Review of Banknote Distribution Arrangements: Conclusions Paper

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Contents

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1. Executive Summary

This paper presents the conclusions of the Reserve Bank of Australia's Review of Banknote Distribution Arrangements. The Review commenced in November 2021 with the publication of an Issues Paper. The Issues Paper summarised recent trends in the use of cash in Australia with a focus on how the declining use of cash for retail payments, accelerated by the COVID-19 pandemic, has affected participants in the banknote distribution system.

For now, the Australian public has good access to cash and confidence in the quality of banknotes is high. However, a significant reduction in coverage or service levels across the country could make access to cash more difficult, particularly in regional and remote areas. Managing the impact of declining transactional cash use in an orderly way is important to ensuring the stability of the wholesale distribution system and the retail distribution system that relies upon it. Moreover, under the Reserve Bank's current contractual arrangements, the wholesale banknote distribution system and the quality management system are interconnected, with the latter playing a key role in helping ensure Australian banknotes continue to meet the Reserve Bank's quality standards. These standards assist the public in determining whether the banknotes they receive are genuine – and so ultimately reduce the threat of counterfeiting; they also prevent problems in banknote accepting and dispensing machines.

The Review sought to identify what changes could make the banknote distribution system more effective, efficient, sustainable and resilient. To this end, the Reserve Bank will implement a number of specific changes, which are largely focused on areas where it has a direct relationship with the industry – in particular, the arrangements for the purchase and return of wholesale banknotes from/to the Reserve Bank and those for managing the quality of banknotes in circulation. These changes are designed to support the industry to adapt as cash use by the public evolves; while they will make a positive difference in the current environment, these changes are unlikely to fundamentally reshape the industry.

More broadly, the consultation process confirmed that declining volumes of banknotes being transported and processed has put financial pressure on private participants and contributed to significant excess capacity within the distribution network. The Reserve Bank recognises that reducing capacity is necessarily a business decision for the private participants themselves and will be subject to appropriate competition considerations. It also notes that there has recently been some reduction in the number of cash-in-transit (CIT) depots, and there is a proposed merger between two major CIT companies that will be subject to review by the Australian Competition and Consumer Commission (ACCC).

A summary of the specific changes to be implemented by the Reserve Bank is provided below.

1.1 The wholesale distribution system

The Reserve Bank determines that standardising and improving the transparency of its contractual arrangements for banknote distribution has the potential to reduce frictions and promote innovation by enabling changes that benefit the industry as a whole to be implemented more easily. It will therefore be replacing the existing multi-year bilateral contractual arrangements it has in place with the four major commercial banks with a publicly available, standard set of terms and conditions for participants – both current and prospective – to access wholesale banknotes. The Reserve Bank will give priority to completing this work as soon as practicable, noting the intention that the new standard terms and conditions will be largely unchanged from those in the existing contracts that were agreed in 2021. Relevant changes resulting from this Review will be included where feasible, including potentially removing from the new arrangements some impediments to industry-led efficiency gains where these have broad industry support.

An industry forum will be established, chaired by the Reserve Bank and facilitated by the Australian Payments Network (AusPayNet), to provide an avenue for the dissemination of information relating to the translation of the current arrangements into the new standard terms and conditions. Membership of the forum will be determined in consultation with industry and, at a minimum, is envisaged to comprise participants in wholesale banknote distribution, which currently includes the four major commercial banks and their approved CIT companies. Consideration will be given to competition law issues in establishing and operating this forum.

1.2 Managing the quality of Australian banknotes

The Reserve Bank is committed to ensuring that Australia's banknotes provide a secure and reliable means of payment and store of value. Having good-quality banknotes in circulation is important to achieving this objective, as it helps to maintain the public's confidence when using banknotes. The Reserve Bank considers that its current system of support to the industry for maintaining the quality of banknotes in circulation is effective in meeting this objective. However, it also recognises the challenges associated with investing in quality-sorting capabilities, particularly in a declining cash use environment. Consequently, the Reserve Bank intends to:

- make a modest increase to the maximum annual payment pool available to participants for quality sorting under the Note Quality Reward Scheme (NQRS) to assist the industry to invest in new or upgraded equipment that is capable of quality sorting the Next Generation Banknote (NGB) series; this change will occur when the Reserve Bank puts in place the revised NQRS quality standards and payment framework that was agreed with industry participants in 2021 (implementation of these changes was deferred pending the conclusion of this Review)
- increase the unfit banknote transport payment in recognition of the increasing unit cost of banknote transportation associated with the decline in cash use.

The detail and timing for each of these changes will be discussed further with industry participants, with the introduction of any higher payments aligning with the commencement of the new standard terms and conditions for wholesale banknote distribution and the revised NQRS quality standards and payment framework.

2. Introduction

2.1 Background

The Reserve Bank is the sole issuer of banknotes in Australia, but it is only one participant in the banknote distribution system – commercial banks and CIT companies play a major role in getting cash to and from businesses and consumers. The declining use of cash for retail payments, accelerated by the COVID-19 pandemic, has placed increasing pressure on the banknote distribution system and its participants. Lower banknote turnover has led to underutilisation of cash distribution infrastructure and increased the average cost of transporting and processing banknotes.

Despite lower transactional cash usage, cash is expected to remain an important means of payment in the future, particularly as it is heavily relied on by some members of the community. Further, cash is an important back-up for electronic payment methods and is used as a store of wealth; this applies on a day-to-day basis but becomes particularly important in times of economic uncertainty.

For now, the Australian public has good access to cash. However, a reduction in coverage or service levels across the country could make access more difficult, particularly in regional and remote areas. Managing the impact of declining transactional cash use in an orderly way is important to ensuring the stability of the wholesale distribution system and the retail distribution system that relies upon it. Moreover, the distribution system needs to support the return of surplus, worn or damaged banknotes to the Reserve Bank; with record levels of banknotes currently in circulation, this will continue to be important well into the future, even as cash use declines.

Against this backdrop, the Reserve Bank initiated the Review to determine what changes could be made to the banknote distribution system so that it continues to be effective, efficient, sustainable and resilient as cash usage evolves. The Review sought to understand the financial and operational impacts of the decline in transactional cash use on private participants in the banknote distribution system, and how the current arrangements with the Reserve Bank – for the purchase and return of banknotes, and for managing the quality of banknotes in circulation – impact the ability of industry participants to meet banknote demand and adapt to the changing economic environment. In developing the responses to the issues raised, the Reserve Bank focused on ideas that would support the ongoing implementation of industry-led solutions and continued access to good-quality banknotes by the Australian public.

