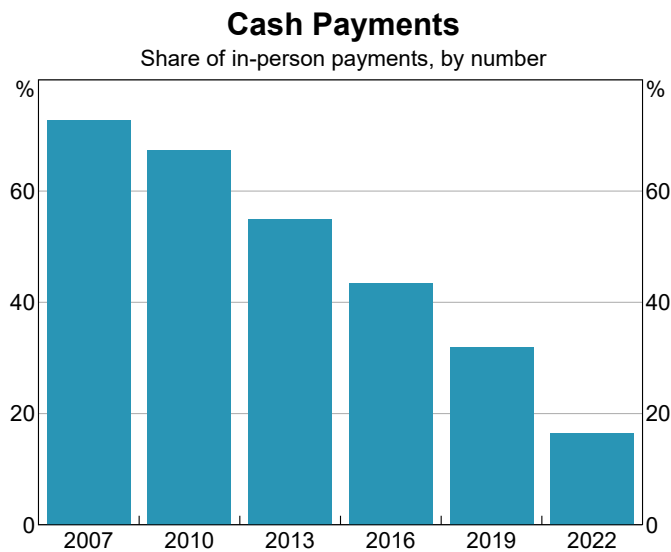


2.4 Banknotes

The Reserve Bank is responsible for producing and issuing Australia’s banknotes, ensuring they are of high quality and the threat of counterfeiting is low. In late 2022, the Bank concluded a review of banknote distribution arrangements to ensure they remain effective, efficient, sustainable and resilient now and into the future.

Trends in cash use and policy implications

The use of physical cash for day-to-day transactions has been declining for many years, as consumers switch to digital payment alternatives. The COVID-19 pandemic further accelerated this trend. To assess consumers’ payment habits, the Reserve Bank conducts a triennial Consumer Payments Survey (CPS), which asks respondents to record all their transactions over a week. The latest survey suggests the share of cash payments halved over the three years to 2022; cash accounted for 16 per cent of in-person transactions, compared with 32 per cent in 2019.^[1] There has been a broad-based decline in cash use across all demographic groups, though the declines were largest for groups that traditionally use cash more, such as the elderly, those on lower incomes and those in regional areas.



Source: RBA calculations, based on data from Colmar Brunton, Ipsos and Roy Morgan Research.

[1] See Mulqueoney J and T Livermore (2023), 'Cash Use and Attitudes in Australia', *RBA Bulletin*, June.

Declining use of cash has placed pressure on the cash distribution system, which led the Bank to conduct the Review of Banknote Distribution Arrangements. This Review examined possible changes that could lead to a more effective, efficient, sustainable and resilient distribution system. The Review concluded in August 2022 and made several recommendations in response to stakeholder feedback,^[2] including the establishment of an industry forum, greater transparency and standardisation of arrangements, increased quality-sorting incentive payments, and a commitment to monitor access to cash and retail acceptance of cash. These measures will improve transparency and flexibility in the distribution arrangements and will protect the high quality of banknotes in circulation. The industry forum has since been established and the Bank is currently working with industry to implement the other recommendations.

Most Australians have reasonable access to cash and do not need to travel far to withdraw money.^[3] There are, however, parts of Australia where communities have few cash access points nearby. The Bank is continuing to work with industry to ensure the continued wide availability of banknotes and has participated in several government reviews on cash and payments, including Treasury's Strategic Plan for Australia's Payments System. The Australian Competition and Consumer Commission has also reviewed and authorised a proposed merger between Linfox Armaguard and Prosecur Australia – the two largest cash-in-transit companies in Australia. The Bank made three submissions to this process, which acknowledged the excess capacity in the cash distribution industry while also noting the importance of establishing a sustainable basis to support the ongoing provision of cash.

Distribution activities

The Reserve Bank operates as a wholesaler of banknotes and has distribution agreements in place with the four major commercial banks. The banks, in turn, have arrangements in place to distribute banknotes around the country to meet the demands of their customers.

