

3.1 Management of the Reserve Bank

The Reserve Bank is committed to discharging its policy and operational responsibilities in an efficient manner. To achieve this, it invests in its people, technology, data, facilities and the related capabilities essential for the Bank to achieve its strategic objectives.

Management structure

Under the *Reserve Bank Act 1959*, the Bank is managed by the Governor, with the support of two key management committees – the Executive Committee and the Risk Management Committee.

The Executive Committee supports the Governor in managing operational and strategic matters with Bank-wide significance, including delivery of the Bank's strategic priorities (see Chapter 1.1 Our Role). It is chaired by the Governor and includes the Deputy Governor and the Assistant Governors. Other senior executives attend when required to provide specialist advice. The Committee meets weekly.

The Risk Management Committee has responsibility for ensuring that operational and financial risks are identified, assessed and properly managed across the Bank in accordance with its Risk Management Policy. It is chaired by the Deputy Governor and comprises senior executives drawn mainly from the operational areas of the Bank. The Committee meets regularly and keeps the Executive Committee and the Reserve Bank Board Audit Committee informed of its activities. Details of the Bank's Risk Management Framework are provided in Chapter 3.3 Risk Management.

The Executive Accountability Framework (EAF) supports the Bank's high standards of executive accountability. The EAF outlines where accountability lies for the Bank's functions and operations. It complements the Bank's broader governance framework, which is set out in legislation, charters of board subcommittees and Bank committees, and Bank policies. The EAF is available on the Bank's website.

Financial management

The Reserve Bank seeks to ensure its policy and operational objectives are met, while prudently managing its spending and resourcing levels. The Bank's budget is a key component of this accountability, covering the Bank's resourcing and expenditure plans for the coming year. The Executive Committee supports the Governor in overseeing the Bank's budget.

The Bank has an Investment Committee, chaired by the Deputy Governor, to oversee the Bank's project portfolio. Its primary role is to support the Governor and the Executive Committee to prioritise spending to deliver outcomes consistent with the Bank's operational and strategic objectives. Project delivery is underpinned by a Project Management Framework, which covers the full lifecycle of a project from business case through to implementation. Senior executive accountability is established through their participation in project steering committees. Projects report at least quarterly to the Executive Committee on their status, including the management of project-related risks.

Assistant Governors and Department Heads are responsible for managing expenditure within approved budgets. Support is provided by the Bank's Finance Department, which provides the Executive Committee with regular updates and forward estimates to allow it to make timely decisions to support efficient delivery of priorities. Financial management is also supported by the Bank's expenditure and payment

approval policy and related processes, which ensure appropriate oversight of expenditure and payments to suppliers of goods and services to the Bank. Material spending commitments are approved by executive leaders in accordance with the Bank's delegations of authority.

The Reserve Bank is a corporate Commonwealth entity 'prescribed' under section 30 of the *Public Governance, Performance and Accountability Rule 2014*. It is therefore required to apply the Commonwealth Procurement Rules (CPRs) when performing duties relating to certain procurements with an expected value exceeding \$400,000 for non-construction services and \$7.5 million for construction services. The CPRs require public reporting of certain activities on the Commonwealth's AusTender website. For all other procurements, the Bank follows the CPR principles with a broad objective to ensure that goods and services are procured in an efficient and economical manner, supported by effective processes for accountability and probity.

The Bank's costs arise from fulfilling its responsibilities and from investment that supports the delivery of its strategic objectives. Where appropriate, the Bank seeks to recoup operating costs associated with its operational responsibilities through fees and charges. This includes from the use of payment systems run by the Bank (such as the Reserve Bank Information and Transfer System (RITS) and the Fast Settlement Service (FSS)), and from transactional banking services provided to clients. Operating costs associated with the production, issuance and management of Australia's banknotes are indirectly funded by net interest income; holders of 'banknotes on issue' are not paid interest, but the Bank earns interest on its assets. These activities are discussed further in Chapter 2.3 Banking and Payment Services, Chapter 2.4 Banknotes and Chapter 2.2 Operations in Financial Markets.

Operating costs

The Bank's general operating costs were \$500.9 million in 2022/23, a 16.6 per cent increase on the previous year. Staff costs – the largest component of the Bank's general operating costs – increased by 16.9 per cent. This was due to additional resourcing to support the Bank's strategic priorities (including data, payments services and technology resilience) and, to a lesser extent, salary increases stipulated in the Reserve Bank's Workplace Agreement. Technology resilience initiatives included ongoing strengthening of cyber defences, automation of technology services, and increased use of cloud computing services in areas such as human resources and information technology (IT) service management (see 'Technology' and 'Data' sections below).

