

# Annual Report 2023

**Exchange Settlement Account System  
Report to Account Holders**



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### Directory

#### Exchange Settlement Account System (ESAS)

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## SYSTEM OVERVIEW

# Tirohanga Whānui.

## About ESAS

The Exchange Settlement Account System (ESAS) is New Zealand's principal high-value payments system and is charged with providing an efficient and safe process for the real time electronic settlement of payments between account holders.

The Reserve Bank has provided ESAS as a real-time gross settlement system (RTGS) since 1998. Account holders electronically submit instructions to debit an account and credit another account using an authorised electronic submitting mechanism. Authorised submitting mechanisms include closed user groups which use the SWIFT electronic messaging system, the NZClear system and direct entry of transaction details into ESAS. The system is available for use by account holders for 23.5 hours each calendar day. Each ESAS day begins at 9:00am on a calendar day and ends at 8:30am the following calendar day.

A payment will be settled (i.e., funds are transferred from one ESAS account holder's exchange settlement account to another ESAS account holder's exchange settlement account) once a transaction instruction is authenticated, the payment instruction is authorised by the payer and the payer has sufficient funds in their exchange settlement account to effect the transaction. Once a transaction is settled it cannot be revoked.

The ESAS system is owned and operated by the Reserve Bank on a cost-recovery basis. The Reserve Bank's Payments Services Directorate is responsible for administering the operational aspects of the System. The Payments Services Directorate is headed by Steve Gordon. Day-to-day business support is provided by the Payment and Clearing Services Team managed by the Manager of Payments and Settlement Services, Jaimee Taylor-Burt and the Application Support and Technical Operations Team, managed by Ben Waterreus.

The Payments Services Directorate reports on the operation of ESAS to Karen Silk, the Reserve Bank's Assistant Governor/General Manager, Economics, Financial Markets and Banking.

Datacom supports the telecommunications network infrastructure, and related security features utilized by the system. Application support services and application development are provided by Nexi Payments SpA. The Reserve Bank manages Datacom's and Nexi's provision of services through service contracts and related service level agreements. The management process includes assessment of performance at regular review meetings, regular performance reports, review of problem management reports, a relationship governance committee and relevant project steering committees.

The aggregate level of liquidity in the ESAS system is managed by the Reserve Bank's Financial Markets Directorate (FMD). FMD injects or withdraws liquidity from the system by undertaking transactions such as reverse repurchase agreements, foreign currency swap transactions, and issuance of Reserve Bank Bills. FMD's objective is to ensure that there is adequate aggregate liquidity in the system to ensure the efficient operation of payments, while also maintaining short-term wholesale interest rates at levels close to the Official Cash Rate.

ESAS is a systemically important payment system under the Financial Market Infrastructures Act 2021 (FMI Act). The ESAS regulator is the Prudential Supervision Directorate, part of the Reserve Bank's Financial Stability Group. Institutional arrangements ensure that dealings between the Payments Services Directorate and Prudential Supervision Directorate occur on an arm's length basis.

## MANAGEMENT COMMENTARY

# Ngā Kōrero Whakahaere.

### Operations and Development

Completing major industry projects has been a key feature of the year. Along with the payments industry, we delivered the SBI365 project, which brought seven-day a week retail banking to New Zealanders on 26 May 2023. This was a significant project and the changes have bedded in well. During the current year, operational modifications required to support the seven-day a week model were completed in good time, building on the required technical changes across ESAS and associated technology platforms that were completed the previous year.

For the ISO 20022 project, we worked closely with the wider payments industry on the phased transition to the new global standard, which came into existence in March 2023. Moving forward, the project will continue to work with industry and overseas counterparties to fully migrate to the new standard by the November 2025 deadline.

Business performance has been solid with systems availability running at 100% during business hours, across the 12 month period. Where issues arose during the year, we have continued to apply our incident management frameworks to firstly remedy the issue at hand and minimise disruption, and secondly assess the underlying root cause and risk profile to establish any further actions or enhancements required.

