



Market Incidents Protocols

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CONTENTS

Introduction	3
Governing Principle	3
Market Incident Protocols	5
Appendix A	11
Appendix B	11



Introduction

The purpose of this paper is to provide greater transparency on the actions NZX will take if a significant event affecting its markets occurs, to support external stakeholders in developing and enhancing their own crisis management arrangements. This includes a number of protocols for NZX's approach to managing scenarios relevant to the operation of NZX's markets, including circumstances in which NZX would be likely to halt market trading, to ensure it can continue to meet its market operator obligations.

NZX has broad powers under the NZX Listing Rules and the NZX Participant Rules to halt (or suspend) NZX's markets. The relevant rules are set out in the Appendix to this paper. Those powers are exercised by NZ RegCo, the independently governed entity responsible for regulatory oversight of NZX's markets. References in this document to NZX include NZ RegCo and, in relation to exercise of regulatory powers under the market rules, are to NZX acting by and through NZ RegCo.

The ability to halt an NZX market under the market rules is applied in the context of NZX's legislative obligations as a market operator to do all things necessary to ensure that each of its licensed markets is a fair, orderly, and transparent market, to the extent that is reasonably practicable.

Governing Principle

NZX has considered its market operator obligations in designing the governing principle that is to be applied to determine whether it may be appropriate to halt trading in an NZX market, as follows:

- **Fair:** NZX considers that the development and publication of its arrangements for when the market will be halted, and the application of those arrangements consistently on an unbiased basis, will enhance the operation of NZX's markets in a fair manner.
- **Orderly:** NZX needs to be able to take action to avoid or rectify a disorderly market, together with ensuring that its arrangements support reliable market operations.
- **Transparent:** NZX needs to be able to take action if it considers NZX Participants do not have an appropriate degree of certainty to determine whether they can deal, or the prices or volume at which they can deal, or do not have timely access to information about the prices and volumes of all transactions concluded on the market.

Governing Principle:

Action by NZX which interrupts the scheduled trading on NZX's markets will be kept to a minimum. NZX will exercise its discretion to halt or suspend trading on NZX's markets if NZX considers this action appropriate to enable the markets to operate properly, having due regard to NZX's market operator obligations.

Application of the Governing Principle

NZX acknowledges the systemically important role of its markets in the New Zealand capital markets ecosystem. Trading interruptions on NZX's markets will be kept to a minimum.

NZX notes that its market rules provide it with discretion to use trading halts and suspensions as important tools to ensure the fair, orderly and transparent operation of its markets. NZX will use these tools to interrupt scheduled trading if an event has occurred and NZX considers it appropriate to halt or



suspend trading on an NZX market. NZX considers that it would be rare for that discretion to be exercised. Such circumstances would include if:

- NZX suffers a major failure of a critical system required to operate NZX's markets (e.g., NZX's trading system).
- NZX cannot operate NZX's markets from either its primary or back-up site due to an event (e.g., natural disaster, war, pandemic).
- A significant proportion of NZX Participants cannot operate from either their primary or back up sites and/or cannot access NZX's systems critical to operation of NZX's markets due to an event (e.g., natural disaster, war, pandemic, or major communications infrastructure failure).
- NZX is subject to a successful cyber-attack that prevents NZX or a significant proportion of NZX Participants from accessing a critical system required to operate NZX's markets.
- NZX suffers a major failure of a critical system, or an event occurs (e.g., cyber-attack, major communications infrastructure failure), which restricts NZX's or issuers' ability to receive or disseminate information required to enable appropriate price discovery for trading on NZX's markets.
- There is, or NZX is aware that there will be, a significant announcement from the New Zealand Government, the Financial Markets Authority, or another regulator that NZX considers is material to trading on NZX's markets and warrants closure of the markets to enable the information to be understood.
- There is a state of emergency that NZX considers warrants closure of NZX's markets.