General Operating Costs^(a)

\$ million

	2018/19	2019/20	2020/21	2021/22	2022/23
Staff costs	225.6	241.8	243.2	256.3	299.7
Technology costs	34.8	41.0	42.4	44.6	52.8
Premises costs	24.8	26.5	28.8	29.1	30.5
Other costs	31.8	32.0	35.9	35.5	56.4
General operating costs (excl. depreciation)	317.0	341.4	350.3	365.5	439.4
Depreciation	56.2	64.7	62.3	64.3	61.5
General operating costs	373.2	406.0	412.7	429.8	500.9
– of which: Cost of projects	23.2	20.1	30.3	37.1	65.5
General operating costs by function ^(b)					
– Policy	82.6	89.7	89.7	90.2	98.8
– Business services	100.1	100.9	90.8	87.6	93.4
– Executive and corporate support	190.5	215.4	232.2	252.0	308.7

(a) Excluding Note Printing Australia Limited and banknote management expenses, and costs directly linked with transaction-based revenue. Some prior period costs have been reclassified to align with the current basis of presentation.

(b) Costs by function shown are on a direct basis, with no allocating of executive and corporate support costs across functions.
Source: RBA.

Capital expenditure reflects the program of investment aimed at maintaining the value of the Bank's buildings and technology assets and supporting the delivery of new capabilities and services. Capital expenditure increased in 2022/23, largely due to ongoing works to upgrade the Bank's Head Office and the continued refresh of technology infrastructure, including the FSS.

Capital Expenditure^(a)

\$ million

	2018/19	2019/20	2020/21	2021/22	2022/23
Capital costs	36.5	43.6	62.0	49.3	72.6
– of which: Cost of major projects	31.7	19.0	44.1	29.2	60.9

(a) Excluding Note Printing Australia Limited.

Source: RBA.

The Bank engages consultants where it lacks specialist expertise or if independent research, review or assessment is required. Spending on consultants in 2022/23 included external reviews of the Bank's technology outage on 12 October, which affected the payments systems operated by the Bank.

Spending on Consultancies^(a)

\$

Financial year	Spend
2012/13	1,190,000
2013/14	387,000
2014/15	773,000
2015/16	622,520
2016/17	987,388
2017/18	596,157
2018/19	1,113,425
2019/20	485,896
2020/21	613,823
2021/22	599,759
2022/23	2,059,205

(a) Sum of individual consultancies that cost \$10,000 or more (excl. GST).

Source: RBA.

Technology

IT systems and infrastructure play a key role in the Bank's ongoing operations and account for a significant proportion of the Bank's strategic investments. The Bank's technology environment comprises approximately 700 software applications, 3,500 servers, two data centres and a highly resilient network infrastructure across multiple Bank sites.

During 2022/23, there was an ongoing focus on increasing the resilience of technology services, through improved problem analysis and management and the implementation of a dedicated problem management team. Business and technology continuity exercises were successfully conducted in November 2022 and March 2023 to validate system resiliency.

The Bank experienced a major technology outage in October 2022, which saw RITS-related services, particularly the FSS, unable to operate for several hours. The outage occurred during a planned change to the software that manages the Bank's virtual servers. Following the outage, IT Department engaged Capgemini to conduct a review of technical infrastructure controls. Additionally, the Payments System Board requested the Bank to commission Deloitte to conduct a comprehensive review of the broader RITS operating environment. The Bank released the Deloitte review publicly on 30 May 2023 and is committed to implementing the recommendations in the final report.

Major technology-related projects completed in 2022/23 included the successful rollout of Office 365, the replacement of the Bank's human capital management system, and upgrades to its document management system. In March 2023, the Bank released system upgrades to support the global payments industry cutover to the ISO 20022 payments message standards. This required updates to RITS, back-office settlements, SWIFT and related trading infrastructure and banking systems to cater for the first wave of new ISO 20022 messages. Important projects relating to access management, technology asset management and deployment of upgraded security monitoring tools continue and are expected to be completed in 2023/24.

Cybersecurity remains a key focus for the Bank, with continued investment in ensuring the security of its systems and information. The Bank's vulnerability management standard has been revised to align with the Australian Cyber Security Centre's updated 'Essential Eight' standards. The Bank continually monitors security vulnerabilities to inform continuous security improvements, regularly undertakes penetration testing of the Bank's systems and processes and applies strong security governance over new technology solutions as they are introduced into the Bank's IT environment. These activities are supported by programs to build cybersecurity awareness among all Bank staff. The Bank also actively engages in intelligence sharing within the financial services, government and central banking communities.

