



ESAS

Annual Report 2022.

Exchange Settlement Account System
Report to Account Holders

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Exchange Settlement Account System (ESAS)

System Operator:	Reserve Bank of New Zealand (Reserve Bank)
Email:	esas-nzclear@pshelp.atlassian.net
Telephone:	(64) (4) 471 3918
Fax:	(64) (4) 471 3712
Website	rbnz.govt.nz/payments-and-settlement-systems/exchange-settlements-account-system

SYSTEM OVERVIEW

Tirohanga Whānui.

About ESAS

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 to ESAS. The system is available for use by account holders for 23.5 hours each business day. Each business day begins at 9:00am on a working day and ends at 8:30am the following working 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 Settlement Services Team managed by the Manager of Payments and Settlement Services, Jaimee Taylor-Burt and the Application Support and Technical Operations Team, managed by Kevin Jamieson.

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 (who last year acquired SIA-Perago). 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, and 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 designated settlement system under Part 5C of the Reserve Bank Act 1989. The regulator is the Supervision Directorate (SD), part of the Reserve Bank's Financial Stability Group. Institutional arrangements ensure that dealings between the Payments Services Directorate and SD occur on an arm's length basis.

MANAGEMENT COMMENTARY

Ngā Kōrero Whakahaere.

Operations and Development

Progressing major industry projects has been a key feature of the year and, along with the payments industry, we are poised to move into delivery mode in the year ahead. The SBI365 project, which will bring seven-day a week banking to New Zealanders, is scheduled for delivery in April 2023. During the current year, the technical changes required across ESAS and associated technology platforms were completed. Other operational modifications required to support the seven-day a week model are well advanced. For the ISO 20022 project, we have continued to work closely with the wider payments industry to update ESAS to accommodate the first tranche of ISO 20022 messages in November 2022.



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 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 (92% above, or well above average), and we will continue to work closely with account holder base in the year ahead.

Across the year we placed considerable focus on our risk management frameworks and have undertaken a number of internal initiatives to further strengthen these. This will remain a key priority area into next year as we work under the Financial Markets Infrastructure Act and maintain close contact with the regulators for ESAS. No material matters arose from the PricewaterhouseCoopers controls audit (an ESAS Terms and Conditions requirement).

ESAS daily volumes were lower at 12,763 (13,229) whilst the value was similar to the previous year at \$33.5 billion (\$33.2 billion). Overall the transaction volume decline resulted in revenue of \$6.354 million, and the operating expenses were \$8.139 million leading to an under recovery of \$1.785 million. To offset this the reserve that was built up during the PSR Project was applied to derive a breakeven outcome, and this resulted in a reserve balance of \$0.590 million as at 30 June 2022. 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.

We have continued 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 review of our ESAS access policy is currently underway. We will communicate about this in greater detail with account holders in the year ahead.

The ESAS Participants Group continued to meet during the year with the aim of working with our account holder base to guide the way forward for Real Time Gross Settlement across the New Zealand financial system.



Head of Payments Services

August 2022

Key performance statistics for the year ended 30 June 2022

Key performance indicator	2022	2021
System availability (%)	100.00	99.95
Average daily transaction volume	12,763	13,229
Average daily transaction value (\$billion)	33.5	33.2
Operating expenses (\$000)	8,139	6,633
Customer satisfaction meets or exceeds expectations (%)	100	92