Market Incident Protocols

The table below sets out market incident protocols that NZX has developed, and which apply the Governing Principle to prescribed scenarios. The protocols have been developed to be applied across the NZX Main Board (**NZSX**), NZX Debt Market (**NZDX**) and the Fonterra Shareholders' Market (**FSM**) (together, the **NZX Cash Markets**, and also referred to in the protocols as the **markets**). Please note:

- These protocols have been developed based on the current cohort of NZX Cash Market Trading Participants and relate to trading across the NZX Cash Markets including via NZX Central and NZX Dark venues. NZX will monitor and assess the protocols on an ongoing basis¹.
- The protocols do not consider post trade operations such as clearing, settlement and custody.
- If a market halt is implemented as contemplated by the protocols it will apply to trading across both NZX Central and NZX Dark venues. Similarly, a resumption of trading will result in a resumption of trading across both venues². If a market halt is implemented as contemplated by the protocols NZX will not purge the orderbook by default. A purge of the orderbook may occur at NZX's discretion and would be communicated with Participants and Vendors at the relevant time.
- These protocols have been developed based on single day scenarios and do not contemplate multi-day incidents. If an incident extended across multiple trading days, NZX would manage that incident on a standalone basis in light of the positions set out in these protocols and communicate and engage with external stakeholders accordingly.

Ref	Protocol	NZX commentary on protocol
MIP-01	NZX does not regard a single Trading Participant being unable to access the NZX Trading System as sufficient reason to apply a halt to the markets.	A single Trading Participant's inability to access the NZX Trading System would not be deemed to materially negatively affect the orderly running of the trading session, because it would not result in a significant portion of Trading Participants to be unable to access NZX's critical systems. There would be suitable access to NZX's critical systems to enable appropriate price discovery.
MIP-02	NZX considers that functional access to the NZX Trading System exists if a Trading Participant can enter, cancel or amend orders in NZX Central via a conformed Order Management System (OMS)/Independent Software Vendor (ISV).	NZX considers that "functional access" to the trading system - for the purposes of the Protocols - should be viewed as requiring more than Participants being able to enter, cancel or amend orders in NZX Central via the Nasdaq ME Workstation. There are no minimum access requirements for NZX Dark and the ability for Trading Participants to access the NZX Dark venue is not considered critical for functional access to the NZX Trading System. NZX Dark is reliant on the spread of orders in NZX

¹ NZX will review and assess the protocols before the introduction or removal of Trading Participants, the introduction or removal of NZX secondary market products, or trading venues.

² There are certain scenarios in which NZX Dark may be halted when NZX Central is not. If this happens NZX will communicate directly with external stakeholders.



Ref	Protocol	NZX commentary on protocol
		Central to enable the execution of trades at the prevailing midpoint price. NZX Central can operate independently of NZX Dark.
MIP-03	<p>A halt would be applied to NZX's markets if there is failure of functional access to the NZX Trading System affecting:</p> <ul style="list-style-type: none"> i. any three or more Trading Participants, or ii. two Trading Participants who in aggregate represent 30% or more total market share (by on-market value). <p>MIP-03 is subject to MIP-01 and MIP-07</p>	<p>The thresholds prescribed in the protocol reflect NZX's determination that the loss of either 30% or more of market share (by on-market value) or three or more Trading Participants would result in a significant number of investors being unable to access the markets, preventing the markets operating in a transparent and orderly fashion, given the lack of information to enable the markets to perform proper price discovery.</p> <p><u>Methodology</u> Market share is calculated by reference to Trading Participants' total on-market value traded on the NZX Main Board (NZSX) over the preceding six-month period. On market value traded includes trades on both NZX Central and NZX Dark venues. Negotiated deals (off-market crossings) are not included as part of the market share calculation.</p> <p>NZX considers the proposed thresholds and methodology appropriately reflect the diverse nature of the scope and scale of Trading Participants' trade flow and the composition of their underlying clients.</p>
MIP-04	<p>NZX will consider resumption of trading when NZX is satisfied with the is stable, functional access to the NZX Trading System and any other NZX critical systems and the thresholds for in MIP-03 are no longer triggered, i.e.:</p> <ul style="list-style-type: none"> i. at least five of seven Trading Participants who represent 70% or more total market share (by on-market value) have functional access to the NZX Trading System, or, ii. only a single Trading Participant does not have functional access the NZX Trading System. <p>MIP-04 is subject to MIP-08</p>	<p><u>Methodology</u> Market share is calculated by reference to Trading Participants' total on-market value traded on the NZX Main Board (NZSX) over the preceding six-month period. On market value traded includes trades on both NZX Central and NZX Dark venues. Negotiated deals (off-market crossings) are not included as part of the market share calculation.</p>