The purpose-built National Banknote Site (NBS) at Craigieburn, Victoria is the primary centre for the Bank's distribution, processing and storage of banknotes. The Bank retains contingency distribution sites in Sydney and Craigieburn to ensure it can meet public demand in the event distribution cannot occur from the NBS. In 2022/23, all transactions were carried out from the NBS.

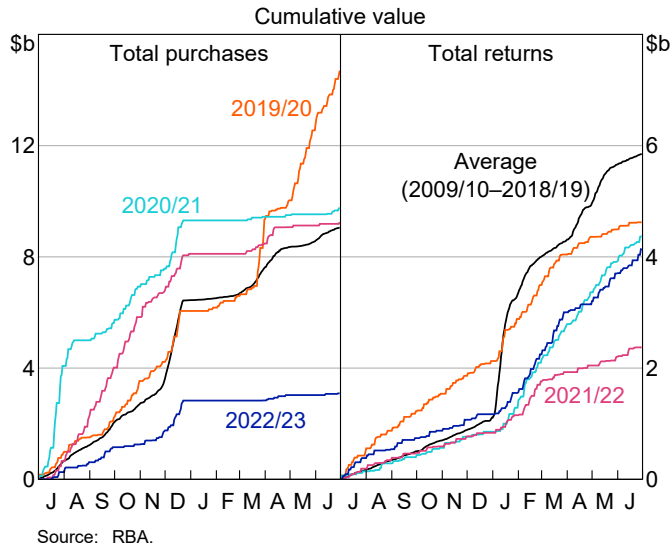
Following the large increase of banknotes on issue during the COVID-19 pandemic, commercial banks' wholesale purchases of banknotes from the Reserve Bank declined considerably during 2022/23. Around \$3.1 billion of banknotes were issued in the year, about one-third of a typical year's issuance.

By contrast, wholesale returns by commercial banks to the Reserve Bank rebounded in 2022/23 but remained below the historical average. Around \$4.1 billion of banknotes were returned to the NBS in the year, mainly consisting of the previous series banknotes.

[2] See RBA (2022), 'Review of Banknote Distribution Arrangements: Conclusions Paper', August.

[3] See Guttman R, T Livermore and Z Zhang (2023), 'The Cash-use Cycle in Australia', RBA *Bulletin*, March.

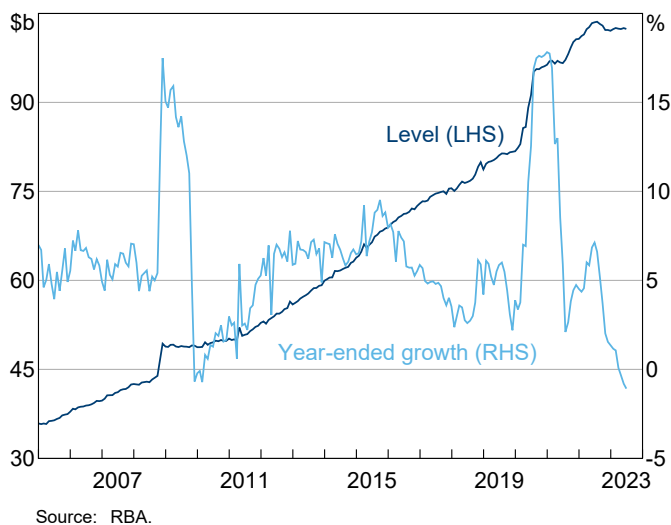
Total Purchases and Returns



With a greater number of banknotes being returned to the Bank than purchased by commercial banks, the value of banknotes in circulation over 2022/23 declined by 1 per cent, the largest decline in around two decades. The number of notes in circulation declined across all denominations except the \$100 note, which grew more slowly than its historical average. Higher interest rates, a reduction in precautionary savings and a return to more usual spending behaviour post-pandemic all contributed to this outcome. Nonetheless, the value of banknotes in circulation remained high, at \$101.3 billion at the end of June 2023, equivalent to around 4 per cent of GDP. In total, there are currently almost 2 billion banknotes in circulation.