2.2 Process

In November 2021, the Reserve Bank released an Issues Paper that sought feedback on potential future changes to the banknote distribution system (RBA 2021). Thirteen submissions were received; respondents included banks, CIT companies, industry bodies, banknote equipment manufacturers and academia. Around half of the submissions came from parties that are directly involved in wholesale banknote distribution and engage with the Reserve Bank operationally on a day-to-day basis. The Reserve Bank met with some stakeholders bilaterally to gain a greater understanding of the dynamics of the banknote distribution system, as well as with other central banks facing similar trends. A number of submissions were provided to the Reserve Bank on a confidential basis; therefore, the discussion throughout this paper references stakeholder views in a general way. The public submissions have been published on the consultation website.[1]

2.3 Outline of paper

Section 3 of this paper summarises the feedback received from respondents to the Review and discusses the potential options for change. It explores what changes to the arrangements for banknote distribution could be made, including to the contractual arrangements the Reserve Bank has in place for wholesale banknote distribution and managing the quality of banknotes in circulation. It also considers the issues faced by industry participants and what could be done to address these. Finally, it summarises other issues raised by stakeholders, including those relating to cash access and acceptance.

Section 4 summarises the Reserve Bank's planned response.

1 See: Submissions to the Review of Banknote Distribution Arrangements

3. Issues and Assessment

There are four broad areas in which the Reserve Bank has considered change, drawing on input received from respondents to the Issues Paper. Those areas relate to: the contractual arrangements currently in place for wholesale banknote distribution; the system for managing the quality of banknotes in circulation; the issues faced by private sector participants in the wholesale distribution system; and other issues raised by respondents relating to cash access and acceptance.

3.1 Contractual arrangements for wholesale distribution

3.1.1 Issues considered by the Review

The Issues Paper described the current contractual arrangements for distributing banknotes around Australia, and asked what changes could be made in response to the shifting nature of cash use. The focus was largely on wholesale distribution, which refers to the bulk movement of banknotes between the Reserve Bank and CIT cash depots around the country.

The Issues Paper invited views on the contractual arrangements that govern how industry participants transact with the Reserve Bank to purchase and return banknotes, and how those arrangements affect their ability to manage cash distribution and meet banknote demand. The existing framework is facilitated by a number of bilateral legal agreements, known as the Banknote Distribution Agreements (BDAs), between the Reserve Bank and participating institutions – currently the four major Australian commercial banks (the BDA participants). Under these arrangements, the BDA participants nominate CIT companies, which are then approved by the Reserve Bank, to carry out certain BDA-related activities (approved CIT companies). The nature of the contractual requirements means that BDA participants must have sufficient financial resources to purchase wholesale quantities of banknotes and hold them as inventory in the cash depot system. They also need to be prepared to meet the control measures outlined in the BDAs – such as various procedural, reporting and auditing requirements – and bear the costs associated with those measures.

3.1.2 Summary of stakeholder feedback: Issues and options

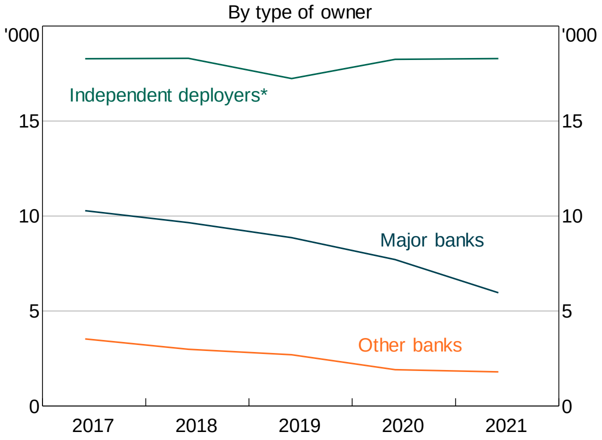
Most respondents argued that there are some aspects of the current arrangements that, to varying degrees, have an adverse impact on banknote distribution in an environment of declining transactional cash use.

Before examining these responses, it is important to note that the roles and responsibilities within the banknote distribution system have evolved over recent years. In particular, while the BDA participants continue to play a critical role by holding banknote stocks and providing other businesses with cash access, some have outsourced and/or scaled back various functions of their cash management to the large CIT companies. Responses from the CIT companies confirmed that, as well as logistics, they offer broader cash management and cash-related services for clients. Some CIT companies also supply cash directly to their own clients and have acquired their own fleets of ATMs (Graph 1); CIT companies now own around 15 per cent of non-bank ATMs. These changes in the industry are the backdrop to many of the themes and ideas for change that emerged from the responses, as detailed below.

Graph 1

Ownership of ATMs

By type of owner



* Total number of ATMs minus the number of ATMs in the other categories. Data are at end June, except for 2020 where March quarter data are used due to subsequent temporary pandemic-related closures.

Sources: APRA; AusPayNet; RBA

Nature of contractual arrangements

Respondents pointed to inefficiencies and barriers to innovation that they believe stem from the lack of involvement of the CIT companies in the BDA contracts and/or their negotiation, as well as the bilateral nature of the contracts.

The CIT companies need to comply with many of the terms and conditions within the BDAs in the course of carrying out cash management and logistics operations on behalf of the BDA participants. Some respondents argued that – because CIT companies do not have a direct contractual relationship with the Reserve Bank – they have limited ability to influence the terms and conditions to which they are ultimately subject, which can lead to operational inefficiencies and/or higher costs. Another concern raised related to the presence of multiple bilateral contracts. Although the Reserve Bank requires common terms and conditions on key elements of the BDAs (such as the eligibility of banknote holdings for interest payments or the operation of the quality management system), there are some, typically more administrative, differences between contracts. It was argued that this can create inefficiencies for CIT companies. The need for core terms and conditions to be agreed bilaterally with multiple parties can also inhibit change and innovation.

Respondents made a number of specific suggestions to address issues related to the involvement of the CIT companies in the contractual arrangements and/or the negotiation process. Some respondents suggested that multi-party contracts between the Reserve Bank, commercial banks and CIT companies would be an effective way of incorporating multiple views. Other respondents suggested the arrangements could be altered to more easily allow CIT companies to sign a contract directly with the Reserve Bank, while some felt that including CIT companies in discussions when the arrangements were being renegotiated would be beneficial. This position of increasing CIT companies' involvement was not unanimous, however, with some respondents arguing that the current arrangements are mostly appropriate and noting the challenges in extending participation to additional parties, especially given the financial commitment required of direct BDA participants.