Ref	Protocol	NZX commentary on protocol
MIP-05	<p>NZX will provide a minimum of 15 minutes warning prior to a 15-minute pre-open or pre-close session before recommencing trading or running a closing auction.</p>	<p>NZX considers these timeframes allow Trading Participants an appropriate period within which to assess and manage their orders as well as to communicate with clients and vendors, supporting the orderly operation of NZX's markets.</p>
MIP-06	<p>NZX will not extend the normal trading session, pre-close or the running of the closing auction past 5:00pm. If NZX has applied a market halt, NZX will resume trading if, at or before 4:30pm:</p> <ul style="list-style-type: none"> i. NZX is satisfied with the stable operation of the NZX Trading System and any other NZX critical systems. ii. The threshold for resumption of trading (MIP-04) is met. <p>If these conditions are not satisfied prior to 4.30pm, no further trading or closing auction will occur.</p> <p>At this time NZX will communicate the market transition states for the remainder of the day.</p> <p>MIP-06 is subject to MIP-09.</p>	<p>NZX considers that 5:00pm is a hard cut off for the running of the closing auction as connected stakeholders have developed systems and processes to align with this timing. Additionally, delays to the closing auction past 5:00pm cause downstream impacts on end of day processing which adds further risk and complexity to operating past this time.</p> <p>If no closing auction is run the last traded price of each security will be the end of day reference price.</p>
MIP-07	<p>A halt would be applied to NZX's markets on a MSCI, S&P/NZX or FTSE Russell rebalance day if from 3pm any of the Trading Participants representing significant institutional trade flow were unable to access the NZX Trading System.</p> <p>Prior to 3pm MIP-03 applies.</p>	<p>NZX actively monitors trading access across the day and in the lead up to the closing auction to ensure an orderly close of the trading day.</p> <p>NZX considers this exception from MIP-03 appropriate as MSCI, S&P/NZX or FTSE Russell index rebalances represents a significant amount of operational and financial risk to NZX and its Participants. NZX considers that Trading Participants representing significant institutional trade flow to currently comprise Craigs Investment Partners Limited, Forsyth Barr Limited, Jarden Securities Limited, Macquarie Securities (NZ) Limited, and UBS New Zealand Limited.</p> <p><u>Methodology</u> Market share is calculated by reference to Trading Participants' total on market value traded on the NZX Main Board (NZSX) over the preceding six-month period. On market value traded includes trades on both NZX Central and NZX Dark venues. Negotiated deals (off market crossings) are not included as part of the market share calculation.</p>



