



JUNE 2021

# MIS liquidity risk management review

This report contains recommendations on liquidity stress testing frameworks, processes and procedures, following the August 2020 self-assessment survey completed by regulated entities for a two-year period ending 31 December 2019. It will be useful for directors, senior management and investment personnel of managed investment schemes.

**Disclaimer**

This report does not constitute legal advice. We encourage you to seek your own professional advice to find out how the Financial Markets Conduct Act 2013 and other applicable laws apply to you.

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# Section 1 - Executive summary

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## 1.1 Overview

In August 2020, we issued a survey to Managed Investment Scheme managers (MIS managers), asking them to self-assess their liquidity risk management capabilities.

Our analysis of the survey responses included an assessment of MIS liquidity risk management maturity. This involved looking at factors such as the methods used and experience of personnel; the quality of enabling frameworks, policies and procedures; governance, oversight and reporting practices; and any continuous improvement feedback arrangements.

We found that MIS managers in general appear to have a positive view of their liquidity risk management capabilities, including stress testing. We consider this overly optimistic, based on the responses to detailed questions about their capabilities, and also considering the expectations set out in our [liquidity risk management good practice guide](#) published in April 2020. There were exceptions, but even the stronger performers showed some significant gaps across particular areas of capability, e.g. frequency of stress testing, use of available liquidity management tools (LMTs) and metrics.

MIS managers should try to avoid becoming complacent about their own capabilities. MIS boards/oversight bodies need to maintain effective oversight and provide constructive challenge. This includes forming their own view of the liquidity risk management capabilities, maturity and culture of their entity, and assessing the extent to which these enable the MIS to operate consistently within its defined risk appetite and policy settings. This will allow them to identify any desirable changes, and ensure management takes steps to address those changes.

## 1.2 New Zealand MIS sector and liquidity risk

Our [good practice guide](#) helps set the context for this survey by highlighting the liquidity risks that managed funds in New Zealand share with similar funds globally. For the foreseeable future these risks will be enhanced by market volatility and low interest rates. KiwiSaver funds face similar, although potentially less severe, liquidity management challenges. Changing investor preferences and an ageing population have the potential to exert a growing influence on MIS strategy and decision-making.

The New Zealand MIS market, with its predominance of 'fund of funds' (FoF) structures, also highlights that the market is vulnerable to asset (price) liquidity contagion and consequent investor reaction. The only realistic mitigation for this is effective management and governance at the individual fund level.

Extensive research and analysis after the Global Financial Crisis (GFC) showed some financial entities weathered the crisis materially better than others with similar characteristics and regulatory regimes – the key reason being differing qualities and capabilities of governance. For this reason, we expect MIS boards to review this report and take action where required. New Zealand weathered the impact of the GFC well, primarily based on the choice not to invest in collateralised debt obligations or mortgages. The liquidity impacts were still felt in New Zealand, however, and in the next event we might not be so lucky.

## 1.3 Frequency and extent of liquidity stress-testing

In general, we expect MIS managers to complete liquidity stress tests at least once in any 12-month period, and more frequently if market conditions warrant. We also expect MIS managers to use their stress testing frameworks and test results to explicitly inform changes in asset allocation, and assessments of the suitability and appropriateness of their liquidity tools, risk appetite and pricing, and any changes that are required as a consequence.

Survey responses showed MIS managers have a positive sentiment toward stress testing practices. However, where we asked for more detailed information, we found the responses lacking. MIS managers are generally undertaking liquidity stress testing infrequently and in a somewhat ad hoc manner. Minimum scheduled testing irrespective of market conditions does not always appear to be happening, even though it would provide assurance that MIS liquidity risk frameworks are fit for purpose under varying market conditions. The time between tests signals a risk around their ability to act with confidence in a crisis.

This is demonstrated by the data showing:

- 43% of MIS managers surveyed, representing \$61.01B FUM combined (\$37.82B retail and \$23.19B wholesale), did not provide a date for their last liquidity stress test, or said they could not remember the date.
- 20% reported that their last stress test/s were performed between 200 and 700 days before the survey reporting date.
- 45% had not undertaken stress testing during their funds' product design phase, missing a key opportunity to determine any necessary and desirable LMTs, metrics and potential effects of changes in micro/macro-economic variables on the fund from the outset
- 61% noted using stress testing results to make relevant changes to their fund/s.
- There is evidence of reliance on third party providers (including underlying MIS managers in the case of fund of fund structures) for liquidity risk management and stress testing, without the MIS managers themselves explicitly challenging and forming their own views on the results – including at the aggregate level of FUM.
- Scenario analysis and modelling were not as comprehensive as we would have liked, and MIS managers tended to use one or two isolated variables. Respondents generally rely on relatively few liquidity metrics (with asset-based measures predominating).

The table below shows our overall assessment of the maturity of MIS managers' responses to the following question (Q57): *“The licensing guide requires that stress tests be performed “as appropriate for the particular investment strategy or scheme assets”. With reference to types of stress tests, frequency and approach of stress tests, what does that mean for your funds and type of underlying assets?”*

Maturity rating	Count of managers
Low	16
Medium	21
High	14

We defined “High” as adherence to our good practice guide principles, and rated responses against that baseline. At an aggregate level, results are skewed to a lower level of maturity than set out in the guide.

## 1.4 Liquidity management tools (LMTs)

A variety of LMTs are important to assist in dealing with a liquidity crisis. The more tools a MIS manager has at their disposal, the more options they have to deal with a liquidity crisis. It was concerning to see statements suggesting MIS managers in New Zealand have highly liquid assets but if those assets became illiquid, redemption suspensions would be their next option. This could worsen a liquidity crisis across New Zealand and extend the crisis.

Only half of the MIS managers surveyed have ever used an LMT of any kind, calling into question their ability to select an appropriate LMT, including those suited to a variety of crisis situations, at an appropriate time/stage of the crisis escalation. This, coupled with an overreliance on liquid assets as the default response to a liquidity crisis, could lead to liquid assets proving insufficient. The collective impact of such a response may conflict with the fundamental principle of fair treatment of investors.

In general, we consider that many MIS managers do not have sufficient LMTs, and those that do may not be using their experience to improve their processes. This could lead to managers using the same response regardless of the unique characteristics of a crisis. Managers also may not have the appropriate LMTs to deal with liquidity stresses before a crisis materialises or escalates.

Just over half of the MIS managers surveyed have documented 'fair treatment' requirements. During a liquidity crisis, managers are expected to balance difficult and competing interests without perfect answers. Guidance in the managers' policies and procedures on the approach, considerations, escalations and reporting to ensure 'fair treatment' is critical to supporting decision-making under uncertain conditions.

- There appears to be a weakness in understanding how LMTs are used, including how and when to escalate their use. This appears to be particularly true regarding reporting to boards.
- Only 20% of the MIS managers surveyed report having LMT withdrawal/cessation provisions in their policy. LMTs should not be used any longer than circumstances warrant, as their persistent use could work against ensuring fair treatment of investors.
- Low availability of LMT types is more prevalent among MIS managers holding relatively less/the least liquid assets.
- There was a low reported level of feedback and adjustment (e.g. making changes to portfolio strategy/structure, or considering the appropriateness of various LMTs) arising from the results of stress testing.

## 1.5 Liquidity risk governance, frameworks, processes and metrics

We expect MIS boards to have appropriate oversight of liquidity risk management and stress testing. Senior management and board members are expected to have visibility of their MIS liquidity risk profile, including the potential impact of stress events, and should challenge related risk management frameworks, policies and stress testing results (positive assurance).

While survey respondents did identify their critical liquidity risk management infrastructure components, some contradictions and inconsistencies in responses tell us there is further scope for integration of all components.

- 16% of the MIS managers surveyed reported having no Liquidity Risk Management Policy (LRMP).
- 45% reported not having a definition of 'illiquid asset', although they had positive views of their systems, data and ability to identify and evaluate liquidity (stress) events. For the 55% who told us they do have a definition, there was no consistency across these definitions apart from time to liquidate (TTL) and impact on asset value (market based).

- In the case of FoF, 48% said they do not ensure their underlying funds perform stress tests, 18% did not review LMT use in their underlying funds at the time of investment purchases, and 39% were not updating their knowledge on the underlying funds stress testing practices on a regular basis.
- From a measurement and reporting perspective it is clear there is:
  - some (but not universal) analysis of asset liquidity, and we see room for improvement in depth and breadth of that analysis
  - insufficient consideration of liability metrics, particularly projected and stressed redemptions
  - virtually no consideration of combined asset and liability metrics.
- The metrics that are used are not widely reported to senior management or the board and may not add value to risk management efforts. These are readily available metrics that, if used properly, would greatly enhance the ability of MIS managers to understand liquidity stresses on their funds.
- 49% of MIS managers do not use any 'early warning' metrics, increasing the risk they will be unprepared for a liquidity event. Others use some combination of fund flows (20%), redemptions (14%), cash projections (6%), liquidity coverage (4%), market monitoring (including volatility) (18%), or other metrics (6%).

## Next steps

We intend to follow up this survey with a further survey aimed at understanding how MIS managers would in practice deploy the policies, procedures and tools at their disposal in two hypothetical liquidity risk stress scenarios. We have not yet decided on the timing of this proposed work.

## 1.6 Summary of relevant law

MIS managers have an ongoing legal obligation to exercise the care, diligence and skill that a prudent person engaged in that profession would exercise in the same circumstances, when exercising any powers, or performing any duties. This obligation is found at section 144 of the Financial Markets Conduct Act 2013 (FMCA). Our expectations set out in this report reflect the level of care, diligence and skill we consider a prudent person in the profession would exercise in respect of liquidity risk management in most circumstances. Depending on the specific circumstances, more or less care, diligence or skill may be required of the MIS manager. We consider this report to be a useful starting point for establishing, updating and maintaining liquidity stress testing frameworks, processes and procedures for any MIS.

Under the FMCA market services licence regime we have the power to censure a MIS manager, suspend or cancel a licence and impose conditions on a licence (amongst other things) in the event a material change of circumstances has occurred in relation to a licence. These powers are found at section 414 of the FMCA. We may also use those powers if we are satisfied that a MIS manager does not meet, or no longer meets, the requirements of a MIS manager licence (including the requirements in section 396 and in particular subsection (c) requiring the licensee to be capable of effectively performing the relevant service). In future and with regard to this report, if we consider a MIS manager does not have adequate LRM capabilities we may consider enforcement action of this nature.

The above summary is not a comprehensive analysis of all relevant law in the FMCA or elsewhere. You should seek your own professional legal advice if you have concerns about meeting your legal obligations.



# Section 2 - Introduction

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## 2.1 Survey scope, objectives and approach

This report presents findings from analysis of the FMA's 2020 survey of the MIS liquidity stress testing practices. We would like to thank all the MIS managers who completed the survey.

The overall aim of the survey was to develop our understanding of the market from a liquidity risk perspective and explore current liquidity risk management (LRM), in accordance with the good practice guide released in April 2020.

We had four specific objectives that provide the basis for the findings in this report. Those objectives were to develop an understanding of:

1. The structure of the MIS sector, viewed through a liquidity risk lens with an emphasis on stress-testing and to understand macro risks within the market.
2. The frequency and extent of liquidity risk stress-testing undertaken by MIS managers.
3. The liquidity risk management tools available to MIS managers and their experience in using them.
4. The governance, frameworks, processes and metrics used by MIS managers for liquidity risk management and stress-testing.

The survey was conducted over six weeks and covered 51 licensed MIS managers with a 100% completion rate. There were data validation exercises done where data was perceived to be inconsistent or incorrect.