The annual customer satisfaction results were positive (81% exceeding expectations and 19% meeting expectations), and we will continue to work closely with account holder base in the year ahead.

We have continued to place considerable focus on our risk management and assurance frameworks. This will remain a focus area into next year as we work under the Financial Markets Infrastructure Act, and accompanying standards, and maintain close contact with the regulators for ESAS. No material matters arose from the ESAS annual controls audit and quarterly securities reconciliation reviews by PricewaterhouseCoopers this year.

ESAS daily volumes increased to 12,926 (2022: 12,763) whilst the value increased to \$36.3 billion (2022: \$33.5 billion). Transaction volume resulted in revenue of \$10.603 million. Operating expenses were \$9.465 million, leading to an over recovery of \$1.138 million. The over recovery was applied to reserves, resulting in a balance of \$1.727 million as at 30 June 2023. The increase in operating expenses was largely driven by internally focused projects to further bolster our security and resilience as well as significant industry facing projects such as ISO 20022 and SBI365.



For the year ahead, our focus will be on systems resilience and risk management, and ensuring our operations are aligned to the new FMI standards. Alongside this, we recognise the importance of continuing close and effective dialogue with our regulators. We will also continue strategically focused activities around the future of payments to contribute to the broader good of the New Zealand payment systems environment. Of particular note, a consultation on our review of our ESAS access policy commenced in June 2023. We will communicate with account holders about findings and outcomes over the year ahead.

The ESAS Participants Group continued to meet during the year, which provided an opportunity to work with our ESAS account holders to collaborate and guide the way forward for Real Time Gross Settlement across the New Zealand financial system.



### Head of Payments Services

August 2023

### Key performance statistics for the year ended 30 June 2023

Key performance indicator	2023	2022
System availability (%)	100.00	100.00
Average daily transaction volume	12,926	12,763
Average daily transaction value (\$billion)	36.3	33.5
Operating expenses (\$000)	9,465	8,139
Customer satisfaction meets or exceeds expectations (%)	100	100

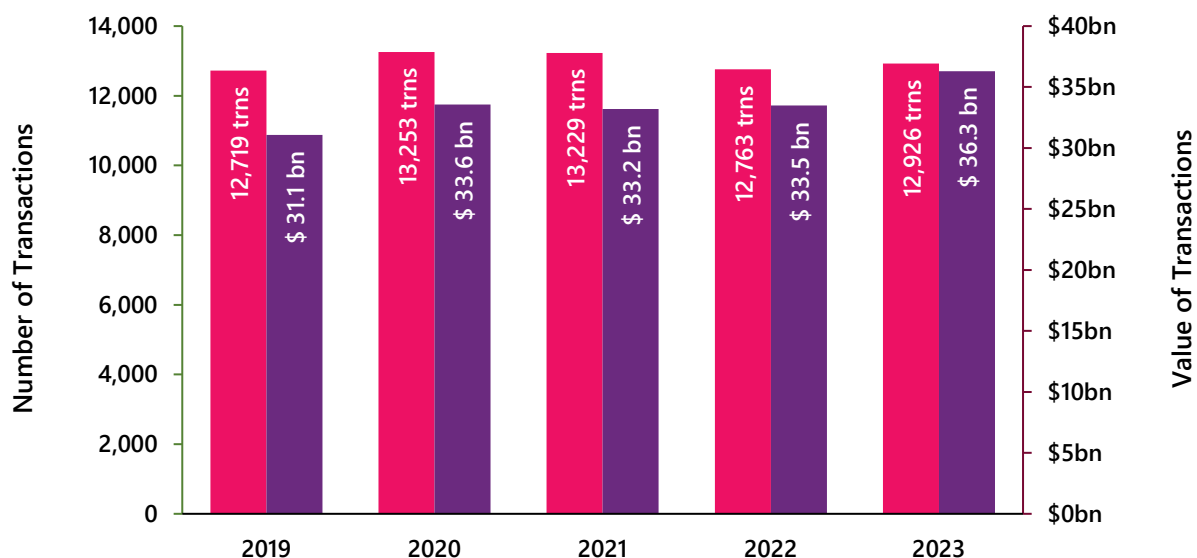
## KEY STATISTICS

# Tatauranga Matua.

There are three primary interfaces or 'Account holder Submitting Systems' which are used by ESAS Account holders to submit payment instructions to ESAS:

- Directly from the NZClear system.
- Via the SWIFT system where members of the Assured Value Payment (AVP) closed user group use ESAS to pay other members of that closed user group. The Reserve Bank is the administrator of the AVP closed user group.
- Via the SWIFT system where members of the Settlement Before Interchange (SBI) closed user group use ESAS to pay other members of that closed user group. Payments NZ Limited is the administrator of the SBI closed user group. Once an SBI settlement has been effected in ESAS, a confirmation is sent to SWIFT which then allows an associated interchange file containing underlying payment details to be released to the destination bank.

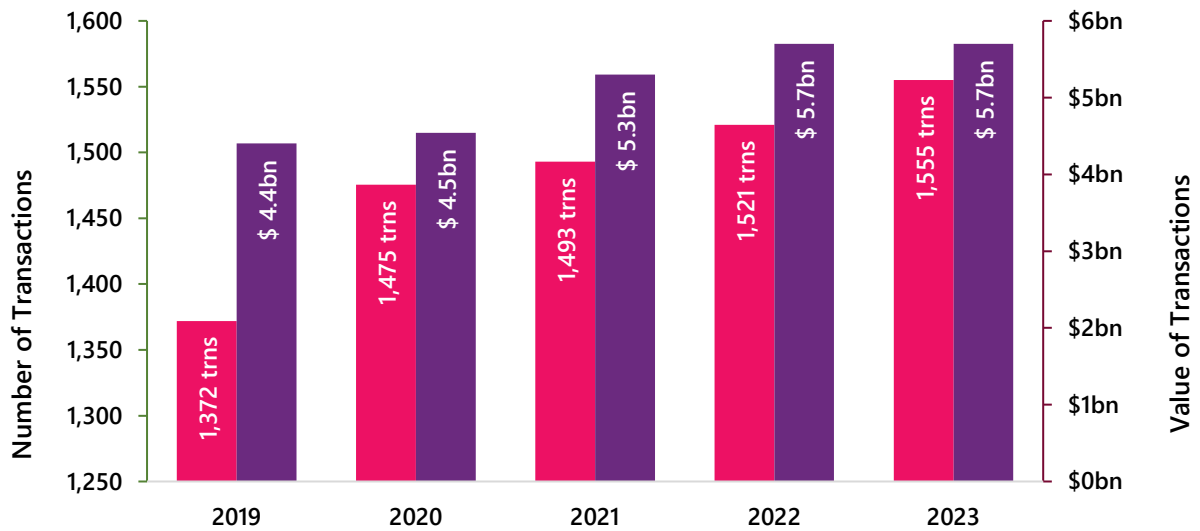
### Transactions – All



### Transactions – Sourced from Swift AVP

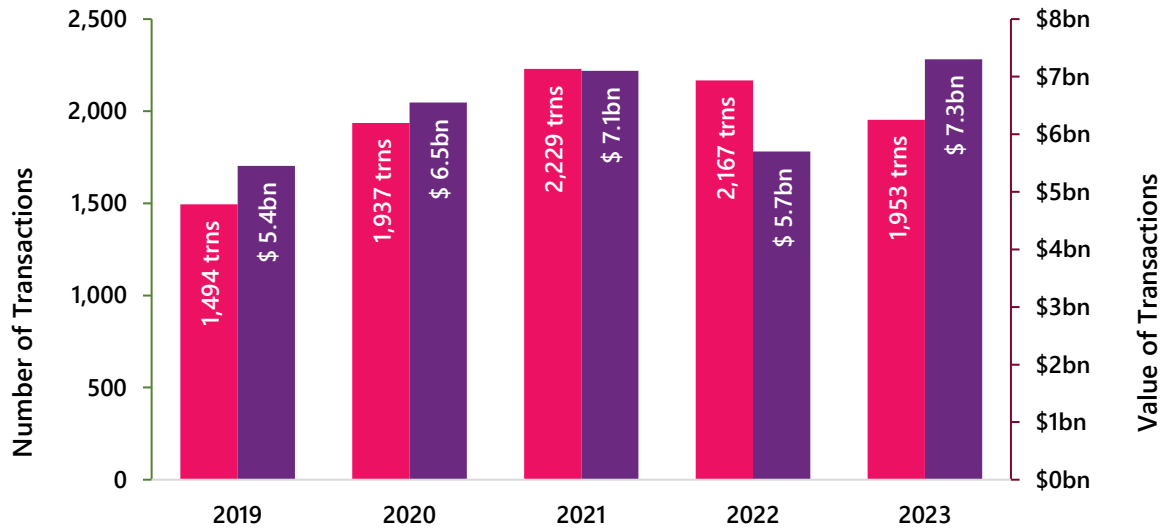


### Transactions – Sourced from SBI





## Transactions – Sourced from NZClear



## System outages year ended 30 June (hours:mins)

	2019	2020	2021	2022	2023
Outages	3:23	0:00	3:00	0:00	0:00

## Customer satisfaction

	2019	2020	2021	2022	2023
Exceed expectations	86%	89%	78%	92%	81%
Meet expectations	9%	7%	14%	8%	19%
Does not meet expectations	5%	4%	8%	0%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

## RISK MANAGEMENT

# Ngā Whakahaere Whakatūpato.

The internal controls of ESAS are audited each year by PricewaterhouseCoopers (PwC), as required by the ESAS Terms and Conditions. PwC acts on behalf of the Reserve Bank's external auditor, the Auditor-General. The scope of this audit includes the controls performed by the Reserve Bank's third party independent service provider, Datacom. The auditor's annual assurance report is addressed to the Directors of the Reserve Bank and is reviewed by the Reserve Bank Audit Committee, with external auditors, Reserve Bank governors and management in attendance. A copy of the assurance report is sent to account holders. Audit findings and recommendations are reviewed and progress in implementing agreed actions is monitored.