Ref	Protocol	NZX commentary on protocol
MIP-08	<p>From 3pm on a MSCI, S&P/NZX or FTSE Russell index rebalance day NZX will consider resumption of trading when:</p> <ul style="list-style-type: none"> i. NZX is satisfied with the stable operation of the NZX Trading System and any other NZX critical systems, and ii. All Trading Participants representing significant institutional trade flow were able to access the NZX Trading System. 	<p>NZX considers this exception from MIP-04 appropriate as MSCI, S&P/NZX or FTSE Russell index rebalances represents a significant amount of operational and financial risk to NZX and its Participants. NZX considers that Trading Participants representing significant institutional trade flow to currently comprise Craigs Investment Partners Limited, Forsyth Barr Limited, Jarden Securities Limited, Macquarie Securities (NZ) Limited, and UBS New Zealand Limited.</p> <p><u>Methodology</u> Market share is calculated by reference to Trading Participants' total on-market value traded on the NZX Main Board (NZSX) over the preceding six-month period. On market value traded includes trades on both NZX Central and NZX Dark venues. Negotiated deals (off-market crossings) are not included as part of the market share calculation.</p>
MIP-09	<p>On a MSCI, S&P/NZX or FTSE Russell index rebalance day NZX will not extend normal trading session, pre-close or the running of the closing auction past 5:00pm. If NZX has applied a market halt, NZX will resume trading if, at or before 4:30pm:</p> <ul style="list-style-type: none"> i. NZX is satisfied with the stable operation of the NZX Trading System and any other NZX critical systems. ii. The threshold for resumption of trading on a MSCI, S&P/NZX or FTSE Russell index rebalance day (MIP-08) is met. <p>If these conditions are not satisfied prior to 4.30pm, no further trading or closing auction will occur.</p> <p>At this time NZX will communicate the market transition states for the remainder of the day.</p>	<p>NZX considers that 5:00pm is a hard cut off for the running of the closing auction as connected stakeholders have developed systems and processes to align with this timing. Additionally, delays to the closing auction past 5:00pm cause downstream impacts on end of day processing which adds further risk and complexity to operating past this time.</p> <p>NZX considers this exception from MIP-06 appropriate as MSCI, S&P/NZX or FTSE Russell index rebalances represents a significant amount of operational and financial risk to NZX and our Participants. NZX considers that Trading Participants representing significant institutional trade flow to comprise Craigs Investment Partners Limited, Forsyth Barr Limited, Jarden Securities Limited, Macquarie Securities (NZ) Limited, and UBS New Zealand Limited.</p> <p>If no closing auction is run the last traded price of each security will be the end of day reference price.</p>
MIP-10	<p>NZX does not regard the fact that a single market data vendor is unable to distribute market data as sufficient reason to apply a halt to the markets.</p>	<p>NZX considers that access to market data is available from a range of sources and no participant is wholly reliant on a single Data Vendor to support the flow of market data.</p> <p>NZX would not halt NZX's markets because there is sufficient dissemination of information to enable appropriate price discovery to be performed.</p>



Ref	Protocol	NZX commentary on protocol
MIP-11	A halt would be applied to NZX's markets if there is an issue which in NZX's view is negatively affecting the market data disseminated from Nasdaq ME.	The data provided by Nasdaq ME forms a key part of the NZX trading infrastructure, and the stable operation of this system is of critical importance to NZX Participants, vendors, and their clients, to enable information to be available to allow the markets to perform proper price discovery.
MIP-12	A halt would be applied to NZX's markets if there is an outage or other issue which in NZX's view is affecting the stable operation of the ITCH market data protocol.	The ITCH feed forms a key part of the NZX trading infrastructure, and the stable operation of this market data protocol is of critical importance to NZX Participants, vendors, and their clients, to enable information to be available to allow the markets to perform proper price discovery.
MIP-13	<p>If NZX.com is inaccessible for a consecutive period longer than 5 minutes:</p> <ul style="list-style-type: none"> i. NZX will extend the duration of any trading halts already applied following release of an Issuer announcement flagged as comprising "material information", for an additional 15 minutes from when the original halt was due to be lifted. ii. The administrative trading halt that NZX will apply on the release of an announcement flagged as comprising "material information" during this period, will be for 30 minutes. <p>NZX does not regard NZX.com being inaccessible as sufficient reason to apply a halt to NZX's markets.</p>	<p>NZX considers it appropriate to provide additional time for the market to access and assess material information, if there is an issue affecting access to announcements on NZX.com. In this situation, market announcements will continue to be accessible via NZX's backup announcements website (announcements.nzx.com).</p> <p>The extension of administrative trading halts due to the release of announcements flagged as comprising "material information" is to ensure adequate time for this information to be accessed via alternative channels, to ensure that there is appropriate dissemination of information in the market to enable proper price discovery to be performed.</p>
MIP-14	<p>If issuer announcements are not displaying or are inaccessible on NZX.com for a consecutive period longer than 5 minutes:</p> <ul style="list-style-type: none"> i. NZX will extend the duration of any trading halts already applied following release of an Issuer announcement flagged as comprising "material information", for an additional 15 minutes from when the original halt was due to be lifted. ii. The administrative trading halt that NZX will apply on the release of an announcement flagged as comprising "material information" during this period, will be for 30 minutes. 	<p>NZX considers it appropriate to provide additional time for the market to access and assess material information, if there is an issue affecting access to announcements on NZX.com. In this situation, market announcements will continue to be accessible via NZX's backup announcements website (announcements.nzx.com).</p> <p>The extension of administrative trading halts due to the release of announcements flagged as comprising "material information" is to ensure adequate time for this information to be accessed via alternative channels.</p>