## 2.2 Profile of MIS respondents

The survey covered managers of retail managed fund schemes (including mortgage schemes) and KiwiSaver schemes (including some restricted schemes).

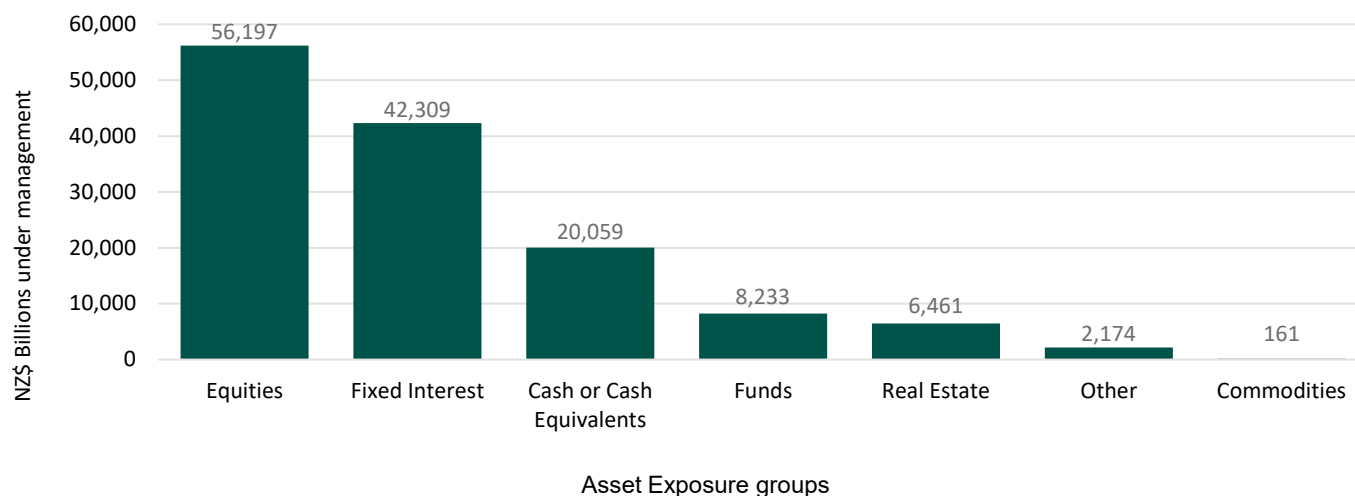
For the purposes of this report, New Zealand's MIS sector can be reasonably comprehensively described by three primary dimensions:

- A. Size – with funds under management (FUM) as the primary metric
- B. Type and sub-type – retail versus wholesale
- C. Structure – direct, 'fund of funds', and combinations of these

These three dimensions have been used to segment survey responses, to gain deeper insights into particular areas.

The graph on the following page shows grouped asset exposure in the retail market at the time the 51 MIS managers completed our survey. This shows a total of NZ\$135.60B FUM (rounded to the nearest 100 million.)

Retail FUM asset exposure (rounded to nearest 100M)



## 2.3 Context and how to read this report

Liquidity risk in managed funds has been a prominent and increasing concern of regulators globally, particularly in the past two years, in the wake of some high-profile liquidity events. We have increased our focus in this area, and the issuing of the good practice guide was part of us setting our expectations.

The New Zealand MIS market continues to grow at pace, with more participation in New Zealand's investment markets. As such, the FMA, scheme supervisors and market participants should have an increased awareness of aggregate risk exposures, including liquidity risk, considering the relative 'youth' of our MIS manager market.

LRM capabilities need to continually improve to meet the challenge of safeguarding the market and the interests of investors. MIS managers should focus on ensuring they are prepared for a major liquidity event. As this report highlights, it appears industry efforts have been somewhat piecemeal to date, leaving considerable room for improvement.

MIS managers should consider this report as guidance on our expectations around LRM. If we have concerns about a MIS manager's compliance with legal duties or market service licence requirements, we will use this report as a benchmark for assessing capability to effectively perform licensed services and the level of care, diligence and skill that a prudent MIS manager would exercise subject to relevant circumstances.

## 2.4 Intended audience and why this information is important

Our intended audience for this report is the MIS managers who participated in the survey, their boards and investment personnel. We also encourage the MIS sector to review this report and consider implementing any relevant recommendations. This document should be read together with our good practice guide. This guide highlights the importance of strong governance, reporting and challenging results, and in having clear, concise, well developed frameworks and policies in place.

The recommendations made in this report have the good practice guide principles in mind. When reading the recommendations, we encourage MIS managers, their boards and or governing bodies to think of the benefits of a thorough review, for not only the security and marketability of your business, but the end results for your investors/customers too.

# Section 3 - Overview of the market

## 3.0 Recommendations and capability/maturity assessment

We have made numbered recommendations throughout this document based on the good practice guide principles (highlighted in blue throughout this document). The recommendations are graded and colour-coded using the following criteria:

Low priority	Medium priority	High priority
<ul style="list-style-type: none"><li>Practices where the capability uplift affects the minority outliers of the market.</li><li>Improvements are expected to help affected outlier funds move closer to mainstream maturity.</li></ul>	<ul style="list-style-type: none"><li>Practices where the capability uplift needed will affect a larger portion of the population.</li><li>Improvements are expected to benefit investors of affected funds and help move those funds closer to good practice.</li></ul>	<ul style="list-style-type: none"><li>Areas and practices where a significant gap of capability is seen.</li><li>Improvements are expected to benefit the sector/investors at large scale and applicable recommendations should be reviewed with urgency.</li></ul>

While all recommendations in this report are important and should be considered, we expect MIS managers to (at least) review and implement all applicable high priority recommendations relevant to their funds.

## 3.1 Profile of the respondents and the sector

This section provides a broad overview of the surveyed MIS sector, including fund types and structures, FUM, asset class exposure, investor composition, and the past experience and liquidity risk management capability of individual MIS managers (self-assessed).

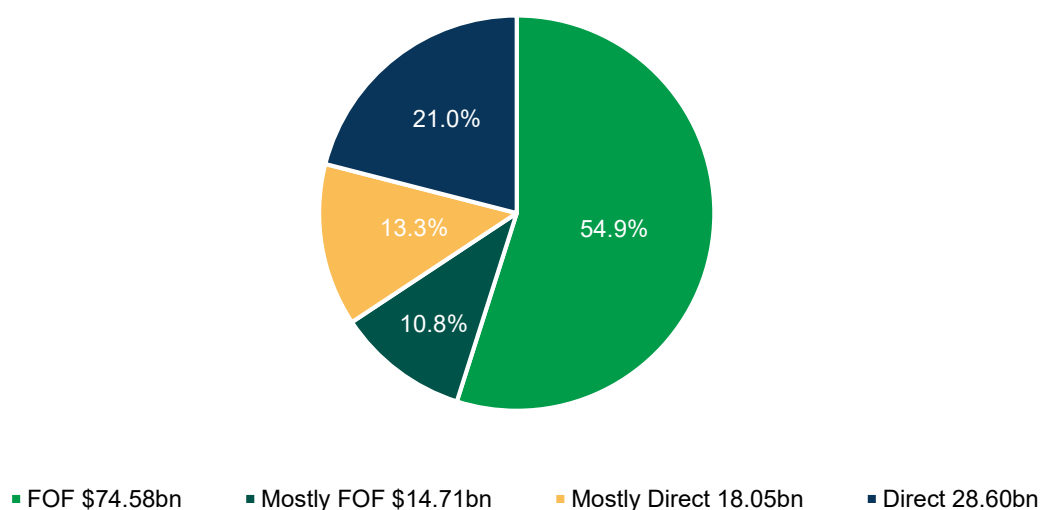
### 3.1.1 Fund types and structures

The survey's 51 MIS manager respondents represent an aggregate FUM of \$178.67B, split approximately into \$135.94B (76.1%) retail and \$47.53B (23.9%) wholesale.

Retail FUM respondents are broken into these four categories:

- Fund of funds (\$74.58B – 54.9%)
- Largely fund of funds (\$14.71B – 10.8%)
- Largely direct (\$18.05B – 13.3%)
- Direct (\$28.60B – 21%)

## Retail FUM - Respondents by investment type



The predominance of fund of funds (FoF) structures reflects the benefits they afford investors, such as risk diversification, accessibility, and access to professional managers. In a low interest rate environment, the appeal of FoFs is expected to continue, hence the following risks should be accounted for accordingly.

Asset and investor concentrations at an individual MIS level can exacerbate the impact of liquidity risk for affected funds and, if sufficiently widespread, amplify general market liquidity risk.

The results show:

- Across all respondents, for the single largest fund which they manage, 49% of managers had their three largest investors collectively accounting for >10% of the fund's FUM.
- Out of the next four largest funds which they manage, 31.4% - 37.3% said their three largest investors collectively accounted for >10% of the FUM.

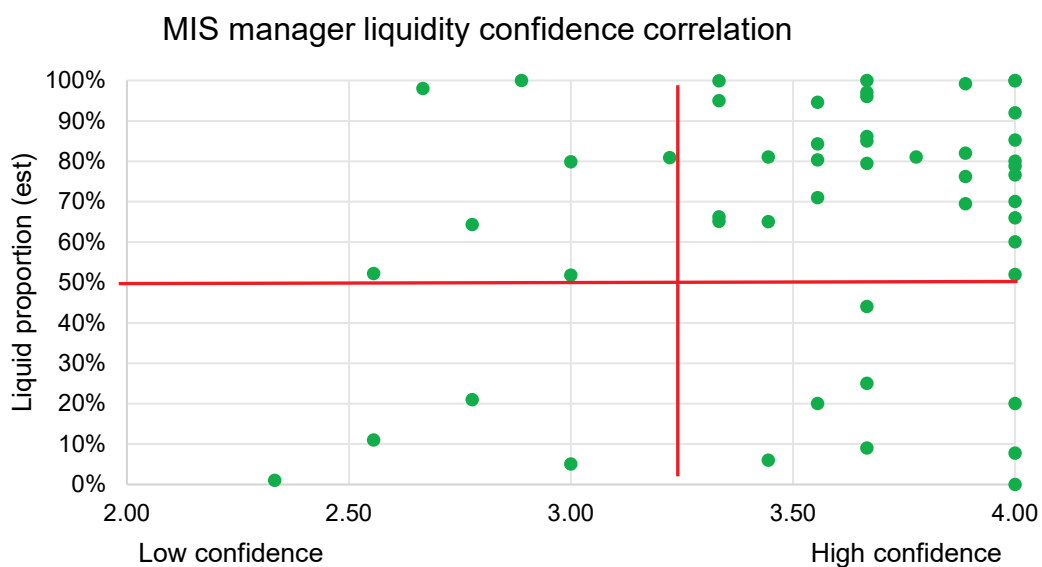
The observed concentrations are significantly higher than we expected, even considering that many of these are likely to be related party wholesale investments. The high concentration levels in these funds means that in a liquidity crisis there may be a heightened risk that an increase in redemption requests could cause issues for liquidity, and therefore managers should consider if their disclosures are adequate to address this risk. This will therefore be an area of further enquiry for us and should be of particular interest to managers to ensure that they are effectively disclosing risks to their investors.