Access to and cost of obtaining wholesale quantities of banknotes

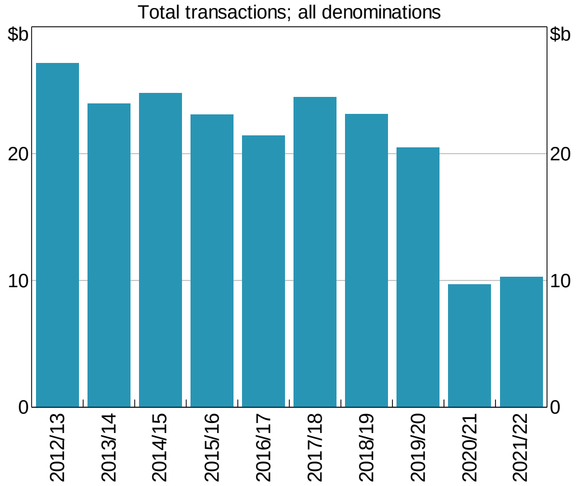
Currently, it is only the four major commercial banks that purchase wholesale quantities of banknotes from the Reserve Bank, given the large values involved and the corresponding need to have sufficient capital. As a result, CIT companies must rely on those banks to access banknotes to service their ATM fleets and supply banknotes to their clients (e.g. retailers). The requirement of a large balance sheet in order to purchase large quantities of banknotes was also noted as a barrier to other private sector industry participants, outside of the major banks, accessing banknotes directly from the Reserve Bank. Some stakeholders suggested that the Reserve Bank could play a greater role by providing for a wider range of parties to be able to access wholesale quantities of cash – for example, by providing cash access facilities to CIT companies.

Some respondents expressed concerns about the accessibility of wholesale quantities of banknotes via banknote trading between the BDA participants.[2] Banknote trading occurs because some banks tend to receive more cash from their customers than they need at a given point in time, and so they sell the excess banknotes to other banks that need them to supply to their customers. This is particularly efficient when such trading occurs within the same region or even within the same CIT depot. However, there has been a decline in trading between banks, which is at its lowest level since 2011 (the first year data became available) (Graph 2). Respondents suggested that the acquisition of ATM fleets by CIT companies and other changes in the industry in recent years have altered the historical patterns of inter-bank banknote trading, though the disruption caused by the COVID-19 pandemic also played a role. This disruption in supply in the wholesale banknote market has meant that banks tend to rely more on purchasing banknotes directly from the Reserve Bank, potentially increasing their transportation costs and reducing efficiency. Some stakeholders suggested that improving transparency around the location of banknote stocks may assist a return to more frequent trading.

Graph 2

Gross Banknote Trades

Total transactions; all denominations



Source: RBA

Stakeholders also provided feedback on the Reserve Bank's access points for banknotes. Several submissions noted that having a sole Reserve Bank distribution site for the purchase and return of banknotes (in Craigieburn, Victoria) makes it costly to distribute banknotes around Australia. Some

2 The exchange and distribution of bulk cash between the four BDA participants is governed by the Australian Cash Distribution and Exchange System (ACDES), which is managed by AusPayNet.

submissions suggested reopening the Reserve Bank distribution site in Sydney in order to reduce transport costs faced by the private sector. A number of respondents also suggested that the Reserve Bank hold banknote stocks in CIT cash depots around the country or own cash distribution infrastructure.[3]

Efficacy of Reserve Bank payments

Given the high fixed costs associated with banknote distribution, the unit cost for undertaking these activities rises as the volume of banknotes transported and processed falls. Therefore, some respondents argued that the payments currently made by the Reserve Bank – such as interest payments on certain holdings of banknote stocks at approved CIT depots – should be increased. Similarly, respondents provided feedback on the incentive payments made by the Reserve Bank to manage the quality of banknotes in circulation (discussed in Section 3.2 below).

3.1.3 Assessment and response

Nature of contractual arrangements

The Review identified that the efficiency of the Reserve Bank's contractual arrangements with the BDA participants could be improved by directly incorporating the views and operational needs of the CIT companies that perform the bulk of the associated logistics and ensuring consistency across the contracts. Going forward, it will also be helpful to have an administrative mechanism that assists the industry to evolve in line with cash usage by enabling changes that benefit the industry as a whole to be implemented more effectively.

Consequently, the Reserve Bank considers that it is important to introduce greater standardisation in its terms and conditions for banknote distribution while also improving the transparency of its arrangements with the industry. It will replace the existing multi-year bilateral contractual arrangements it has in place with distribution participants with a publicly available, standard set of terms and conditions for accessing wholesale banknotes. Standard terms and conditions should also reduce the administrative burden for all participants, including the impost of periodically negotiating multiple bilateral contracts. A standardised and transparent mechanism was seen as the most feasible and straightforward way to address the concerns raised in the Review without fundamentally changing the relationship between the Reserve Bank and those parties that have the financial ability to purchase banknotes. It should be noted, however, that the release of a publicly available set of terms and conditions will need to be implemented subject to the need to protect commercially sensitive and confidential information.[4]

Subject to the qualifications set out above, the Reserve Bank will give effect to this change by translating the terms and conditions of the existing BDAs into a standard set of terms and conditions for purchasing and returning banknotes, and maintaining banknote quality. It is the Reserve Bank's intention that the new standard terms and conditions will be largely unchanged from those in the existing BDAs that were signed in 2021. However, the Reserve Bank will consider changes that potentially remove impediments to industry-led efficiency gains where these have broad industry

3 This is much like an earlier approach to banknote distribution undertaken by the Reserve Bank (see 'Box A: The Evolution of Systems of Cash Distribution' in the Issues Paper).

4 For example, the disclosure of information that would compromise the ability of the Reserve Bank to conduct its distribution operations securely and effectively (such as processes or security controls for accessing distribution sites) will not be able to form part of the publicly available terms and conditions. Such information will need to be protected and made available only to distribution participants on a confidential basis.

support (see Section 3.3 below). The Reserve Bank intends to undertake this work as soon as practicable.

An industry forum will be established to provide an avenue for the dissemination of information relating to the translation of the current arrangements into the new standard terms and conditions. It will also enable further consultation on the feasibility of, and industry support for, the amendments outlined in Section 3.3.3 below.[5] It will be chaired by the Reserve Bank and facilitated by AusPayNet. Membership of the forum will be determined in consultation with industry but, at a minimum, is envisaged to comprise participants in wholesale banknote distribution, which currently includes the four existing BDA participants and those CIT companies that have been approved by the Reserve Bank to participate in BDA-related activities. This will allow for participation of a broader set of stakeholders in the process than is currently the case, and there will be a need to manage potential competition issues within such a forum.

