

FMA, 2019a

# Market Operator Obligations Review – NZX

Findings from the FMA's review of how well NZX is  
meeting its licensed market operator obligations, for  
the period 1 January to 31 December 2018



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# Executive summary

## Purpose of this report

We are required by law to report on how well NZX is meeting its licensed market operator obligations<sup>1</sup>. These obligations generally relate to areas of NZX's operations that are regulatory in nature. This report provides transparency into our review of NZX for the 2018 calendar year ('the review period'). See Appendix 1 for details on how we conducted this review.

## Key findings

We are satisfied that NZX complied with its licensed market operator obligations during the review period. We did not find any systemic issues in relation to NZX's compliance with its obligations.

## Frontline market surveillance

Following our review last year, NZX agreed that it would employ an appropriately experienced person to assist with market monitoring and upskilling of the Market Surveillance team. NZX has done this. Our observations and the feedback we received indicate that the overall capability of Market Surveillance has improved from 2017.

## Technology and systems

A trading system incident that had significant impact on the market occurred during the review period. We consider that NZX took appropriate action to respond to the incident, and implemented measures to prevent reoccurrence of this type of incident.

## Overall

NZX demonstrated that it complied with its market operator obligations during the review period by:

- ensuring, wherever reasonably practical, that its licensed markets operated in a fair, orderly and transparent way
- having adequate arrangements to notify market participants' disclosures, and continuing to make these disclosures available
- having adequate arrangements for handling conflicts between its commercial interests and the need to ensure its markets are fair, orderly and transparent
- having adequate arrangements to enforce compliance with market rules
- having sufficient resources (including financial, technological and human resources) to operate its licensed markets properly.

1: The market operator obligations are set out in Appendix 1.



# Findings

While we reviewed NZX's compliance with all of its licensed market operator obligations during the review period, this report only highlights our main findings.

To determine our areas of focus for this year's review, we considered the following:

- the content of last year's report
- developments and issues that arose during the review period
- functions within NZX that we have not focused on in recent reviews.

## Focus area: Market surveillance

The Market Surveillance team sits within NZX Regulation, reporting to the Head of Market Supervision<sup>2</sup>.

Together with the other teams within NZX Regulation, Market Surveillance must have adequate arrangements for monitoring the conduct of participants in NZX's markets. It must also have sufficient and appropriately skilled resources to ensure that market surveillance is operating effectively. The proper functioning of this team is essential to maintaining market integrity.

We focused on the Market Surveillance team for this review because of the concerns we had about its capability during 2017.

These concerns were mainly in relation to the depth of market knowledge and experience.

This year our review noted an overall improvement in the functioning of this team compared to 2017.

### Market knowledge and experience

Last year, we concluded that the depth of market knowledge and experience in Market Surveillance was insufficient to adequately monitor NZX's markets.

In September 2018, NZX recruited a Principal Analyst into the Market Surveillance team. This individual has extensive experience in global equity markets. We were told that the experience of this individual has direct relevance to the functions and focus areas of Market Surveillance.

During our interviews with NZX staff this year, we were told that the Principal Analyst has provided cross-team specialist support, particularly on the identification and review of algorithmic trading. We also heard about training initiatives he has delivered in relation to algorithmic trading. The Principal Analyst told us he has seen an improvement in the Market Surveillance team's ability to recognise patterns presented by a series of orders.

We also met with representatives from NZX Trading Participant firms as part of our review. The feedback we received indicated a general improvement in the capability of the Market Surveillance team following the recruitment of the Principal Analyst. They noted there has been a better level of engagement and an improvement in the quality of queries raised by Market Surveillance.

### Preparedness for market developments

Last year, we had concerns about whether Market Surveillance was sufficiently prepared for market developments. This was an important consideration, given that a new pricing structure was expected to increase algorithmic trading and the complexity of market surveillance.

We noted that NZX Regulation took a number of steps to improve its preparedness for market developments during the review period. In particular, NZX completed its thematic review on algorithmic trading activity in NZX's markets and published a report in December 2018. As part of the review, the Market Surveillance team collaborated with market participants to improve its understanding of the scope and scale of algorithmic trading on NZX's markets.