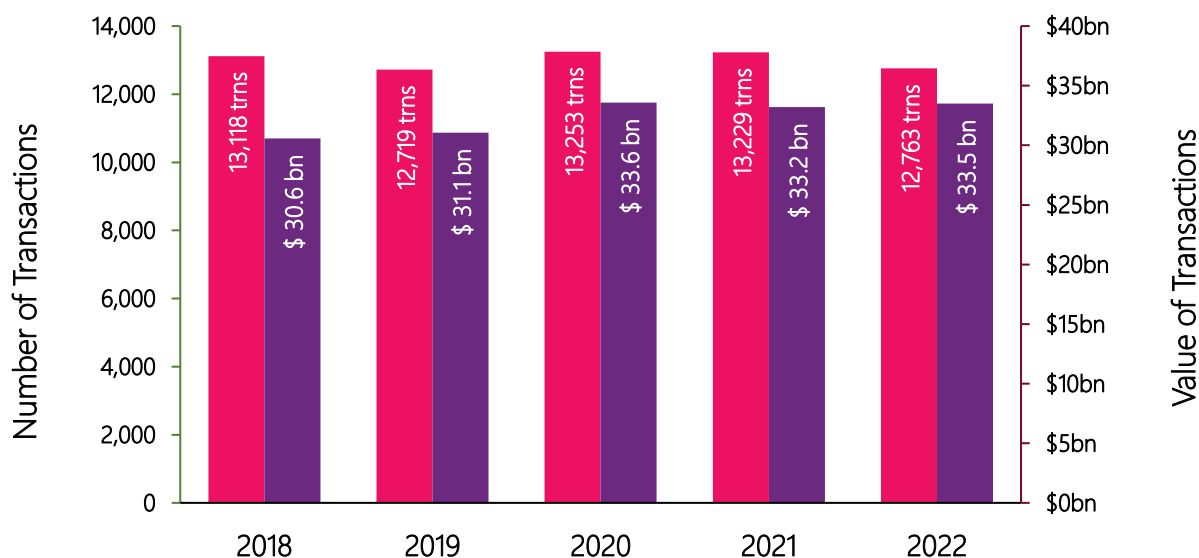
KEY STATISTICS

Tatauranga Matua.

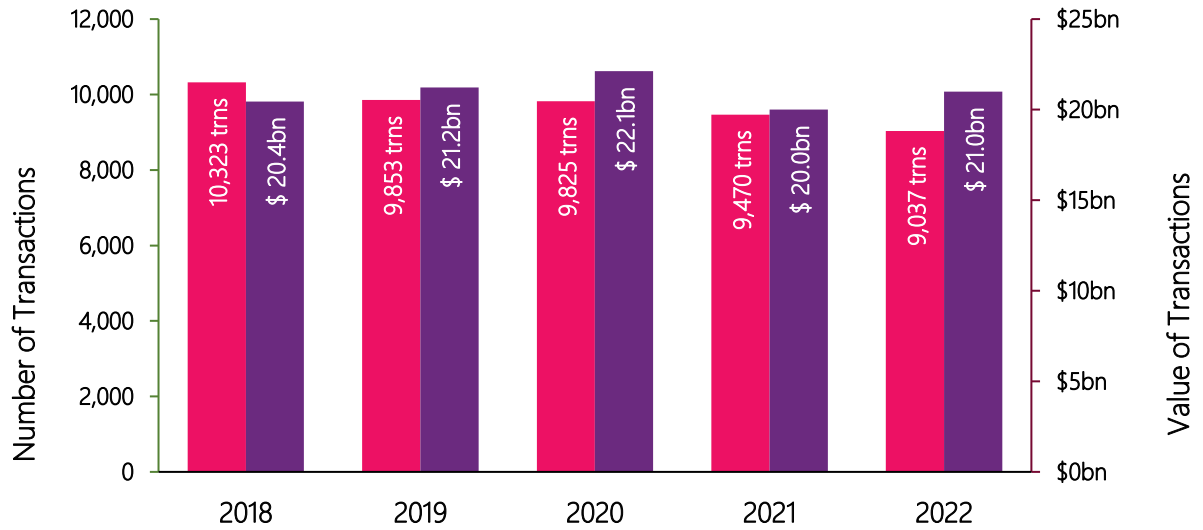
There are three primary interfaces or 'Account holder Submitting Systems' which are used by ESAS Account holders to submit payment instructions to ESAS:

- 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.