Ref	Protocol	NZX commentary on protocol
	NZX does not regard a situation where announcements are not visible on NZX.com as sufficient reason to apply a halt to NZX's markets.	
MIP-15	NZX will not apply a market halt if financial product pricing data on NZX.com is incomplete or incorrect.	<p>The Trading System provides Participants with accurate and real-time pricing information, along with visibility of the depth of the order-book. Trading Participants will have access to appropriate information to make informed dealing decisions through the information available in the Trading System.</p> <p>As the pricing information displayed on NZX.com has a 20-minute delay, NZX does not consider that it should be the information that is relied on by Participants to inform execution. Therefore, the lack of accurate information on NZX.com should not require NZX to exercise its discretion to halt the market.</p> <p>Pricing information is still available via ITCH, MDF, or Market Data Vendors.</p>
MIP-16	<p>If an issue affects:</p> <ol style="list-style-type: none"> i. issuers' ability to submit announcements for release to market via the Market Announcements Platform (MAP), and ii. NZX's ability to receive and publish issuer announcements via MAP, <p>NZX will implement a process under which NZX will:</p> <ol style="list-style-type: none"> a. Receive announcements from Issuers via email b. Place a trading halt on any issuer who submits material information to NZX. This trading halt will remain in place until NZX is able to release the announcement over MAP. c. Upon resumption of MAP services, NZX will release any received announcements. The halt will be lifted 30 minutes after the release of that announcement. <p>NZX retains discretion to impose a market halt if the above process is required to be implemented for an extended period.</p>	<p>The extension of administrative trading halts due to the release of announcements flagged as comprising "material information is to ensure adequate time for this information to be accessed.</p> <p>Where an issue is impacting only an issuer's ability to release over MAP, but NZX is still able to release via MAP, the standard administrative trading halt timings will apply.</p>



Appendix A

NZX Listing Rules

9.9.3(b) NZX may cancel, halt or suspend the quotation of all of an issuer's quoted financial products for such period as NZX thinks fit.

NZX Participant Rules

10.18.1 If any of the markets provided by NZX are halted or suspended during a Normal Trading Session for whatever reason, NZX may extend that Normal Trading Session. If such a decision is made, NZX will advise this decision to all Market Participants.

10.18.5 For avoidance of doubt NZX may suspend Trading in any market and shall advise Market Participants of such suspension and the altered hours or market phases on that day.

Appendix B

Methodology

Methodology	
Boards	NZSX
On market value traded	Value traded on market for each Participant over the last 6 months (26 weeks).
Market share by on market value traded	Participant market share based on their on-market value traded. Note on-market value traded includes value traded on both NZX Dark and NZX Central venues.





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