<sup>2</sup>: See Appendix 1 for the operational structure of NZX and NZX Regulation.

Our review found that Market Surveillance also gave attention to international surveillance topics during the review period. In particular, NZX met with staff from the Australian Securities and Investments Commission to gain insight into its surveillance activities. NZX advised that these sessions included collaborating on the key risks, trends and oversight issues in relation to algorithmic trading.

#### **Proposed initiatives for 2019**

NZX advised it will continue to focus on trends related to algorithmic trading during 2019, particularly:

- the impact of algorithms in the market close/closing auction
- the adequacy of risk management arrangements at Participant firms
- the development of guidance on Direct Market Access (DMA) trading in NZX markets.

We support initiatives undertaken by NZX to improve its preparedness for market developments.

#### **Market misconduct investigations**

As a frontline regulator, NZX is often required to investigate trading misconduct before referring a matter to the FMA. Last year we had concerns about the quality of analysis, and the timeliness of information in relation to Market Surveillance team referrals.

During the review period, we reviewed a selection of Market Surveillance files on a quarterly basis. We found that the analysis and the robustness of processes have improved over time. While we received fewer referrals from Market Surveillance during 2018, we observed an improvement in the quality of analysis as the year progressed.

As part of our review, we obtained key process documents, met with members of the team and attended a session at NZX's offices to observe how Market Surveillance uses the SMARTS surveillance platform to assess trading alerts. Compared to 2017, we saw improvements in the way the team recorded both enquiries, and the outcome of those enquiries against trading alerts.

#### **Overall**

We acknowledge the positive changes made by the Market Surveillance team during the review period and we support NZX's approach to the continuous improvement of this team. This will be an ongoing area of interest for our future reviews.



## Focus area: Technology and systems

The core function of the Information Technology team is to ensure the availability, security, capacity and maintenance of NZX's trading platforms, settlement systems, internal market monitoring systems and other systems<sup>3</sup>.

We chose to focus on Information Technology because of a significant Trading System incident in August 2018 (see below).

NZX must have sufficient technological resources to operate its markets effectively. A failure in provider infrastructure could impact market integrity and confidence.

While the duration and impact of the significant Trading System incident concerns us, we concluded that NZX took appropriate action to address the root causes that led to the outage. Based on the information provided by NZX, we consider that the technological resources used by NZX to operate its markets are fit for purpose.

### Trading System

During the review period, there were two Trading System incidents. As part of our review of these incidents, we considered NZX's self-assessment, IT incident reports, and our discussions with members of the Information Technology team.

#### 15 March

The first incident occurred after the closing auction on 15 March 2018. It had an eight-minute impact on NZX markets. This incident was a discrete outage. We found that NZX quickly identified the cause of the incident and made changes to prevent reoccurrence.

#### 28 August

The second incident occurred during late morning on 28 August 2018. This incident was caused by human error. A user was logged into an incorrect system environment when undertaking a technical operational process. When the user entered credentials in a production environment rather than a testing environment, the Trading System moved to an enquiry state and all markets stopped trading. The overall impact of this incident on NZX markets was significant. NZX attempted to restart market trading at 3.00pm but was unsuccessful. The methods used by NZX to

apply trading halts to the different markets affected how those markets transitioned during the attempted restart. Given the timeframes required for resolution, the cash markets did not resume trading until the next day. The Derivatives Market resumed trading at 6.10pm.

During this incident, the Trading System was down for more than half of a trading day. The incident had a high level of severity. While we acknowledge this is the only incident of such significance for a number of years, an outage of this length is disruptive and concerning.

In response to this event, NZX implemented both immediate and long-term solutions to prevent reoccurrence of this type of incident.

The immediate actions taken by NZX included:

- tightening controls around user access to the production environment within the Trading System
- visual and name convention changes to mitigate misidentification of system environments
- implementation of maker and checker roles for all incident actions

<sup>3</sup>: See Appendix 1 for the operational structure of NZX and NZX Regulation.

- improvements to process documentation.