**Regular controls-based auditing is undertaken by a third party in order to obtain independent assurance regarding operating integrity.**

Senior management and the audit committee monitor reports on management's actions in responding to recommendations made by auditors and security experts.

The main elements of risk management for the system are:

- ensuring that procedures and controls are adhered to;
- measures to manage operational risk, as described below;
- ensuring business continuity plans are in place and tested regularly; and
- ongoing oversight and audit of operations.

Managing operational risk in the Reserve Bank is seen as an integral part of day-to-day operations. Operational risk management includes Bank-wide corporate policies that describe the standard of conduct required of staff, a number of mandated requirements, and specific internal control systems designed around the particular characteristics of various Reserve Bank activities. The Bank also closely manages third party providers of services to ensure their performance is consistent with relevant contractual terms, including service-level agreements.

The Payment Services Directorate (PSD) has its own Directorate Risk Forum that:

- provides the vision and objectives of the risk management of PSD;
- identifies and assesses risks pertaining to PSD; and
- maintains the Risk Management Framework for the directorate in line with Enterprise Risk Management.

In the last year, emphasis has been placed on risk management frameworks in general, incident management and system security. There was a high focus on the Financial Market Infrastructures Act and ensuing expectations around operating standards. A number of reviews were undertaken and system defences, policies and procedures continue to be strengthened. Monitoring of the environment is provided through a Security Operations Centre. In addition, the Bank provides an annual formal attestation regarding compliance with the SWIFT Customer Security Programme.