The Bank continues to pursue strategies to drive the efficiency, stability and resilience of its IT assets. This includes automating patching and release management activities, and utilising cloud computing and managed services where appropriate. The Bank substantially enhanced its IT training and development framework in 2022/23 to assist with the attraction and retention of IT staff and to ensure the Bank has access to the skills needed to support its services into the future.

The Bank operates an Innovation Lab to identify and evaluate the implications of emerging technologies and business trends that are relevant to both its charter obligations and broader operations. In 2022/23, key innovation lab engagements included undertaking research on employee engagement in a hybrid working environment and establishing an Innovation Academy to improve the innovation capabilities of Bank staff. A key focus in 2023/24 will be understanding the challenges and opportunities of generative artificial intelligence and its potential application to the Bank.

Data

Harnessing the power of data has been a strategic focus area for the Bank over recent years. In 2022/23, the Bank completed a four-year program to uplift the maturity of technology, processes and people capabilities for working with data. It also defined a new strategy for the next four years, which will focus on: (i) better data sharing and collection; (ii) leveraging large datasets and advanced analytics tools and techniques; and (iii) wider application of cloud computing and automation. This is intended to enhance analytical insights, improve efficiencies and risk management, and defend against growing cyber threats.

Key activities in 2022/23 included the ongoing refresh of the Bank's strategic data platforms and tools, and further delivery of training to maintain the staff's proficiency with these new tools. This, in turn, enabled the development of many data acquisition, storage and analytics solutions that are supporting better economic and financial analysis and operations management.

There has also been ongoing investment in the application of advanced data science techniques to policy and operational projects in support of the Bank's functions. This has delivered novel insights from the Bank's data and enhanced data analysis capabilities.

Facilities

The Reserve Bank owns premises in locations where there is a business need to do so. The Bank's facilities include: the Head Office in Martin Place, Sydney; the H.C. Coombs Centre for Financial Studies in Kirribilli, Sydney; an office building in Canberra; facilities for the printing, processing, storage and distribution of banknotes at Craigieburn, north of Melbourne; and a Business Resumption Site in north-west Sydney. In addition to the buildings it owns, the Bank leases office space in Adelaide, Brisbane, Melbourne, Perth, Beijing, London and New York for staff based in these locations. During 2022/23, temporary office space was also leased in Sydney to accommodate staff while renovations continued in the Head Office building.

Valuations of the Bank's owned properties are undertaken every second year. As at 30 June 2023, the value of the Bank's domestic property assets was estimated at \$408 million. This is about 25 per cent lower than at 30 June 2022, because of a temporary reduction in the value of the Bank's Head Office while an extensive renovation is in progress; when that is completed, the building's value is expected to be substantially higher than prior to the renovation.

The Bank also leases out space that is not required for the Bank's own business purposes to external tenants. Net income from these leases amounted to \$5.8 million in 2022/23.

The renovation of the Head Office building that commenced in April 2022 continued during 2022/23. The substantial renovation, which includes upgrading base building infrastructure that is at end-of-life, will ensure a safe, efficient and effective workplace to meet the long-term needs of the Bank, while preserving heritage features and modernising the office space. The project has encountered material latent conditions, including extensive hazardous materials, which will extend both the time and cost of the project.

The Bank also completed a project during the year to upgrade the strongrooms in the Head Office building used to store banknotes. This project included upgrades to security features and ventilation. Passenger and good lifts at the Craigieburn site, which were over 40 years old, were also replaced.

Environmental matters

Ecologically sustainable development and environmental performance

The Reserve Bank is committed to improving the environmental performance of its operations. The Bank has developed policies and practices that are consistent with the principles of ecologically sustainable development (ESD) as set out in the *Environment Protection and Biodiversity Conservation Act 1999*. These policies and practices serve to minimise the impact of the Bank's activities on the environment by: increasing the use of renewable energy sources; undertaking continuous environmental improvement through more efficient energy utilisation and management of waste streams; and incorporating sustainability and environmental aspects in the Bank's building designs and operations. The ESD principles are captured in the Bank's Environmental Statement.^[1]

The Bank has a target of achieving net zero emissions by 2030. This is consistent with the commitment of the Australian Public Service (APS).

The Bank has an ongoing program to reduce carbon emissions from its operations. This is occurring through improvements to the infrastructure of the Bank's buildings, replacing aged and inefficient equipment with modern, compliant and efficient alternatives, and improving the efficiency of operations by expanding data monitoring of building performance, which facilitates more energy efficient use of electricity, water and gas.