Our review also found that the NZX Board gave a good level of attention to the incident. The board promptly commissioned EY to perform an independent review of IT general controls at NZX. EY made a number of findings and recommendations, all of which were accepted by NZX. The NZX Board is overseeing the implementation of the actions via its Audit and Risk Committee. We will follow up on the implementation during our next review.

Overall, we were satisfied that NZX took appropriate actions to address the August Trading System incident.

#### **Proposed initiatives for 2019**

NZX has advised that a major project is underway to upgrade its Trading System with the latest NASDAQ trading platform. This upgrade will enhance connectivity and overall functionality. NZX aims to complete the project in 2020. Given its significance, the project will be an area of interest for our next review.

#### **Settlement System**

New Zealand Clearing and Depository Corporation Limited (NZCDC) operates a designated settlement system for NZX's markets. NZCDC's main operational system is the Clearing House System.

We do not include NZCDC in this review, because the FMC Act explicitly states that the FMA must not carry out a review of a designated settlement system as part of a market operator obligations review. NZCDC is regulated jointly by the FMA and the Reserve Bank of New Zealand.

#### **Market Announcement Platform**

During the review period, NZX continued its project to enhance its Market Announcement Platform. Issuers can now use the platform to enter data that they are required to announce to the market. The platform automates publication of that data to the market. To facilitate this upgrade and to support Issuers through the transition, the NZX Issuer Compliance team provided training sessions to Issuers and published a guidance note in

December 2018. Issuers were required to comply with the new Market Announcement Platform requirements from 22 January 2019.

#### **Participant Portal**

NZX delivered a custom-built Participant Portal web application during the review period that allows participants to self-submit regulatory information. NZX advised that this was phase one implementation of the portal, which enables more efficient interaction between Participants and the NZX Participant Compliance team.

#### **Website**

NZX improved public access to Issuer announcements during the review period. Previously, only attachments to announcements from the preceding six-month period were available to the public free of charge. NZX expanded this access during the review period by making attachments dating back to 2010 available to the public for free.



## Focus area: Conflicts management

NZX must have adequate arrangements in place to manage any actual or perceived conflicts of interest between its regulatory responsibilities and its commercial interests.

We chose to focus on this area because adequate conflicts management arrangements are important to market confidence in NZX as a regulator. We also followed up on concerns we raised last year in relation to how NZX handles instances of an actual or perceived conflict of interest.

Our review concluded that NZX improved its conflicts management procedures during 2018.

### Conflicts Committee

On behalf of the NZX Board, the Conflicts Committee reviews and considers the effectiveness of NZX's policies and procedures for ensuring that perceived or actual conflicts of interest are managed appropriately.

In last year's report, we recommended that NZX improve its processes around recording and escalating perceived or actual conflicts of interest. In response, NZX made the following process changes during 2018:

- All matters that are escalated to the Chair of the Conflicts Committee in relation to potential or actual conflicts of interest are recorded in an escalation register.
- The escalation register is tabled at each Conflicts Committee meeting.

NZX raised five matters with the Chair of the Conflicts Committee during the review period in respect to actual or perceived conflicts of interest.

### Regulatory Governance Committee

On behalf of the NZX Board, the Regulatory Governance Committee (RGC) monitors the quality of NZX's regulatory decision-making. As part of NZX's regulatory reporting to the FMA, we have visibility of the information provided to RGC. From this information, as well as our review of RGC minutes and our interview of the Head of Market Supervision, we found that RGC exercised a good degree of professional scepticism over NZX Regulation decision-making during the review period.

### Conflict management reviews by NZX

NZX completed a full review of its Conflicts Management Policy during 2018. Following this review, NZX implemented a new version of that policy in November 2018.

NZX also commissioned EY to complete an independent assessment of its conflicts management processes during the review period. EY did not make any significant observations or identify any significant control weaknesses. Among several positive observations, EY highlighted a strong 'tone from the top' on the importance of disclosing potential or actual conflicts of interest, and the existence of clear protocol documentation for conflicts management. EY made some improvement suggestions to NZX, mainly relating to the enhancement of staff training in conflicts management. We will follow up on the implementation of these changes in our next review.