No.	Recommendation	Priority
1	All MIS managers should define explicit internal investor concentration thresholds and targets, and report these regularly as an integral part of scheme structuring and risk management policy.	Medium
2	We expect MIS managers, including those managing MIS with modest investor concentrations, should undertake sensitivity analysis/stress-testing to gauge the potential impact of withdrawals by their or each fund's largest investors.	High

### 3.1.2 Capability

MIS managers generally feel confident in their ability to recognise a liquidity crisis and to manage the fund/s under their control through the crisis at a macro level. However, they were less confident about their specific needs for managing the crisis, specifically regarding the quality of systems to evaluate a stress event and their ability to employ LMTs (See *Section 4: Liquidity Management Tools*). Notably, 27% were 'neutral' on their ability to use LMTs or thought it was 'not applicable'.

Mapping each MIS manager's asset liquidity and confidence level, it appears that managers with more liquid assets are generally more confident, as shown in the chart below.



From the graph above, the key insights show that generally when MIS managers have less liquid assets, their confidence is lower. We note some outliers seem to contradict this majority, which could be a sign of complacency or the over-optimistic outlook of LRM practices outlined in our executive summary.

The four quadrants in the chart above represent the following:

1. Upper right quadrant (liquid funds – confident managers)
2. Upper left quadrant (liquid funds – less confident managers)
3. Lower right quadrant (illiquid funds – confident managers)
4. Lower left quadrant (illiquid funds – less confident managers)

# Section 4 - Liquidity stress testing scope, extent and frequency

This section provides an overview and details of the scope, extent and frequency of liquidity stress testing undertaken by MIS managers.

**The relevant good practice guide principles are:**

- **Good practice principle 1 – Governance**
- **Good practice principle 2 – Liquidity risk framework and strategy**
- **Good practice principle 8 – Stress testing**

## 4.1 Frequency, types and use of stress testing

From 51 respondents surveyed, 57% could recollect when they last completed a liquidity stress test. Additionally 49% of respondents had completed stress tests anywhere between 13 days to 26 months prior to 31 December 2019, as shown in the table below. Two MIS (4%) were excluded from analysis as their last stress test was outside the specified cut-off date.

**Table: Days since last stress test**

Days	Count	Proportion	Highest days
0 – 14	7	26%	13
15 – 31	5	18.5%	31
32 – 124	5	18.5%	92
125 – 183	0	0	N/A
184 – 365	5	18.5%	287
> 365	5	18.5%	791

Of the 27 respondents who remembered their last stress test:

- 17 had completed it within three months of 31 December 2019.
- 10 had completed it six to 26 months prior to 31 December 2019.

We are concerned that 22 respondents did not or could not provide a date for their last stress test, but they also returned positive responses for the questions regarding their stress testing capability.

Of the groups mentioned above, we note that:

- The 17 respondents who had completed stress testing within 92 days of 31 December 2019 accounted for approximately \$47.47B of the total wholesale and retail FUM from all respondents.
- The 10 respondents who had completed their last stress tests more than 200 days prior to 31 December 2019 accounted for \$37.3B retail and wholesale FUM.
- The 22 respondents who did not provide or could not remember the date for their last test accounted for \$61.03B FUM.

**Based on the above, the FMA draws attention to Principle 8 of the good practice guide**

In general, we expect that liquidity stress tests are completed for all funds at least once in any 12-month period, and more frequently if specific fund or market conditions warrant. MIS managers should ensure testing is occurring and that the results of tests are actively considered in managing the liquidity risks associated with their fund/s.

In addition to the frequency of liquidity stress-testing, we analysed the qualitative responses received on the types of stress testing used by MIS managers. Our analysis showed the following core themes:

- Overreliance on liquid asset holdings to weather a liquidity crisis, and on underlying MIS managers/third party providers to undertake aspects of stress testing.
- Scenario analysis and modelling were not as comprehensive as we would like and tended to use one or two isolated variables. This includes a reliance on asset-based measures and insufficient consideration for other types of liquidity metrics.
- Infrequent (aggregate) fund stress testing.

No.	Recommendation	Priority
3	MIS managers should review and constructively challenge the adequacy of their liquidity risk management frameworks, policies, procedures and risk appetite against their obligations associated with their MIS Manager Licence. This includes taking account of the distinctive features of their funds: asset types, investor profiles, related concentrations and market conditions.	High
4	Our expectation for MIS managers to undertake liquidity stress testing for all the funds they manage (whether individually or collectively) at least annually and more frequently if their fund structure and/or market conditions warrant. If the stress testing is undertaken by a third party on behalf of the fund, this does not absolve MIS management and board members from taking responsibility for the tests and satisfying themselves that the results have been taken into account and factored into decision-making.	High

## 4.2 Liquidity stress testing – board involvement and process

### 4.2.1 Board involvement

Respondents were asked to select the level of board involvement at different stages of the liquidity stress testing process in their respective entities. We broke these into seven stages.

#### For the purposes of this analysis:

- A 'large' MIS is defined as a scheme with total FUM in excess of \$1 billion dollars. Our survey found 23 respondents fell into this category.
- 'Positive' sentiment was assigned to these survey responses: *very involved, somewhat involved, barely involved*; while 'negative' sentiment was assigned to *not at all involved, not applicable, don't know*.

Our analysis indicates that:

- Large MIS have a lower level of board involvement compared to small MIS, at any stage of liquidity stress testing.
- All MIS managers showed a low level of board involvement in the early stages of stress testing, and a higher level in the later stages.

### 4.2.2 Overall sentiment assessment

Of the 23 large MIS:

- Nine managers (39%) gave responses that showed negative sentiment in all their responses, including three that said their board/oversight body is not involved at all stages.
- Five managers (22%) gave responses that showed positive sentiment in all their responses.

#### Summary findings

Based on the above figures, we believe that the boards for MIS managers would benefit from further involvement in the stress testing process. We appreciate that some areas are more technical in nature but believe boards should have good visibility of their stress testing practices. This includes reporting and seeking positive assurance on how these are being used to continuously improve liquidity management practices.

We also encourage investment management teams to provide training to their boards (as needed) on how to be more involved in stress tests, and how to challenge them, including in early phases.

The more knowledge a board or governing body has of liquidity concerns at a scheme, fund or manager level, the better prepared they'll be to provide governance during liquidity events.

#### Table summary

The following table shows the sentiment expressed about different stages of stress testing, as a fraction of those managers who said they had undertaken each stage. The number of managers that answered for each of the stages was based off their response to a previous question asking them which, if any, of the seven stages are included in their liquidity stress testing. The percentages in the table represent the percentage of applicable respondents that selected this phase as being a part of their stress testing



processes. The total respondents for large and smaller entities in each stage are seen in the rows labelled “Total applicable responses”.

These respondents are shown as percentages, broken down into managers of small and large (over a billion dollars of FUM) MIS, in the table below.

**Table: Stages of stress testing – sentiment analysis**

Assigned sentiment	Large entities	Smaller entities
<b>Stage 1: Liquidity (stress) scenario development and assessment</b>		
Positive	33%	57%
Negative	66%	43%
Total applicable responses	18	14
<b>Stage 2: Determination of stress drivers and metrics</b>		
Positive	23%	82%
Negative	77%	18%
Total applicable responses	13	17
<b>Stage 3: Sequencing of liquid events</b>		
Positive	0%	66%
Negative	100%	33%
Total applicable responses	2	6
<b>Stage 4: Determination of fund-specific impacts</b>		
Positive	27%	72%
Negative	73%	28%
Total applicable responses	15	18
<b>Stage 5: Running the stress test</b>		
Positive	17%	44%
Negative	83%	56%
Total applicable responses	18	16
<b>Stage 6: Reporting and assessment</b>		
Positive	65%	77%
Negative	35%	23%
Total applicable responses	17	22
<b>Stage 7: Post stress test decision-making</b>		
Positive	80%	93%
Negative	20%	7%
Total applicable responses	10	14

## Detailed analysis

Key stages to call out from the table on the previous page are:

**Stage 1:** Liquidity (stress) scenario development and assessment – The overall sentiment for board involvement was negative in this stage, with 66% of large and 44% of small MIS having negative sentiment.

**Stage 2:** Determination of stress drivers and metrics – 77% of large MIS gave responses with a negative sentiment regarding board involvement in this stage. This is in contrast to small MIS, which had 18% negative sentiment.

**Stage 6:** Reporting and assessment – There is a higher level of board involvement at this stage, but it is lower for large MIS (65%) than it is for small MIS (77%). We were pleased to see higher engagement and encourage MIS to raise this further.

**Stage 7:** Post stress test decision-making – It is surprising that only 10 of the large MIS include this as part of their stress testing process, although most of them (80%) enjoy a high level of board involvement at this stage. By comparison, 14 of the small MIS (93%) had it as part of their process, with all but one reporting board involvement.

## 4.3 Process – MIS manager sentiment

### Summary findings

The majority of respondents gave positive answers regarding the appropriateness of their stress testing framework and said the test results allow them to drive changes in their funds, processes, business planning and budgeting, including asset allocation.

However, these positive views are generally at odds with the substance of their responses to detailed questions regarding the most significant insights/learnings from recent liquidity stress testing. The majority of managers said they do not use data from stress tests or take consequent actions to improve their stress testing practices. This appears to contradict with a variety of sentiment questions relating to these follow up actions.

MIS manager process self-assessment questions	Agree	Neutral	Disagree	Don't know
Our stress test framework is fit for purpose	76%	20%	2%	2%
Actions resulting from stress testing inform our business planning and budgeting	37%	31%	24%	8%
Actions resulting from stress testing enable us to inform our risk appetite and/or product pricing	65%	14%	14%	7%
Actions resulting from stress testing drive changes in asset allocation as appropriate	63%	27%	4%	6%
Actions resulting from stress testing enable us to consider appropriateness of liquidity management tools	67%	20%	7%	6%

Post-test changes	Agree	Neutral	Disagree	Don't know	N/A
Results of stress testing are used to make changes within the fund	61%	23%	0%	12%	4%

Personnel experience (capability)	Good	Neutral	Poor	N/A
Key personnel have sufficient experience to conduct stress testing	90%	8%	0%	2%

Liquidity stress test policy includes:	Yes	No
Consequent actions/decisions	25%	75%
Reporting of stress test results	14%	86%

Involvement of key personnel in post stress test decision-making (based on stress test results)	Exco / senior management	Risk committee	Investment personnel
Very involved	79%	46%	75%
Somewhat involved	17%	17%	13%
Barely involved	0%	0%	0%
Don't know	4%	4%	4%

## 4.4 Liquidity stress testing – integration

The extent to which stress testing is considered and integrated into other investment management and related risk management activities (e.g. the use of LMTs), and vice-versa, is a measure of capability/maturity.

### Summary findings

In reviewing the detailed questions on insights and learnings, it is evident that results from stress testing are not being fed back systematically into portfolio and/or risk management. For example, we were surprised that one third of respondents said they do not use stress testing results to consider the appropriateness of their LMTs. This indicates that MIS managers may be missing opportunities to better understand which LMTs would be most useful in a stress situation and how to best deploy them.

Of those MIS managers we assessed as being in the lower half of capability/maturity, 58% have used an LMT. That compares with 40% of those in the top half.

# Section 5 - Liquidity management tools (LMTs)

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This section provides an overview of the liquidity management tools (LMTs) available to MIS managers, and their experience in the use of these tools.

**The relevant good practice guide principles are:**

- **Good practice principle 5 – Disclosure and communication**
- **Good practice principle 7 – Liquidity management tools**

MIS managers should have the appropriate tools needed to manage liquidity in normal and stressed markets. MIS should also know when and how to use them, while considering the impact on investors and the portfolio itself. This means MIS can act at the right time, with the right tool. MIS should manage the fund to allow redemptions while reducing the risk of harm to investor interests.