The Reserve Bank will hold a general information session with the industry on the conclusions of the Review; it will then prepare the terms of reference and seek to hold an initial meeting of the industry forum in the coming months. Any further changes beyond those proposed in this paper may be considered in the future, following a separate industry consultation process, which would provide an opportunity for all key participants to influence the terms and conditions over time.

Access to and cost of obtaining wholesale quantities of banknotes

Respondents suggested a range of measures to broaden access to, and/or lower the cost of obtaining, wholesale quantities of banknotes. These measures included: the provision of cash access facilities by the Reserve Bank to CIT companies; the Reserve Bank holding banknote stocks in depots around Australia; the Reserve Bank owning cash distribution infrastructure; and increasing the number of Reserve Bank distribution sites. These options would, to varying degrees, see responsibilities, costs and risks for banknote distribution and/or banking services transfer to the public sector from the private sector, which currently undertakes them. In the Reserve Bank's view, an increase in the level of public sector participation in the distribution system is not justified at this time, as these activities are more efficiently done by the private sector. The Reserve Bank's response is instead focused on changes that will support industry-led initiatives, as discussed in Section 3.3 below.

Efficacy of Reserve Bank payments

The Reserve Bank considered the efficacy of the payments that it provides to BDA participants. The Reserve Bank will maintain the current arrangements for providing interest payments on certain holdings of banknote stocks at approved CIT depots. The purpose of these payments is to encourage BDA participants to maintain sufficient stocks of quality-sorted banknotes throughout the country, by removing any disincentive relative to electronic cash holdings with the Reserve Bank. These payments are not intended to cover the logistical costs associated with banks holding banknote stocks, as these costs arise from their need to meet their customers' requirements.

However, the Reserve Bank intends to make changes to the incentive payments related to quality sorting and the transport of unfit banknotes to the Reserve Bank, discussed in Section 3.2 below.

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5 Although there are pre-existing industry forums under AusPayNet, these have a different focus and membership. The closest existing forum is the management committee (MC5) which is responsible for the ACDES. MC5 membership currently consists of the four major banks.

3.2 Managing quality

3.2.1 Issues considered by the Review

The Review sought to explore what role private participants in the banknote distribution system should have in quality sorting banknotes and whether changes could be made to the Reserve Bank's current arrangements to maintain the quality of banknotes in circulation.

The Issues Paper noted that the Reserve Bank's standards for banknote quality tend to be higher than the private sector's standards. The private sector requires banknote quality to be sufficiently high to minimise problems when using banknote processing equipment. For example, banknotes with folded corners or tears can cause issues in ATMs and ticketing and vending machines. In addition to these defects, however, the Reserve Bank also seeks to remove from circulation banknotes with worn or damaged security features. This is so the public can easily determine the banknotes they receive are genuine – and so ultimately reduce the threat of counterfeiting – and to prevent problems in banknote accepting and dispensing machines.

The Reserve Bank provides incentive payments to encourage the industry to sort to its higher quality standards. The BDA participants must have their banknote holdings at approved CIT depots quality sorted for these holdings to qualify for interest payments. The Reserve Bank further incentivises the quality sorting of banknotes via the NQRS (see 'Box A: Current Arrangements for Quality Sorting'). The NQRS, which is largely unchanged since its introduction in 2006, involves a maximum pool of money being available for distribution among the BDA participants, with actual payments to each participant dependent on their quality-sorting outcomes.

Quality sorting banknotes does, however, impose costs, in terms of equipment and labour, on the private participants in the distribution system. While the Reserve Bank provides incentive payments for quality sorting, ongoing investment in quality-sorting equipment, particularly in an environment of declining transactional cash use, has become increasingly challenging.

The Reserve Bank also makes incentive payments to BDA participants to encourage them to return unfit banknotes to the Reserve Bank. The Issues Paper noted that setting these payments at an appropriate level is an ongoing challenge, as the rate needs to be set high enough to encourage the removal of unfit banknotes from circulation, but not so high as to encourage unnecessary and inefficient transportation of banknotes.

3.2.2 Summary of stakeholder feedback: Issues and options

Respondents recognised the importance of maintaining the high quality of banknotes in circulation, with general agreement that the Reserve Bank should play a pivotal role in this – for example, by setting standards and providing financial incentives to support banknote quality (including quality sorting and the return of unfit banknotes to the Reserve Bank). Respondents also recognised the important role of CIT companies in quality sorting. However, in considering the details of the current quality arrangements, there was a mix of suggestions for potential changes.

There was broad support for a more consultative approach to banknote quality, such as in setting quality standards and requirements so that they are achievable by industry participants. In particular, respondents noted that CIT companies are excluded from directly negotiating the terms around banknote quality standards that form part of the BDA, despite having to comply with these terms as they are contracted by the BDA participants to carry out the vast majority of quality sorting and return of unfit banknotes to the Reserve Bank.

Respondents also discussed the effectiveness of different elements of the current quality-sorting arrangements. There were concerns that the current BDA framework means incentive payments, such as NQRS payments, may not be passed on fully to the quality sorter (mostly the CIT companies) and therefore could be ineffective in inducing the desired investment in quality-sorting equipment. Several respondents suggested that the Reserve Bank could contract directly with CIT companies for quality sorting. There was also a view that contracting directly with CIT companies for the return of unfit banknotes may reduce complexity. On the other hand, there was a concern that the payments made by the Reserve Bank may incentivise more transport or processing than is necessary.

Respondents raised numerous suggestions to support the private sector to quality sort and remove unfit banknotes from circulation. These included: increasing the size of the maximum possible payments made under the NQRS to support the additional investment required to meet the Reserve Bank's quality standards for its NGB series; directly funding the required equipment upgrades to sort the NGB series; and replacing the NQRS entirely, either with an alternate scheme (such as paying for the volume of banknotes quality sorted at CIT depots) or with a higher unfit transport payment. The level of the Reserve Bank's unfit transport payment to BDA participants was raised as being insufficient to offset the cost of returning unfit banknotes, with respondents suggesting a review of this payment.

Respondents generally expressed a desire for greater transparency and/or certainty in banknote quality arrangements, although there was some variation on what this would involve. In particular, some respondents sought greater clarity around ongoing arrangements, such as the proposed update to the NQRS quality standards (which had been put on hold due to this Review) and guidance on its implementation.

