments[14], without requiring any additional build or investment by the 100+ financial institutions participating in the NPP today. Moreover, it could be the means by which financial institutions can meet any potential obligations to deliver payment initiation or 'write access' under the Consumer Data Right.

10 See the NPP October 2020 Roadmap
11 For more information, see the NPP October 2020 Roadmap or listen to NPP's podcast series 'NPP Soundbites'
12 For more information on access options see https://nppa.com.au/the-platform/accessing-the-platform/
13 See https://treasury.gov.au/sites/default/files/2020-12/cdrinquiry-accessiblefinal.pdf
14 As distinct from payments which may be initiated using card rails which are also attached to accounts

Changes to the regulatory architecture are unlikely to have a significant impact on innovation in the market, which instead relies on the availability of certain core underlying capability, such as the widespread availability of APIs and payment initiation capability.

The proposed domestic payments consolidation should further assist with capability deployment and supporting innovation, with faster speed to market of new capability, more efficient allocation of capital and a more integrated industry payments roadmap.

Finally, although it does not relate to the payments regulatory framework, given the focus in the Terms of Reference for this Review on the Government's appetite to hasten the rollout of faster, data-rich payments in Australia, then we observe that one way to achieve that outcome would be for the payments industry to set a defined closure date for the BECS system. This would have the effect of changing the market's frame of reference and focus the ecosystem on actively looking to move corporate payments over to the NPP, sooner rather than later. NPP Australia, among others, will continue to pursue the goal that the payments industry settles on a defined closure date for BECS.

About the New Payments Platform (NPP) and NPP Australia Limited

The New Payments Platform (**NPP**) is designed to support a 24/7 modern, digital economy. It provides a fast, flexible and data-rich payments system that enables Australian consumers, businesses and government agencies to make real-time account to account payments.

Speed
Real-time movement of funds and immediate funds availability

Always on
Always available, processing payments 24 hours a day, seven days a week, 365 days a year with no cut off times

Data enriched
Extensive data capabilities with the ability to carry additional data with the payment using the ISO 20022 message structure.

Simpler addressing
An easy-to-remember identifier (a PayID) which has been linked to an underlying bank account. Also provides confirmation of payee.

Utility payments infrastructure
Operating as non-profit maximising utility payments infrastructure, the NPP is owned by 13 shareholders[15] (both large and small financial institutions and including the Reserve Bank of Australia) for and on behalf of the Australian payments industry. NPPA is a public company established to oversee the development and operation of the NPP.

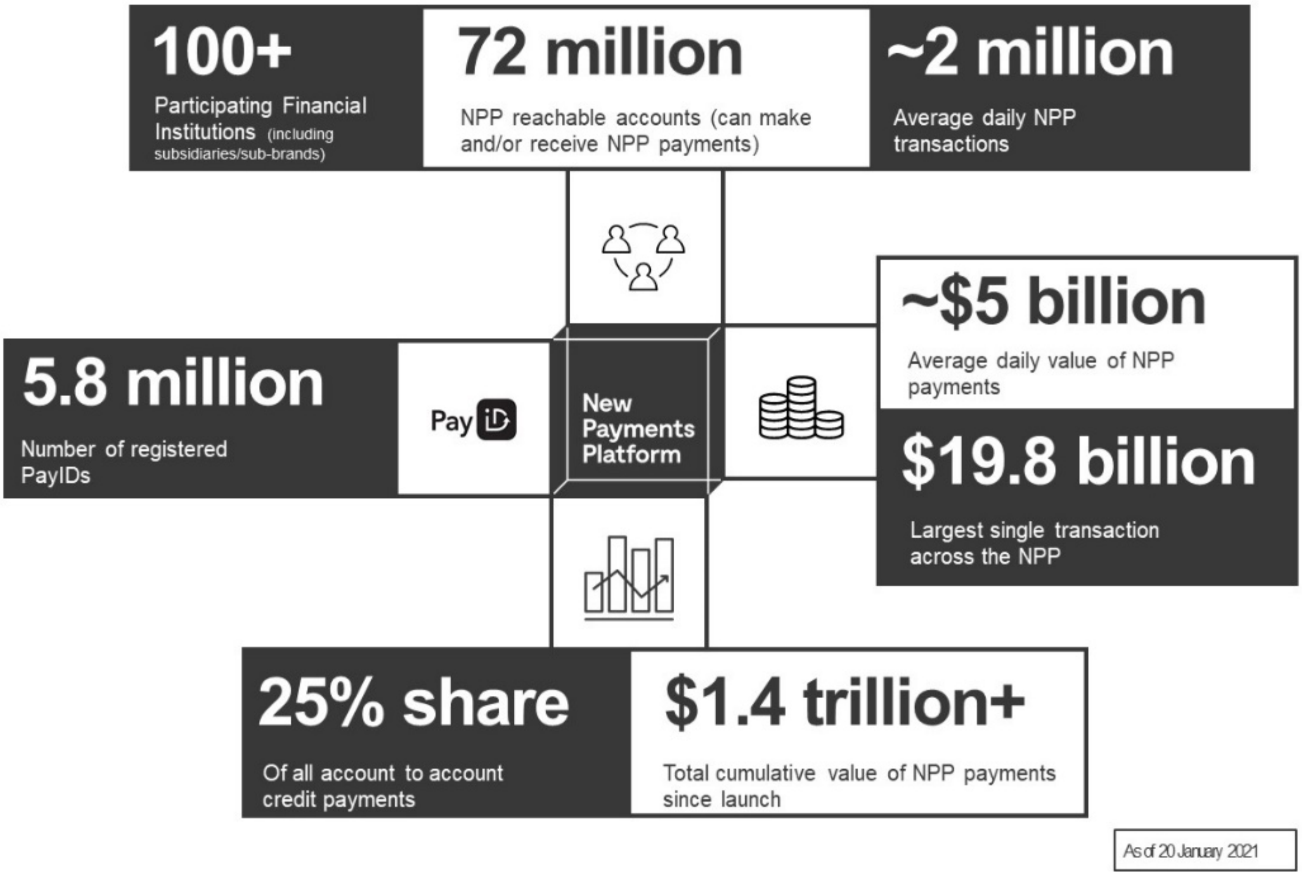
Open access philosophy
NPP's access framework has a range of access methods, balancing broad participation while maintaining safeguards needed for a real-time payment system, and ensuring the ongoing protection of consumers.

Operates on a cost recovery basis
NPP Australia operates on the guiding principle of being economically self-sustaining aiming to recover its operating costs with wholesale costs levied on NPP Australia's shareholders.

NPP Australia governance
The NPP Australia Board has 12 voting Directors including three independent Directors and the RBA. Each Director has one vote – and collectively the Directors appointed by the four major banks have only one-third of the votes. Decisions regarding access, pricing and other governance related matters are determined by the independent Directors and NPP Australia management.

[15] Current shareholders: Australia and New Zealand Banking Corporation, Australian Settlements Limited, Bendigo and Adelaide Bank Limited, Citigroup Pty Ltd, Commonwealth Bank of Australia, Cuscal Limited, HSBC Bank Australia Limited, Indue Limited, ING Australia, Macquarie Bank Limited, National Australia Bank Limited, Reserve Bank of Australia and Westpac Banking Corporation.

NPP Fast Facts



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