Our expectation is that MIS managers:

- have a range of LMTs appropriate for their investment strategy;
- have a clear understanding of how and when they should be communicating and disclosing use of LMTs to investors;
- have data and processes to understand when a given tool would be appropriate, considering:
  - both asset liquidity and likely redemptions
  - the accuracy of valuations and the unit price;
- have a process to consider, escalate and approve the use of appropriate tools at appropriate times;
- have controls and processes to ensure investor fairness is considered before, during and after tool use. This includes considering fairness for investors and whether they are contributing, redeeming or ongoing investors; and
- have data and processes to evaluate effectiveness of the tool and when its use could end.

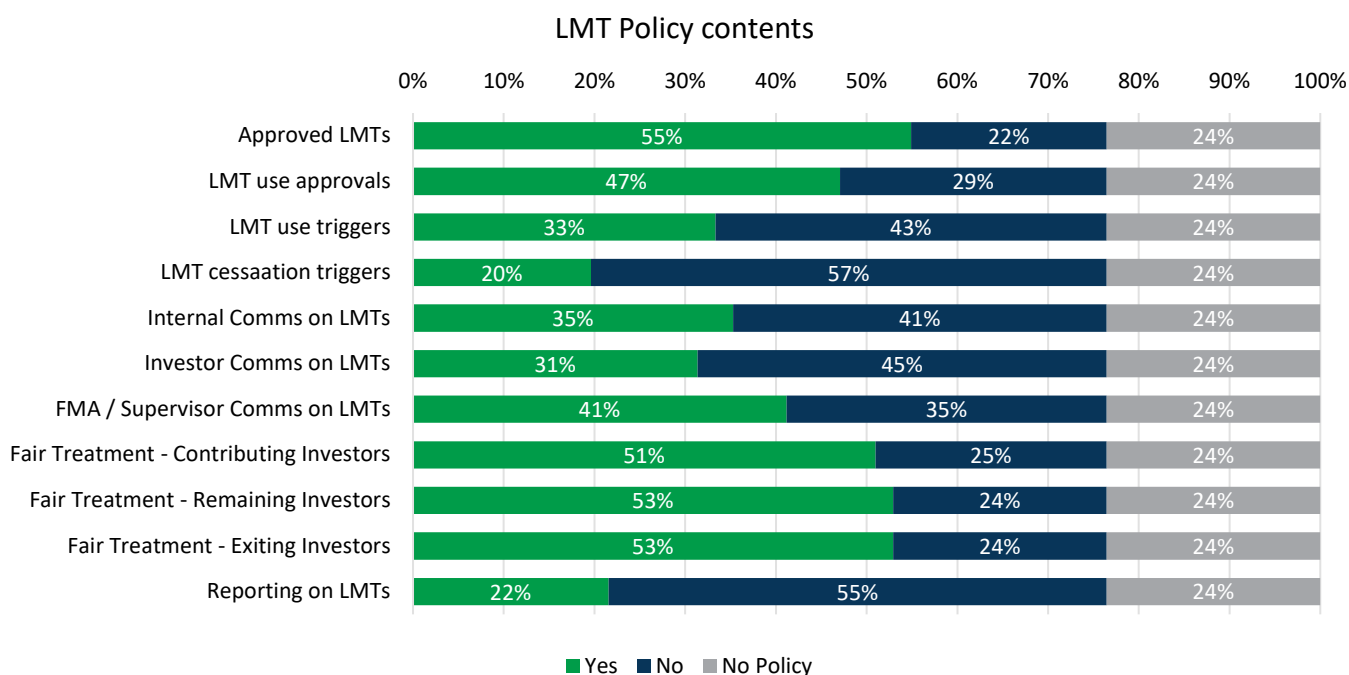
## 5.1 LMT policy – scope

### Detailed analysis

Our analysis showed clear weaknesses in policies governing the use of LMTs:

- Just over half (55%) of MIS managers surveyed appear to have defined their available LMTs (unless these are embedded/referenced in other governing documentation for their funds).
- Less than half (47%) noted their required signoffs for LMT use/implementation. This raises questions as to how expeditiously they could respond to a liquidity crisis in investors' best interests.
- Only 33% reported having defined LMT implementation triggers. As with the preceding point, 'early warning' and 'escalation' triggers are important features in facilitating timely responses in anticipation of or during a liquidity crisis.
- Less than a quarter (22%) have defined LMT reporting requirements.

- Just over half (53%) have documented 'fair treatment' requirements. During a liquidity crisis, managers can be expected to be balancing some difficult and competing interests without perfect answers.
- Only 20% have LMT withdrawal/cessation provisions in their policy. LMTs should be used no longer than circumstances warrant, as their continued use could work against 'fair treatment' of investors.
- The only LMT policy content features mentioned by more than 50% of the MIS managers surveyed were:
  - Having approved LMTs – 55%
  - Fair treatment of entering investors – 51%
  - Fair treatment of remaining investors – 53%
  - Fair treatment of exiting investors – 53%



No.	Recommendation	Priority
5	MIS managers should explicitly define the LMTs they have available for use, assess conditions under which they will be deployed (and withdrawn), and how their use ensures 'fair treatment'. This will help provide more stability during uncertain times.	High
6	MIS managers should maintain a written chronological record of their use of LMTs, including the conditions when deployed (and withdrawn), decisions made, results and lessons learned. This information will inform their future use of LMTs. This will provide a great opportunity to identify improvement areas and trends in tool use, and to improve oversight of tool use by boards, senior management and supervisors.	Medium

## 5.2 Available LMTs

### Summary findings

- Many MIS managers do not have sufficient LMTs or do not improve processes based off their experience in using LMTs. This appears to conflict with their self-assessments.
- Managers may not have appropriate LMTs for dealing with liquidity stresses before a crisis takes effect. More tools in the 'pending' or 'imminent' buckets below would provide the ability to deal with problems proactively.
- Redemption suspension time limits vary widely, which may be a function of the investment strategy and asset type. Managers and supervisors should consider if their limits provide too much flexibility.
- Only about half of the MIS managers surveyed have ever used an LMT, and those who have only did so for short periods. This indicates that MIS managers are generally inexperienced in LMT availability and use, and therefore may not fully appreciate the difficulties of managing through a liquidity crisis. That perception is reinforced by:
  - the low reported level of feedback loops from stress testing results, e.g. making changes to portfolio strategy/structure and/or considering the appropriateness of various LMTs
  - few MIS managers reporting use of stress testing during product design (enabling them to ensure they have the right tools for a given strategy).

LMTs were segmented into three groups, based on the indicative timing of their (likely) use – as shown in the following table.

**Table: LMTs grouped by indicative timing of use**

Liquidity crisis groups	Characteristic	LMTs best suited
Pending	Liquidity event/s are foreseeable but not imminent. LMTs used are suited to precautionary preparation/s to mitigate or improve liquidity challenges, including redemptions.	<ul style="list-style-type: none"> <li>• Swing-pricing</li> <li>• Anti-dilution levies</li> <li>• Bid-ask valuations</li> </ul>
Imminent	There is still some liquidity in the market, but available liquidity is insufficient to meet redemptions.	<ul style="list-style-type: none"> <li>• Redemption gates</li> <li>• Notice periods</li> <li>• Side-pockets*</li> </ul>
Current	There is a current and significant problem that prevents meeting redemptions in a meaningful way.	<ul style="list-style-type: none"> <li>• Redemption suspension</li> <li>• In-kind redemptions</li> <li>• Committed back-up funding lines</li> </ul>

\*Note: Side pockets could be used in any of these stages.

Responses by group and LMTs available are summarised as follows:

Liquidity crisis groups	No LMTs	One (1) LMT	2 or 3 LMTs	Total
Pending	57%	29%	14%	100%
Imminent	20%	33%	47%	100%
Current	8%	53%	39%	100%

Respondents' use of LMTs is skewed towards being more reactive than proactive to a developing liquidity crisis, irrespective of the number of LMTs managers have at their disposal. Concerningly, 57% of the managers surveyed do not mention having LMTs available to use in the early phase of a developing liquidity crisis.

We note some specific concerns with LMT availability, with 12 managers affected by one or more of the following issues:

- Having no LMTs at all.
- Having no LMTs to deal with current or severe crises (e.g. redemption suspension or redemption gating).
- Having only LMTs to deal with current or severe crises, but no LMTs that could be used in advance to help mitigate an emerging crisis.

Respondents who manage KiwiSaver schemes (47% of respondents) reported a similar availability of LMTs as general MIS managers. However, KiwiSaver funds are still exposed to switching, transfers, and retirement and hardship withdrawals, all of which can spike, so we still expect KiwiSaver providers to have tools to enable liquidity management to the extent allowed under the KiwiSaver Act 2006 and their Instruments of Appointment.

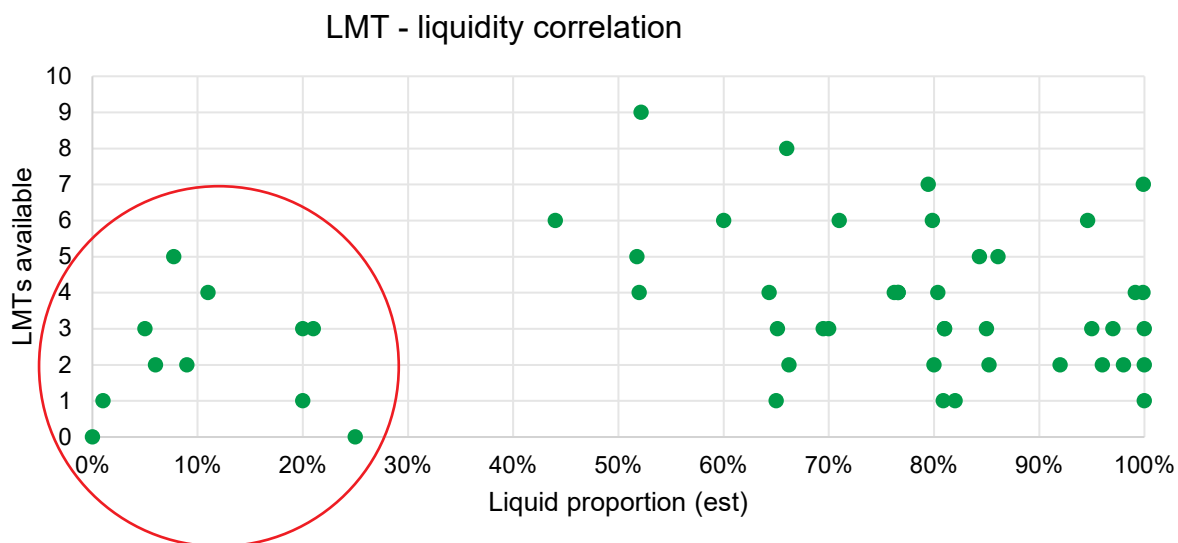
Other than a larger proportion of non-KiwiSaver MIS managers having just one LMT in the 'imminent' category, there is little distinction between the LMT availability responses of KiwiSaver respondents compared to all respondents.

**Note:** Our survey was at the MIS manager level and did not distinguish between KiwiSaver schemes and non-KiwiSaver schemes. Since most KiwiSaver providers also manage non-KiwiSaver schemes, the same liquidity considerations apply to them as to general MIS managers.

### LMTs and asset illiquidity

A key insight from our analysis was that a sizeable number of MIS managers with very illiquid holdings also similarly had very few LMTs available. This is especially true for mortgage scheme managers, where none had any LMTs in the 'pending' group, and four had no LMTs in the 'imminent' group (see *Section 4.1* on our findings in respect of MIS managers' liquidity management policies).