3.2.3 Assessment and response

One of the key objectives of the Reserve Bank is to ensure that Australia's banknotes provide a secure and reliable means of payment and store of value. Having good-quality banknotes in circulation is important in achieving this objective. The Reserve Bank will continue to support the industry to maintain the quality of banknotes in circulation, and views the current framework as being effective in meeting this objective. However, the Reserve Bank intends to make changes to two of its quality mechanisms – the NQRS and the unfit transport payment – in order to ensure that banknote quality is maintained in the future.

Although the Reserve Bank does not have direct control over how the industry quality sorts banknotes, the NQRS encourages private participants in banknote distribution to invest in banknote-sorting technology and equipment by offering payments attached to good quality-sorting outcomes. Therefore, the Reserve Bank will retain the essential elements of the NQRS framework while confirming its commitment to implement the revisions that have previously been agreed with the BDA participants, including: an updated payment framework; simplified quality standards; and incorporation of the new features on NGB banknotes. In addition, the Reserve Bank intends to make a modest increase to the maximum annual payment pool available to participants for quality sorting under the NQRS, which would be the first increase since its introduction in 2006. This increase would be designed to incentivise the industry to invest in new or upgraded equipment in an environment of declining transactional use of cash, including equipment that is capable of sorting for NGB features.

The actual payments made would, in line with the NQRS framework, be contingent on participants' ability to quality sort the features on the NGB series of banknotes.

Finally, while the Reserve Bank will retain the current structure of the unfit transport payment, it intends to increase the payment by 30 per cent in recognition of the increasing unit cost of banknote transportation associated with the decline in cash use. This would be the first major change in the payment since 2016, when the payment shifted from complete reimbursement of the transportation costs associated with returning unfit banknotes to a payment that covers part of the cost. The higher unfit transport payment would continue to encourage the efficient return of unfit banknotes to the Reserve Bank as well as the removal of the previous polymer series of banknotes from circulation.

The size and timing for each of these changes will be discussed further with industry participants, though the intention is to align any higher payments with the commencement of the new standard terms and conditions for banknote distribution and the implementation of the revised NQRS quality standards and payment framework (that was agreed in 2021).

Alternative options were considered to the current approach, including for the Reserve Bank to prescribe the type of quality-sorting equipment used in CIT depots and directly funding equipment upgrades so as to enable NGB features to be quality sorted. Such approaches were not favoured by the Reserve Bank as they were viewed as being too prescriptive and involving the Reserve Bank in business-level decisions, which are the province of the private sector. Another suggestion was to replace the NQRS with a payment based on the volume of banknotes that are quality sorted, but the Reserve Bank deemed this as being impractical to implement and monitor.

Box A: Current Arrangements for Quality Sorting

There are four main mechanisms the Reserve Bank uses to incentivise the industry to quality sort banknotes to its preferred standard.

Mechanism 1: Interest payments

The Reserve Bank makes interest payments to BDA participants on the value of quality-sorted banknotes they store in approved CIT depots. The purpose of these payments is to encourage BDA participants to maintain sufficient stocks of quality-sorted banknotes throughout the country, by removing any disincentive relative to electronic cash holdings with the Reserve Bank. Between 2001 and 2006, this was the main mechanism used by the Reserve Bank to manage quality; however, it did not generate good sorting outcomes, as the quality of banknotes in circulation during this time remained substandard (Cowling and Howlett 2012).

Mechanism 2: Note Quality Reward Scheme (NQRS)

Introduced in 2006, the NQRS is an incentive-based scheme that encourages banks to put only high-quality banknotes back into circulation. The core features of the NQRS include:

- The definition of different levels of 'quality' for banknotes, based on the absence or presence of defects such as tears, folds and ink wear. This allows banknote quality to be quantitatively 'scored' and provides guidance to the banks about whether a banknote can be recirculated or returned to the Reserve Bank for destruction.
- The paying or penalising of banks according to how well banknotes in their CIT depot holdings are sorted to the NQRS quality standards. To do this, the Reserve Bank samples quality-sorted 'fit' banknotes at cash depots and makes payments to the banks based on the assessed quality score of the worst 15 per cent of the banknotes sampled.

A revised NQRS quality standard and payment framework was agreed in 2021, with implementation on hold pending the outcome of this Review. The aims of the changes are to:

- calibrate the scores more fully for the NGB series of banknotes (in addition to the previous polymer series)
- reduce the number of defect categories and, in doing so, adjust the minimum quality standard slightly to avoid the destruction of good-quality banknotes.

Mechanism 3: Payment of transport costs for the return of unfit banknotes

The partial payment of transport costs for the return of unfit banknotes to the Reserve Bank helps to encourage the removal of unfit banknotes from circulation. In 2016, the payment shifted from complete reimbursement of transportation costs associated with returning unfit banknotes to a payment that covers part of the cost, prompted by inefficient transportation practices observed at the time.

Mechanism 4: 'Fit-in-unfit' fee

The 'fit-in-unfit' fee is paid by banks (or CIT companies to whom the banks have subcontracted their sorting obligations) when fit banknotes have been incorrectly categorised as unfit and returned to the Reserve Bank for destruction. It is imposed when the proportion of incorrectly categorised fit banknotes is above a certain threshold.

3.3 Industry conditions

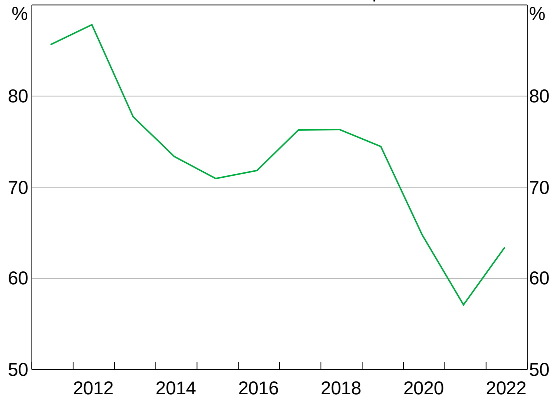
3.3.1 Issues considered by the Review

The Issues Paper highlighted how declining volumes of banknotes being transported and processed in the distribution system has put financial pressure on private participants and contributed to excess capacity within the distribution network. Some aspects of the banknote distribution system are characterised by relatively high fixed costs, and tend to be significantly more efficient and cost-effective with higher volumes. Reserve Bank estimates suggest capacity utilisation in cash depots fell significantly in 2020 and has remained low since (Graph 3). The Review sought to understand: how the cost structures and revenue streams of private participants in banknote distribution are changing with lower transactional cash use; how participants are adjusting their operations and business strategies as a result; and any other issues that are currently affecting the industry. Potential courses of action were canvassed, such as industry-led efficiency improvements, greater coordination within the banknote distribution industry or other changes within the system, subject to appropriate authorisation from the ACCC.