Banknotes in Circulation

By value, seasonally adjusted



Banknotes in Circulation

Annual growth; by value; non-seasonally adjusted

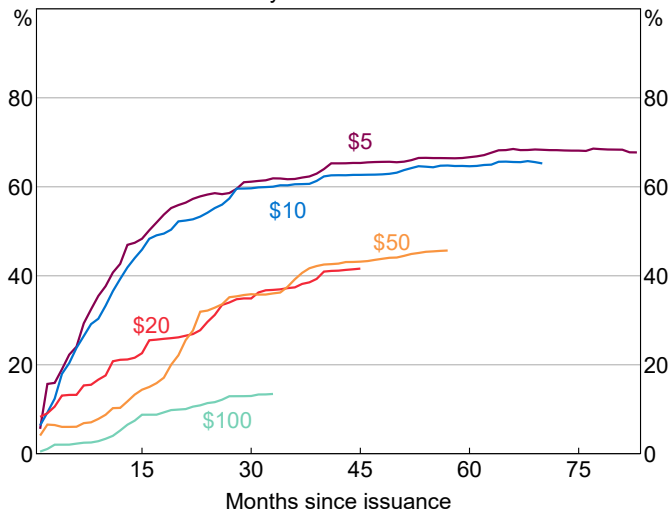
	\$5 per cent	\$10 per cent	\$20 per cent	\$50 per cent	\$100 per cent	Total per cent
FY2022/23	-1.7	-0.2	-2.4	-4.2	2.4	-1.0
10-year average ^(a)	3.7	2.8	2.5	6.8	7.3	6.7

(a) Financial years up to June 2022.
Source: RBA.

The proportion of all banknotes in circulation that are part of the Next Generation Banknote (NGB) series (the 'saturation rate') increased over 2022/23, albeit modestly. NGB \$20 and \$50 banknote saturation increased by around 5 and 3 percentage points from the previous year, to around 42 per cent and 46 per cent, respectively; the NGB \$100 banknote increased by a similar amount and now makes up around 13 per cent of all \$100 banknotes. The two lower denominations, on the other hand, saw little change. Saturation of NGB \$5 and \$10 banknotes is unlikely to rise substantially from their current rates, reflecting the fact that many of the earlier series banknotes are stored, lost or held abroad, and so are unlikely to be returned to the Reserve Bank in the near term.

Saturation Rates of NGB Series*

By denomination



* Saturation rate – proportion of second polymer series banknotes to total banknotes in circulation.

Source: RBA.

Banknote quality and counterfeits

The Reserve Bank aims to have high-quality banknotes in circulation. Such notes are more easily handled by machines and reduce the possibility of counterfeits being accepted. Accordingly, the Bank has arrangements that encourage the cash-in-transit companies and the major commercial banks to sort the banknotes they handle to agreed quality standards. Based on this sorting, banknotes that remain fit for circulation are redistributed, while those that are deemed unfit are returned to the Bank, removed from circulation and destroyed.

There are two core features of the quality-sorting framework:

1. Different levels of 'quality' for banknotes are defined by the Reserve Bank, based on the absence or presence of defects such as tears, folds and inkwear. This allows banknote quality to be measured to determine whether a banknote can be recirculated or should be returned to the Bank for destruction. Once returned to the Bank, these unfit banknotes are assessed to confirm their authenticity and quality; they are then destroyed and recycled into other plastic products.
2. The commercial banks involved in wholesale banknote distribution are paid according to how well they sort to the 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. The maximum payment the banks can receive in aggregate is capped at \$15 million per annum.

In 2022/23, the Bank received \$3.7 billion worth of banknotes deemed unfit for recirculation and paid over \$14 million to the commercial banks under the quality-sorting framework.

Another way the Bank incentivises quality sorting is through payments based on the proportion of banknotes a bank stores in private cash depots that have been quality sorted. In 2022/23, the Bank paid around \$103 million in interest payments, which was significantly higher than in 2021/22 reflecting the increase in interest rates over the past 12 months.