The table below shows MIS managers who may have insufficient tools to deal with a pending or imminent crises.



No.	Recommendation	Priority
7	MIS managers should review and expand their suite of available LMTs beyond those they currently use, with a particular focus on LMTs suited to the 'pending' phase in an emerging liquidity crisis, which could help avoid suspending redemptions in future.	High
8	We expect MIS managers to consider the use of LMTs in conjunction with other complementary/related tools (e.g. early-warning metrics) to effect better outcomes.	High
9	Mortgage MIS managers in particular should actively explore augmenting their LMTs across all groups described in this report.	Medium

### 5.3 LMT usage

Over half of MIS managers surveyed (51%) have never used an LMT, raising questions as to the wider industry's practical understanding of:

- LMTs in use
- whether they have the appropriate LMTs
- when to use the LMTs (and their pros/cons)
- whether they have appropriate processes and controls for tool use

#### Detailed analysis

LMT use over the two-year period to the end of December 2019 can be summarised by groups and type, as shown in the following table.



**Table: LMT use by group and type 2018-19**

By liquidity crisis – groups	LMT type	Instance LMT use ever
Pending	Swing pricing	0
Pending	Anti-dilution levies	2
Pending	Bid-ask valuation	6
Imminent	Redemption gates	1
Imminent	Notice periods	7
Imminent	Side pockets	1
Current	Redemption suspension	4
Current	In-kind redemption	3
Current	Committed back-up funding lines	1
Other	Other	5
<b>Totals</b>		<b>30</b>

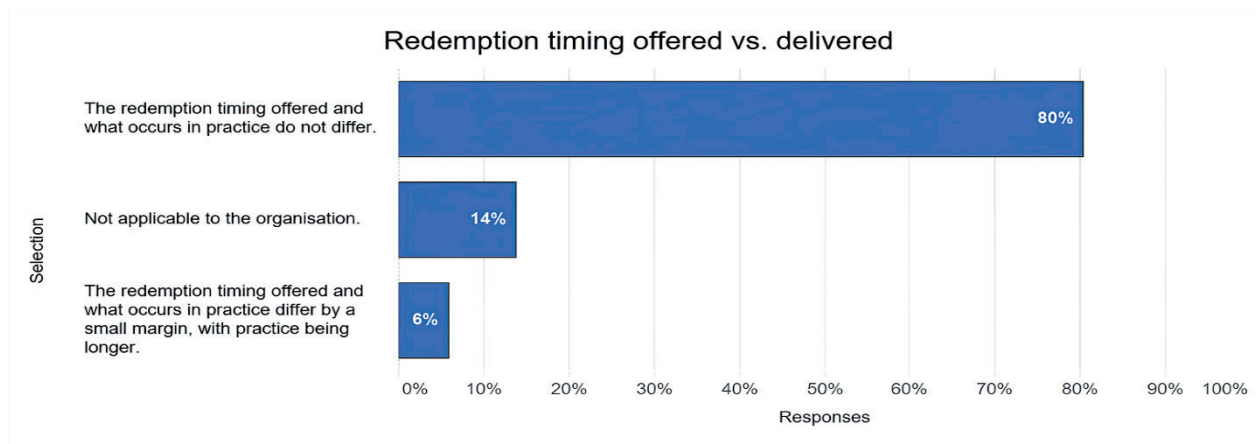
**MIS Managers using an LMT**

Grouped category of LMT	Use in 2018-19
Pending	8
Imminent	7
Current	6
Other	5
<b>Totals</b>	<b>16</b>

In the two-year period to the end of December 2019, 16 unique MIS managers used LMTs. Managers who used more than one tool did so only for short periods of a few days in most cases. That compares with 13 managers using LMTs prior to January 2018, two of which also used them in the two years to December 2019, but with no details provided on the tool/s used. In total, then, 27 unique managers have used an LMT at least 30 times at some point in history.

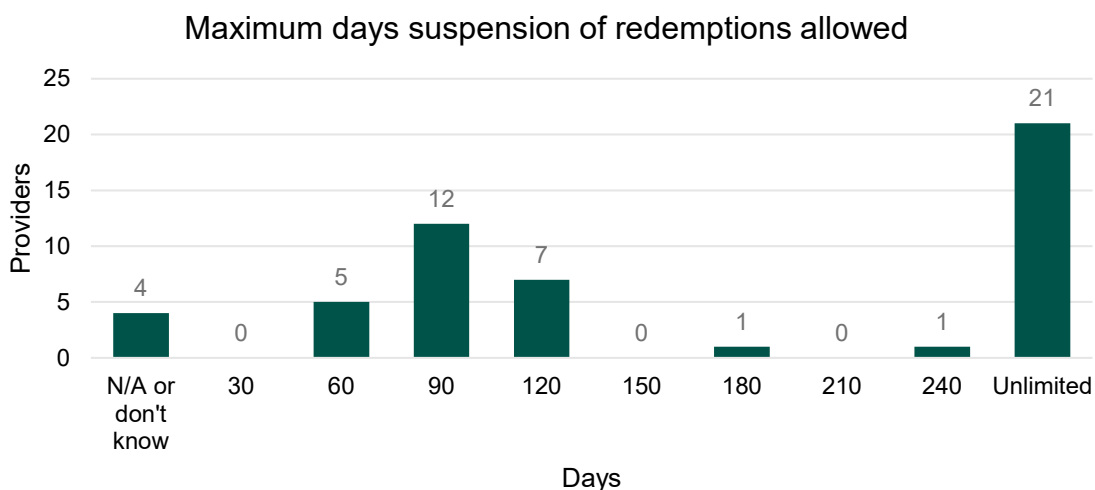
## 5.4 Redemption notice periods – publicised vs. practiced

In the chart below, actual versus advertised redemption periods did not differ for the vast majority of MIS managers (remembering that this was during the relatively stable economic period prior to the COVID-19 pandemic and leading up to the end of 2019). Where they did differ, this did not result in any issues of note.



### 5.4.1 Redemption suspension

The longest period that various MIS managers are permitted to suspend redemptions according to their policy or governing document/s are shown in the chart below.



From the above chart we note:

- Four MIS managers surveyed had no policy or did not know the maximum period for redemption suspension.
- 21 noted there was no limit in their governing document. This could lead to redemption practices that conflict with fair treatment of investors.
- The remaining 26 said they are able to suspend redemptions from 60 days to 240 days. There was no discernible pattern of interest across the responses.

# Section 6 - Liquidity risk governance, frameworks, policies, procedures and metrics

This section provides an overview of the governance arrangements, frameworks, procedures and metrics used by MIS managers for the purposes of their liquidity risk stress testing. Collectively, these are important to enable a manager’s liquidity risk management infrastructure, help ensure that stress testing practices are carried out in a consistent and repeatable way and aligned with fund management policies.

**The good practice guide principles that apply to this section are:**

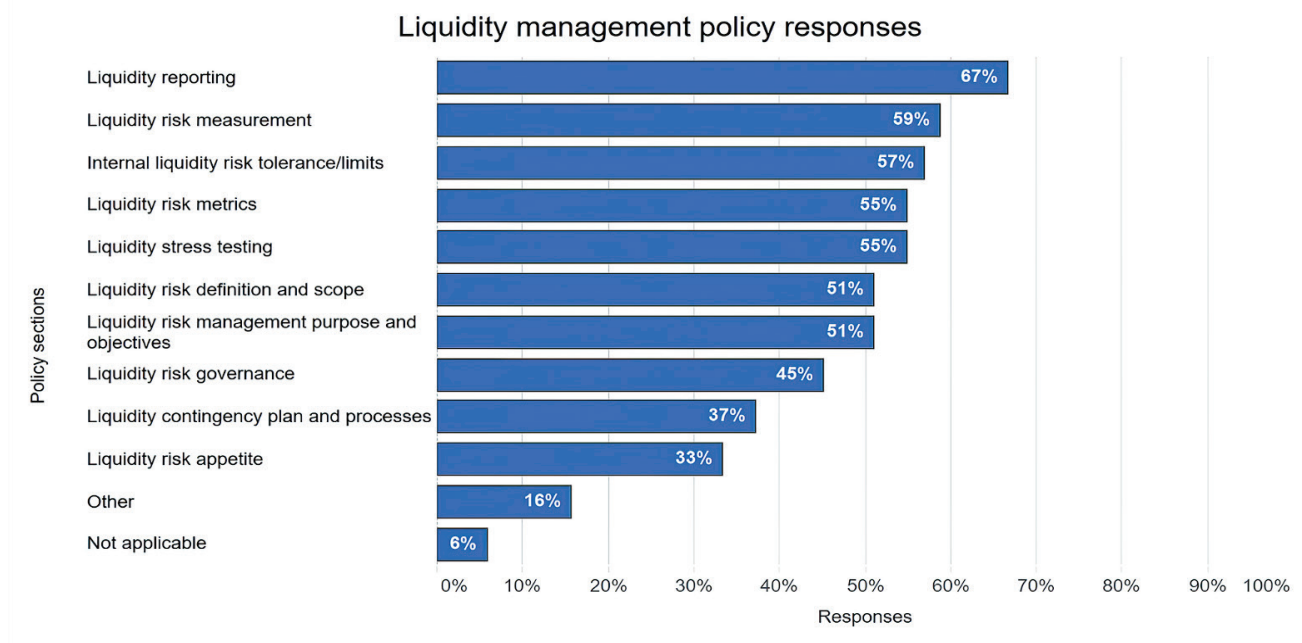
- **Good practice principle 1 – Governance**
- **Good practice principle 2 – Liquidity risk framework and strategy**

## 6.1 Liquidity management policy – scope

The board or governing body is responsible for the MIS manager’s risk management framework, including risk management policies that specify the types and degree of risk acceptable to the manager. Risk management policies are important governance levers to ensure process integrity, compliance and effectiveness all support the MIS to operate consistently within its risk appetite, and to identify or effect desirable changes.

### Summary findings

Generally, a third to two-thirds of MIS managers could answer ‘yes’ to any given LRM policy content question, signalling there is ample scope for improvement. The types of fund (FoF, direct asset, etc), KiwiSaver versus non-KiwiSaver, and FUM size made no major difference to the responses.