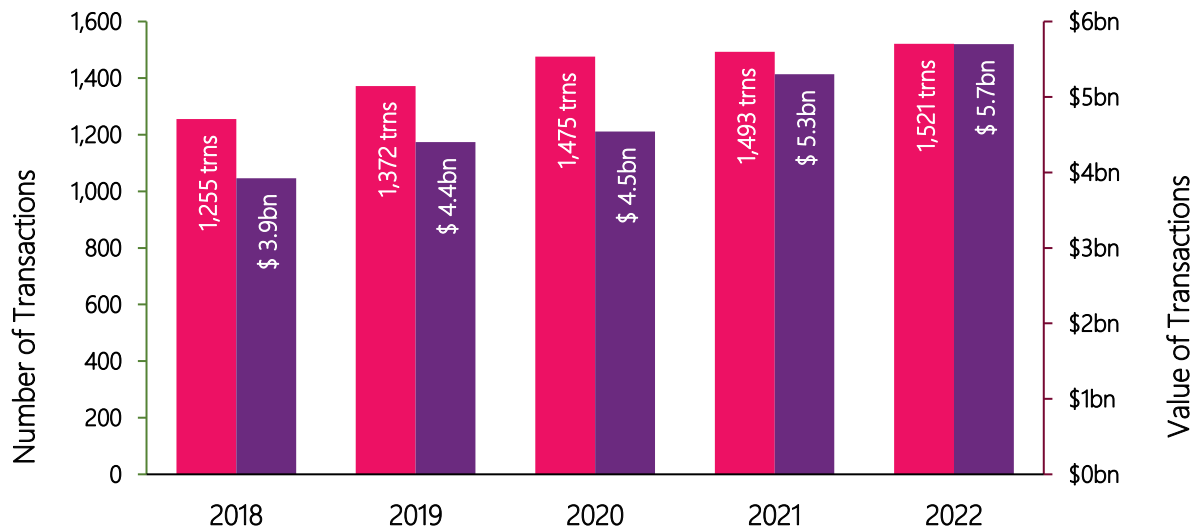
Transactions – All



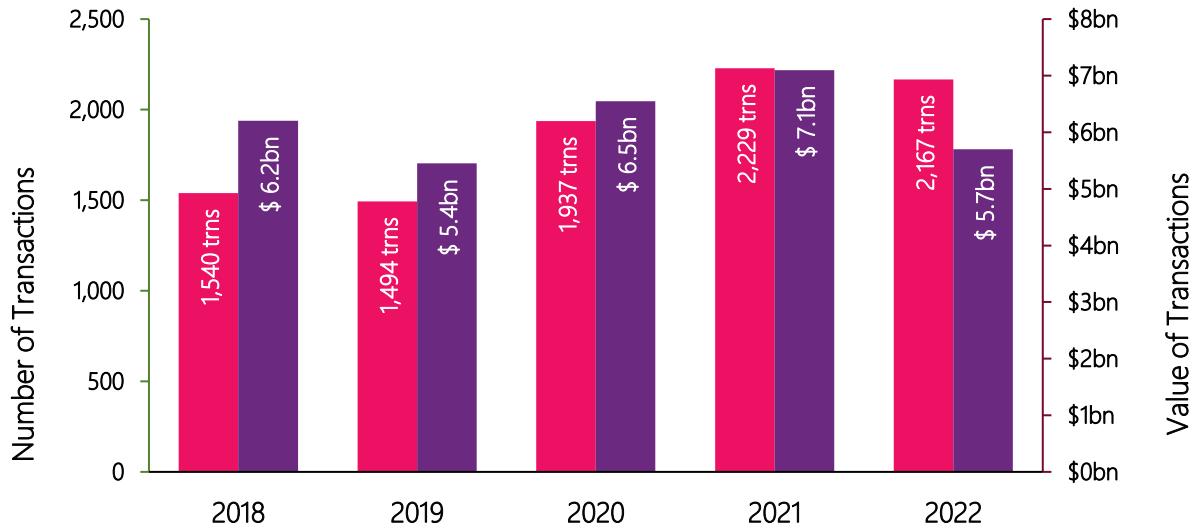
Transactions – Sourced from Swift AVP



Transactions – Sourced from SBI



Transactions – Sourced from NZClear



System outages year ended 30 June (hours:mins)

	2018	2019	2020	2021	2022
Outages	2:26	3:23	0:00	3:00	0:00

Customer satisfaction

	2018	2019	2020	2021	2022
Exceed expectations	84%	86%	89%	78%	92%
Meet expectations	16%	9%	7%	14%	8%
Does not meet expectations	0%	5%	4%	8%	0%
Total	100%	100%	100%	100%	100%

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 Governor 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 entail:

- ensuring that procedures and controls are adhered to;
- measures to manage operational risk, as described below;
- 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 Committee that:

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

In the recent year, emphasis has been placed on risk management frameworks in general, incident management and system security. There was a high focus on the Financial Markets Infrastructure 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, resiliency, 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:

	2022 \$000	2021 \$000
Operating expenses	8,139	6,633
Over-recoveries (to be applied against future operating costs)	(1,785)	(24)
Fees paid by accountholders	6,354	6,610
Average fee charged per transaction	\$2.00	\$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.

The expense base for operating ESAS increased 23% relative to the prior year as multiple major projects 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. Overall a transaction volume decline of 4%, resulted in revenue of \$6.354 million, and the operating expenses were \$8.139 million leading to an under recovery of \$1.785 million. To offset this the reserve that was built up during the PSR Project was applied to derive a breakeven outcome, and this results in a reserve balance of \$0.590 million as at 30 June 2022.

The \$2.00 transaction fee was maintained throughout the year, however, the underlying per transaction cost has been \$2.55.

The remaining reserves will be depleted in fiscal 2023, and the fee will increase to \$3.15 per transaction. 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 2022-23

Te Rautaki Mō Te 2022-2023

ESAS Plan for the Year Ended 30 June 2023

The following project work is planned:

- Complete ISO 20022 phase-1 (cash messaging).
- Commence work on RTGS v7 which includes ISO 20022 phase-2.
- Complete review of ESAS access policy and criteria.
- Move ESAS to a 365-day support/operating model – driven by SBI365.

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.
- 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 the Payments Systems at a level commensurate with the Financial Market Infrastructure standards and global developments.