During 2022/23, the Bank:

- increased the energy efficiency of the H.C. Coombs Centre through sustainability improvements made during its recent renovations, including rooftop solar panels, improved insulation, increased fresh air ventilation and rainwater harvesting
- completed the Stage 1 conversion to LED lighting at the Business Resumption Site and the Main Production Building at Craigieburn Site 1
- reduced energy usage at the Main Production Building at Craigieburn Site 1 by installing new chillers and cooling towers and replacing the passenger and goods lifts; the chillers and cooling towers have also enabled more efficient use of chilled water and eliminated ozone-depleting refrigerants
- commenced a project to install a large array of solar panels at both Craigieburn sites.

[1] See RBA (2019), 'Environmental Statement', December.

In 2022/23, electricity consumption at Bank-operated sites declined by 1 per cent. Operation of the solar panels at the Bank's Business Resumption Site enabled carbon emissions to decline by 448 tonnes. Gas consumption was 3.3 per cent lower than the previous year. The reductions in electricity and gas consumption are predominantly associated with improved efficiencies at the Craigieburn site, including the installation of more efficient cooling and humidification systems. Water consumption rose by 23 per cent as a result of several one-off activities, including the refurbishment of the water tanks at the Craigieburn site, which necessitated the water to be drained and re-filled, and the reopening of the H.C. Coombs Centre.

APS net zero 2030 emissions reporting

The Australian Government has committed to achieving net zero emissions from operations produced via the APS by 2030. As part of this commitment, the Department of Finance requires all non-corporate and corporate Commonwealth entities, including the Bank, to report on their operational greenhouse gas emissions.

Greenhouse gas emissions reporting has been developed using a methodology that is consistent with the 'Whole of Australian Government' approach as part of the APS's Net Zero 2030 policy.

Greenhouse Gas Emissions Inventory – Location-based Method^(a)

2022/23; CO₂-e^(b)

Emission source	Scope 1 kg	Scope 2 kg	Scope 3 kg	Total kg
Electricity (location-based method) ^(c)	n/a	19,830,125	1,634,248	21,464,373
Natural gas ^(c)	1,718,474	n/a	170,479	1,888,953
Fleet vehicles	8,729	n/a	2,437	11,166
Domestic flights ^(d)	n/a	n/a	192,159	192,159
Other energy ^(e)	27,097	n/a	6,678	33,775
Total kg CO ₂ -e	1,754,300	19,830,125	2,006,001	23,590,426

(a) The table above presents emissions related to electricity usage using the location-based accounting method.

(b) CO₂-e = Carbon Dioxide Equivalent.

(c) Electricity and natural gas includes emissions output from buildings owned by the Bank as well as leased office space where available. While care has been taken to report on Bank-specific emissions where possible, some of the reporting may include usage from tenants that also use the same office space (including Note Printing Australia Limited and other government agencies).

(d) Emissions data have been provided by CTM (under the Whole of Australian Government travel contract). As per APS's Net Zero reporting methodology, only emissions from domestic flights have been captured, but not international travel.

(e) 'Other energy' includes emissions from both mobile and stationary energy sources, including forklifts and back-up generators.

Source: RBA calculations using methodology of the APS Net Zero Unit in the Department of Finance.

The electricity emissions reported above are calculated using the location-based approach. When applying the market-based method – which accounts for activities such as GreenPower, purchased large generation certificates or being located in the Australian Capital Territory – the total emissions for electricity are lower (see below).

Greenhouse Gas Emissions Inventory – Market-based Method^(a) 2022/23; CO₂-e^(b)

Emission source	Scope 1 kg	Scope 2 kg	Scope 3 kg	Total kg
Electricity (market-based method) ^(c)	n/a	12,763,775	1,689,323	14,453,098
Natural gas ^(c)	1,718,474	n/a	170,479	1,888,953
Fleet vehicles	8,729	n/a	2,437	11,166
Domestic flights ^(d)	n/a	n/a	192,159	192,159
Other energy ^(e)	27,097	n/a	6,678	33,775
Total kg CO ₂ -e	1,754,300	12,763,775	2,061,076	16,579,151

(a) The table above presents emissions related to electricity usage using the market-based accounting method.

(b) CO₂-e = Carbon Dioxide Equivalent.

(c) Electricity and natural gas includes emissions output from buildings owned by the Bank as well as leased office space where available. While care has been taken to report on Bank-specific emissions where possible, some of the reporting may include usage from tenants that also use the same office space (including Note Printing Australia Limited and other government agencies).