## Detailed analysis

We noted some potentially contradictory responses when comparing responses in related sections:

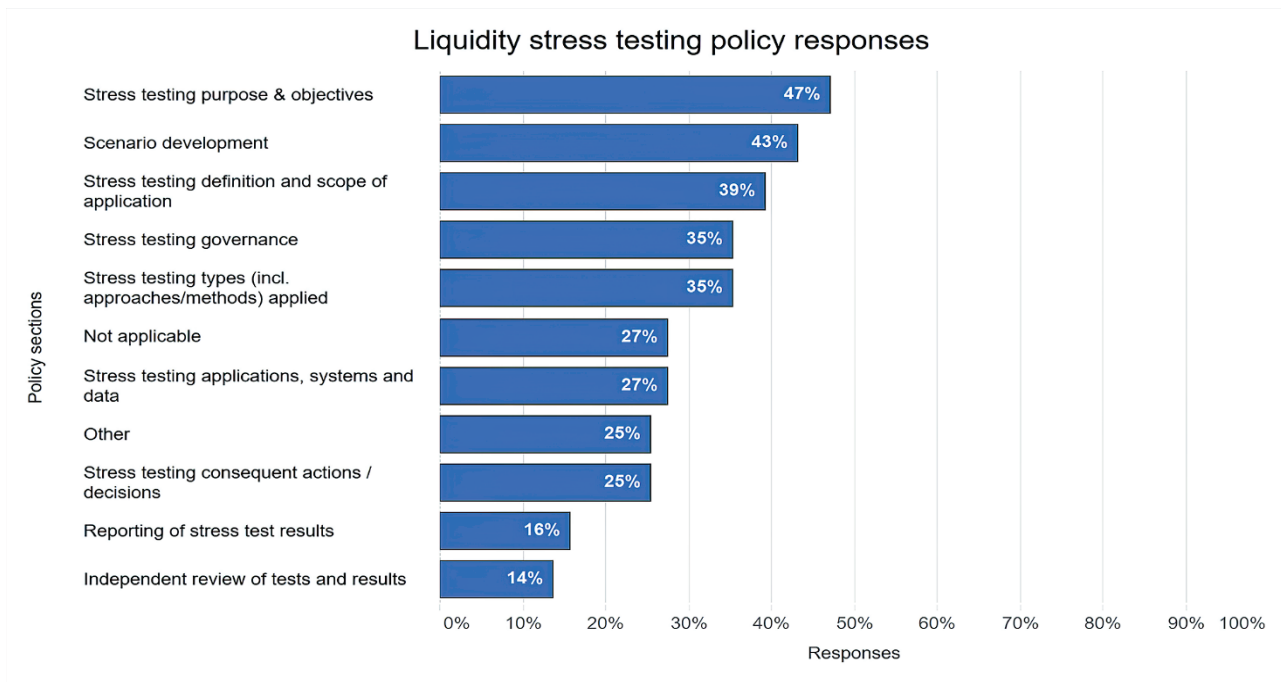
- One in five managers said their LRM policy included a definition of liquidity risk, while also reporting they have no definition of illiquid assets.
- Separately, one in five managers reported that they have a definition of illiquid assets, and yet do not report having a liquidity risk definition in their LRM policy.
- Similarly, another one in five managers reported that they do not have a definition of illiquid assets but do have a liquidity risk measurement approach in their LRM policy.

These inconsistencies call into question the structural and/or logical integrity of the LRM policies in use in the sector. This is particularly important given the integrated nature of liquidity risk drivers and consequences, and the importance of policies as a primary governance lever.

No.	Recommendation	Priority
10	We expect LRM policies to be reviewed in accordance with good practice principles and implemented in a way that reflects the particular characteristics of each fund, which will help raise standards.	High
11	We expect MIS managers to have an LRM policy endorsed by the board. A formal policy helps ensure accountability and consistency in application, provides a starting point during a crisis, and provides visibility to the board of levers available in a crisis.	Medium

### 6.1.1 Liquidity stress testing policy – scope

This chart shows the sections included in the liquidity stress testing policy as selected by the respondents.



## Summary findings

From our analysis of the liquidity stress testing policy sections (listed in the chart above), we note:

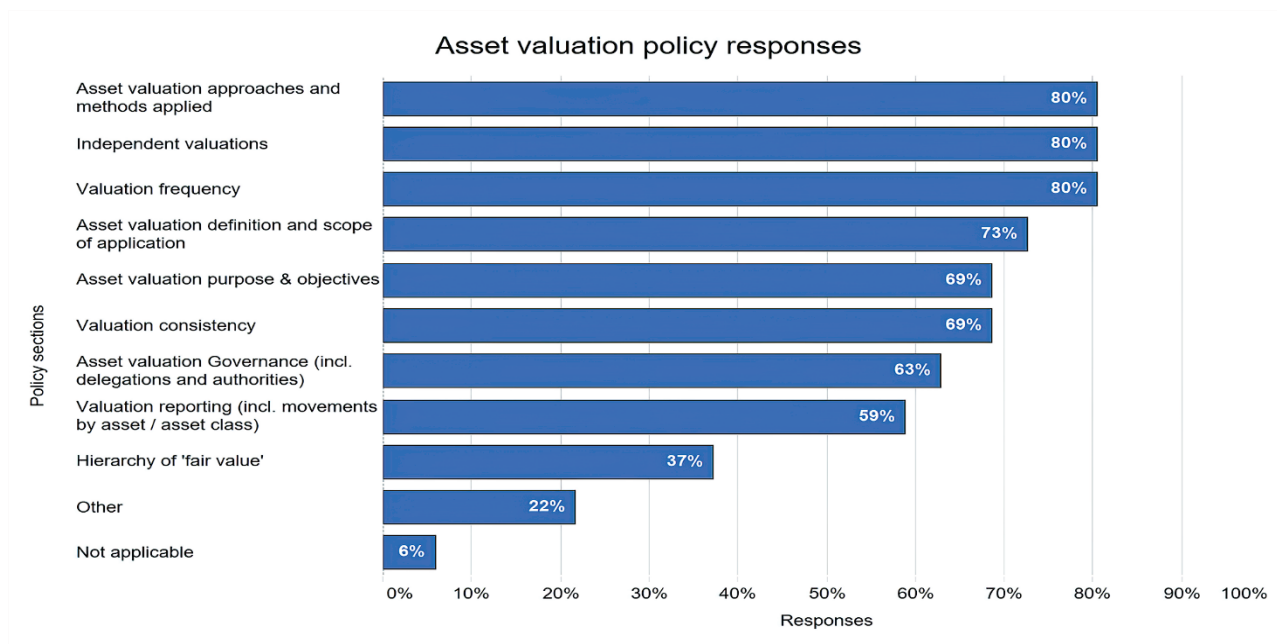
- none reached greater than a 50% mention
- 27% of MIS managers surveyed selected 'not applicable', indicating they do not have a liquidity stress testing or equivalent policy
- only 14% mentioned independent review of tests and results
- only 16% mentioned reporting of results
- only 25% mentioned consequent actions taken.

This data calls into question the robustness of liquidity stress tests that are not constructively challenged, reported on and acted upon. This would appear to contradict the sentiment/self-assessment answers on the managers' capabilities.

### 6.1.2 Asset valuation policy – scope

#### Summary finding

Compared to liquidity-related policies we have previously analysed, the asset valuation policy (AVP) reported at the aggregate level is significantly better. Concerningly, the lowest reported content category was that covering 'fair value' (37%). Establishing fair value became an issue during COVID-19 and during the NZX outages in 2020. At that time some MIS managers approached the FMA for guidance in case valuations were unobtainable or inaccurate.



#### Detailed analysis

We were concerned that seven managers said they did not have an asset valuation policy, but instead relied on:

- the policies of their underlying MIS managers (FoF); and/or
- listed prices (all securities in this case being listed).

These situations do not absolve a MIS manager from having their own AVP.

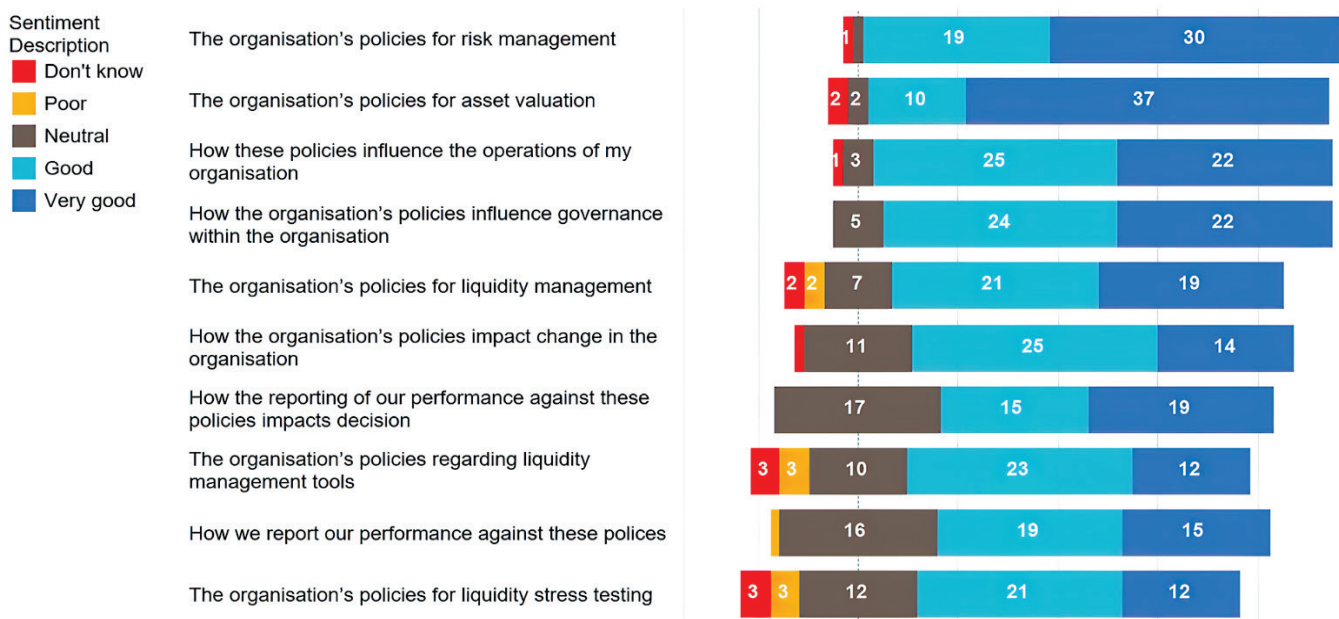
No.	Recommendation	Priority
12	We expect MIS managers to have an asset valuation policy that includes ‘fair valuation’ rules, particularly when market valuations are unavailable. These policies should consider at what point a valuation becomes stale for a particular asset or equity type. This will not only help during times of liquidity and pricing issues but also provide a mechanism to measure performance in this area.	High

### 6.1.3 Policies and procedures – understanding and application

While valuation policies and risk management (in broad terms) appear to be well understood, our survey found a significant drop-off in the level of relative understanding of policies regarding:

- liquidity risk management (including tool use and stress testing)
- reporting of performance against policies (including how that reporting is used).

Q21. Indicate how your organisation performs on having (in aggregate through the relevant people) a sound practical understanding of each of the following:



No.	Recommendation	Priority
13	MIS managers should consider more training on liquidity risk and LRM. This should include tool use and stress testing, and how this reporting can positively impact decision-making.	Low
14	MIS managers should consider improving the measuring and reporting of all risk types against respective risk management policies, to provide greater insight into performance against risk appetite.	Low

## 6.1.4 Types and use of liquidity metrics and reporting

Key to managing liquidity and/or liquidity risk proactively, and to determining which LMTs might be useful in a given situation, is the measurement and monitoring of a combination of:

- asset liquidity
- redemption profiles
- general early warning metrics/triggers.

What is done with that information is just as important. For example:

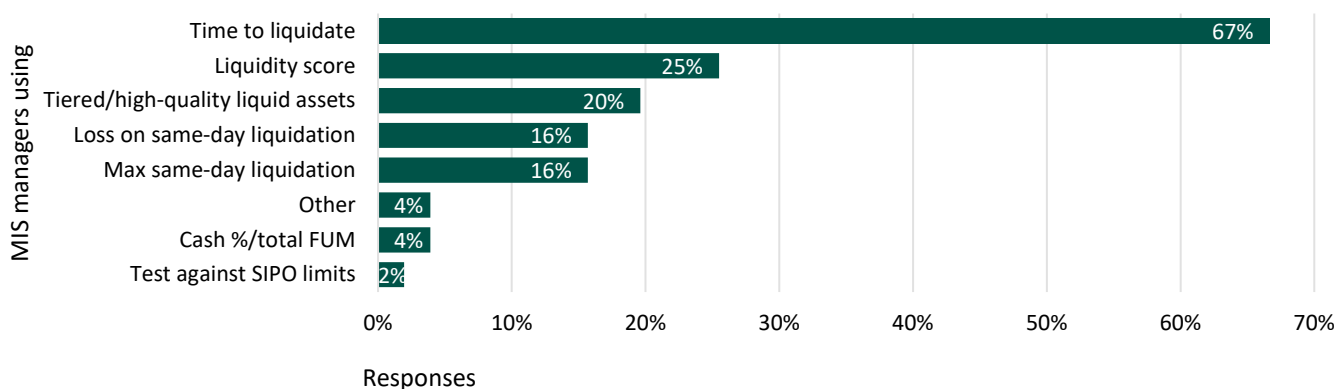
- using information at the product design stage to reduce liquidity risk
- managing portfolio liquidity with appropriate tools
- informing senior management and the board of developing trends, etc.