The Bank also removes banknotes from circulation through its Damaged Banknotes Facility. The facility is offered to holders of Australian banknotes who have come into possession of damaged banknotes unwittingly or whose banknotes have been accidentally damaged. Claims that meet the requirements set out in the Bank's Damaged Banknotes Policy are paid based on their assessed value.^[4]



Banknotes contaminated in the 2022 floods are washed prior to assessment.

[4] See Burton A and H Winata (2022), 'What Can You Do With Your Damaged Banknotes?', *RBA Bulletin*, June.

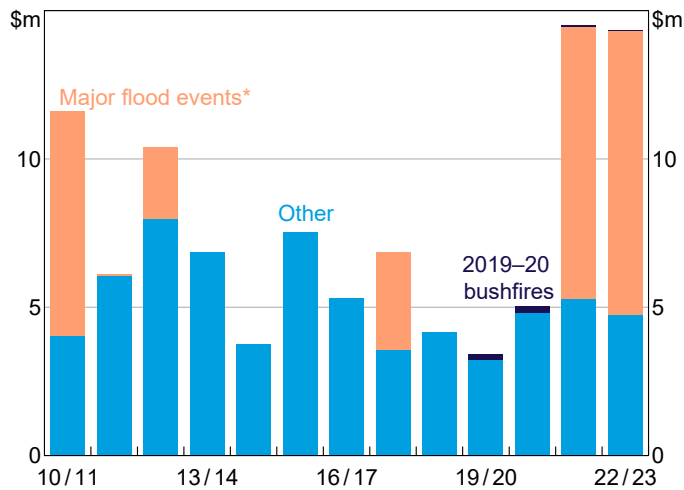


After washing the banknotes were counted. The banknotes are assessed at the Damaged Banknotes Laboratory.

In 2022/23, the Damaged Banknotes Facility processed around 8,900 claims and made \$14.3 million in payments. Of these, around 130 claims worth around \$9.6 million involved banknotes that were damaged during the flooding events that occurred in eastern Australia in 2022. These were mainly received from businesses and financial institutions. The duration and widespread devastation of the floods meant the Bank continued to receive claims several months after the events; to date, the Bank has paid a total of \$18.7 million for over 200 claims.

Damaged Banknote Claims

Value of payments



* Only major flood events with significant volume of flood claims received are identified.

Source: RBA.

The level of counterfeiting in Australia has reached its lowest point in nearly 20 years. In 2022/23, almost 10,000 counterfeits, with a nominal value of just over \$800,000, were detected in circulation. This corresponds to a counterfeiting rate of around five counterfeits detected per million banknotes in circulation; however, this is expected to rise to around six once the analysis of all counterfeits detected in 2022/23 has been completed. This is less than half the 20-year average counterfeiting rate, which is just over 12 counterfeits detected per million banknotes in circulation. This subdued level of counterfeiting reflects a combination of effective law enforcement activities and the increasing saturation of the NGB series of banknotes.

Counterfeiting rates are highest for the \$100 denomination, particularly the older series. There have been very few detections of NGB counterfeits in circulation so far. Since the first NGB banknote was released in 2016, there have been only 221 NGB counterfeits detected, compared with just over 146,000 counterfeits of the previous series of banknotes over the same period. The average quality of the NGB counterfeits is also lower than the average quality of the previous series' counterfeits for the same period. These figures indicate that the NGB banknotes are significantly more secure than the earlier polymer banknote series.