## Other areas

### Market Services

During the review period, Market Services was responsible for three operational errors that had negative impact on an external party. One was human error and the other two were process errors from unique circumstances. NZX updated its process documentation following each operational error, to prevent similar errors occurring. We were pleased that the number of operational errors reduced compared to 2017.

### Updated Listing Rules

During the review period, NZX completed its first holistic review of the NZX Main Board/NZDX Listing Rules since 2003. The updated Listing Rules are dated 1 January 2019, although there is a six-month transition period for application of these rules.

This project was a major focus for a number of teams within NZX during 2018 – in particular the NZX Policy team, which consulted with a number of internal and external stakeholders. NZX advised that it received a good number of submissions from a broad range of market participants.

Given that NZX Policy sits outside of NZX's regulatory function, we have

an ongoing interest in how conflicts of interest are managed through the rules review process. We did not identify any conflict of interest issues during NZX's review of the Listing Rules.

NZX Regulation published a number of guidance notes and practice notes to assist with the transition to the updated Listing Rules. The Issuer Compliance team's enforcement of the updated Listing Rules during 2019 will be an area of interest for our next review.

### Key person risk

We saw continued high turnover of staff within NZX Regulation. We have some concerns that this staff turnover is contributing to increased key person risk, particularly within the Issuer Compliance and Market Surveillance teams. While we are satisfied that there is sufficient resourcing within NZX for the effective regulation of its licensed markets, its dependency on certain staff members is an area of interest. NZX is currently considering initiatives to mitigate key person risk.

### Enforcement

As part of our review, we considered enforcement activity and interviewed the Chair of the NZ Markets Disciplinary Tribunal (NZMDT). We observed that NZX Regulation was using

a wide range of its enforcement tools, and we have not identified instances of these tools being used inappropriately. Despite a higher number of complex investigations by NZX Regulation during 2018, NZMDT was satisfied with the timeliness of information it received during the review period.

### NZX Derivatives Market

NZX made several key changes during the review period to support the growth of the dairy Derivatives Market, including:

- 1 The introduction of calendar spreads in the dairy Derivatives Market in March 2018. This functionality enables traders to simultaneously trade pairs of dairy futures contracts at a price differential set by the dealer. NZX advises that this change has resulted in improved on-screen liquidity due to a tightening of the bid-ask spread in the order book.
- 2 The extension of the trading hours of the dairy Derivatives Market in July 2018. The time of market close was extended from 4.00pm to 10.00pm to cover the European and Asian trading days. NZX advises that since the change, 41% of total volume has been traded during the extended period.

# Appendix 1: Our review

## Our role

We are an Independent Crown Entity and one of two main regulators of New Zealand's financial markets. Our purpose is to promote and facilitate the development of fair, efficient and transparent financial markets.

Under the Financial Markets Conduct Act 2013 (FMC Act), we are required to review, at least annually, how well a licensed market operator is meeting its obligations. We are also required to publish a written report.

## Market operator obligations

In the FMC Act, 'market operator obligations' means:

- the general obligations in respect of licensed markets (section 314):
  - to ensure, to the extent that is reasonably practicable, that

each of its licensed markets is a fair, orderly and transparent market

- to have adequate arrangements for notifying disclosures made to it from participants in its markets, and for continuing to make those disclosures available
- to have adequate arrangements for handling conflicts between its commercial interests and the need to ensure its markets operate in a fair, orderly and transparent manner
- to have adequate arrangements for monitoring the conduct of participants in its markets
- to have adequate arrangements for enforcing compliance with market rules

- to have sufficient resources (including financial, technological and human resources) to operate its licensed markets properly

- an obligation to respond to a request from the FMA to make changes to market rules (section 333)
- an obligation to give the FMA an annual self-assessment of compliance with its obligations (section 337)
- an obligation to act on the directions of the FMA or the Minister, if the operator is found to be failing to meet any of its obligations (sections 340 to 342)
- any obligation imposed as a condition of a market operator's licence.