Without such efforts, there is virtually no way a manager can be proactive in managing liquidity. This creates a risk of harm to investors because effective risk mitigation is unlikely to be achieved.

### Summary findings

Considering asset, liability and combined metrics, it is clear that there is some (but not universal) consideration of asset liquidity in the market. There is room for improvement in depth and breadth of that analysis, with insufficient consideration of liability metrics or combined asset and liability metrics, particularly projected and stressed redemptions. Considering metrics used are not widely reported on internally, the managers are not realising the potential for metrics to add value to their risk management efforts. Most metrics are readily available and easily implemented, and, if used correctly, would greatly enhance the ability of MIS managers to understand liquidity stresses on their funds.

Proportion of MIS Managers using different asset metrics

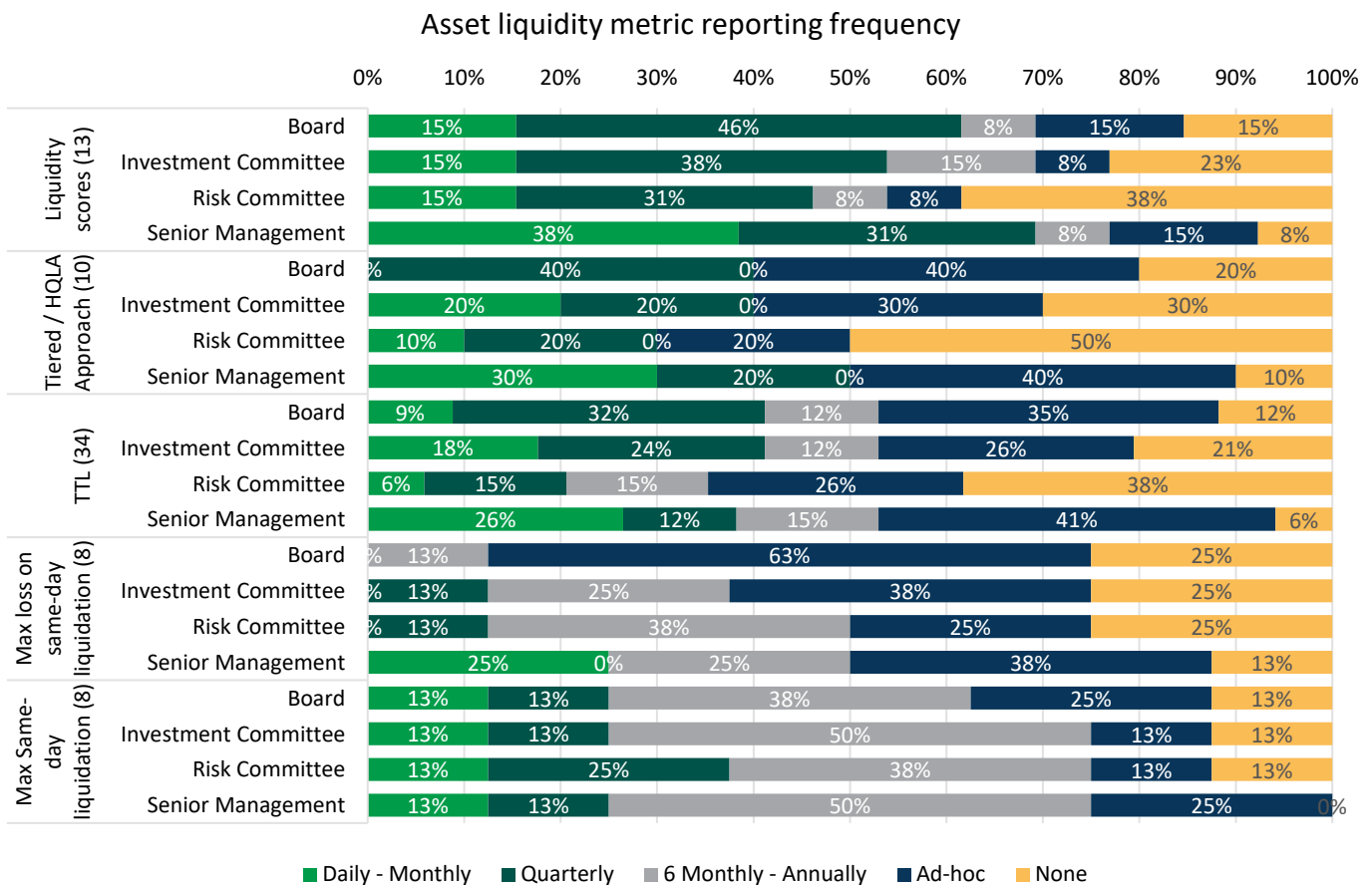
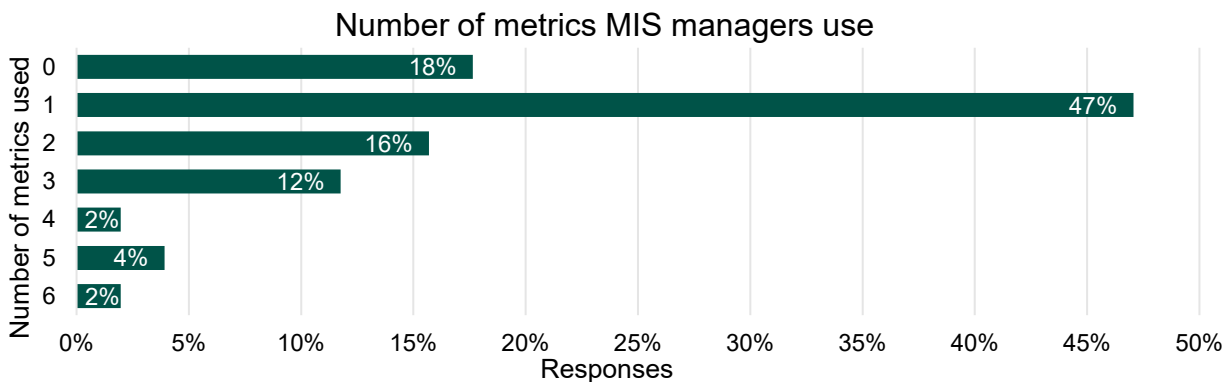


### Detailed analysis – asset-based and asset liquidity metrics

From our analysis we observed:

- 18% of the MIS managers surveyed do not monitor asset liquidity, and the remainder mostly use at least one metric for measuring and monitoring liquidity.
- 47% only consider one asset liquidity metric – usually time-to-liquidate. This is the most common metric overall, with two-thirds of managers reporting they use it.
- Reporting against the abovementioned metrics is sporadic and usually not frequent enough to inform a dynamic investment strategy.

The proportion of MIS managers using different asset metrics, and the number of asset metrics managers use, are shown in the following charts.



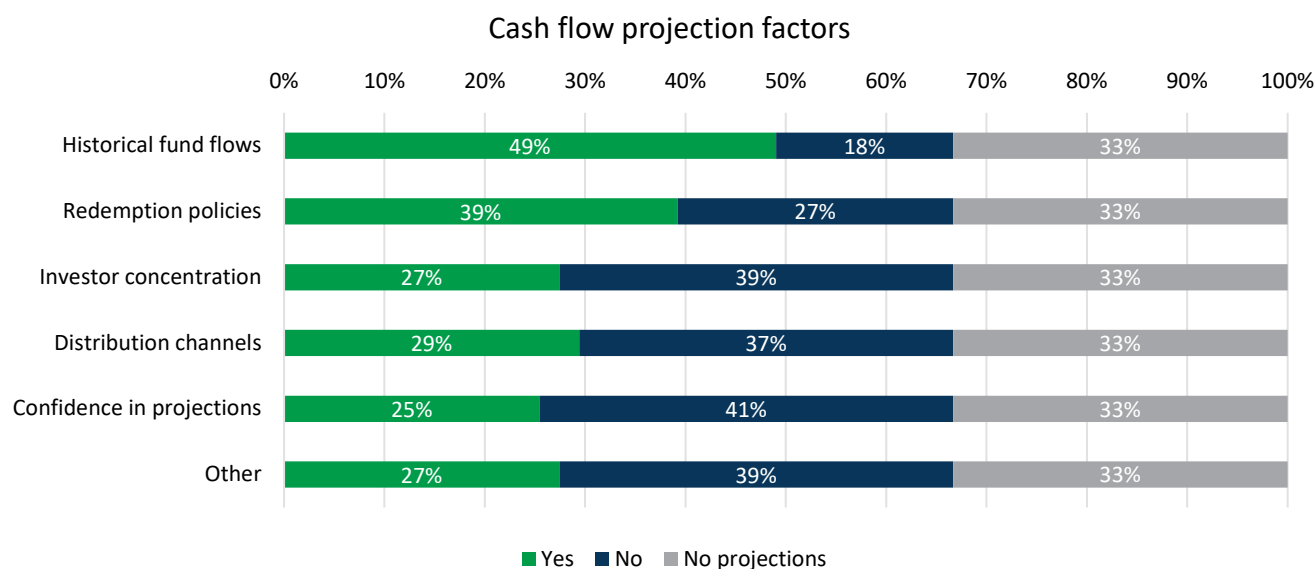
**Note:** The percentages used in the asset liquidity metric reporting chart on the previous page refer to the number of entities using that particular metric and not to the 51 survey managers overall. For instance, of the 13 managers using a liquidity score, two (15%) report to their board at least monthly, six (46%) report quarterly, and one (8%) report once or twice a year. Four managers (30%) report on an ad hoc basis or not at all.

## Liability metrics

From our analysis we note:



- Liability metrics are much less prevalent than asset liquidity metrics, as 57% of managers do not consider liability metrics (i.e. redemptions) at all.
- 33% consider historical redemption patterns. While important, it should be recognised that since the GFC (and a brief time during COVID-19), redemptions have been fairly stable.



### Combined asset and liability liquidity metrics

Our analysis showed:

- Monitoring on a combined/integrated asset and liability basis is almost non-existent. Only six managers surveyed use these metrics: two use redemption coverage ratios, three use liquidity coverage ratios, and one uses the multi-criteria approach.
- There were nine managers (18%) using some form of combined metric.

### Cash flow projection factors – analysis

33% of the MIS managers surveyed said they do not perform cash flow projections, thus missing out on a key tool to provide insight into redemption risk and to prepare for contingencies. Historical fund flows and redemption policies had been considered by more than half of the managers who make cash flow projections. Given our observations on investor concentration, this may be an important factor for managers.