Graph 3

Annual Capacity Utilisation*

Based on banknote flows between cash depots and customers



* A depot's capacity is estimated as the highest level of banknotes it has processed in the three years prior to a particular month; 2022 estimate based on partial data.

Source: RBA

3.3.2 Summary of stakeholder feedback: Issues and options

A prominent issue discussed by respondents was the financial costs and pressures faced by private participants in banknote distribution. These pressures are most evident among the CIT companies – the high fixed cost structure of CIT companies in an environment of falling volumes has put substantial pressure on unit costs. Furthermore, strong price competition stemming from a need to attain sufficient business to recover (at least some of) the fixed costs, and maintain a broad geographic network, has reduced revenues. Combined, these factors are contributing to a situation of declining profitability among the CIT companies (Parliament of Australia 2021).

Excess capacity in CIT networks

Respondents confirmed that there is mounting overcapacity in their banknote distribution networks, citing the need to have a broad geographic coverage as an impediment to reducing overcapacity. That said, some cash depots have closed in the past five years, including in 2022.

Respondents cited some of the Reserve Bank's contractual requirements in the BDAs as inhibiting the industry's ability to reduce overcapacity. There were a number of suggestions related to the conditions attached to the Reserve Bank's interest payments, including:

- altering restrictions on the timing of banknote processing, such that the payment of interest is not contingent on the banknotes having been processed on the same day they are lodged at a depot (i.e. they could be processed on a 'next-day' basis)
- the expansion of interest payments to a broader range of banknotes, beyond those stored at approved CIT depots – for example, a 'hub-and-spoke' style distribution model could be utilised, in which a central depot (the 'hub') performs quality sorting and bulk storage, while smaller depots (the 'spokes') store quality-sorted banknotes for retail deliveries
- the expansion of interest payments to cover banknotes stored in smart safes and ATMs, which would reduce the need for a large distribution presence in some areas by incentivising the storage, and reuse, of banknotes in these devices.

While the formation of a utility for CIT services or greater coordination in the banknote distribution industry were discussed in the Issues Paper, these proposals received lukewarm support from respondents. Some were open to exploring the ideas, while others were opposed, noting a potential increase in costs and contingency risks. Some stakeholders expressed the importance of having resilience and competition in the distribution network, and that this can come about through having more than one provider of CIT services. It was also noted that a number of commercial banks had operated a cash management and banknote trading collaboration arrangement in the past; however, respondents noted this proved difficult and did not bring the expected benefits.

Costs of transporting banknotes

Respondents cited the cost of transporting banknotes as an issue, for a variety of reasons. There are three legs in the transportation of wholesale banknotes: banknotes entering circulation from the Reserve Bank's distribution site to CIT depots; the movement of banknotes between CIT depots; and the removal of banknotes from circulation either because they are surplus to circulation needs or are deemed to be unfit.[6] As discussed above, unit costs for transportation are rising as the volume of banknotes transported (which determines the revenue received) has fallen more than the number of trips made by CIT vehicles. This is making it more challenging to maintain service levels, particularly in regional areas. Some stakeholders noted the increasing importance of Australia Post's Bank@Post service for maintaining retail cash access going forward, particularly in regional and remote areas. Others noted the limitations of Bank@Post, including its capacity to service large regional areas.

Some stakeholders requested additional financial support from the Reserve Bank for the transportation of banknotes. Options proposed include: providing a new subsidy to assist with the cost of transporting banknotes as they enter circulation; paying a subsidy for transport to regional areas; and the Reserve Bank holding banknotes at, or distributing from, CIT cash depots around Australia.

Efficiency improvements via new technologies

There was general support among respondents for greater adoption of newer technologies, such as smart safes and banknote recycling equipment (whereby banknotes deposited in devices such as ATMs or smart safes are quality sorted and re-dispensed to customers). Respondents noted benefits including greater transport efficiency and improved security; however, some respondents also recognised their substantial upfront costs. There were suggestions from respondents as to how the Reserve Bank could support the adoption of these technologies, such as via direct financial support or by including banknotes in such devices in the definition of banknote holdings eligible for interest payments. Finally, it was noted by some respondents that the Reserve Bank's approach to packaging new banknotes created inefficiencies, with suggestions made for alternative methods.

3.3.3 Assessment and response

The Reserve Bank views it as important to promote efficiency and innovation in the industry by reducing the extent to which its contractual arrangements may inhibit such changes being implemented. This could include amending the definition of cash holdings on which interest is paid to better accommodate 'hub-and-spoke' style models. Any such change will be progressed as part of the move to standard distribution terms and conditions (as foreshadowed in Section 3.1 above), subject

6 Issues relating to the transport costs associated with the return of unfit banknotes to the Reserve Bank are outlined in Section 3.2 above.

to feasibility and broad industry support. On the issue of the cost of transporting banknotes, the Reserve Bank will increase the existing unfit banknote transport payment by 30 per cent, as discussed in Section 3.2 above. The Reserve Bank views that greater public sector involvement in other transport legs would potentially be inefficient and difficult to implement, and is not warranted at this point in time.

While the Reserve Bank recognises the potential benefits of greater adoption of banknote recycling technology, it will not expand the definition of cash holdings that attract interest payments to encompass smart safes, ATMs or other banknote storage devices. To do so would dilute the purpose of interest payments made on quality-sorted banknote holdings at CIT depots and would unnecessarily expand these holdings to those that are used for retail cash distribution.

Other options raised in the Review related to greater coordination and/or consolidation in the industry, subject to appropriate authorisation by the ACCC. There was lukewarm support among respondents for greater consolidation in the form of a utility. However, the two largest CIT companies have recently proposed a merger that will be subject to review by the ACCC, and so the Reserve Bank awaits the outcome of this process.

More broadly, the Reserve Bank supports ongoing actions by the industry to seek to reduce overcapacity in the system, in the face of declining transactional cash use, and has a strong preference for this to occur in an orderly manner. It recognises that reducing capacity will necessarily be a business decision for the private participants themselves, subject to appropriate authorisation by the ACCC where relevant.