(d) Emissions data have been provided by CTM (under the Whole of Australian Government travel contract). As per APS's Net Zero reporting methodology, only emissions from domestic flights have been captured, but not international travel.

(e) 'Other energy' includes emissions from both mobile and stationary energy sources, including forklifts and back-up generators.

Source: RBA calculations using methodology of the APS Net Zero Unit in the Department of Finance.

Other climate-related initiatives

Banknote sustainability

The Reserve Bank has been reviewing opportunities to improve the sustainability of Australian banknotes throughout the banknote lifecycle. This covers banknote design, supplier engagement, production (working with Note Printing Australia Limited), distribution and recycling. Sustainability considerations will be incorporated into the updated \$5 banknote. The design process aims to ensure the new banknote is durable in circulation and minimises waste during production.

The Bank continues to recycle all unfit polymer banknotes at their end of life. In 2022/23, a total of 88.8 million unfit banknotes were returned to the Bank for disposal. All polymer from unfit banknotes was recycled by the Bank's recycling partner into new products, forming part of the circular economy. A total of 80 tonnes of polymer waste was recycled during 2022/23. Our recycling program has been expanded to other products used in the banknote lifecycle, such as the containers used to store and transport banknotes (these are reusable and are recycled once they eventually reach end of life). Analysis is also underway to better understand how banknotes are circulated and returned at end of life. The review aims to ensure banknotes are maintained in circulation for their maximum life span, reducing the need to produce and replace banknotes.

Climate research and policy agenda

Climate change and the actions taken in response to climate change will have wide-ranging implications for the economy, the financial system and society more broadly. Climate change affects the Bank's responsibilities for price stability, employment and the stability of the financial system.

The Bank is building its capacity to understand the implications of climate change for the Australian economy and financial system, through internal analysis and external engagement. In 2022/23, internal analysis focused on:

- understanding how climate change might affect the economy and the implications for monetary policy – including by considering the impact on Australia of climate policies implemented overseas, monitoring developments in energy markets and developing modelling capacity
- analysing the risks climate change poses to banks' loan portfolios, insurers' assets and liabilities, and superannuation funds' assets – including by incorporating climate risks into top-down stress-testing models
- monitoring climate-related trends in financial markets, developments in international climate policy and regulation, and considering the implications of these for the domestic financial system.

The Governor's position as Chair of the Council of Financial Regulators (CFR) provides another avenue to promote awareness and understanding of the financial risks and opportunities associated with climate change. In addition, the CFR's responsibilities include contributing to the development of a framework that best enables participants in the financial system to manage these risks. In 2022/23, the CFR Climate Working Group supported the Australian Government's sustainable finance agenda, including via workstreams on taxonomy development, greenwashing and ESG labelling, climate-related financial disclosures, transition plans and net zero commitments, data and scenarios, and nature risks.

Climate-related issues were covered in a number of speeches and publications, including: a speech by then Head of Domestic Markets, Jonathan Kearns, on climate change risk in the financial system;^[2] a speech by the Governor on price stability;^[3] and a *Bulletin* article on climate change and financial risk.^[4]

The Bank is also actively engaged with peer central banks and external groups, both domestically and internationally, on climate-related topics. This enables us to learn about and contribute to the development of best practice in assessing the impact of climate change. The Bank is a member of the Network for Greening the Financial System and contributes to discussions on climate and sustainability issues through its involvement with the Financial Stability Board, the Basel Committee on Banking Supervision, the G20, the Executives' Meeting of East Asia-Pacific Central Banks, the BIS Asia Climate Network and the Organisation for Economic Co-operation and Development (see Chapter 2.5 International Financial Cooperation).

Climate-related disclosures

The Bank is currently reviewing the Australian Accounting Standards Board's adoption of general requirements for sustainability and climate-related disclosures, which were published by the International Sustainability Standards Board in late-June 2023. The Bank will follow guidance from the Department of Finance regarding the application of sustainability and climate-related disclosures under the Whole of Australian Government reporting framework. ✎

[2] Kearns J (2022), 'Managing Financial Services Risks in an Age of Uncertainty', Speech to the Credit Law Conference, Sydney, 24 August.

[3] Lowe P (2022), 'Price Stability, the Supply Side and Prosperity', CEDA Annual Dinner Address, Melbourne, 22 November.

[4] Kurian S, G Reid and M Sutton (2023), 'Climate Change and Financial Risk', RBA *Bulletin*, June.