## NZX

NZX is licensed to operate the following markets in New Zealand:

- NZX Main Board
- NZX Debt Market
- NZX Alternative Market
- Fonterra Shareholders' Market
- NZX Derivatives Market
- NXT Market

Details of NZX's licences are on [our website](#).

### Our oversight of NZX

The Memorandum of Understanding between the FMA and NZX, signed in January 2015, sets out the principles for our engagement and co-operation, and provides for our regular operational meetings. This means NZX kept us up to date about its key initiatives and developments throughout

the review period. We also have an agreed set of protocols for communications when we deal with normal business activities concerning both of us.

Our ongoing oversight of NZX in 2018 included:

- quarterly operational meetings
- quarterly review of NZX documentation under the Memorandum of Understanding
- discussions about market matters arising as required
- consulting on NZX policies and proposed rule changes where appropriate
- liaising on market misconduct matters
- feedback on NZX referrals to the FMA under the FMC Act.

Our review of NZX for the purposes

of this report also included:

- review of NZX's self-assessment of performance against its statutory obligations, provided in March 2019 (to comply with section 337 of the FMC Act)
- review of NZX Board, Regulatory Governance Committee and Conflicts Committee minutes
- review of NZX policy and procedure documents and training registers for each team within NZX Regulation
- interviews of eight NZX staff members
- an interview of the Chair of the New Zealand Markets Disciplinary Tribunal
- meetings with representatives from NZX accredited Trading Participant firms to obtain feedback on NZX.