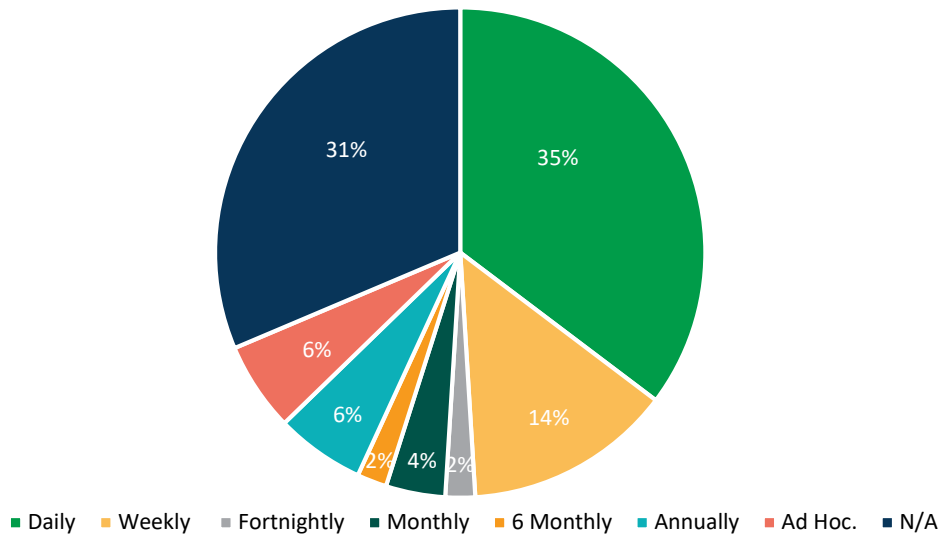
### Cash flow projections use and horizon frequency – analysis

A similar pattern emerges when considering how cash flow projections are used. More than half of those making projections use them to consider cash flow needs, identify liquidity events, or to adjust fund asset allocations. Disappointingly, only 25% of MIS managers surveyed use them to aid in product design. This is one of the most important uses, as it enables the fund design to reflect redemption risk and would inform what LMTs are needed as well as approximately how frequently fund redemptions may occur.

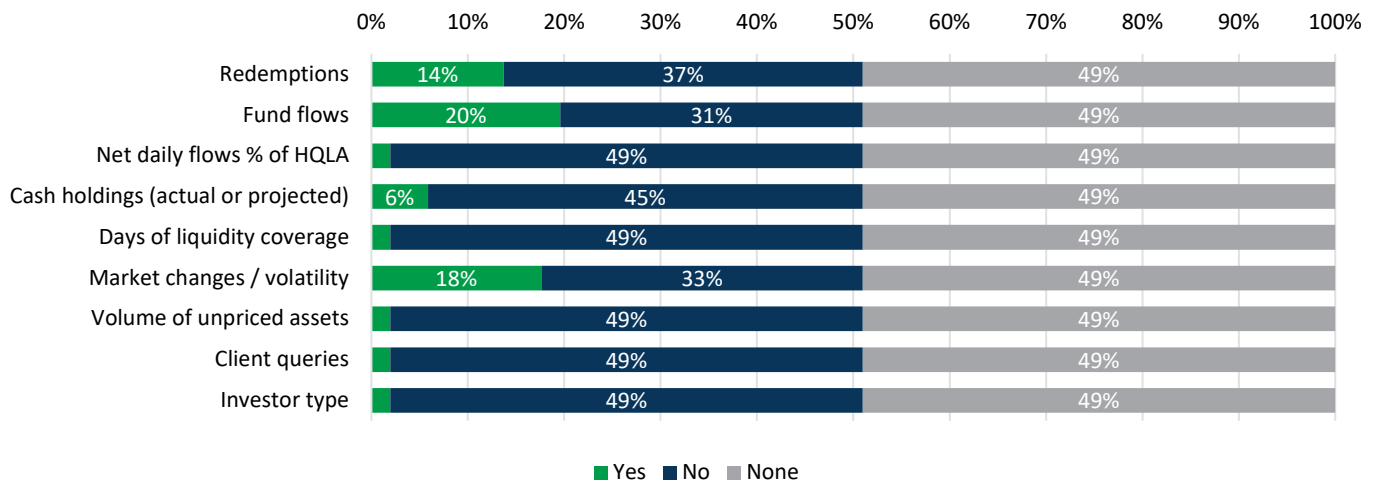
The following charts show:

- Just over half of cash flow projections are performed daily to fortnightly.
- Apart from the managers who do not project cash flows, this leaves 12% projecting on a monthly to annual basis.

Cash flow early-warning metrics



Cash flow early-warning metrics



### Cash flow projections – early-warning metrics

As seen in the chart above:

- 49% of MIS managers surveyed do not use any early-warning metrics – increasing the risk that they will be unprepared for a liquidity event
- 20% use some combination of fund flows
- 14% use redemptions
- 6% use cash projections
- 4% use liquidity coverage
- 18% use market monitoring including volatility
- 6% use other metrics.

## 6.2 Fund oversight – fund of funds managers

### Summary findings

A number of the large fund of funds (FoF) managers do not appear to have the oversight we would expect of the liquidity stress testing and use of LMTs by their underlying MIS managers. We would expect all MIS managers with underlying funds to continually have 'look-through' oversight on these activities.

Our analysis shows:

- 18% of FoF managers surveyed are not reviewing LMTs in their underlying funds at the time of investment purchases.
- 39% are not updating their knowledge on a regular basis.
- 48% do not ensure their underlying funds perform stress tests.

### Detailed analysis

Of the 33 MIS managers surveyed who said they have underlying managers:

- 6% did not know if they look at their underlying managers' use of LMTs or stress testing.
- 82% consider the available underlying LMTs at the time of investment.
- 64% consider the impact of any use of underlying LMTs on their ability to liquidate the position.
- 61% periodically assess the available underlying LMTs (i.e. update their understanding).
- 52% ensure the underlying MIS manager performs stress tests.

No.	Recommendation	Priority
15	All FOF MIS managers, in line their licence conditions, should have good oversight and proactively consider on an ongoing basis the liquidity stress testing and use of LMTs undertaken by their underlying MIS managers. MIS managers should form their own conclusions and responses from these tests, in order to determine whether they are effectively discharging their risk management oversight obligations, and have visibility of when and how their underlying managers use/might use LMTs (i.e. 'no surprises').	High
16	In general, managers should implement relevant liability liquidity metrics such as, but not limited to: investor types, investor concentrations, and projected (and stressed) redemptions. This could allow for better visibility of potential redemption factors that could impact on performance/liquidity of the fund.	Medium

## 6.3 Illiquid assets – analysis

### Summary findings

Over half of the 51 MIS managers surveyed have a definition of illiquid assets for their FUM, with only one not knowing if they do.

Q. Does your organisation have a definition of 'illiquid assets'?	Count	%
Yes	28	55%
No	22	43%
Don't know	1	2%
<b>Total</b>	<b>51</b>	<b>100%</b>

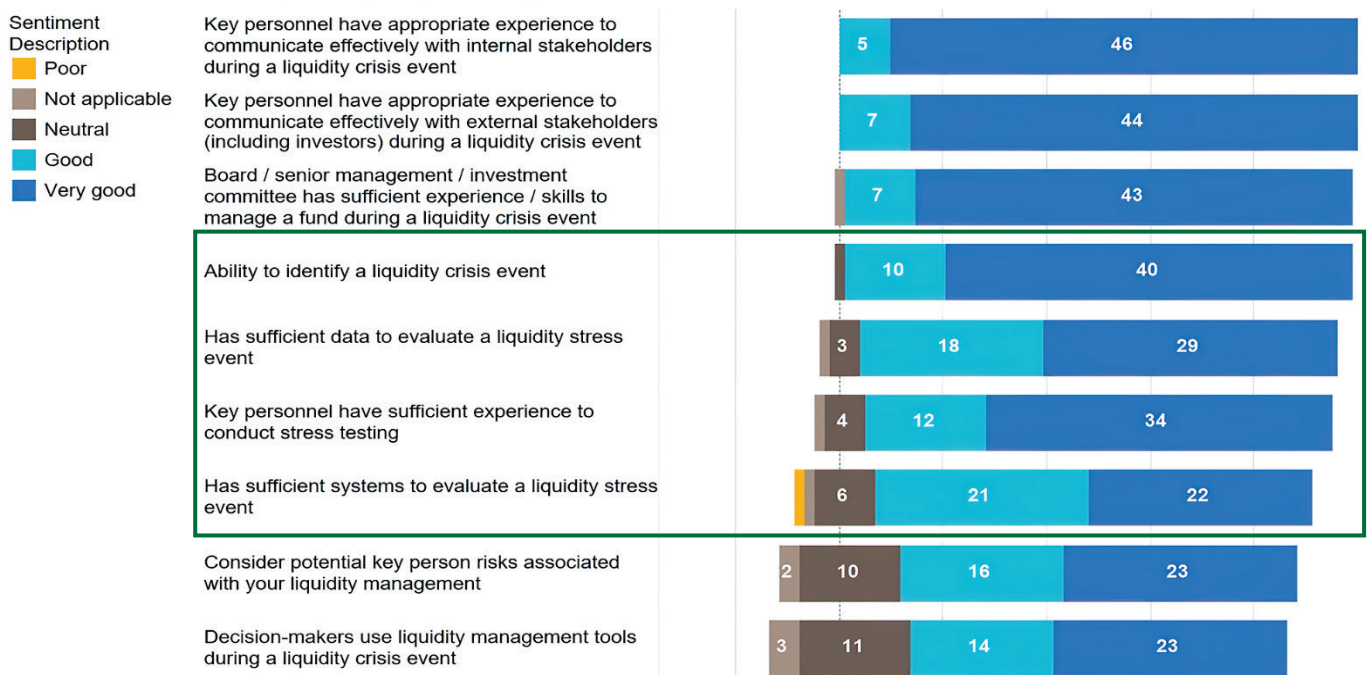
### Detailed analysis

While 55% of the MIS managers surveyed indicated that they do have a definition of illiquid assets, there was no consistent definition across them. The two main themes seen were:

1. The time it takes to sell the assets.
2. The impact on the value of the asset (market based).

Of the 23 MIS managers without a definition, 56% said they invest over 50% of their FUM in 'liquid assets' (equities, cash and cash equivalents, listed real estate, and wholesale retail fund investments). Despite 45% of the MIS managers surveyed not having a definition of 'illiquid assets', the majority had positive views of their systems, data and ability to identify and evaluate liquidity (stress) events.

Q7. Indicate the capability of your organisation on each of the below:



The issue of illiquid assets and open-ended funds has gained heightened prominence and regulator focus, most recently since 2019 after the suspension of the high profile LF Woodford Equity Income Fund. Issues such as this are likely to grow in prominence as mutual funds increasingly seek out and/or rely upon illiquid assets to generate greater returns in the prevailing and foreseeable low interest rate environment. For these reasons the FMA believes having a clear definition of ‘illiquid assets’ to assess assets against is an important tool in managing fund liquidity risk.

Recommendation	Priority
<p>17 We expect MIS managers to have a definition of ‘illiquid assets’ suited to their funds’ asset composition (current and targeted). The definition should take account of policy statements of regulators and be used in conjunction with other measures to monitor and manage relative liquidity across a fund’s asset classes, as without a clear definition of what an ‘illiquid asset’ is, you cannot accurately monitor the asset for its liquidity. Incorporating a clear definition, with metrics to track the performance, could greatly enhance oversight of the assets at a board, executive manager and supervisor level.</p>	<p>High</p>

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**AUCKLAND** – Level 5, Ernst & Young Building | 2 Takutai Square, Britomart | PO Box 106 672 | Auckland 1143

**WELLINGTON** – Level 2 | 1 Grey Street | PO Box 1179 | Wellington 6140