3.4 Other issues raised by respondents

3.4.1 Issues considered by the Review

The Review asked for additional suggestions that would assist the industry to manage the declining use of cash. The responses received were primarily focused on elements of the cash cycle that relate to retail distribution – namely, consumer access and merchant acceptance. Although the core focus of the Review was on wholesale distribution arrangements, these factors are interrelated and are relevant background considerations.

3.4.2 Issues raised by respondents

Consumer access to cash

Respondents viewed cash access as an important public policy issue. Access to cash supports financial inclusion of those in the community who do not wish to, or are unable to, use electronic payment methods. Respondents also stated it was important to ensure there is equitable access to cash regardless of location.

Respondents highlighted cost inefficiencies for CIT companies as a result of having fewer cash access points to service, particularly in regional areas. The cost of providing CIT services to a town is relatively fixed, while revenues have declined as a result of the lower volume of banknotes being transported. If the industry were to charge more for delivering cash services to regional areas, to offset the increased unit cost of doing so, this could lead to a further reduction in demand for these services. This highlights the trade-off between raising prices in response to the higher unit cost and maintaining sufficient demand from customers in regional areas.

Many respondents expressed the importance of maintaining widespread cash access, but differed in their preferred approach as to how to do this. Some argued for the government to mandate access to cash as a requirement of authorised deposit-taking institutions, as has been introduced in some European countries (see 'Box B: International Experience'). Others were supportive of cooperative banking and ATM services (such as ATM utilities and Bank@Post) to ensure cash access points remain viable. The importance of cash as a public good, and the promotion of its benefits, were also raised by respondents.

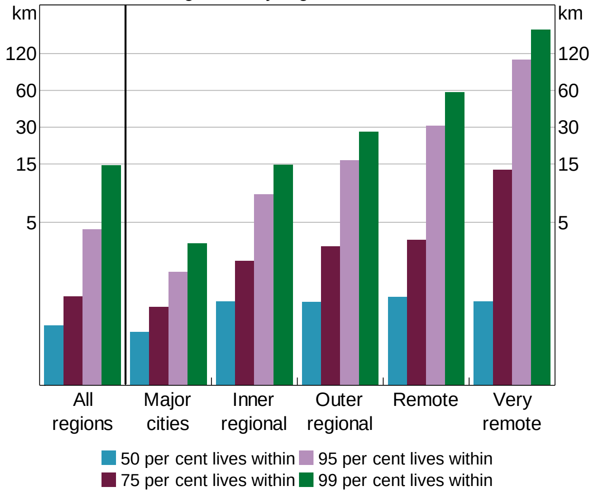
Merchant cash acceptance

Many respondents called for the acceptance of cash as a means of payment by retail merchants to be encouraged or even mandated. This would support the usability of cash – which is particularly important for vulnerable members of the community – and the viability of cash distribution. Some respondents highlighted how the closing of bank branches (where many businesses deposit their cash takings) has made it more costly for merchants to accept cash. If the costs for merchants of accepting cash relative to other payments rose significantly and transactional cash use continued to decline, some merchants might stop accepting cash, which would put further pressure on the cash distribution system.

3.4.3 Assessment and response

Analysis by the Reserve Bank indicates that, currently, cash access and acceptance in Australia is good. Most Australians do not have to travel far to reach their nearest cash access point; in 2021, around 95 per cent of people lived within 4 kilometres of a cash withdrawal point and 5 kilometres of a deposit point (Graph 4). Despite the number of cash access points declining substantially in recent years, most of these closures have been in areas where alternatives are available. The strong geographic coverage of Bank@Post outlets has also been supporting cash access.

Graph 4
Distance to Cash Withdrawal
Log scale; by region; June 2021



Sources: ABS; APRA; Australian Banking Association; Banktech; ggmap; Google; Linfox Armaguard; Next Payments; Prosegur; RBA

However, there are parts of regional and remote Australia with limited access to cash. In addition to longer distances to cash access points, these areas also have fewer alternative access points nearby –

meaning these regions are more vulnerable to any further removal of cash access points. Indeed, an increasing number of localities are down to their last cash access point.

In terms of cash acceptance, surveys conducted by the Reserve Bank have highlighted that cash continues to be accepted by most merchants. A recent survey of customer-facing businesses with a physical presence contacted by the Reserve Bank found that around 94 per cent of merchants accepted cash. This is a little lower than the results of the survey conducted in September 2020 (Guttmann *et al* 2021).

However, while cash access and acceptance is currently good for most Australians, this could change. The Reserve Bank will continue to monitor trends in the ability of consumers to access and pay with cash, as well as distances to cash access points. It will also seek to further understand developments in the cash acceptance practices of businesses, including different approaches depending on size, location and industry, through work done by AusPayNet. In doing so, the Reserve Bank will continue to engage with other public sector agencies whose mandates touch on access to cash by the Australian public. The government's response to relevant aspects of the 2021 Review of the Australian Payments System may also help inform further work in this area.

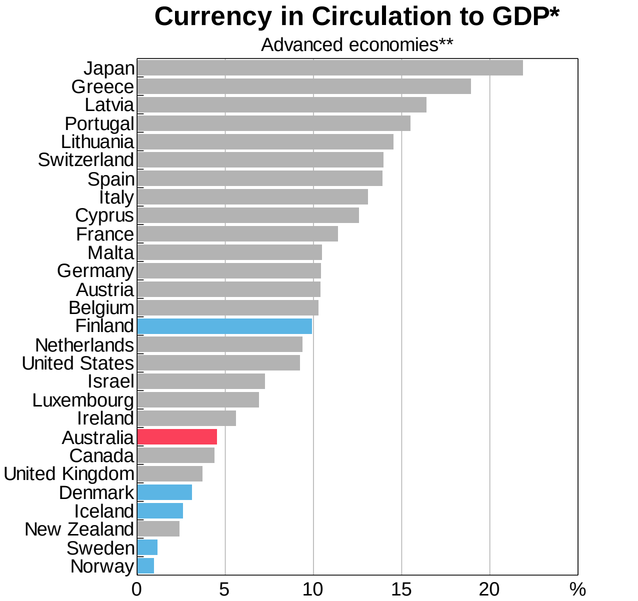
Box B: International Experience

As part of the Review, the Reserve Bank considered the experience of a number of other countries facing the consequences of lower volumes of cash in their distribution systems, including New Zealand, the United Kingdom, Canada and several European countries. Recent survey evidence suggests that the initial acceleration of lower transactional cash use in the early stages of the pandemic is persisting (Reserve Bank of New Zealand 2022; Chen *et al* 2022; Cubides and O'Brien 2022; Bank of England 2021; De Nederlandsche Bank 2022b). These behavioural shifts are putting pressure on the economics of cash distribution. Some countries are also experiencing material reductions in the public's ability to access and use cash, due to banks reducing their public access points and, to a lesser extent, fewer merchants accepting cash.