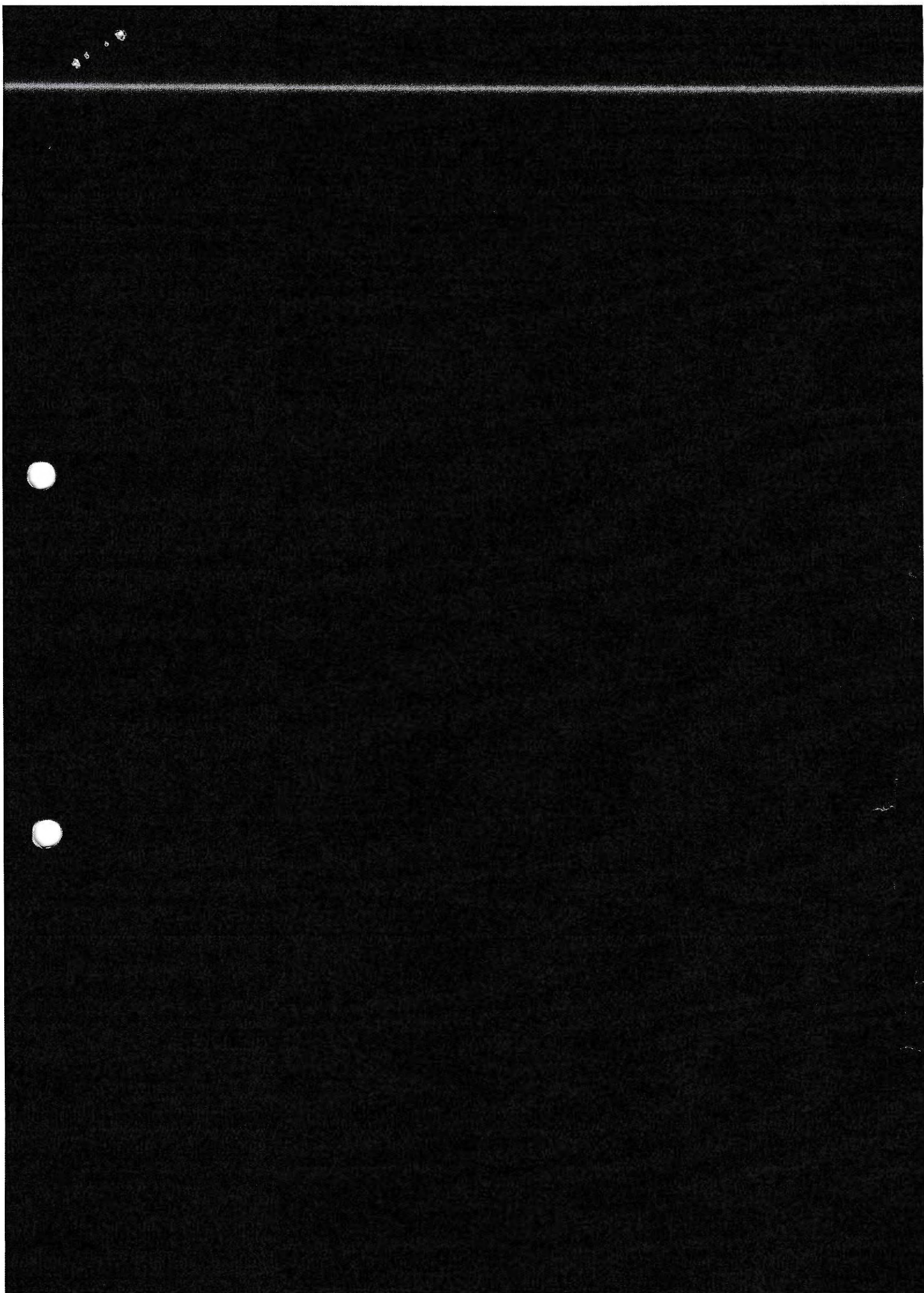
# Glossary

ASIC	The Australian Securities and Investments Commission – Australia’s corporate, markets and financial services regulator
DMA	Direct Market Access, a trading arrangement that allows clients of Participant firms to enter orders directly into NZX’s trading system, unless the firm’s system controls do not allow the order
Clearing House System	The BaNCS Market Infrastructure platform (provided by Tata Consultancy Services Limited) is the Clearing House System for the purposes of the Clearing and Settlement Rules
Conflicts Committee or CC	A sub-committee of the NZX Board, whose role is to review and consider the effectiveness of NZX’s conflict management arrangements
ECM	The equity capital market, where financial institutions help companies raise equity capital and where stocks are traded
EY	Ernst & Young, referring to the global organisation, and may refer to one or more of the member firms of Ernst & Young Global Limited, each of which is a separate legal entity
FMC Act	Financial Markets Conduct Act 2013
Head of Market Supervision or HOMS	The NZX Board delegates all decision-making responsibility for regulatory matters solely to the Head of Market Supervision
IPO	Initial public offering, which is the process of offering shares in a private company to the public for the first time
Issuer or listed issuer	Any company that is or has been listed on any of NZX’s markets
Licensed markets or NZX’s markets	The financial product markets NZX is licensed to operate under the FMC Act
Listing Rules	NZX rules governing issuers on NZX’s licensed markets
M&A	Mergers and acquisitions, which generally means the consolidation of companies or assets through various types of financial transactions
Market services	The market services group within NZX comprising Product Operations, Clearing, Risk and Settlement Operations



Market operator obligations	Obligations imposed on a licensed market operator as a condition of its licence or under sections 314, 333, 337, 340, 341 and 342 of the FMC Act
Market rules	All of the rules governing NZX's licensed markets, including Listing Rules, participant rules and NZMDT rules
NXT	The NXT market, which is a stepping stone market for small and mid-sized businesses
NZ Markets Disciplinary Tribunal or NZMDT	An independent regulatory body that determines potential breaches of NZX's market rules
NZCDC	New Zealand Clearing and Depository Corporation, which is the parent company of New Zealand Clearing Limited and New Zealand Depository Limited and a wholly-owned subsidiary of NZX
NZDX	NZX Debt Market
NZX Regulation	The regulatory function of NZX, led by the HOMS. It has three functional areas – Issuer Compliance, Participant Compliance, and Market Surveillance
Participant	A participant in the licensed markets who has been accredited and approved by NZX under the participant rules
Participant rules	NZX rules governing participant firms
Review period	The 2018 calendar year
Regulatory Governance Committee or RGC	A sub-committee of the NZX Board whose role is to facilitate the board's monitoring of NZX's regulatory function
Special Division	A division of NZMDT responsible for administering and enforcing the Market rules for NZX's own listing and its related parties, including the Smartshares funds
Trading System	Nasdaq X-stream platform through which orders may be entered in relation to markets









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