The Reserve Bank has an office in Auckland which shares day-to-day activities with Wellington and has the capability to provide full continuity of business operations should a region-wide disaster affect ESAS's Wellington staff or facilities. ESAS is designed for high availability and resiliency. To achieve this, infrastructure and applications are housed within two data centres that are geographically separate: Hamilton and Auckland. These data centres house a complete replica of all components required to operate ESAS. The architecture of the system allows a full site swap and/or a disaster recovery process if and when required. Broadly, every six weeks the production stack is swapped to the other site ensuring that the ESAS can run successfully from either site. In the event of a catastrophic failure of these two data centres, ESAS has a third disaster recovery site called RTGS Extreme Contingency System (RECS) which is operated from the vendor's data centre in Milan.

## FINANCIAL PERFORMANCE

# Ngā Whakakitenga Ahumoni.

The short-form Statement of Financial Performance for the ESAS business is:

	2023 \$000	2022 \$000
Operating expenses	9,465	8,139
Over-recoveries (to be applied against future operating costs)	1,138	(1,785)
Fees paid by account holders	10,603	6,354
Average fee charged per transaction	\$3.15	\$2.00

ESAS is operated as a division of the Reserve Bank and services are charged to users on a cost recovery basis. The ESAS business is attributed costs by the Reserve Bank. These include charges for use of the Reserve Bank's resources, such as staff, occupancy, internal audit, governance, and accounting and information technology. Indirect costs incurred by the Reserve Bank are allocated to the ESAS System based on estimated costs that the business would incur on a stand-alone basis.

The above figures are extracted from the Reserve Bank's audited financial records, but the accounts of this division have not been subject to a separate external audit. Income and expenditure for the ESAS business is calculated using the accounting policies specified in the Reserve Bank's financial statements.

Transaction volume resulted in revenue of \$10.603 million. Operating expenses were \$9.465 million, leading to an over recovery of \$1.138 million. The over recovery was applied to reserves, resulting in a balance of \$1.727 million as at 30 June 2023.

The expense base for operating ESAS increased 16% relative to the prior year as multiple major projects were completed and others commenced. These included internally focused projects to further bolster our security and resilience as well as significant industry facing projects such as ISO 20022 and SBI365.

The \$3.15 transaction fee was maintained throughout the year.

The transaction fee will increase to \$3.45 on 1 July 2023 to compensate for increased operating expenses from recently completed, ongoing, and planned capital and operating projects. The transaction fee is subject to ongoing review as year-on-year volume trends are observed and expenses related to the operations of ESAS activities are both forecast and realised.

## PLAN FOR 2023-24

# Te Rautaki Mō Te 2023-2024.

## ESAS Plan for the Year 1 July 2023 to 30 June 2024

The following project work is planned:

- Identify RTGS V7 change impact and progress to implementation phase.
- Progress ISO20022 phase-2 (statement and enquiries).
- Identify and implement ESAS Infrastructure Upgrade.
- Complete review and publish ESAS Access Policy and Criteria.
- Implement Revised ESAS Access Policy.
- Assess ESAS compliance to Financial Markets Infrastructures (FMI) Act standards and undertake any additional requirements.

As part of business as usual we will target to:

- Have the system available for account holders for at least 99.90 percent of core business hours.
- Have the system subject to an external audit pursuant to clause 14.2 of the ESAS Terms and Conditions and prepared in compliance with the requirements of the International Standard on Assurance Engagement (ISAE) 3402. The result of the report will be shared with ESAS account holders.
- Complete Annual Report for ESAS covering operational and financial performance.
- Survey account holders' satisfaction levels and report back to account holders by end of financial year.
- Convene bi-annual meetings of the ESAS Participant Group.
- Maintain resilience and integrity of ESAS at a level commensurate with the FMI Act standards and global developments, and the Risk Appetite of the Reserve Bank of New Zealand.