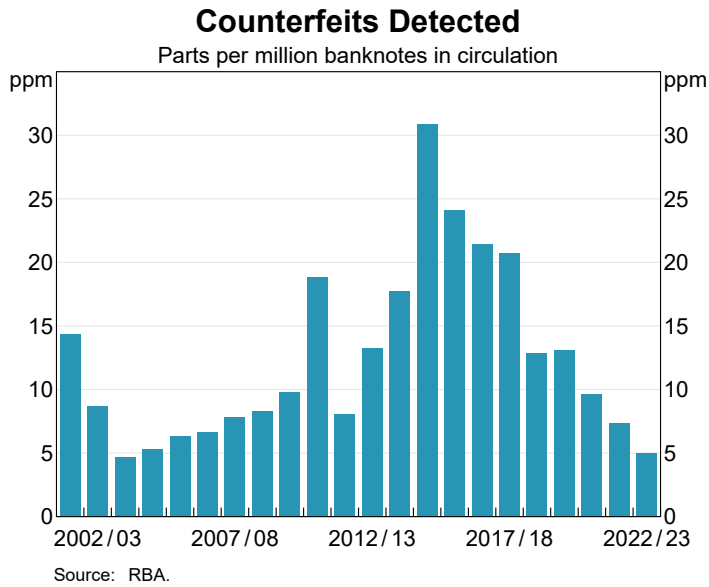
Law-enforcement efforts to investigate and prosecute counterfeiting operations continue to play a significant role in managing the threat of counterfeiting. The Bank supports court proceedings around Australia through the provision of information about counterfeit currency and expert witness statements. In 2022/23, the Bank completed 83 statements concerning 2,494 counterfeits and is aware of 19 court proceedings that occurred during the year. These proceedings related to the possession, passing and making of counterfeit currency.

Counterfeit Banknotes in Australia^(a)

2022/23

	\$5	\$10	\$20	\$50	\$100	Total
Total number	6	10	60	3,707	6,187	9,970
– First polymer series	1	9	56	3,664	6,171	9,901
– NGB series	5	1	4	43	11	64
– Paper series	0	0	0	0	5	5
Total nominal value (\$)	30	100	1,200	185,350	618,700	805,380
Counterfeiting rate (counterfeits per million banknotes in circulation)	0.03	0.07	0.3	3.8	13.0	5.0

(a) Figures are preliminary and subject to upward revision because of lags in counterfeit submissions to the Reserve Bank.
Source: RBA.



Redesign of \$5 banknote

In February 2023, the Reserve Bank announced the redesign of the current \$5 banknote. The portrait side, which currently features the late monarch, Her Majesty Queen Elizabeth II, will be redesigned to honour the history and culture of First Nations peoples of Australia.^[5] The Bank has established a research program and has begun a process of extensive consultation with First Nations peoples on this change. The project will take several years to complete.

Research and development

The Bank maintains an active banknote research and development program to innovate cost-effective, counterfeit-resistant security features and detection technologies for Australian banknotes. The primary purpose of this program is to ensure that Australia's banknotes remain durable and secure against counterfeiting and are easy to authenticate for a wide range of users. This is achieved in part through collaboration with domestic and international experts from various external organisations, including universities, public and private companies, research institutes and other central banks.

Fundamental to this program is a continuing assessment of: the vulnerability of banknotes to different forms of counterfeiting; the mechanisms by which banknotes wear in circulation; production capability; and how the public and banknote-processing machines use and authenticate banknotes. This work has been complemented by the design and manufacture of new equipment and the development of new methods for testing banknote quality and assessing damaged banknotes. Over 2022/23, there was a strong focus on the development and assessment of security options for the new \$5 banknote redesign. In addition, work was done to understand the wear properties of the NGB series and the product and process improvements that might reduce costs and improve circulation life. The program also assisted Note Printing Australia Limited (NPA) with the provision of technology and expertise for its export customers.

[5] 'First Nations' refers to Aboriginal and Torres Strait Islander peoples of Australia.

Note Printing Australia Limited

NPA is a wholly owned subsidiary of the Reserve Bank that produces banknotes and passports for Australia. It also prints banknotes and other security products for other countries. The volume of Australian banknotes printed each year varies depending on Australian banknote stock levels and NPA's orders volumes from other central banks. For more details about NPA, see Chapter 1.2 Governance and Accountability and Chapter 1.5 Operational Structure.

NPA also provides printing services to other Australian Government agencies and overseas central banks. In 2022/23:

- NPA produced around 8,220 P Series passports and around 2.9 million new R Series passports for Australia's Department of Foreign Affairs and Trade.
- NPA printed 1,057,500 births, deaths and marriages certificates for all state governments in Australia.
- NPA delivered around 601 million banknotes under contract to Singapore, Papua New Guinea and the Philippines, dealing directly with the central banks in those countries. ✎