In order to combat the negative impacts this is having on the small but significant share of the public who rely on, or prefer to use, cash for their economic activities, central banks and governments are generally taking an approach that seeks to prevent cash access and acceptance from falling further. This is either through voluntary agreements with industry participants or legislation. For example:

- Most Scandinavian nations – which already had very low levels of cash usage prior to the pandemic (Graph B1) – have been strengthening obligations on commercial banks to provide a minimum level of cash access to customers (Sveriges Riksbank 2022a; Royal Norwegian Ministry of Finance 2021; Bank of Finland 2022).
- The United Kingdom Government has announced legislation that enshrines a right to access cash withdrawals and deposits within a certain distance (HM Treasury 2022a).
- A number of European central banks – including the Netherlands, Latvia and Lithuania – have arranged voluntary agreements with banks and CIT companies to prevent cash access fees from rising and ATM networks from shrinking (De Nederlandsche Bank 2022a; Latvijas Banka 2021; Lietuvos Bankas 2021).

Graph B1



* Using latest available data, ranging from 2020–2021.

** Scandanavian countries shown in blue

Sources: BIS; De Nederlandsche Bank; IMF

Some central banks have attempted to effect change in the cash distribution system through structural reform, though this has proved challenging. For example:

- The Bank of England recently examined the feasibility of establishing a utility model for wholesale cash distribution; however, the transition costs and coordination issues were difficult to overcome (Bank of England 2020; Bank of England 2021). Instead, under proposed legislation, the Bank of England will receive industry oversight and prudential powers over participants in the cash distribution system (HM Treasury 2022b).
- The Swedish Riksbank, in preparation for expected changes to its legislation that will see the public sector play a greater role in cash distribution, recently opened five cash depots around the country (Sveriges Riksbank 2022b). The Riksbank is also advocating for clarification of the concept of legal tender, to support the acceptance of cash, as well as an extension of the 2019 cash access legislation to support individuals' ability to deposit cash (Sveriges Riksbank 2021).
- The European Commission has established a working group to investigate issues and possible policy responses to support cash access and acceptance in the European Union (Euro Legal Tender Expert Group 2021).
- Norway and New Zealand are exploring the appropriate structure of the cash distribution system and the extent of public sector involvement in the context of broader reviews into the future of money (Norges Bank 2022; Reserve Bank of New Zealand 2021).

4. Summary of the Reserve Bank's Response

The Reserve Bank is responding to the issues raised in the Review through a package of changes to support the industry to adapt as cash use by the public evolves.

The current system for banknote distribution is effective in that it enables demand for banknotes across the country to be met and supports the maintenance of good-quality banknotes in circulation. Moreover, the current system has demonstrated its ability to withstand disruptions and shocks to cash demand, such as during the COVID-19 pandemic.

Nevertheless, there is considerable evidence that the cash distribution industry in Australia is under financial pressure. The Reserve Bank's intended changes will make a positive difference in the current environment but, in themselves, are unlikely to fundamentally reshape the economics of the industry. Instead, these measures aim to increase the transparency of the Reserve Bank's contractual arrangements, potentially remove some impediments to industry-led efficiency gains, and ensure that the quality of banknotes in circulation is maintained.

The Reserve Bank will adopt the following package of changes:

1. **Introduce transparent, standard arrangements for the distribution of banknotes by the Reserve Bank**. As a priority, the Reserve Bank will improve transparency of its arrangements for banknote distribution by replacing the existing multi-year bilateral contractual arrangements with BDA participants with a publicly available, standard set of terms and conditions for accessing wholesale banknotes. The public disclosure of the standard terms and conditions will be implemented subject to the need to protect commercially sensitive and confidential information that is key to the Reserve Bank's ability to conduct its distribution operations securely and effectively. Relevant changes resulting from this Review will be included where feasible, including potentially removing from the arrangements some impediments to industry-led efficiency gains where these have broad industry support.
2. **Establish a banknote distribution industry forum.** An industry forum, which will be chaired by the Reserve Bank and facilitated by AusPayNet, will be established to provide an avenue for the dissemination of information relating to the translation of the current arrangements into the new standard terms and conditions. It will also enable further consultation on the feasibility of, and industry support for, amending the definition of cash holdings on which interest compensation is paid to better accommodate 'hub-and-spoke' style models. Membership of the forum will be determined in consultation with industry and, at a minimum, is envisaged to comprise participants in wholesale banknote distribution, which currently includes the four existing BDA participants and those CIT companies that have been approved by the Reserve Bank to participate in BDA-related activities. The Reserve Bank will hold a general information session with the industry on the conclusions of the Review, and will prepare the terms of reference and seek to hold an initial meeting of the industry forum in the coming months. Consideration will be given to competition law issues in establishing and operating such a forum.

3. **Increase the incentive payments paid by the Reserve Bank to maintain banknote quality.** The Reserve Bank intends to modify two of the mechanisms in place to manage the quality of banknotes in circulation – the NQRS and the unfit transport payment. These changes would come into effect when the new standard terms and conditions are in place.

    (a) The Reserve Bank intends to make a modest increase to the maximum annual payment pool available to participants for quality sorting under the NQRS. This increase in the maximum available payment pool is designed to incentivise the industry to invest in new or upgraded quality-sorting equipment. The actual payments made would, in line with the NQRS framework, be contingent on participants' ability to quality sort the new features on the NGB series. The Reserve Bank will retain the essential elements of the NQRS framework while confirming its commitment to implement the revisions agreed with BDA participants in 2021, including an updated payment framework, simplified quality standards and incorporation of the new features on the NGB series.

    (b) The Reserve Bank intends to increase the unfit banknote transport payment by 30 per cent to recognise the increasing unit cost of banknote transportation associated with the decline in transactional cash use. This should also encourage the removal of the previous polymer series of banknotes from circulation.

In addition, the Reserve Bank will continue to monitor the ability of consumers to access and pay with cash, with a particular focus on regional communities. Any significant changes to cash access in the future could necessitate more fundamental changes. The Reserve Bank will continue to engage with other public sector agencies to inform any further solutions that may need to be developed to support the public's access to cash. The government's response to relevant aspects of the 2021 Review of the Australian Payments System may also help inform further work in this area.

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